

**DEVELOPING A STATEMENT OF FINANCIAL POSITION MODEL
FOR THE SOUTH AFRICAN HOUSEHOLD SECTOR**

by

DÍMARIE SCHEEPERS

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SUPERVISOR: PROF J.M.P VENTER

CO-SUPERVISOR: PROF B. DE CLERCQ

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Student number: 0517-191-1

I declare that **DEVELOPING A STATEMENT OF FINANCIAL POSITION MODEL FOR THE SOUTH AFRICAN HOUSEHOLD SECTOR** is my own work and that all the sources that I have used or quoted have been indicated and acknowledged by means of complete references.

30 November 2013

SIGNATURE
(D Scheepers)

DATE

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“One person caring about another represents life’s greatest value.” – E. J. Rohn (1994:86)

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O praise the Lord, all your nations! Praise Him, all you people! For His mercy and loving-kindness are great toward us, and the truth and faithfulness of the Lord endure forever. Praise the Lord! – Psalm 117 (Amplified Bible)

ABSTRACT

The South African Reserve Bank presents an annual balance sheet for the South African household sector constructed from macro-economic data estimates. Broad asset and liability classes are presented which can be disaggregated with the use of micro-level data obtained directly from households. At the time of the study, however, micro-level data on the different asset and liability classes accumulated by households was not available.

The main objective of the study was to disaggregate and measure the asset and liability base of South African households in metropolitan and non-metropolitan areas using micro-level data. The study used a mixed methodological approach, consisting of both qualitative and quantitative data and was conducted in three phases. In the first phase, a comprehensive literature review was conducted on the recognition and measurement of household assets and liabilities. Economic theories that explain asset and liability accumulation were reviewed and international surveys on household net wealth measurement scrutinised. A heuristic model of a financial position section for the South African household sector was developed.

In the second and qualitative phase, online and face-to-face focus group deliberations were conducted with experts in the field of household finance to ensure that the newly developed financial position section would robustly recognise and measure all possible household asset and liability classes.

In the third and quantitative phase, the financial position section was included in an omnibus survey and data was collected from a representative sample of 2 606 households in South Africa. The weighted data was segmented in terms of metropolitan and non-metropolitan areas and presented as statements of financial position based on the classification, recognition and measurement principles of "The Conceptual Framework for Financial Reporting 2010". Composition analyses presented a secondary objective, namely to explore the effect of identified independent demographic variables on asset and liability accumulation.

Multivariate analysis of variance (MANOVA) identified meaningful interaction effects for (1) age, income and area; (2) income and age; (3) education, income and age; and (4) education and income on asset accumulation and an age and income interaction effect on liability accumulation. The study contributes to the body of knowledge on the contemporaneous effect of age, income, education and area of residence on household asset and liability accumulation and provides information on South African household net

wealth not yet available. The disaggregated asset and liability base will assist policy makers both at micro- and macro-economic level with the overview and management of South African household net wealth.

Key terms:

- Net wealth measurement
- Household assets
- Household liabilities
- Household statement of financial position
- Household balance sheet
- Mixed methods research
- Focus group research
- Household urbanisation
- Household demographic variables
- Household net wealth management

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CHAPTER 1

INTRODUCTION

“The stories of past courage ... can offer hope, they provide inspiration. But they cannot supply courage itself. For this each man must look into his own soul.” – John F. Kennedy
(Quoteland.com, 2013)

1.1 INTRODUCING THE STUDY

Undeniably, in the past, the accumulation, record-keeping and measurement of the net wealth of individuals, families, households and even nations were an extended research field. The assets and liabilities that these individuals, families, households or nations accumulated are the components that constitute net wealth and remain an area of interest to many researchers, even today.

Perhaps one of the earliest attempts of the record-keeping of assets, according to Finn (1961), is contained in the *Domesday book*, written at the command of William the Conqueror in 1086. He commissioned a survey to establish the resources and taxable values of the boroughs and manors in England, which he conquered at that time. The aim of the survey was to determine who owned what and how much it was worth. The objective was to establish how much his citizens owed him as the King of England. One can therefore deduce that the motive for the *Domesday book* was fiscal and for record-keeping.

According to Jones (2008:443–445), the first Western manuscript on accounting of wealth is that of Richard fitz Nigel who wrote the *Dialogus de Scaccario* in 1179, which details the charge and discharge system of accounting for royal finances. In terms of this system, people were required to explain how the original capital and receipts entrusted to them were used to cover expenses and to give an account of the amount of capital retained at the end. Until recently, according to Jones (2008:443), this system was operational in some of Britain’s government departments.

Further evidence of the interest in the wealth of individuals and nations can be found in Adam Smith's famous manuscript, the *Wealth of nations*, which was published in 1776 (Smith, 1952:vi). According to Smith (1952:117), in a rude state of society in which there was no division of labour, there was also no exchange of products. Every person provided everything for himself/herself, and there was no need to accumulate or store wealth. As society developed and different divisions of labour came into being, people developed occasional wants that their labour could not produce. Different talents among men/women resulted in the production of different stocks (nowadays referred to as "inventory") and because a man/woman could not consume all his/her stock, this resulted in the accumulation of stock (inventory). This accumulation of inventory is deemed a basic form of wealth accumulation.

According to Smith (1952:118), when people possess sufficient stock to sustain themselves, they endeavour to derive revenue from the surplus stock. He (1952:119) classifies a person's total stock into the following components:

- capital or the part of stock used to afford revenue to acquire other assets or to sustain other needs that people cannot provide themselves; and
- the part of stock used for consumption.

One can deduce from the writings of Smith that the part of stock used for consumption consisted of three types, namely stocks used for consumption by the producer thereof, stocks that he/she acquired from his/her revenue and stocks of goods such as clothes, furniture and other goods which were used, but not entirely consumed (Smith, 1952:119). The advent of stock accumulation and the division of labour implied that people no longer had to provide for every necessity and convenience of life. They started to use their surplus stock to barter and exchange for other goods they needed or wanted to acquire, which resulted in people becoming merchants (Smith, 1952:10). Money became the instrument of commerce. This resulted in the need for a system to keep track of assets and inventory as well as to account accurately for outstanding amounts owed to and by traders (Yamey, 1980). The need for accurate records resulted in the use of different forms of record-keeping for the accumulation of assets and inventory.

In recent years, net wealth measurement also emerged as a subject of South African studies (Prinsloo, 2002; Aron & Muellbauer, 2004; Aron, Muellbauer & Prinsloo, 2006a; Aron, Muellbauer & Prinsloo, 2007; Kuhn, 2010). The South African Reserve Bank (SARB) periodically publishes official balance sheet estimates for the economic sectors in its *Quarterly Bulletin* publication. Since 2006, the South African Reserve Bank has also periodically included balance sheet estimates, based on macro-economic data, for the household sector. These estimates are based on the work of Prinsloo (2002), Aron and Muellbauer (2004), Aron et al. (2006a), Aron et al. (2007) and Kuhn (2010), and indicate the financial net wealth or equity of the South African household sector as well as providing limited details of the various assets and liabilities of households.

Apart from the liability section, which comprises mortgages and other debt, the currently prepared household balance sheet of the South African Reserve Bank reflects two broad categories of assets, namely non-financial and financial assets (SARB, 2012). The former comprise residential buildings and other non-financial assets, whereas the latter comprise investments with monetary institutions, long-term insurers, pension funds and other financial assets. The categories “other non-financial assets”, “financial assets” and “other debt” can be disaggregated to include more details of the types or classes of assets and liabilities or debt instruments that households accumulate or use.

Currently, in South Africa, there is a paucity of disaggregated information on the various asset and liability classes that households accumulate, other than the broad categories provided above. The main objective of this study was to address the lack of reliable, detailed South African household asset and liability micro-level (household level) data.

The background section of this chapter identifies the unit of analysis for the purposes of the study in section 1.2.1 and provides an overview of the importance of household net wealth measurement in section 1.2.2. In section 1.2.3, double-entry accounting principles in measuring household net wealth are discussed. In section 1.2.4, the statement of financial position as the communication medium of net wealth is dealt with and the role that International Financial Reporting Standards play in presenting financial statements described. In section 1.2.5, the use of financial

reporting through financial statements in communicating household net wealth is illustrated. The current stance of South African household net wealth measurement is touched on in section 1.2.6 and in closing, the influence of different areas on household net wealth measurement is highlighted in section 1.2.7. The background section concludes with a clear motivation for the main and secondary objectives of the current research.

In the remainder of the thesis, sections in the thesis that elaborate on the topic of discussion are indicated or bracketed. Furthermore, abbreviations are placed in brackets for clarification purposes although not used in the thesis. However, in the bibliography, abbreviations are used for ease of reference.

1.2 BACKGROUND TO THE STUDY

1.2.1 Identifying the unit of analysis for the purpose of this study

The “household” is presented as the unit of analysis in this study. The reason for this choice is explained in section 3.2. The household sector is one of the main components of any country’s economy (United Nations, the European Commission, the Organisation for Economic Co-operation and Development, International Monetary Fund & World Bank Group, 2009). This fact explains the importance of data on household equity or net wealth, especially for decision making and household net wealth management.

1.2.2 The importance of measuring household net wealth

According to Davies and Shorrocks (2005), the measurement of net wealth in developing countries (South Africa being one such country) is even more important than in developed countries owing to the uncertainties faced by households in developing countries. The assets of a household are a vital buffer to guard the household against risks like sickness, unemployment and economic shocks, for example, increases in interest rates and the household tax burden. To enable households to cover consumption when household income is insufficient, assets can be converted into cash. Having adequate assets is therefore invaluable in coping with threatening emergencies that are often inextricably linked to the economic conditions surrounding developing countries. This in turn illustrates the significance

of net wealth management through careful and well-thought-out economic and social policy considerations.

1.2.3 The role of double-entry financial accounting in the measurement of net wealth

Undeniably, financial accounting has an extended history. According to Riahi-Belkaoui (2004:3), Luca Pacioli, a Franciscan friar, is generally associated with the introduction of double-entry book-keeping and the basic concepts of financial accounting. In 1494, Luca Pacioli published his well-known *Summa de Arithmetica Geometria, Proportioniet Proportionalta*, which is generally accepted as the first published Western book on the double-entry accounting system (Jones, 2008:444; Riahi-Belkaoui, 2004:3). The double-entry system requires a debit and credit entry for every financial transaction that is included in the accounting records of an entity or individual (Riahi-Belkaoui, 2004:45). This accounting system resulted in the development of the fundamental accounting equation (Riahi-Belkaoui, 2004:45):

$$A = E + L$$

Where

| | | |
|---|---|----------------------|
| A | = | Assets |
| E | = | Equity or net wealth |
| L | = | Liabilities |

The following net wealth or equity measurement equation is deduced from the fundamental accounting equation:

$$E = A - L$$

Where

| | | |
|---|---|----------------------|
| E | = | Equity or net wealth |
| A | = | Assets |
| L | = | Liabilities |

The above equation illustrates the two sides of the same coin. Once the asset and liability base of an entity or individual is measured, the entity or individual's equity or net wealth is also measured. Equity is measured at a given point in time, usually at

the end of a financial period. Equity or net wealth can only be fully comprehended once the other components (income and expenditure) that directly affect equity or net wealth, other than assets and liabilities, are considered.

Equity is directly influenced by the ability of the individual or entity to earn income (Henderson, Peirson & Brown, 1992:94–95). Furthermore, expenses are incurred to produce income. The relationship between income, expenditure and their resulting influence on equity are explained by means of the following equation, which is deduced from the writings of Henderson et al. (1992):

$$E_2 = E_1 + (i_i - e_i)$$

Where

| | | |
|-------|---|---|
| E_2 | = | Equity at the end of the financial period |
| E_1 | = | Equity at the beginning of the financial period |
| i_i | = | Income received during the financial period |
| e_i | = | Expenses incurred during the financial period |

Using the above equation, the measurement of equity or net wealth of a person or entity can be extended as follows:

$$E_1 + (i_i - e_i) = A - L$$

Where

| | | |
|-------|---|---|
| E_1 | = | Equity at the beginning of the financial period |
| i_i | = | Income received during the financial period |
| e_i | = | Expenses incurred during the financial period |
| A | = | Assets at the end of the financial period |
| L | = | Liabilities at the end of the financial period |

This latter equation fully depicts the interrelationship between assets, liabilities, income and expenditure on equity or net wealth. Assets, liabilities, equity, income and expenses are referred to as the elements or classes comprising financial statements, the communication medium of accounting (Berry et al., 2011:6; Riahi-Belkaoui, 2004:42).

The accounting equation is useful when preparing the statement of financial position of an entity or individual (Riahi-Belkaoui, 2004). This statement communicates the equity, or as often referred to in economic terms, the financial net wealth of an individual or entity (Scott, 2012). The statement of financial position also communicates in detail the different classes of assets and liabilities that the individual or entity accumulates and owes at a particular point in time. According to Scott (2012:2), the statement of financial position had its origin in the British Companies Act of 1844. This Act stipulated that a statement of financial position (referred to then as a “balance sheet”) is prepared for the shareholders of an entity to inform them of the financial position of the entity at a specified date and it is audited to enhance its trustworthiness. According to Sheila Marriner (1980:207), a business historian, the statement of financial position provides a snapshot at a particular moment of the detailed asset classes of the individual or entity, on the one hand, and the detailed liabilities plus the equity of the individual or proprietors of the entity, on the other. Although the statement of financial position evolved over time, it is still used today with the same purpose in mind, namely to communicate the equity or financial net wealth of an individual or entity and to present the detailed assets and liabilities accumulated and owed at a specific date.

1.2.4 The role of International Financial Reporting Standards in presenting household net wealth

In line with the requirements of the users of financial statements, the development of International Financial Reporting Standards ensures that the users of the financial statements receive valid and reliable information to assist them to make economic decisions (SAICA, 2010b:A8 par 7). When considering the essence of an entity and an individual or household (as intended in this study), there are clearly different information needs and wants. An entity (say, a company) owns and manages assets on behalf of someone else (the shareholders), which confirms the need for clear guidelines to be in place to ensure accurate and reliable information to the providers of capital (the shareholders). For those information needs, International Financial Reporting Standards (IFRS) were developed to address the stewardship role of reporting financial information (Scott, 2012). Stewardship implies that the role of

reporting is to provide an account of management's success or failure in managing the entity's resources (Scott, 2012).

However, the users of household financial information are the households themselves with some outside parties interested in certain aspects of the financial information. Reporting on the assets and liabilities of households is often a requirement of the providers of credit. Credit providers may require a household to prepare a statement of financial position to estimate the household equity or net wealth because this will help to determine this household's ability to repay loans granted (Swart, 2002).

Internationally and in South Africa, the vehicle that enhances reliability and ensures the comparability of the elements (assets, liabilities, income, expenditure and equity) in financial statements is International Financial Reporting Standards (IFRS). These Standards describe the classification, recognition, measurement and disclosure requirements of the elements of financial statements. They are mandatory pronouncements issued by the International Accounting Standards Board (IASB), which is the standard-setting body of the International Financial Reporting Standards Foundation. According to the South African Institute of Chartered Accountants (SAICA) (2010b:A8 par 6(a)), one of the main objectives of the International Accounting Standards Board is

to develop, in the public interest, a single set of high quality, understandable, enforceable and globally accepted financial reporting standards based upon clearly articulated principles. These standards should require high quality, transparent and comparable information in financial statements and other financial reporting to help investors, other participants in the world's capital markets and other users of financial information make economic decisions.

International Financial Reporting Standards are based on the Conceptual Framework (SAICA, 2010a) in Accounting (previously referred to as "the Framework"). The Conceptual Framework addresses the concepts that underlie financial statements and provides a judgement basis for resolving accounting issues (SAICA, 2010b:A9 par 8). According to Scott (2012), the Conceptual Framework is based on the decision-usefulness approach in accounting theory. The Conceptual Framework (SAICA, 2010a) is discussed in detail in Chapter 2.

Although International Financial Reporting Standards are not designed to apply to not-for-profit activities (SAICA, 2010b:A9 par 9), they are still useful to apply the basic principles of recognition, classification and measurement when preparing financial statements for individuals, or as applied in this study, for households. According to Samphantharak and Townsend (2008:9), applying the concepts and principles of financial accounting promote a better understanding of the consumption, investment and financing decisions of households. According to Deaton (1997 in Samphantharak and Townsend, 2008:iv), it is necessary to apply accounting principles when measuring household data for the following reason: “[T]he only way to obtain ... measures [of income and consumption] is by imposing an accounting framework on the data, and painstakingly construct estimates from myriad responses to questions about the specific components that contribute to the total ...”.

1.2.5 Illustrating the use of financial reporting in communicating household net wealth

Financial reporting through financial statements can play a pivotal role in managing the resources employed by households. This is evident in Figure 1.1 below, which illustrates the use of financial statements to depict the relationship between assets, liabilities, income and expenditure of households and eventually equity or net wealth:

Figure 1.1

Illustration of household equity/net wealth measurement through financial reporting

| PAST | | PRESENT | | FUTURE | |
|--|----------|--|----------|--|----------|
| Illustrative example of a statement of financial position of a household | R | Illustrative example of a statement of profit and loss and comprehensive income of a household | R | Illustrative example of a statement of financial position of a household | R |
| Total assets (A) | 150 000 | Total income | 100 000 | Total assets (A) | 170 000 |
| Non-financial assets | 140 000 | Labour income | 99 000 | Non-financial assets (140 000 + 10 000) | 150 000 |
| Financial assets (savings) | 10 000 | Savings income | 1 000 | Financial assets (10 000 + 10 000) | 20 000 |
| Total liabilities (L) | (60 000) | Expenditure/Consumption | (60 000) | Total liabilities (L) (60 000 - 20 000) | (40 000) |
| Equity/Net wealth (E=A-L) | 90 000 | Net income | 40 000 | Equity/ Net wealth (E=A-L) | 130 000 |
| | | Net income applied to repay debt | (20 000) | | |
| | | Net income applied to acquire assets | (10 000) | | |
| | | Surplus/(Deficit) towards saving | 10 000 | | |

Source: Adapted from De Clercq (2013)

The illustration uses a household earning an annual gross income of R100 000 to indicate the relationship between income, expenditure, assets and liabilities. Owing to the household's past consumption and investment decisions (resulting in acquiring assets of R150 000 and incurring liabilities of R60 000), the household was in a net wealth situation of R90 000 at the end of the previous year (PAST). The net wealth (E) is the surplus of total household assets (A) less total liabilities (L) at a specified date. In the example, the household has sufficient income in the present year to enable it to service liabilities from the previous year (PAST), for expenses (PRESENT), to acquire assets and to be able to save for future consumption. The net result of this behaviour of the household is an increase of R40 000 in the FUTURE equity/net wealth of the household. FUTURE assets (A) of the household increased by R20 000 owing to the acquisition of assets (R10 000) and the increase in savings (R10 000). FUTURE liabilities (L) of the household decreased by R20 000 owing to the repayment of debt, which resulted in the increase in equity or net wealth, that is, $R90\ 000 (NW_{PAST}) + R20\ 000 (\text{increase in A}) + R20\ 000 (\text{decrease in L}) = R130\ 000 (NW_{FUTURE})$. However, it is clear from the illustration that if the household's income for the present year were less than its expenditure and consumption, the household would be in a position to either increase its liabilities in

order to finance the shortfall or discard some of its assets (dissave) in order to fund the shortfall.

This illustration depicts the interrelationship between the elements of financial statements, namely assets, liabilities, income and expenditure in creating equity or net wealth for households. It also indicates the use of reporting through financial statements to help measure equity or net wealth. It is clear that past financial decisions of households result in the accumulation of assets and incurrence of liabilities, which need to be serviced with present income (after deducting the household's expenditures). Present income and expenditure incurred directly influence the household's ability to save (in the form of acquiring additional assets and/or the repayment of liabilities) and this increase/decrease in assets and liabilities directly affects the household's future equity or net wealth. In the remainder of the study, reference will only be made to "net wealth" because this term is similar to "equity", as explained and illustrated.

1.2.6 The current state of household net wealth measurement in South Africa

When preparing the national accounts of a country, the statement of financial position is used to communicate the financial net wealth of the different sectors comprising that country's economy (United Nations et al., 2009). Currently, in South Africa, the assets and liabilities of the various economic sectors are estimates based on macro-economic, indirect data, and they are referred to as "balance sheet estimates" (Aron et al., 2007).

The direct and indirect approaches are the two methods used in most countries to measure household net wealth (Aron et al., 2007). A detailed description of the indirect approach will follow in section 3.6. The indirect approach of collecting data on household net wealth results in secondary data often lacking in detail, whereas the direct approach entails collecting primary data on the net wealth of households directly from household members through surveys. To accomplish this, the major asset and liability classes of which households make use, have to be determined and these assets and liabilities should be measured (Aron et al., 2007).

The study commenced by establishing whether current South African household studies can contribute to disaggregate and measure the asset and liability classes in section 4.2. South Africa has household surveys such as the General Household Survey (SSA, 2011a and b) and the All Media and Product Survey (AMPS) (SAARF, 2012) that collect data on some household assets and liabilities. However, net wealth measurement *per se* is not the primary focus of these surveys. Hence, these surveys probably lack information on the disaggregated asset and liability classes, and would be deemed inappropriate for use in this study. The aim of the research study would then be to design a South African financial position section (also referred to as a balance sheet section) that could be included in an omnibus survey. The omnibus survey would be used to collect primary, micro-level data on the value and classes of assets and liabilities of households and, as an added outcome, be able to provide net wealth measurement data.

1.2.7 The influence of different residential areas on household net wealth

Identifying, classifying and measuring South African household net wealth encapsulates the influence of different residential areas on household net wealth. According to Dudwick, Hull, Katayama, Shilpi and Simler (2011:15), “the world is becoming increasingly urbanised”. These authors mention that, although 60% of sub-Saharan Africa lives in rural areas, Africa will be predominantly urban by 2030. This pattern is visible in North America and Europe where 70% of populations currently live in cities.

Dudwick et al. (2011:15) contend that urbanisation stems from migration, natural increase and the reclassification of urban boundaries, and it is ongoing. Modern communication and transport link cities to form a network of exchanging goods and services, knowledge and expertise. According to Spence, Annez and Buckley (2009), urbanisation is often an indication of productivity and growth and is initially associated with a divergence in living standards. The concentration of capital and labour increases productivity and economies of scale, which include cost advances. This enhances the provision of infrastructure, increased wages in urban areas and improved social services. The result is that urban areas enjoy a higher standard of living than rural areas (Dudwick et al., 2011:25, 47). However, although urbanisation

may be an indication of growth, unfortunately it often goes hand in hand with inequalities, which are a concern for policy makers in developing countries – hence the need for rural-urban transition management to ensure inclusive growth for both areas (Dudwick et al., 2011:191).

In reality, urban and rural areas often compete for access to scarce resources. The dispersed nature of rural areas increases development cost, which often leads to marginalisation of rural communities (Republic of South Africa, Department of Human Settlements, 2009:2). Another reason for urbanisation is the fact that the social services of governments often favour urban areas and seldom reach the rural poor because of the costs involved. According to the *Human Development Report* (UNDP, 1990:86), movements to cities are shifting the poverty burden to urban areas, and these economies are unable to absorb all the rural poor. Most cities in developing countries have unreliable water and electricity connections, congested and badly maintained roads and infrastructure, and inadequate public transportation, which tend to exacerbate the problems in urban areas. Many cities and towns also provide temporary employment for seasonal rural labourers and increase the economic security of households to draw on rural as well as urban incomes to support families who remain in rural areas. Furthermore, urban areas absorb the excess labour from population growth and mechanised agriculture (UNDP, 1990:89–90). Urbanisation should not be regarded as a tragedy or crisis. Instead, it should be viewed as a challenge for the future, which must be addressed with better urban management (UNDP, 1990:90). However, as long as differences exist between areas, people will move to capitalise on better schools, improved social services and higher income opportunities (UNDP, 1990:89).

In order to place the rural-urban divide in the context of the study, it is necessary to define and/or explain the terms “rural” and “urban”. According to Dudwick et al. (2011:16), there is no universally accepted definition of “urban”, and the definitions that do exist are generally statistically delineated, or based on area boundaries, service levels, and/or population density. Urban/rural definitions thus differ across countries. According to the Republic of South Africa, Department of Human Settlements (2009:1), rural areas differ in “nature, location and circumstances” and may include small towns and settlements. Furthermore, according to the Department of Human Settlements, rural areas have one or more of the same characteristics:

- dependency on agriculture for employment opportunities;
- sparse populations and residents often having low levels of literacy and education;
- residents comprising the aged and the very young because the educated and young adults leave in order to seek better employment; and
- constrained income due to limited employment opportunities.

A rural-urban continuum therefore exists, which ranges from isolated settlements to small towns, cities and megacities (Dudwick et al., 2011:16). The authors further state that developing countries across the world are at various stages in the urban-rural transition process (Dudwick et al., 2011:2). According to them, South Africa is regarded as a transforming country, as opposed to an agriculture-based country, at the one end of the continuum, and an urbanised country, at the other.

The aim of this study was to contribute to the debate on the rural-urban divide by studying the net wealth of the main residential areas of the population and presenting a rural-urban view of net wealth of households in the country. However, owing to cost restraints in terms of data collection, the rural component of the study did not allow a rural/urban view but rather a metropolitan/non-metropolitan view since only 15.1% of respondents came from truly rural areas. Hence, in the remainder of the study, reference is made to the presentation of South African household net wealth for metropolitan and non-metropolitan areas of the country. Grouping the data into metropolitan and non-metropolitan areas indicated whether the asset and liability classes of the two areas differ and allowed for more in-depth analysis of the data. Data on the asset and liability base of metropolitan and non-metropolitan areas was also not yet available in South Africa.

In closing, the proposed study was in many respects as daunting as the study conducted by William the Conqueror, although more modest. It was modest in the sense that on a macro-economic basis and using indirect data (Aron et al., 2007), the South African Reserve Bank already measures South African household net wealth, and these measures can be used as comparators for the results obtained in this study.

In section 7.4, the current study made use of the South African Reserve Bank's macro-estimate of household net wealth (SARB, 2012) to verify the acceptability of the parameters of this study. For purposes of the study, parameter verification implied that the results of the proposed model to disaggregate and measure the household asset and liability base would be compared to the results of the household balance sheet estimates prepared by the South African Reserve Bank and major differences scrutinised and explained.

Having disaggregated data on the asset and liability base of households is a crucial step towards countrywide net wealth measurement. The contribution of this study was therefore to disaggregate the main asset and liability classes from the household balance sheet prepared by the South African Reserve Bank and to provide additional information on the different classes of assets and liabilities that South African households use, as well as measuring those asset and liability classes. Furthermore, because the study imposed a financial accounting framework and theory on the design of the financial position section of the survey, the data collected enabled the researcher to present statements of financial position for metropolitan and non-metropolitan residential areas of the country.

From the data collected, a secondary objective of the study emerged. Inferences from the data were drawn to establish whether demographic variables, namely age group, income group, labour status, education group and area of residence, have an influence on the overall net wealth accumulation of households. These variables were identified on the basis of international research (Bollen, Glanville & Stecklov, 2007; Carasso & McKerman, 2007; Daffin, 2009; Nissan & Carter, 2005) and economic theories (section 3.3).

In closing, this study posed many challenges, as so eloquently phrased by Campbell (2006:1555):

Positive household finance asks how households actually invest. While this is a conceptually straightforward question, it is hard to answer because the necessary data are hard to obtain. One reason is that households tend to guard their financial privacy jealously: Indeed, it may be more unusual today for people to reveal intimate detail of their financial affairs than to reveal details of their intimate affairs. In addition, many households have complicated finances, with multiple accounts at different financial institutions that have different tax status and include both mutual funds and individual

stocks and bonds. Even households that wish to provide data may have some difficulty answering detail questions accurately.

1.3 RESEARCH PROBLEM, OBJECTIVE, DESIGN, PHASES AND QUESTIONS

This section describes the research problem and objective (section 1.3.1), the design of the study (section 1.3.2) and the phases of the research (section 1.3.3), and identifies the main research question and the research sub-questions that guided the study (section 1.3.4).

1.3.1 Research problem and objective

The research problem identified for the study was the lack of reliable micro-level household data in South Africa. Although the South African Reserve Bank prepares a household balance sheet, it is constructed from macro-level data estimates and only provides broad categories of household assets and liabilities. Reliable micro-level household data would enable the disaggregation of the broad asset and liability categories in detail. This information could provide actionable data for stakeholders, including policy makers, regulators and financial service providers about South African household net wealth and could improve household net wealth management.

The main objective of the study was to disaggregate and measure the asset and liability base of South African households in metropolitan and non-metropolitan areas using micro-level household data. This included the presentation of the data in statements of financial position for the two areas based on the principles of recognition and measurement of the Conceptual Framework (SAICA, 2010a). The secondary objective of the study was to draw inferences from the data to determine whether age group, income group, education level, labour status and area of residence (metropolitan/non-metropolitan) and/or their interactions affect the overall asset and liability accumulation of households.

To this end, the researcher had to establish whether any household studies in South Africa existed, which could be used to disaggregate and measure the asset and liability base of households. If such studies did not exist or could not produce the disaggregated asset and liability measurement, the researcher would develop a South African household net wealth or financial position section in an omnibus

survey instrument. The researcher thus postulated that current South African household studies could not help to disaggregate and measure the household asset and liability classes, and it would be necessary to design a new South African net wealth or financial position section.

The researcher conducted a detailed international literature review of household net wealth surveys. An existing international instrument could not be used because it would not have been representative of the South African household economy. The newly developed financial position section was used in an omnibus survey to collect primary data to disaggregate and measure the composition of household assets and liabilities in the metropolitan and non-metropolitan areas of South Africa.

1.3.2 Research design

The study incorporated a mixed methods research design (section 5.3) to enhance the validity and reliability of the study especially concerning the development of the new financial position section of the survey instrument. The definition of mixed methods research, according to Cresswell and Plano Clark (2011:5), was adapted to incorporate the defining elements applicable to this study. In mixed methods research, the researcher

- collects and analyses qualitative and quantitative data on the basis of the research questions;
- mixes the two forms of data sequentially by having the analysis of the one built on the other;
- gives priority to both forms of data; and
- uses these procedures in a single study and combines the procedures into a specific research design that directs the study.

A well-planned and comprehensive study often requires both a qualitative and quantitative strand (Cresswell & Plano Clark, 2011:21). A strand is a component of a study that encompasses quantitative or qualitative research (Cresswell & Plano Clark, 2011:63). It poses research questions and manages the collection and analysis of data and the interpretation of results during different phases of the research (Teddlie & Tashakkori, 2009). When the qualitative data collection and

analysis build up to the quantitative data collection and analysis, the study follows an exploratory design (Creswell & Plano Clark, 2011:69).

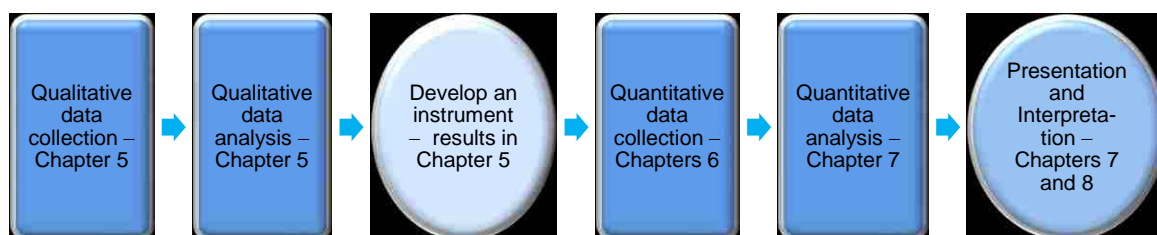
The current study comprised the following two different strands:

- the development of a country-specific financial position section of an omnibus survey instrument designed to establish, disaggregate and measure the asset and liability base of South African households (the qualitative strand, discussed in section 5.5); and
- the recognition, classification, measurement and presentation of the asset and liability base of households in metropolitan and non-metropolitan areas from the data collected with the aid of the financial position section in an omnibus survey (the quantitative strand, discussed in Chapter 6 and 7).

The recognition, classification and measurement were grounded on the principles of the Conceptual Framework (SAICA, 2010a). Presentation consisted of two statements of financial position for households in metropolitan and non-metropolitan areas. Furthermore, inferences were drawn from the overall household asset and liability measurement to determine whether age group, income group, education level, labour status and area of residence (metropolitan/non-metropolitan) and/or their interactions affected the asset and liability accumulation of households.

In this study, there was an independent level of interaction between the qualitative and quantitative strands (Cresswell & Plano Clark, 2011:64). The two strands were distinct, and the research questions, data collection and analysis in the two strands were different. Because the two strands were implemented in two distinct phases with the collection of the quantitative data after the qualitative data had been collected, analysed and interpreted, the research followed a sequential design. This study is therefore known as a mixed methods exploratory sequential design study (Creswell & Plano Clark, 2011:63–68). The research design is depicted in Figure 1.2, with an indication of the chapters in this study, where the design is implemented.

Figure 1.2
Mixed methods exploratory sequential design



Source: Creswell and Plano Clark (2011:124)

1.3.3 Research phases

The study addressed the need for elaborated net wealth data on the household sector in South Africa. The first phase of the study comprised a detailed literature review in Chapters 2 to 4. According to Mouton (2003:87), a literature review is the process of evaluating the most recent, credible and relevant scholarship in the area of investigation (secondary data) to ensure that previous studies are not duplicated and the theory is adequately covered. Furthermore, a literature review ensures that the most important empirical findings in the field are considered and the most valid and reliable measurement instrument is used.

A comprehensive literature review includes books, reports, conference proceedings, and national and international subject journal articles (refereed and non-accredited), theses and dissertations. The majority of sources in the present research were obtained from searches on Unisa's Oasis Electronic Library through which access to electronic resources and subject databases was acquired.

The objective was to use the principles of the Conceptual Framework (SAICA, 2010a) to recognise, classify and measure the asset and liability base of South African households. This will be dealt with in Chapter 2. Household economic and financial decision making, based on well-known economic theories, is described in Chapter 3 to gain an understanding household asset and liability accumulation. Chapter 4 contains a literature review on national household studies and international net wealth surveys. The aim was to establish the disaggregated assets and liabilities that households internationally use. The international literature review enabled the researcher to prepare a heuristic model of the financial position section

(section 4.4) in order to recognise and measure the disaggregated asset and liability base of South African households.

The second phase of the study dealt with the qualitative strand. This will be reported on in section 5.5 where the opinions of focus group participants gathered from field notes were analysed. This ensured that the unit of analysis (household), for the purpose of the study, was properly defined and that the heuristic model of the financial position section recognised, classified and measured the most important assets and liabilities of South African households.

The qualitative findings stemming from the exploration phase were used to finalise the financial position section (section 5.4) so that it could be administered to a representative sample of the household population of South Africa, as reported on in Chapter 6. This introduced the third phase and the quantitative strand of the study. The net wealth data from a representative sample of South African households was analysed and presented as statements of financial position for metropolitan and non-metropolitan residential areas (section 7.6). The statements measured, classified and presented household net wealth data according to the principles of the Conceptual Framework (SAICA, 2010a).

1.3.4 Research questions

The main and secondary research questions formulated for the study were as follows:

- Can the asset and liability base of South African households in metropolitan and non-metropolitan areas be established, disaggregated and measured?
- Do age group, income group, area of residence (metropolitan/non-metropolitan), labour status and education level and/or their interactions affect the asset and liability accumulation of households?

In order to answer the main and secondary research questions, the study made use of a qualitative and a quantitative strand. Each of these strands had to answer the following sub-questions:

1.3.4.1 *Qualitative strand*

The three research sub-questions that were investigated in the qualitative strand of the study were as follows:

- Are all the possible assets and liabilities that households can utilise, identified and recognised in the preliminary financial position section of the survey instrument?
- Would the South African financial position section be able to classify and measure the recognised assets and liabilities?
- Who are the members of a typical South African household for the purposes of the study and with whom should the interview be conducted?

A detailed discussion to answer the research sub-questions is provided in section 5.5.

1.3.4.2 *Quantitative strand*

The research sub-question that was investigated in the quantitative phase of the study was as follows:

- To what extent do age group, education level, labour status, income group and area (metropolitan/non-metropolitan) and/or all possible interactions between them have an effect on the accumulation of assets and liabilities of South African households?

From the research sub-question, the following main hypotheses were tested during the quantitative phase of the research:

- **H₀**: Age group, education level, labour status, income group and area (metropolitan/non-metropolitan) and/or all possible interactions between them have no effect on the accumulation of assets and liabilities of South African households.
- **H₁**: Age group, education level, labour status, income group and area (metropolitan/non-metropolitan) and/or all possible interactions between them have an effect on the accumulation of assets and liabilities of South African households.

The research sub-question and the testing of the hypothesis will be discussed in detail in sections 7.8 and 7.9.

1.4 SIGNIFICANCE AND CONTRIBUTION OF THE STUDY

It is a well-known fact that the 2008/2009 credit crisis had dire consequences for households in the United States of America and Europe. Unfortunately, South African households were also affected in many respects (Van Tonder, Van Aardt, De Clercq & Venter, 2011). Not only did property values decline countrywide, but the purchasing power of households also weakened as a result of increased unemployment. This resulted in a need for households to extend their use of credit to new record highs (Van Tonder et al., 2011). The effect of the credit crisis was proportionately worse after the era of world economic growth between 2004 and 2007, which also benefited South Africans (Van Tonder et al., 2011). This era probably persuaded households to extend their credit facilities beyond levels that they could effortlessly repay. Households then struggled to make ends meet and they consequently had a general perception that their financial wealth was deteriorating (Van Aardt & Moshoeu, 2009:xii, 29, 47). Furthermore, an increasing number of households became exposed to job losses (Finmark Trust, 2010).

This research promotes a better understanding of household net wealth accumulation in South Africa. According to Sierminska, Brandolini and Smeeding (2006:17), a prerequisite for successful net wealth measurement and management is the availability of reliable, accurate data on the composition and distribution of net wealth. Lack of detail is a serious shortcoming that hampers the assessment of household savings behaviour and impairs national financial wealth management (Aron et al., 2006a:1). This study attempted to address the lack of detail on the components of the asset and liability base of South African households. The study also contributed towards macro- and micro-level household data knowledge, research flagship areas at the University of South Africa and capacity building, as described in the following sub-sections.

1.4.1 Macro-level knowledge contribution

The availability of a household statement of financial position for metropolitan and non-metropolitan areas in South Africa should make a significant contribution towards knowledge about the disaggregated categories of assets and liabilities that South African households accumulate. This should aid the assessment of household consumption and saving behaviour and provide insight into the country's overall net

wealth as measured by the current study. The household sector is one of the five institutional units of an economy as discussed in Chapter 3. The spending and saving patterns of households, the ways in which households save, the debt levels of households and their asset base are all important factors in establishing the financial soundness of the household sector. Furthermore, the steady increase in household debt is analysed in relation to the trend in acquisition of household assets, which should result in better overall net wealth management for the users of household net wealth information (Aron, Muellbauer & Prinsloo, 2006b; SARB, 2011).

1.4.2 Micro-level knowledge contribution

The incorporation of sound, detailed household micro-level data in econometric models could improve the modelling of expenditure, inflation and household debt. This should enhance the understanding of household economic behaviour and benefit policy makers when policy changes are considered (Aron, Muellbauer & Prinsloo, 2006c). The National Treasury, the National Credit Regulator (NCR) and the South African Reserve Bank indicated their interest in and the usefulness of the data to assist with tax policy initiatives and research into over-indebtedness. Furthermore, the data could be used in future studies on household financial well-being in general, household behavioural studies, financial education research and specific South African net wealth research.

1.4.3 Contribution to flagship research

One of the research flagships of the University of South Africa's (Unisa's) College of Economic and Management Sciences (CEMS) is the Personal Finance Research Unit (PFRU). This research flagship is a joint venture between the School of Accounting Sciences and the Bureau of Market Research (BMR) at the University of South Africa. This study should make a contribution to accumulate micro-level household sector data to be used by the Personal Finance Research Unit in future projects, and the data collected in this study could also be used to establish future areas of research for the unit.

1.5 RESEARCH METHODOLOGY

The research methodology followed in this study is discussed in detail in section 5.2. To summarise, the study commenced with a critical analysis of the accounting theory

underlying equity or net wealth measurement and the presentation of net wealth in the statement of financial position (Chapter 2). This included an analysis of the classification, recognition and measurement requirements prescribed by International Accounting Standards pertaining to assets, liabilities, income and expenditure to ensure that recognition and measurement in the financial position section of the survey instrument are in accordance with the Conceptual Framework (SAICA, 2010a).

A critical analysis of national household studies was conducted in section 4.2 to establish whether these studies could help to disaggregate and measure the assets and liabilities of South African households. Because the national studies could not disaggregate and measure the assets and liabilities of South African households, a thorough analysis of international net wealth measurement instruments was conducted in section 4.3 in an effort to establish the disaggregated assets and liabilities used worldwide. This enabled the researcher to design a heuristic model of the financial position section specifically to measure the asset and liability base of South African households (section 4.4).

To gain a better understanding of the net wealth accumulation of South African households, a mixed methods exploratory sequential design was used, as explained in section 1.3.2. This research model consisted of a qualitative (focus group) and quantitative (questionnaire) research methodology.

During the qualitative phase (section 5.5) of the research model, primary data was collected through focus groups by means of semi-structured interviews with focus group members, allowing the researcher to obtain information on household net wealth accumulation from a broad range of key informants such as credit providers, banks, insurance providers, real estate and investment consultants. The primary data in the form of field notes was used to improve and finalise the heuristic model of the financial position section (section 5.6) that the researcher had designed based on the literature review. This data also helped the researcher to determine which household members should be included and interviewed in the quantitative phase of the research.

During the quantitative phase (Chapter 6), primary data was gathered from a representative sample of households in South Africa. The finalised financial position section was used in an omnibus survey to collect household data by way of computer-aided telephone interviews (CATI) and in-house personal interviews. The primary data obtained from the quantitative phase was used to prepare two statements of financial position for households in metropolitan and non-metropolitan areas (section 7.6). From the analysed data (sections 7.7 and 7.8), inferences were drawn (section 7.9) to determine whether age group, income group, education level, labour status and area of residence (metropolitan/non-metropolitan) and/or their interactions affected the asset and liability accumulation of households.

1.5.1 Research population and sample

To ensure that the necessary qualitative data was obtained to finalise the financial position section and to ensure the study represented all South African households, the sample selection process for the two strands needed careful consideration. This is elaborated on in section 5.5 and Chapter 6.

1.5.1.1 Qualitative strand

In this strand (section 5.5), the study made use of focus group interviews conducted with key informants, all of whom were experts in the field of household finances in South Africa. This sample constituted a purposive sample. Sample units were selected with a specific purpose in mind, namely to obtain their views on the categories of assets and liabilities that South Africa households possibly make use of, or may have acquired, as well as their views on who would constitute a household for the purposes of the study. Furthermore, on-line focus group interviews were conducted with key informants to ensure that the instrument covered all possible assets and liabilities of households and was able to measure and classify them. This enabled the researcher to finalise a comprehensive South African financial position section for data collection purposes.

1.5.1.2 Quantitative strand

In this strand (Chapter 6), the sample plan design was elaborated on because the population included all households in South Africa. To ensure a representative sample of households, a sampling expert of the Bureau of Market Research (BMR)

at Unisa assisted the researcher to draw a random sample covering all nine provinces and all four main population groups in South Africa.

1.5.2 Research instrument

The research instruments used in the two strands are explained below.

1.5.2.1 Qualitative strand

As previously indicated, the study made use of the opinions of key informants to establish whether the financial position section of the survey instrument disaggregated all possible assets and liabilities of households based on the literature review on international net wealth studies. The key informants also helped to determine the household composition for the purposes of the study and identify the household member with whom to conduct the interview. The informal semi-structured interview was selected as the research instrument to conduct the interview with key informants. The data to be collected in the informal interview was established once a detailed literature review had been conducted and the preliminary financial position section had been prepared.

1.5.2.2 Quantitative strand

For the purpose of the telephonic and in-house interviews, a structured multiple-response omnibus survey was compiled using a multi-disciplinary team approach. The researcher compiled the financial position section, which consisted of questions that would recognise and measure the assets and liabilities that South African households use. The omnibus survey was designed to be completed both electronically and on paper to enable the researcher to follow the interviewer-administered approach (computer-aided telephone interviews and face-to-face interviews).

The omnibus survey (presented in Appendix B) consisted of the following sections:

- Section I required respondents to describe demographic factors such as the age, population group, area of residence, education status and labour status of the household members.

- Section II contained questions relating to household financial behaviour. This section was included because of the multi-disciplinary approach of net wealth measurement, but fell outside the scope of this study.
- Section III contained the financial position section of the survey and formed the focus of the current study. It consisted of questions identifying the main assets and liability base of households as well as questions determining the value of those assets and liabilities.
- Section IV contained questions on the income and expenditure of households. The current study only used the various income categories established in this section in the descriptive and inferential statistical data analysis phase.

1.5.3 Data processing and analysis

Data processing and analysis in the two strands were as follows:

1.5.3.1 *Qualitative strand*

Field notes obtained from the focus groups were used to establish themes and sub-themes. The recommendations from these themes were used to improve the heuristic model of the financial position section to ensure that all possible assets and liabilities of households were included and could be measured reliably. Furthermore, the members of households to be included in the study were identified from the field notes. The use of themes and sub-themes ensured that all identified uncertainties in the financial position section were properly addressed.

1.5.3.2 *Quantitative strand*

Before the commencement of the data analysis, the dataset was checked for errors by means of descriptive and neural network techniques to determine the reliability and validity of the data collected during the interview process. A statistical expert helped the researcher to check for errors. During this process, mistakes were identified and corrected (where possible), or deleted from the dataset. After cleaning and weighting the dataset, various descriptive and inferential analyses were conducted. These analyses included frequency tables and cross-tabulations to obtain results relating to the distribution of data (Appendix E). The statistical expert also ensured that the descriptive and inferential analyses of the data were conducted comprehensively and accurately.

The data obtained from the financial position section in the omnibus survey was segmented and classified (section 7.5), and statements of financial position were prepared (section 7.6), which indicated the composition of the asset and liability base of households in the two main residential areas. A statistical analysis computer package, IBM®SPSS®Statistics Version 20 (SPSS V20), was used to analyse the data (sections 7.7 and 7.8). Inferences were drawn (section 7.9) to determine whether age group, income group, education level, labour status and area of residence (metropolitan/non-metropolitan) and/or their interactions affected the asset and liability accumulation of households.

1.6 LIMITATIONS ON THE SCOPE OF THE STUDY

The successful completion of this research project was subject to limitations, which are explained below.

Only natural persons over the age of 16 years were asked to participate in the omnibus survey. Participation was dependent on the willingness of households to reveal sensitive data, which could have had a negative influence on the participation rate. Furthermore, owing to the sensitivity of the data required and the difficulty of gaining access to the more affluent households (Campbell, 2006; Kennickell, 2009), there was uncertainty about the extent to which comprehensive data on all the categories of assets and liabilities in the survey would be obtained. Appropriate measures were taken to ensure reliable data, such as employing trained fieldworkers to conduct the survey (section 6.3), using a fieldworker manual (Appendix C) to explain all the terminology and supervising the fieldworkers and data capturers properly.

The literature reveals that, in the past, the measurement of various asset classes in surveys conducted has been problematic (Campbell, 2006). To ensure that measurement was comprehensive, alternative measuring possibilities were explored as recommended by focus group members, such as making use of indices and secondary data (Davies, Sandstrom, Shorrocks & Wolff, 2007). However, if the detail required was not provided by the households, alternative measurement would not be possible.

Finally, only accounting standards applicable on the date of completion of the survey were included in the study.

1.7 ETHICAL CONSIDERATIONS

Owing to the nature of the study, it was necessary to address ethical considerations. The researcher prepared an ethical clearance application and submitted it to the Higher Degrees Committee of the Department of Taxation on 12 May 2011. Ethical approval to conduct the study was granted on 15 July 2011 (Appendix F). This implied that the study had to be conducted ethically in all respects and the interests of the people in the study had to be taken into consideration (Neuman, 2000:90–92).

Ethical behaviour in research arises from sensitivity to ethical concerns and from a professional role based on honesty and openness (Neuman, 2000:90). No scientific misconduct occurred during the data gathering and analysis phase because the researcher did not falsify or distort any data or the methods of data collection or plagiarise the work of other researchers. The ethical behaviour towards participants and respondents during the qualitative and quantitative strands will be discussed in sections 1.7.1 and 1.7.2 below.

1.7.1 Qualitative strand

In the qualitative strand, face-to-face and online focus group participants were selected with a specific purpose in mind, namely to elicit the participants' views on the research sub-questions identified in section 1.3.4.1. The face-to-face sample elements were selected from the Bureau of Market Research's subject expert list, according to a preselection criterion, namely representation of applicable industries associated with the household sector (Mack, Woodson, MacQueen, Guest & Namey, 2005:5). The participants were invited to attend the face-to-face focus group discussion at which they were informed about the nature and purpose of the research and the proposed dissemination of the results of the study (Leedy & Ormrod, 2010:151). Participants were also informed about the need to record the discussion to ensure that facts remained true and objective and they were assured of their anonymity. Consent from the face-to-face focus group participants to tape-record the proceedings was obtained verbally.

The Bureau of Market Research's list of subject experts was also the sampling frame used to conduct an online focus group discussion. The online focus group participants were again selected with a specific purpose in mind. Based on their knowledge of South African household finance and/or household financial surveying (Mack et al., 2005:5), participants were invited via electronic mail to voluntarily comment on the survey. They were requested to forward the survey to other household finance experts whom they deemed knowledgeable on the matters concerned. The international experts in conducting household finance surveys (mainly academics) were identified on the basis of their past publication record in international journals.

In closing, all the information gathered from the face-to-face and online focus group participants, was treated confidentially and reported on anonymously, thereby respecting the participants' privacy.

1.7.2 Quantitative strand

In the quantitative strand, telephonic and in-house interviews were conducted with respondents via a structured multiple-response omnibus survey. The purpose of the study was explained to all prospective respondents to enable them to make an informed decision about whether or not to participate. The researchers were identified and information disseminated on the rights of respondents and where to obtain additional information about the study. The participants were informed that their participation in the study was voluntary - hence no respondent was coerced into participating. Voluntary consent was obtained from all respondents before they were asked a number of questions about their financial matters. They were also told that they could withdraw from the interview at any time. Once the respondents had indicated their willingness to participate, the anonymity of the household was guaranteed as well as the confidentiality of the households' financial matters. No respondent under the age of 16 years was requested to participate and children under the age of 16 were only included with a parent or gatekeeper's consent. No emotional or physical harm was caused to respondents or fieldworkers.

Completed hard-copy interviews were kept under lock and key at the Bureau of Market Research at Unisa. The data collected during the interview process was

captured and stored on the server at the Bureau of Market Research, and only authorised research personnel had access to the data. All information gathered from respondents, was treated confidentially and reported on anonymously, thereby maintaining the privacy of all participating households. Because the information was only presented in the form of aggregated percentages, it was not released in a way that permitted the linking of households to particular responses.

1.8 DEFINITIONS

For clarification purposes, the following definitions of the topic under investigation are provided:

1.8.1 Equity/Net wealth

Various definitions of wealth and net worth found in the most prominent international studies on household wealth and South African studies of wealth estimates were considered:

- “wealth” is the value of accumulated assets minus the value of accumulated liabilities (Daffin, 2009:xx);
- “net worth” is financial assets plus non-financial assets less liabilities (Sierminska et al., 2006:9);
- “household wealth” is the sum of households’ tangible and financial assets minus their liabilities (human capital and other intangible assets, such as patents, are excluded) (Bloxham & Betts, 2009:217);
- “household net worth” or “wealth” is the value of financial assets plus real assets (housing) owned by individuals less their debts (Shorrocks, Davies & Lluberas, 2011:8);
- “wealth” is defined in its long-established sense of net worth: the value of physical and financial assets less liabilities, also referred to as the “ownership of capital” (Davies et al., 2007:1);
- “wealth” means net worth, or total assets less total liabilities (Bricker, Bucks, Kennickell, Mach & Moore, 2011); and

- the “net wealth of the household sector” comprises the total of tangible and financial assets less household liabilities (Kuhn, 2010:69).

It is evident from these definitions that the terms “wealth” and “net worth” are interchangeable and are both defined as the value of assets minus liabilities for the unit of analysis. As described in section 1.2, “wealth” or “net worth” is also synonymous with “equity”, which is defined as the difference between the assets and liabilities of an entity. According to the above definitions, “household wealth” or “household equity” is defined for the purposes of the present research as the assets (financial and non-financial) of a household minus the liabilities of the household at the agreed measurement date. This was deemed the most suitable definition for the purposes of the study.

1.8.2 Household

There are also a myriad of definitions of households. These definitions are elaborated on in section 3.2.2. In order to commence the research, a preliminary definition of households was accepted. From the preliminary definition, a final household definition was developed (section 5.5.2.4). For the purpose of this research, the preliminary definition of a household was similar to the definition of a household in the South African Audience Research Foundation’s All Media and Products Survey (SAARF, 2010a:18), namely:

A household consists of either one person living alone or a group of persons, usually but not always members of one family, who live together and whose expenditure on food and other household items is jointly managed. Boarders and lodgers may be included as members of a household, if they have at least one main meal communally. Resident domestic workers however are excluded and are regarded as forming a household of one or more persons in their own right.

1.9 CHAPTER LAYOUT

The layout of the study is as follows:

Chapter 2: Accounting theory underpinning a statement of financial position

Chapter 2 provides a literature review of accounting theory to support the main objective of the study, namely the presentation of a statement of financial position for the household sector based on micro-level data. A Three Worlds framework

(Mouton, 2003) is used in section 2.2 to conduct an accounting research study. This framework is an instrument used to indicate the different levels of reflection on real-life problems (Mouton, 2003). General accounting postulates (basic accounting assumptions) and accounting equity theories are considered to determine the underlying assumptions of this study (section 2.2.2.3) and to establish an appropriate equity theory for households (section 2.3). In the research, the consideration of different theories resulted in a main theory to recognise and measure elements in financial statements, namely the Conceptual Framework (SAICA, 2010a), which underpinned the study. The use of this framework (SAICA, 2010a) as the main normative theory to assist with the classification, recognition and measurement of the elements that constitute household net wealth is discussed in section 2.4. On the basis of the Conceptual Framework (SAICA, 2010a), it will be possible to present a disaggregated statement of financial position for households in metropolitan and non-metropolitan areas as at 31 December 2011. In section 7.4, this statement is compared with the household balance sheet prepared by the South African Reserve Bank as at 31 December 2011 in order to verify the parameters of the current study.

Chapter 3: Economic perspective of household net wealth

The aim of this chapter is to depict the household as one of the institutional units in any economy (United Nations et al., 2009:2) and to explain why the household was chosen as the unit of analysis (section 3.2) for this study. Households do not operate in isolation in an economy but form part of an intrinsic web of relationships with the other institutional sectors of the economy. In order to gain an understanding of most of the factors and theories that could influence the accumulation of household net wealth, macro-economic theories are analysed in section 3.3. These theories explain how households accumulate assets and liabilities. The macro-economic factors that influence household net wealth accumulation are discussed in section 3.4 in relation to how government applies these factors to influence households' economic behaviour. The role of the System of National Accounts (SNA), which is the framework used to present the financial position of the various economic sectors in national accounts is reviewed (section 3.5), especially in defining the elements that constitute national accounts. Their definition and measurement in national accounts and according to the Conceptual Framework (SAICA, 2010a) are compared in order

to establish whether the household balance sheet prepared in South African national accounts could be used as parameter for the results obtained in this study. The household balance sheet prepared from macro-economic estimates by the South African Reserve Bank is presented in section 3.6. Based on the analysis of the household balance sheet, the conclusion drawn is that household micro-level data can indeed disaggregate the South African Reserve Bank's aggregated household asset and liability classes.

Chapter 4: Literature review of national and international micro-level net wealth measurement research

This chapter reports on the determination of the possible asset and liability base of South African households by means of a detailed national (section 4.2) and international (section 4.3) literature review on household net wealth studies conducted globally. This enabled the researcher to design a heuristic model of the financial position section to be included in the omnibus survey (section 4.4) that disaggregated the main asset and liability classes of the South African household balance sheet (prepared by the South African Reserve Bank). The separate assets and liabilities are recognised, classified and measured according to the principles of the Conceptual Framework (SAICA, 2010a) as discussed in Chapter 2.

Chapter 5: The qualitative research strand

This chapter describes the methodology used in accounting and finance research in general in section 5.2. The overall research design of the study is explained in section 5.3. A preliminary financial position section is constructed on the basis of the heuristic model and the international literature review conducted in Chapter 4. To ensure that the preliminary financial position section as constructed (section 5.4) will indeed be able to recognise and measure all possible household assets and liabilities, the qualitative research strand of the study is introduced in section 5.5. The qualitative research strand consists of two focus group interviews with experts in the field, namely a face-to-face focus group and an online focus group. The field notes collected during the interviews are used to develop themes and sub-themes to ensure that all possible household assets and liabilities are covered in the preliminary financial position section and to determine the members to be included in

the household for purposes of the study. The feedback from these discussions is also used to finalise the financial position section (section 5.6) for inclusion in the omnibus survey.

Chapter 6: The quantitative research strand – data collection phase

The research methodology used in the quantitative research strand of the study is described in section 6.2. This section contains an in-depth review of the determination of the sample of households included in the study. In section 6.3 a detailed description of the fieldwork is presented. The procedures applied in the quantitative phase of the study to reduce sample bias are reviewed in section 6.4 to ensure the successful collection of micro-level data in this phase.

Chapter 7: The quantitative research strand – data analysis phase

The coding, editing and cleaning of the data are discussed in section 7.2 as well as the validity, reliability and structural integrity (section 7.3) of the data collected. The data was parameter verified with the household balance sheet estimates of the South African Reserve Bank (section 7.4) and reasons for the differences provided. The statement of financial position, based on the classification of the South African Reserve Bank, is presented as well as the household balance sheet (SARB, 2012) to illustrate the disaggregation of asset and liability classes using micro-level data. The data gathered by means of the financial position section is segmented and classified in section 7.5 and used to prepare statements of financial position based on the Conceptual Framework (SAICA, 2010a), for South African households in metropolitan and non-metropolitan areas in section 7.6. The data collected in the financial position section is analysed and described in sections 7.7 and 7.8. From the analysis of the data, inferences are drawn in section 7.9 to determine whether age group, income group, education level, labour status and area of residence (metropolitan/non-metropolitan) and/or the interactions between these variables affected the asset and liability accumulation of households.

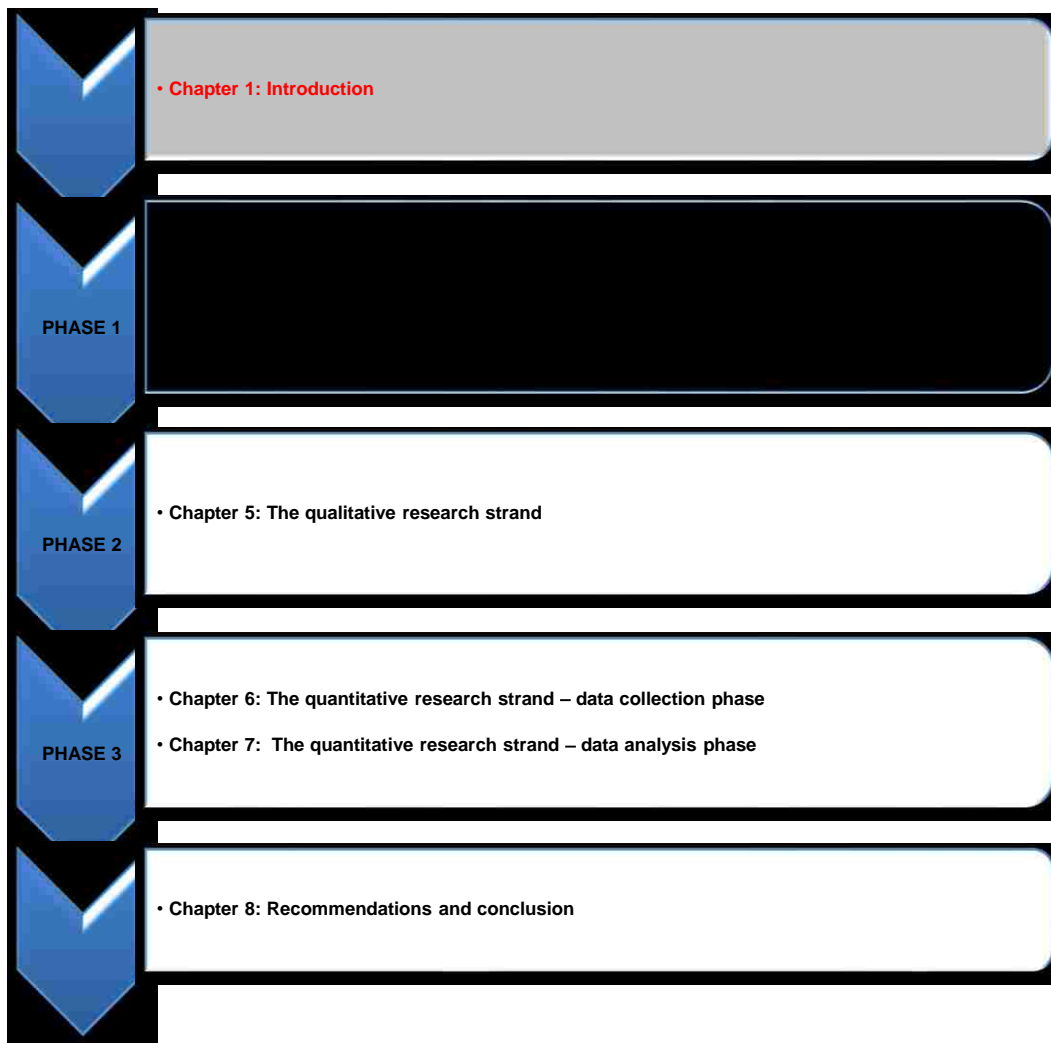
Chapter 8: Recommendations and conclusion

An overview of the study is presented in section 8.2 to ascertain whether all the research questions and sub-questions were addressed and whether the main and

secondary research objectives of the study were accomplished. The general limitations of the research and the specific findings are discussed in section 8.3. Recommendations for future research are formulated in section 8.4 and conclusions drawn about policy implications for household net wealth measurement in South Africa in section 8.5.

Figure 1.3 contains a summary of the layout of the study, which will assist the reader to follow the research process in the remainder of the chapters.

Figure 1.3
Layout of the study



Source: Researcher's own compilation

The grey areas in Figure 1.3 indicate where the reader finds himself/herself in the research process, while the blue areas indicate the completed chapters. The chapter under review is indicated in red.

As indicated in section 1.9, Chapter 2 commences with a literature review of accounting theory because the main paradigm of this study falls within the ambit of accounting and finance research. Accounting postulates (generalisations) and theories concerning equity, recognition and measurement are reviewed in order to achieve the main objective of the research, as stated in section 1.3.1.

CHAPTER 2

ACCOUNTING THEORY UNDERPINNING A STATEMENT OF FINANCIAL POSITION

“Whenever a theory appears to you as the only possible one, take this as a sign that you have neither understood the theory nor the problem which it was intended to solve.” – Karl R. Popper
(Brainyquote.com, 2013.)

2.1 INTRODUCTION

Chapter 1 provided an overview of the study. As explained, the South African Reserve Bank prepares a statement of financial position for the household sector, which is one of the five sectors of the economy (United Nations et al., 2009:2). This statement is based on macro-economic estimates (Aron et al., 2007). The South African Reserve Bank refers to this statement of financial position for households as the “household balance sheet”. A “balance sheet” is older terminology, but is similar to the “statement of financial position”, and in the current study the two terms are used interchangeably.

Government uses this household balance sheet in the overall net wealth management of the South African household sector. Although these estimates go a long way to ensuring that the country’s household net wealth is properly overseen, a disaggregated composition of the asset and liability base of households would assist various stakeholders to increase overall household net wealth management. At the time of the research in 2010/2011, however, there was a paucity of reliable micro-level (household level) data to disaggregate the asset and liability base of households. Addressing this shortcoming was central to the main objective of the study, namely to disaggregate and measure the asset and liability base of South African households in metropolitan and non-metropolitan residential areas using micro-level data and to present the data in statements of financial position for the two main residential areas.

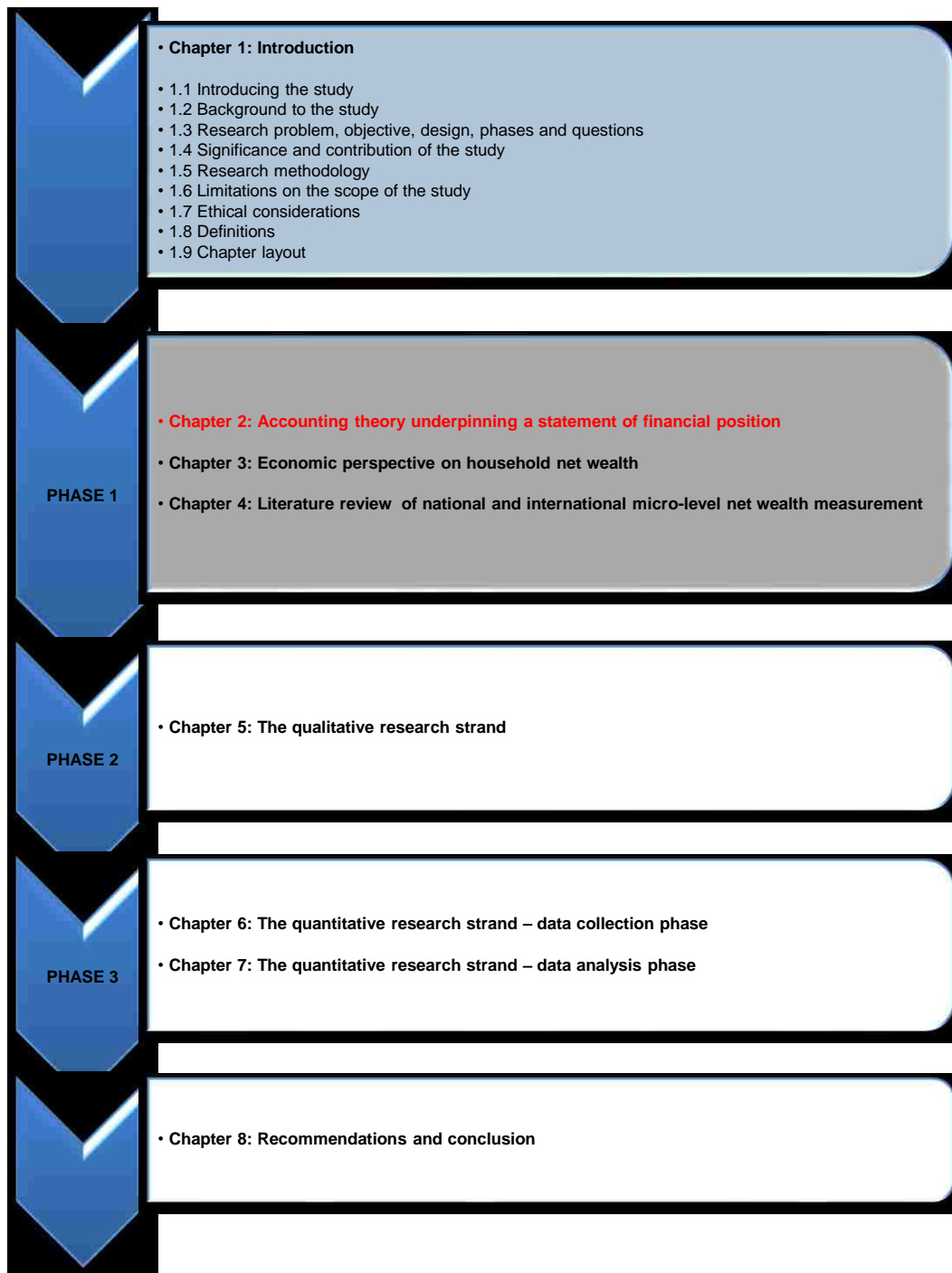
This research study deals primarily with the accounting classification, recognition, measurement and presentation of South African household data. The core

contribution of the study is a statement of financial position indicating the disaggregated asset and liability base of the South African household sector. The main paradigm of the study is therefore accounting and accounting theory. Neuman (2000:65) describes a paradigm as a basic orientation to theory and research. According to Kam (1990:488), the paradigm is the model for the formulation and resolution of research problems. It is submitted that a paradigm can be regarded as a theory, hypothesis, frame of reference, school of thought or principle in terms of which research is conducted. Based on a particular paradigm, a body of knowledge often exists that can be reviewed to address and solve the identified research problems.

The layout of the study was presented in Chapter 1, and indicated three phases of the study. Phase 1 commenced with the literature review of the underlying aspects affecting the study. In this chapter, a literature review on the accounting theory underlying the recognition, classification and measurement of the asset and liability base of households is provided. To give structure to the many accounting concepts underpinning the study, section 2.2 explains the use of the Three Worlds framework (Mouton, 2003) to illustrate the various views that should be considered when conducting accounting research. This framework was used to segment the various theories applicable in this study. In section 2.3, the applicable accounting equity theories, which assisted the researcher in the measurement of household equity or net wealth, are identified and discussed. In section 2.4, the accounting theory that enabled the researcher to define the elements of financial statements and assisted in the recognition and measurement in a statement of financial position, is reviewed. The overview and consideration of the various theories strengthened the main theory, namely the Conceptual Framework (SAICA, 2010a) underpinning the classification, recognition and measurement of the assets and liabilities of South African households.

The content of the study and the way this chapter fits in with rest of the study is indicated in Figure 2.1.

Figure 2.1
Presenting Chapter 2 in the layout of the study

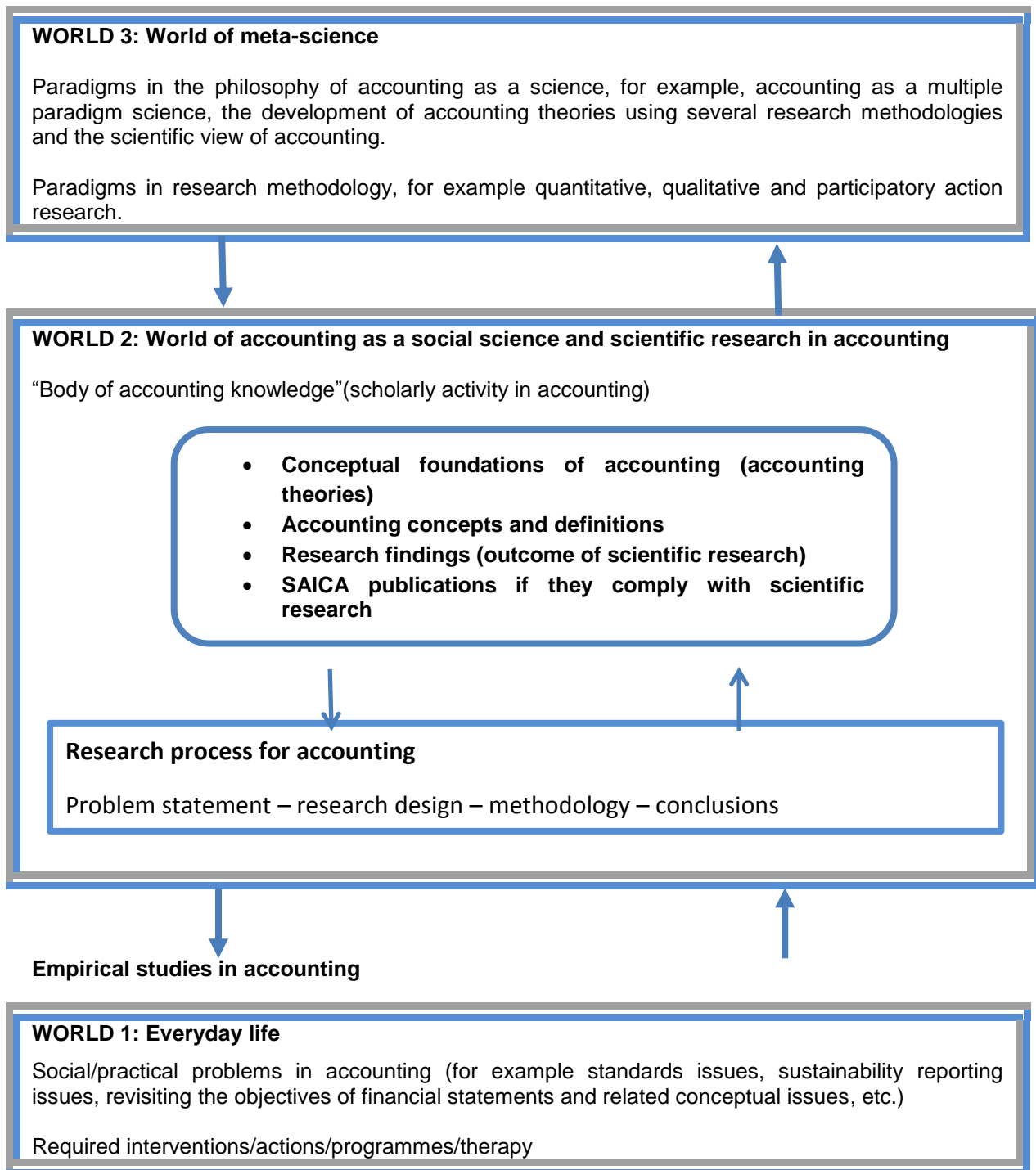


Source: Researcher's own compilation

2.2 APPLYING THE THREE WORLDS FRAMEWORK TO THE STUDY

According to Mouton (2003:137), the process of conceptualising and defining a research problem from a real-life problem can be best described by using the Three Worlds framework. This framework is an instrument that is used to make sense of the different levels of reflection on real-life problems and to better understand the nature of scientific research (Mouton, 2003:142). The framework has since been adapted by Van der Schyf (2008:5) to apply specifically to an accounting research study. Van der Schyf's view of the Three Worlds framework will be applied to this study, and is illustrated in Figure 2.2:

Figure 2.2
The adapted Three Worlds framework



Source: Van der Schyf (2008:5)

The above figure focuses on the relationship between meta-science, science and everyday life problems. World 1 represents the reality within which we exist and is referred to as the pragmatic interest in science. In World 2, the World 1 problem is

subjected to rigorous and systematic enquiry. This is the search for the most truthful and valid results, which is the overriding goal of science and is referred to as the epistemic interest of science. World 3 reflects on the meta-science underlying the study, and is referred to as the critical interest in science (Mouton, 2003).

The research problem (World 1) determines the course of action taken in World 3, which in turn determines the body of knowledge (World 2) that should be scrutinised to help solve the research problem (Mouton, 2003). In section 2.2.1, the World 1 view of the study is described, and in section 2.2.2, the World 3 view that the study proposed is explained. In section 2.2.3, the World 2 view or the body of knowledge that was used to solve the research problem is examined.

2.2.1 World 1 view of the research (everyday life)

As mentioned in the introduction of this chapter, the World 1 problem the study identified was the paucity of reliable household level data in South Africa that can be used to disaggregate the existing classification of the South African Reserve Bank in its household balance sheet. The study's main objective is to measure the disaggregated household assets and liabilities and to present the disaggregated information in statements of financial position for the metropolitan and non-metropolitan residential areas of the country.

According to Bak (2004:20), formulating the problem into research questions is beneficial because it directs the thought process and compels the researcher to answer those questions. Because South African household studies at the time of the research (2011/2012) were deemed to be of no value in assisting the researcher to achieve the research objective, namely to disaggregate and measure the South African household asset and liability base, this implied that a financial position section of the survey instrument would have to be developed. To ensure that the financial position section would indeed identify and disaggregate all possible household assets and liabilities, a mixed methods research design comprising a qualitative and quantitative strand was proposed in section 1.3.2. In the qualitative strand, the researcher set out to determine whether the heuristic model of the South African financial position section prepared from international net wealth surveys would be able to identify and disaggregate the assets and liabilities of South African

households. The research questions formulated in section 1.3.4.1, ensured that the financial position section could disaggregate and measure all household assets and liabilities. The methodology applied in the qualitative and quantitative research strands is dealt with in Chapter 5. Once the financial position section had been finalised, it was used to recognise and measure the asset and liability base of a representative sample of South African households in the quantitative strand. The research question identified in section 1.3.4.2 was dealt with during the data analysis conducted in Chapter 7. The results of the data analysis are presented in Chapter 7, and the disaggregated statements of financial position for the household sector in metropolitan and non-metropolitan residential areas presented in section 7.6. Inferences were drawn from the data to establish whether age group, education level, labour status, income group and area (metropolitan/non-metropolitan) and/or all possible interactions between them had an effect on the accumulation of assets and liabilities of South African households.

2.2.2 World 3 view of the research (meta-science)

To ensure that the study would address the applicable underlying theories, the adapted Three Worlds framework of Van der Schyf (2008) was used, which states that:

- the meta-theory underlying the research must be established (section 2.2.2.1);
- the scientific view of accounting research needs to be determined (section 2.2.2.2); and
- the development of applicable accounting theories needs to be incorporated (section 2.2.2.3).

According to Babbie, Mouton, Vorster and Prozesky (2006:49), the methodological paradigm represents the research methods and techniques used, which are subject to underlying principles and assumptions. The methodological paradigm of the qualitative and quantitative strands of the study is elaborated on in Chapter 5. To gain a better understanding of the interconnectedness of the Three Worlds views, a brief overview of these concepts is provided in the following sections.

2.2.2.1 Overview of the meta-theoretical classification of the research

Hendriksen and Van Breda (1992), Henderson, Peirson and Brown (1992), Neuman (2000), Riahi-Belkaoui (2004), Babbie et al. (2006), Deegan (2010) and Scott (2012) all classify accounting as a social science. Research in accounting is underpinned by three main research frameworks or meta-theoretical traditions, namely positivism, phenomenology (also referred to as the interpretivist tradition) and critical theory (Babbie et al., 2006:48). According to Babbie et al. (2006:49), each of the three meta-theoretical traditions is associated with a different methodological paradigm, as highlighted below:

- The quantitative methodological paradigm is linked to positivism.
- The qualitative methodological paradigm is linked to phenomenology.
- The participatory action methodological paradigm is linked to critical theory.

When applying a mixed methodology, as discussed in section 1.3.2, qualitative and quantitative research is conducted in one study (Creswell & Plano Clark, 2011). It therefore stands to reason that the current study was influenced by two different meta-theoretical traditions, namely phenomenology and positivism.

Babbie et al. (2006:28) explain that phenomenology is based on the centrality of human consciousness. This implies that the human mind and human perceptions form the foundation for the study of society. The underlying meta-theory in Chapter 5 of the current study is phenomenology, and a qualitative methodology was applied when using focus group deliberations to ascertain whether the financial position section is able to disaggregate, recognise and measure the asset and liability base of households.

Positivistic research became the predominant research paradigm in financial accounting in the 1970s and 1980s (Deegan, 2010:259). According to Henning, Van Rensburg and Smit (2004:17), in its broadest sense, positivism is a rejection of metaphysics. Positivism is a philosophical position that holds that the goal of knowledge is to describe and, in some designs, to explain and predict the phenomena experienced. It is therefore about finding the truth through empirical means. Positivist researchers prefer precise quantitative data, and often use surveys and test hypotheses statistically in ways that other scientists can replicate. The

researcher remains objective, detached and neutral in the measurement of phenomena and in the examination of evidence. According to Coetsee (2010), mainstream accounting research is mostly positivistic, and its premise is that there is only one truth. The nature of positivistic research is descriptive and quantitative and it is often referred to as the scientific method (Coetsee, 2010). A positivistic approach was adopted in this study when the financial position section was used to collect data on the disaggregated assets and liabilities of households.

2.2.2.2 *The scientific view of the research*

The scientific method can be used in any discipline (Henderson et al., 1992:5) and the essential characteristics are stating and testing a hypothesis and concluding whether the hypothesis is true. A true hypothesis can be labelled a theory, and this interpretation of the scientific method is referred to as induction (Henderson et al., 1992:4). When accounting researchers formulate hypotheses, which they endeavour to confirm, they follow an inductivist interpretation (Henderson et al., 1992:29). In this study, the scientific method was used in the quantitative strand and an inductivist interpretation was followed to test the hypotheses formulated in section 1.3.4.2.

Furthermore, according to Henderson et al. (1992:31), scientific research can be experimental or *ex post facto*. Experimental research involves the manipulation and observation of the effects of changes in variables. *Ex post facto* research entails observing data and determining the relationships between the variables (Henderson et al., 1992:37). In the quantitative strand of the study, survey research was conducted, which is a form of *ex post facto* research.

To summarise, the scientific method associated with positivism was applied in the quantitative phase of the study, reported on in Chapter 7, and a phenomenological view was applied in the qualitative phase of the study, reported on in Chapter 5.

2.2.2.3 *Applicable accounting theory development*

In section 2.1, accounting as the broad paradigm of the current study was identified. Accounting encompasses a body of knowledge that must be reviewed to identify applicable theories that could constitute and influence this particular study. However, central to identifying the applicable theories underpinning the study, was the research objective, namely to gather information from the South African household

sector on its accumulated assets and liabilities and to present this information in statements of financial position for the two main residential areas of the country.

This section provides an overview of how accounting as a discipline could help to achieve the main research objective by describing the development of applicable accounting theories and identifying postulates or generalisations for the study.

The development of accounting theory, like most sciences, happened over time with the increase in accounting research. According to Henderson et al. (1992:53), accounting research conducted prior to the 1800s is regarded as the development and pre-theory period in accounting. The period, 1801 to 1955, is regarded as the general descriptive or positive theory period during which accountants were mainly concerned with providing explanations for practices that had developed. The period, 1956 to 1970, is considered to be the general prescriptive or normative theory period during which alternative measurement bases other than historical cost were argued. The period after 1970 comprised the specific descriptive or positive theory period during which the emphasis was on scientific research.

Hendriksen and Van Breda (1992:21) define accounting theory as “a coherent set of hypothetical, conceptual and pragmatic principles forming a general frame of reference for inquiring into the nature of accounting”. According to Kam (1990:41) and Riahi-Belkaoui (2004:211), accounting theory developed as a deductive system and consists of postulates or basic assumptions, definitions (theoretical concepts) and objectives that underscore the principles (standards) and procedures (methods or techniques). Furthermore, accounting is considered to be a measurement and a communication discipline (Riahi-Belkaoui, 2004:42). Hendriksen and Van Breda (1992:14) posit that accounting is a business language that communicates the classification and measurement of numbers in financial statements. Berry et al. (2011:6) describe the communication of financial information through financial statements as financial reporting. According to them (Berry et al, 2011), the objective of financial statements is to provide information on the financial position, performance and changes in the financial position of an entity that is useful to the users thereof in making economic decisions. Financial statements provide information about:

- the economic resources or elements of the entity, namely its income, expenses, assets, liabilities and equity;
- the financial structure of the entity, namely own capital or borrowed funds, non-financial and financial assets;
- information on the liquidity of the entity, namely its ability to pay financial commitments from current resources; and
- information on the solvability of the entity: the ability to pay long-term financial liabilities when they become due.

Accounting is practised within a framework of basic assumptions (Husband, 1954; Riahi-Belkaoui, 2004:211). With the research objective in mind and stemming from the above discussion, the current study endeavoured to present disaggregated financial statements for South African households. In general, households are not considered entities for which financial statements are prepared except when requested for taxation purposes or when households apply for finance (at the request of the financial institution). Samphantharak and Townsend (2008) draw an analogy between corporate entities and households, where household net wealth is viewed as “equity” as presented in the accounting equation (refer section 1.2) and the household is seen as an “entity”. According to Husband (1954) and Samphantharak and Townsend (2008), the entity view of the household implies that the household is an institution in its own right, separate and distinct from the parties furnishing the capital. Husband (1954:552) argues that the accounting concept of entity is also applicable to sole proprietors and partnerships, although these are not legal entities such as corporations and companies. Despite not being legal entities, accounting for these “entities of experience” is provided (Husband, 1954:552). The same can be said of households, namely that, despite the fact that they are not legal entities, accounting for this “entity of experience” is provided to help households manage their net wealth.

The view that the household is an entity was a necessary assumption in this study – hence the need to present accounting postulates that would underpin the study. Accounting postulates refer to accounting generalisations. According to Riahi-Belkaoui (2004:212), accounting measures and communicates the results of the operations of entities. The first and central postulate assumed for this study was

therefore the entity postulate (Riahi-Belkaoui, 2004:212). This central postulate holds that the entity is an accounting unit which is distinct from its owners. In the current study, households were seen as the accounting unit for which accounting measures in the form of financial statements are prepared. The household members were viewed as the “owners” of the “household entity”.

A second postulate required for this study was the unit of measure postulate (Riahi-Belkaoui, 2004:213). This postulate holds that only those activities that are measurable in monetary terms are measured and presented in the statement of financial position. A third postulate applicable to this study was the accounting period postulate (Riahi-Belkaoui, 2004:214), which holds that the accounting information presented in financial statements is for a determined period only. The bearing of the last two postulates on this study implied that only those elements of households that could be measured in monetary terms were measured and that the measurement of the household’s financial position was done on a specified date, which, for the purposes of this study, was 31 December 2011.

2.2.3 World 2 view of the research (scientific view)

The Three Worlds framework (as adapted by Van der Schyf, 2008) (Figure 2.2) illustrated the interrelatedness of the “everyday world” and the “scientific worlds”. The research problem (World 1) determined the course of action taken in World 3, which in turn determined the body of knowledge (World 2) that had to be scrutinised to enable the researcher to achieve the research objective. Kam (1990:511) postulates that whenever data is collected, theory is needed to direct the researcher to know what to gather. Kam (1990:489) further states that a guiding theory for a study should emerge from the theory reviewed.

In Chapter 1, the “pre-theory period” (Henderson et al., 1992:53) of accounting was described and included the development of the accounting equation. The applicability of the accounting equation in measuring the assets and liabilities of households and the resultant household net wealth or equity were explained. Because of the importance of equity, recognition and measurement as central concepts in this study, the study included a review of:

- theories dealing with equity in section 2.3; and

- theories dealing with recognition and measurement, which are examined in section 2.4.

2.2.4 Summary

In section 2.2, the Three Worlds framework was discussed in order to direct the different theories that were considered to ensure the main research objective was achieved. In the current research, the World 1 view of the research (section 2.2.1) stated the problem that had to be investigated, namely the paucity of reliable household level data to disaggregate the existing classification and accompanying measurement of the assets and liabilities in the South African household balance sheet and to present the micro-level information in statements of financial position for the metropolitan and non-metropolitan residential areas of the country. The World 3 view (section 2.2.2) determined the course of action by describing the meta-theoretical classification of the research in section 2.2.2.1. Two different meta-theoretical traditions were used in the study, namely phenomenology in the qualitative strand of the research and positivism in the quantitative strand of the study. In section 2.2.2.2, the scientific view of the study was scrutinised, and the researcher determined that in the quantitative strand of the study, survey research had to be conducted, namely *ex post facto* scientific research. In section 2.2.2.3, the applicable accounting theory, which had to be scrutinised to direct the study towards the main research objective, was identified. The main research objective encompassed the presentation of statements of financial position. Financial statements are normally prepared for entities (Husband, 1954). This gave rise to the identification of the following three postulates underpinning the study:

- (1) The households were viewed as entities for which a statement of financial position was prepared.
- (2) This period was for the year ended 31 December 2011.
- (3) Only those assets and liabilities that were measurable in monetary terms would be presented.

In closing, section 2.2.3 explained the World 2 view, which comprised the applicable theories that would be investigated to enable the researcher to attain the main research objective. The identified theories were listed as theories dealing with equity,

which will be described in section 2.3, and theories dealing with recognition and measurement, which will be described in section 2.4.

2.3 EQUITY THEORIES

Equity theories provide different views on the question of whose point of view should be followed in the accounting process of entities (Kam, 1990:302). Depending on this view, these theories address the distinction between debt and equity and the implication of these for the reporting and disclosure of recordable transactions (Riahi-Belkaoui, 2004:765; Van Mourik, 2010:193). Meyer (1973) distinguishes the following four approaches to equity theories:

- a proprietary approach (proprietary theory) (section 2.3.1);
- a pure entity approach (entity theory) (section 2.3.2);
- a fund approach (fund theory) (section 2.3.3); and
- a commander approach (commander theory) (section 2.3.4).

Each of these theory approaches is discussed and its applicability to the accounting and reporting of households considered. The theory that best prescribed the treatment of household equity or net wealth was adopted as the underpinning theory for this study.

2.3.1 Proprietary theory

Proprietary theory proposes that the proprietor or owner of the entity is the focus of accounting procedures (Henderson et al., 1992:59; Kam, 1990:302). According to Henderson et al. (1992:60), the proprietorship or ownership theory of accounting is one of the earliest general descriptive theories. Researchers supporting the proprietary view of the accounting entity or a variation thereof (as indicated in Van Mourik 2010:194) include Hatfield (1909), Sprague (1913), Husband (1954) and Staubus (1959).

Proprietary theory further proposes that assets and liabilities belong to the proprietor. A proprietary view of the entity regards the purpose of income or revenue determination as measuring the increase of net wealth of the owners using an asset-liability approach (Henderson et al., 1992:60; Van Mourik, 2010:192). According to Kam (1990:303) and Van Mourik (2010:197), proprietary theory is a net wealth concept. The objective of accounting, according to this theory, is to determine the net

wealth of the proprietors of the entity. The current values of assets and liabilities are more relevant to the proprietors (owing to their influence on net wealth) than the original historical cost paid for those assets. Proprietary theory can be illustrated by means of the following accounting equation (Henderson et al., 1992:59):

$$\text{Proprietorship} = \text{Assets} - \text{Liabilities}$$

This equation is similar to the accounting equation discussed in section 1.2, which was used to depict the measurement of equity or net wealth (of households) for the purposes of this study. Proprietary theory was therefore deemed appropriate to use as a foundation for this study. According to Meyer (1973:119), the residual equity view or investor theory of Staubus (1959) is a variation of proprietary theory. This view focuses on the part of equity which is “residual” in nature and comes into play when there are different classes of shareholders/owners requiring reporting. Households, however, do not have different classes of owners. Hence the residual equity view or investor theory was not applicable to households for the purpose of this study.

2.3.2 Entity theory

Entity theory deems the entity to have a separate existence from its owners and makes the entity the focus of accounting (Sprouse, 1957; Van Mourik, 2010:201). According to Henderson et al. (1992:60), entity theory is another general descriptive accounting theory that developed during the second half of the 19th century. Henderson et al. (1992:60) state that critics of the proprietary theory maintained that both proprietor contributions and liabilities represent sources of capital. It is therefore inappropriate to regard contributions and liabilities differently. Researchers subscribing to entity theory or a variation thereof, as indicated by Van Mourik (2010:194), are Gilman (1939), Paton and Littleton (1940), Sprouse (1957) and Suojanen (1958).

Entity theory proposes that assets, liabilities, revenue and expenses belong to the entity and not to the owners. The owners are merely the providers of finance in the same way as creditors. Hence according to this view, the liability side of the balance sheet does not distinguish debt from equity, but shows liabilities in order of

decreasing liquidity. Kam (1990:318) contends that current thinking in accounting emphasises proprietary theory for small business entities and entity theory for large corporate entities. Entity theory can be illustrated by the following accounting equation (Henderson et al., 1992:60; Hendriksen & Van Breda, 1992:771):

$$\text{Assets} = \text{Equities (include liabilities and shareholders'/owners' equity)}$$

The above equation does not separate liabilities and owners' equity and is unsuitable for measuring net wealth or equity of households, as proposed in section 2.1. The members of a household are personally liable for their debt (Botha et al., 2012:956), which should be viewed separately from equity. Equity theory was therefore eliminated as an appropriate theory for this study. According to Meyer (1973:120), the self-equity view of Raby (1959, in Meyer, 1973) and the social or enterprise view of Suojanen (1958, in Meyer, 1973) are variations of entity theory. Similar to the variation in proprietary theory, these variations were also not applicable to households and are merely mentioned here.

2.3.3 Fund theory

Henderson et al. (1992:61) maintain that the proprietary and entity theories were too simplistic to explain all the practices of accounting, which led to the development of fund theories. Meyer (1973) states that Vatter developed the fund view in 1947. According to the fund view, financial statements should be regarded as a summary of funding provided without mentioning the percentage of interest of capital providers. Financial statements merely indicate the grouping of economic resources and the restrictions on them. Fund theory can be illustrated by means of the following accounting equation (Kam, 1990:310):

$$\text{Assets} = \text{Restrictions on assets}$$

The equation, like entity theory, provides no separation for liabilities, which cannot merely be viewed as "restrictions" on assets because the household would want to know their liabilities to determine net wealth or equity, as proposed in section 2.1. As mentioned in section 2.3.2, the members of a household are personally liable for their debt (Botha et al., 2012), which should be presented in household financial

statements to make net wealth management possible. Fund theory was therefore also eliminated as a useful theory for this study.

2.3.4 Commander theory

According to Kam (1990:312), the commander view of Goldberg was developed in 1965. Goldberg focused on effective economic control of resources instead of ownership, as implied in the proprietary and entity theories. A person who has command over the resources is designated a commander. Accounting functions are carried out for and on behalf of commanders, and financial statements are reports by commanders to commanders. Ownership or equity is not measured or implied in commander theory. Commander theory therefore lacks applicability in the context of households and was disregarded as a possible theory to underscore this study.

2.3.5 Summary

The conclusion drawn from the literature review on equity theories is that the determination of equity or net wealth is a key consideration in measuring the financial position of households. Equity theories aid to identify whose point of view should be adopted in the accounting process of entities. For households, proprietary theory best depicts for whom accounting information is prepared, namely the proprietors who are the owners of the household. This theory states that net wealth or owners' equity can be established by accounting for the assets belonging to the household and deducting their liabilities. Net wealth or equity can be presented in a statement of financial position. The proprietary theory was therefore accepted as the underpinning equity theory for household accounting. As illustrated in Figure 1.1, income and expenses are incurred to maintain a living standard, and when income exceeds expenditures, the excess is used to improve net wealth. For the purpose of this study, the household was viewed as an entity for which a statement of financial position is prepared to indicate the net wealth of the household to its members (proprietors). Before a statement of financial position can be prepared, the elements of financial statements, namely assets, liabilities, equity, income and expenses must be defined, recognised and measured. An applicable theory that could assist in this regard is discussed in section 2.4.

2.4 APPLICABLE ACCOUNTING THEORY THAT DEFINES, RECOGNISES AND MEASURES THE ELEMENTS

Linking the main objective of the study (viz. to prepare a disaggregated statement of financial position for households living in metropolitan and non-metropolitan areas) and the discussion in section 2.2.2.3 (financial statements consist of elements which must be defined, recognised and measured before they can be presented in a statement of financial position) led the researcher to identify the Conceptual Framework (SAICA, 2010a) as an applicable theory to underscore the study. This framework (SAICA, 2010a) defines the elements and prescribes the recognition and measurement requirements of the elements presented in financial statements. According to Deegan (2010:211), a conceptual framework is

a coherent system of concepts that flow from an objective. The objective of financial reporting is the foundation of the framework. The other concepts provide guidance on identifying the boundaries of financial reporting; selecting the transactions, other events and circumstances to be represented; how they should be recognized and measured (or disclosed); and how they should be summarised and communicated in financial reports.

In section 2.4.1, the current status of the Conceptual Framework (SAICA, 2010a) and its status in the international and South African accounting arena are explored. The applicability of the Conceptual Framework (SAICA, 2010a) to presenting household equity or net wealth is explained. In section 2.4.2, the objectives of the framework are stated, in section 2.4.3, the elements are defined, in section 2.4.4, their recognition is explained, and in section 2.4.5, their measurement explored with reference to the development of normative accounting measurement theories that evolved over time.

2.4.1 Current status of the Conceptual Framework in South Africa

In 1993, the Accounting Practice Board committed itself to applying the accounting standards issued by the International Accounting Standards Board. The International Accounting Standards Board is committed to “developing, in the public interest, a single set of high quality global accounting standards” (referred to as International Financial Reporting Standards or IFRS), which are principle based and rely on users’ judgement (Barth, 2008). According to Oberholster et al. (2011:2), International

Financial Reporting Standards are based on the Conceptual Framework in order to promote congruence in logic and consistency.

The difference in economic, social and legal structures in various countries led to the formulation of a variety of definitions of the elements, as well as differences in the criteria for recognition and measurement of the elements in financial statements. Owing to different regulatory frameworks being followed in different parts of the world (Oberholster et al., 2011:1), there is a worldwide movement towards harmonising accounting standards in order to enhance the comparability of financial statements in and across countries.

Currently, the Federal Accountants Standards Board of the United States of America and the International Accounting Standards Board of the United Kingdom are engaged in a joint project to converge, refine and update the different accounting frameworks of the two accounting bodies into one Conceptual Framework that will underlie and endorse all accounting standards issued in future (Carmona & Trombetta, 2010; Deegan, 2010; Oberholster et al., 2011:11). The project to converge the frameworks is divided into eight phases, and Deegan (2010:220) contends that the project will take several years to complete. In the interim, the Federal Accountants Standards Board and the International Accountants Standards Board will look to their existing frameworks when issuing new accounting standards (Deegan, 2010). When the literature review for this research was conducted (2011), only phase A (the objectives and qualitative characteristics of financial reporting) had been completed.

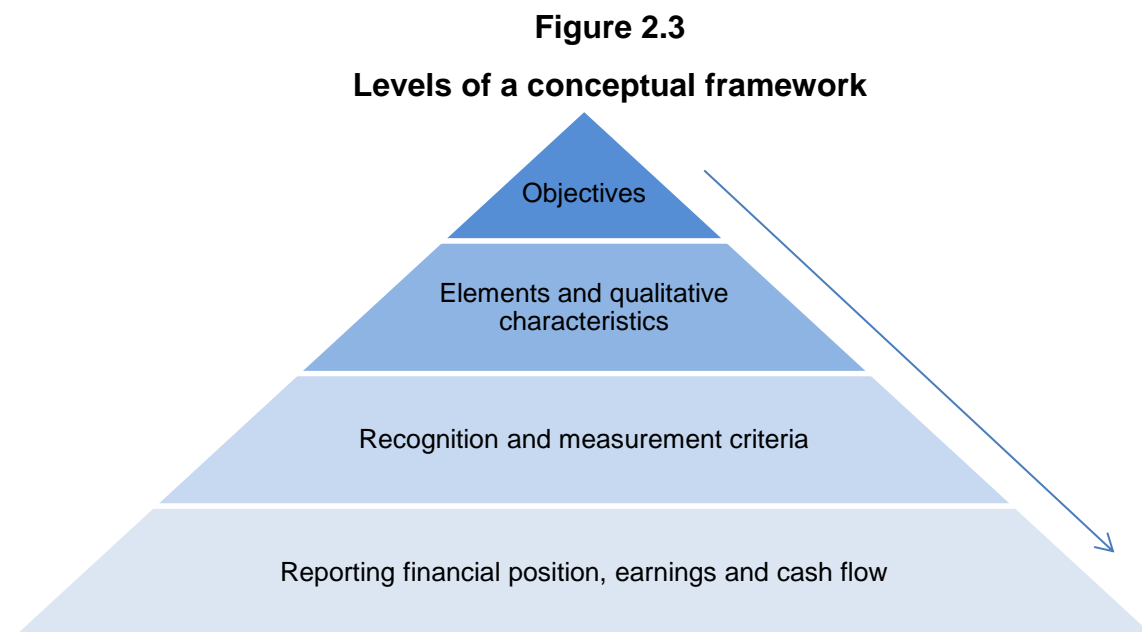
Phase A of the revised Conceptual Framework was issued in South Africa in September 2010 (SAICA, 2010a). The document contains the updated objectives and qualitative characteristics of financial reporting. The definition of the elements and their recognition and measurement are still prescribed by the 1989 Framework for the Preparation and Presentation of Financial Statements (Framework) issued by the International Accounting Standards Board and are included as such in the September 2010 Conceptual Framework. Once the whole process has been completed, the International Accounting Standards Board will have a comprehensive document which will be called the Conceptual Framework for Financial Reporting (Oberholster et al., 2011:11). This study refers to “The Conceptual Framework for

Financial Reporting 2010” issued in September 2010 (SAICA, 2010a). In the remainder of the study, this publication will be referred to as “the Conceptual Framework”.

2.4.2 The objective and qualitative characteristics of financial reporting

The Conceptual Framework underpins the principles and concepts, which in turn underscore accounting standards. However, following the Conceptual Framework, accounting standards are only a prerequisite for legal accounting entities and are not required for households, as stated in section 2.2.2 – hence the postulation of the entity concept for households. It is therefore necessary to consider the objectives and qualitative characteristics of financial reporting according to the Conceptual Framework and establish how the objectives and qualitative characteristics can serve households as reporting entities.

According to Deegan (2010:211), the objective of financial reporting is the fundamental building block of the Conceptual Framework. One must first understand and agree on what is meant by financial reporting and what the scope of reporting is before one can address issues such as the recognition and measurement of the elements that form the basis of financial statements. Riahi-Belkaoui (2004:180–181) argues that the development of any conceptual framework consists of four levels, as illustrated in Figure 2.3:



Source: Riahi-Belkaoui (2004:181)

At the first level, are the objectives of financial reporting, and each level of a conceptual framework is based on the criteria and principles adopted in the previous levels. The objective of financial reporting is stated in Exhibit 2.1:

Exhibit 2.1

Objective of financial reporting

The objective of general purpose financial reporting is to provide financial information about the reporting entity that is useful to existing and potential investors, lenders and other creditors in making decisions about providing resources to the entity. Those decisions involve buying, selling or holding equity or debt instruments, and providing or settling loans and other forms of credit.

Source: SAICA (2010a:4 par OB2)

According to Deegan (2010:225-227), this objective is based on rational decision making originating in Economics and it is related to the maximisation of wealth. According to him, if one accepts the prescriptions of the Conceptual Framework, one, inter alia, accepts the underpinning key assumptions and objectives. The reporting objective stated in Exhibit 2.1 can easily be assumed to apply to households as reporting entities. It was stated in section 2.2.2.3 that the view of households for the purpose of this study was that it is a “reporting entity”, and the presentation of a statement of financial position from micro-level (household) data was the main objective of the study. Presenting the assets and liabilities of households living in metropolitan and non-metropolitan areas of the country, in a statement of financial position, will allow creditors and lenders to understand the general liquidity and solvability of households in these areas and will go a long way to assist in net wealth management. Secondary users, such as regulators and the South African Reserve Bank in particular, should have a more comprehensive understanding of the types of assets and liabilities that households in South Africa make use of and this can aid to direct policy reform.

According to the Conceptual Framework (SAICA, 2010a:4–5 par OB3–OB8), existing and potential lenders and creditors of an entity need financial information to determine whether the entity will be able to generate sufficient future cash flows to sustain it and to enable it to repay its debts. Financial statements provide information on the financial position of a reporting entity, that is, the economic resources (assets) or claims (liabilities) against it. Although a statement of financial position is not

designed to disclose the value of the reporting entity, it does provide information to help estimate the value of the entity (SAICA, 2010a:5 par OB7). Financial statements are based on estimates, judgements and models rather than on exact depictions (SAICA, 2010a:5 par OB11). From the discussion, accepting the objective of financial reporting according to the Conceptual Framework for households, seems to be mandatory and provides the foundation for establishing and defining the elements of financial statements in general and the statement of financial position of households in particular.

The Conceptual Framework furthermore describes the qualitative characteristics that underlie financial statements for reporting entities. The fundamental characteristics are relevance and faithful presentation, whereas the enhancing qualitative characteristics are comparability, verifiability, timeliness and understandability (SAICA, 2010a:10–11). It is compulsory for mandatory reporting entities to comply with the qualitative characteristics. Households, however, are not mandatory reporting entities and were therefore only viewed as reporting entities for the purpose of this study. The qualitative characteristics are therefore only noted when an attempt is made to enhance the existing balance sheet information as currently presented by the South African Reserve Bank. In so far as it is possible, the disaggregated financial statements the researcher intended to compile had to comply with the fundamental qualitative characteristics of the Conceptual Framework by faithfully representing relevant information on the asset and liability base of households as reported by the participating households. The information collected was compared with the household balance sheet of the South African Reserve Bank to enhance the relevance of the data.

Now that the objective of the household financial statements has been determined and the applicability of faithful presentation and relevance established, the elements that constitute financial statements in general can be defined.

2.4.3 Elements of financial statements

Financial statements indicate the effects of financial transactions by grouping them into broad classes according to their economic characteristics (SAICA, 2010a:13 par 4.2). These broad classes are the elements of financial statements. The presentation of these elements in the financial statements in classes and sub-classes by their

nature or function enhances the usefulness of these statements for their users in making economic decisions.

There are two known approaches to determine an entity's statement of financial position, namely the revenue/expense approach and the asset/liability approach (Hendriksen & Van Breda, 1992:449). According to Deegan (2010:236), the approach followed by the Conceptual Framework is the asset/liability approach. The asset/liability approach leads to defining assets and liabilities first, and the definitions of the other elements flow from these (Deegan, 2010:236). The elements are defined in Exhibit 2.2:

Exhibit 2.2

Elements of financial statements

Elements in the statement of financial position:

- **Assets** are resources controlled by the entity as a result of past events and from which future economic benefits are expected to flow.
- **Liabilities** are present obligations arising from past events, the settlement of which is expected to result in an outflow of economic resources.
- **Equity** (or net wealth) is the residual interest in the assets of the entity after deducting all its liabilities

Elements in the statement of profit or loss and comprehensive income:

- **Income** is increases in economic benefits during the accounting period in the form of inflows or enhancement of assets or decreases in liabilities that result in increases in equity, excluding contributions from equity participants.
- **Expenses** are decreases in economic benefits during the accounting period in the form of outflows or depletions of assets or increases in liabilities that result in decreases in equity but exclude distributions to equity participants.

Source: SAICA (2010a:13, 16 par 4.4, 4.35)

The elements relating to the measurement of financial position are equity, assets and liabilities, while income and expenses measure financial performance. An entity's financial position is presented in a statement of financial position, while performance is indicated in the statement of profit or loss and comprehensive income. This study will focus on presenting a statement of financial position for households, and income and expenses are merely mentioned in respect of their influence on the net wealth of households, as explained in Figure 1.1.

Assets have three key characteristics (Deegan, 2010:237), namely an **expected future economic benefit**, the asset must be under the **control** of the reporting entity and the asset must have **originated from past transactions**. Future economic benefit implies that an item has a value-in-use which is not necessarily an exchange value (Deegan, 2010:237). This is in contrast to the continuously contemporary accounting model of Chambers (1966 in Deegan, 2010:237), where it is accepted that an item that does not have a current market value or exchange value is excluded from financial statements. Control relates to having the benefits associated with the asset (Deegan, 2010:237). According to Deegan (2010:238), in the past, many users indicated that they were confused about the “expected” benefits that would flow to the entity, and that not enough emphasis was placed on access to the resource (or asset) at the statement of financial position date. Addressing this confusion could lead to redefining assets in future.

Assets often have a physical form (SAICA, 2010a:14 par 4.11), and in the context of the household, examples of this would be residential property, vehicles and household content. However, having a physical form is not essential for the existence of an asset. Furthermore, assets such as debtors (accounts receivable) are associated with legal rights (ownership rights) (SAICA, 2010a:14 par 4.12). Assets are usually obtained by purchases or production, but other events or transactions may lead to obtaining assets such as inheritances and government grants in the form of houses. From this reasoning, the definition of assets is necessary, but ensuring that households will be able to recognise their respective assets will require careful consideration of all the various classes of assets to enable households to identify those that they have acquired.

Furthermore, the broadest prescribed classification of assets is between non-current and current assets or a classification based on liquidity (SAICA, 2010c:A352 par 60). Owing to the fact that an operating cycle for households is irrelevant, assets in this study were classified as non-current, other non-financial assets, retirement funding assets, financial assets and current assets. Within each asset class, the classification was based on the liquidity of the different asset categories.

IAS 1, The presentation of financial statements, defines current assets as those assets expected to be sold or consumed during an entity’s normal operating cycle, or

assets that are held primarily for trading, assets expected to be realised within 12 months after the reporting period, or cash and cash equivalent assets (SAICA, 2010c:A353 par. 66). Current assets therefore include financial assets readily convertible into cash or cash equivalents as well as inventory and debtors (accounts receivable).

According to Deegan (2010:238), liabilities also have three key characteristics, namely a **future transfer of economic benefits** to others, a **present obligation** and the fact that the obligation must have **resulted in the past**. Not only must legal obligations be accounted for, but obligations from business practice, such as warranty or surety obligations, must also be accounted for. The Conceptual Framework also allows for amounts to be estimated as long as an obligation exists. These estimates are still considered liabilities (SAICA, 2010a:15 par 4.19).

An essential characteristic of a liability in the context of the household is that the household has a present obligation or the duty/responsibility to act or perform in a certain way. There must be an irrevocable agreement to acquire an item (on credit) and the item must be delivered for any obligation to arise. If there is only a desire to acquire an item in the future, this does not give rise to an obligation (SAICA, 2010a:15 par 4.15). Most liabilities are legally enforceable because of a contract or statutory requirement. Some liabilities can only be measured by obtaining a reasonable estimate, for example, the amount payable for water and electricity consumed before a bill is received. Again, it is a matter of helping the household to identify all their liabilities as well as obtaining a reliable measurement of these.

As explained and illustrated in section 1.2, once the assets and liabilities of a household have been identified and measured, it is possible to determine the equity or net wealth of the household. According to the Conceptual Framework, equity is a residual but is indicated in the statement of financial position as an element or class (SAICA, 2010a:15 par 4.20). According to the discussion of the accounting equation in section 1.2, the amount at which equity is shown in financial statements depends on the measurement of assets and liabilities.

Although the aim of this study was not to disclose the statement of profit or loss and comprehensive income of households, the role that income and expenses play in creating net wealth or equity remained pivotal (section 1.2). It was therefore

necessary to define income and expenses to ensure that all the elements of households were recognised and classified appropriately. Income encompasses both revenue and gains (SAICA, 2010a:17 par 4.29). In terms of households, revenue results from day-to-day activities and can take many different forms, such as rent received, salaries, fees received, interest and dividends received. Gains are increases in economic benefits but are different from revenue in the sense that it may or may not arise from ordinary day-to-day activities. An example would be a gain resulting from the disposal of an asset such as property or securities (SAICA, 2010a:17 par 4.31).

Expenses encompass losses and expenses arising from households' day-to-day activities (SAICA, 2010a:17 par 4.33). Examples in the context of households would be food and clothing, consumables, rent and water and electricity. Losses may or may not arise in the ordinary course of household activities and represent decreases in economic benefits. An example would be a loss from the sale of an asset when the asset is sold at less than its value-in-use.

Figure 1.1 indicated the relationship between assets, liabilities, income and expenditure and the way these elements affect the net wealth of a household. Before an item can be considered an element, certain attributes are required. These attributes or recognition criteria are employed to determine whether an item can be included as an element in financial statements (Deegan, 2010:235).

2.4.4 Recognition of an element

Defining the elements identifies their essential characteristics but for these elements to be included in the financial statements, there are certain recognition criteria that must be met, as specified in Exhibit 2.3:

Exhibit 2.3

Criteria for recognition of an element

- It must be probable that future economic benefits associated with the element will flow to or from the entity and
- the item has a cost or value that can be measured reliably.

Source: SAICA (2010a:18 par 4.38)

Recognition is the process of including an item in the statement of financial position and/or the statement of profit or loss and comprehensive income, that meets the definition of an element and satisfies the criteria for recognition (SAICA, 2010a:18 par 4.37). In order for any element to be included in the financial statements as mentioned, it must meet both the recognition criteria in Exhibit 2.3.

Recognition involves depicting the item in words and as an amount (SAICA, 2010a:18 par 4.37). It is often necessary to estimate the cost or value of the element, and the use of reasonable estimates is acceptable and does not undermine reliability (SAICA, 2010a:18 par 4.41). According to Deegan (2010:243), issues of recognition are tied to issues of measurement. Once an element is recognised for inclusion in financial statements, it must be measured. Deegan (2010) maintains that the Conceptual Framework provides limited prescription in relation to measurement. Sterling (1985, in Deegan, 2010) argues that it is illogical to consider how and when to recognise an element if the measurement issues have not first been addressed.

2.4.5 Measurement of an element

The Conceptual Framework describes measurement as the process of determining the monetary amounts at which the elements are to be recognised and carried in the financial statements. This involves the selection of a particular measurement basis (SAICA, 2010a:20 par 4.54) as indicated in Exhibit 2.4:

Exhibit 2.4

Measurement of an element

Measurement involves a selection of a particular measurement basis from the following:

- **Historical cost**

Assets are recorded at the amount of cash or cash equivalents paid or the fair value of the consideration given to acquire the assets at the time of their acquisition. Liabilities are recorded at the amount of proceeds received in exchange for the obligation or at the amount of cash or cash equivalents expected to be paid to settle the liability in the normal course of business.

- **Current cost/(value)**

Assets are carried at the amount of cash or cash equivalents that would have to be paid if the same or equivalent asset was acquired currently. Liabilities are carried at the undiscounted amount of cash or cash equivalents that would be required to settle the obligation currently.

- **Realisable/(settlement) value**

Assets are carried at the amount of cash or cash equivalents that could currently be obtained by

selling the asset in an arm length's transaction (normal course of business). Liabilities are carried at their settlement values or undiscounted cash or cash equivalent amounts expected to be paid in the normal course of business to settle the liability.

- **Present value**

Assets are carried at the present discounted value of the future net cash inflows that the item is expected to generate in the normal course of business. Liabilities are carried at the present discounted value of the future net cash outflows that are required to settle the liabilities in the normal course of business.

Source: SAICA (2010a:20–21 par 4.54–4.56)

According to Barth (2008:1166), few financial statement amounts are based purely on historical cost. Often assets and liabilities are initially measured at cost, but subsequently these elements are impaired, revalued, depreciated or amortised and then no longer represent historical cost. Many financial statement amounts are currently stated at an estimate of some form of current value (Barth, 2008:1165; Scott, 2012:4). Scott (2012:26) states that present-day accounting can be described as a mixed measurement model. The current values of assets and liabilities are potentially of greater interest to investors than their historical cost, since current values provide the best available indication of future performance and returns on investments made. According to Deegan (2010:210), there is an increasing propensity to adopt fair value (a type of current value) as the basis for measurement of assets and liabilities and to move away from historical cost. To understand how measurement in accounting has moved from historical cost to current values, one has to consider the evolution of different measurement theories in accounting.

Measurement theories are normative and depart fairly significantly from historical cost (Hendriksen & Van Breda, 1992:488). Historical cost assumes the fixed purchase power of money despite changing prices (Scott, 2012:4). Over time, criticism has been levelled at the perceived usefulness of historical cost as a measurement base of accounting, especially in times of rising prices (Deegan, 2010:165; Henderson et al., 1992; Hendriksen & Van Breda, 1992; Kam, 1990; Riahi-Belkaoui, 2004). These criticisms led to the development of different value measurement theories. According to Hendriksen and Van Breda (1992:487), value measurement has always been a battle between historians and futurists. Historians favour historical cost because of its ability to account for the cost at which an asset was acquired and a liability encountered. Futurists tend to favour current values

because of their ability to portray existing values of assets and liabilities. Furthermore, historians deem income measurement (reflected in the statement of profit or loss and comprehensive income) to be central to accounting, whilst futurists make the statement of financial position the central focus of accounting.

One of the alternatives to historical cost measurement theories was the current cost accounting (CCA) model designed by Paton in 1922 (Deegan, 2010:183). The model was improved by Edwards and Bell in 1961, and rejects historical cost (Deegan, 2010:183). It introduces a method that considers actual values where assets are adjusted to reflect their respective replacement costs. Another theory was the current purchasing power accounting (CPPA) model, developed by Sweeney in 1964 (Deegan, 2010:171). This model constituted the restatement of historical cost with price indices to account for changing prices. However, criticism of the difficulty of determining replacement cost prompted the development of the continuously contemporary accounting (CoCoA) model of Chambers (1955 in Deegan, 2010) and Sterling and Mac Neal (1970 in Deegan, 2010). One of the objectives of this model, according to Deegan (2010:203), is to provide financial information based on the measurement of assets at their exit or selling prices. This is often referred to as exit price theory.

The exit or selling price is the net realisable value of a non-monetary asset on the basis of an orderly liquidation or arm's length transaction, which Chambers (1955, in Hendriksen & Van Breda, 1992:499) terms the "current cash equivalent". Selling prices are used not because one expects assets to be sold, but because the preferred method is to determine the money (cash) equivalent of assets. This is an opportunity cost concept and refers to the selling price of an asset and not its replacement cost (Kam, 1990:467–477). According to Scott (2012:4), the two main current value alternatives to historical cost for assets and liabilities are value-in-use and fair value, also termed exit price value or opportunity cost. Value-in-use can be measured by the discounted present value of expected cash received or paid based on the usage of the asset or liability (Scott 2012:240–241). Scott (2012:241) defines fair value as "the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date". This definition is similar to the IAS 39 fair value definition, namely "the amount for which an asset could be exchanged, or a liability settled, between knowledgeable,

willing parties in an arm's length transaction" (SAICA, 2010d:A981 par 9). Ideally, fair value is based on the selling price of an asset in properly functioning market conditions (Scott, 2012:241). However, properly functioning market prices do not always exist – hence the development of a fair value hierarchy (Scott, 2012:241). This hierarchy can be used to measure assets and liabilities at current values using the following three levels in the hierarchy:

- Level 1: assets and liabilities for which a well-working market does exist – use market values;
- Level 2: assets and liabilities for which a market price can be inferred from the market prices of similar items – use inferred values; and
- Level 3: assets and liabilities for which a market value cannot be observed or inferred – use the best available information about how a market participant holding the asset or liability would value the item.

This model is criticised because of the fact that selling or exit prices do not exist for all assets and that the value-in-use of those assets not intended for sale or that cannot be sold separately is often cumbersome to measure. However, when considering the net wealth of households through the measurement of assets and liabilities, one can assume that households would be more interested in the current values of assets and liabilities than the original historical cost paid. The continuously contemporary accounting (CoCoA) model, based on exit prices or fair value, was therefore deemed the most appropriate model for this study.

According to Deegan (2010:210), the adoption of fair value by many standard-setting bodies worldwide takes into account the effects of changing prices as suggested by these earlier theories. However, Deegan (2010:217) also mentions that accounting bodies have been reluctant to prescribe a particular valuation measurement or approach. Barth (2008:1165) contends that the different standard-setting bodies consider fair value as meeting the objective of financial reporting as well as the qualitative characteristics of the Conceptual Framework. Furthermore, many recent accounting standards now require assets to be valued on the basis of fair values and liabilities on the basis of present values to increase usefulness (Deegan, 2010:226).

2.4.6 Summary

In section 2.4, the Conceptual Framework was considered as an applicable theory on which to base the preparation of a household statement of financial position. The current status of the Conceptual Framework and its stance in the international accounting arena were explored in section 2.4.1, and the objectives of the Conceptual Framework were mentioned in section 2.4.2. The applicability of the framework to assist with the preparation of a household statement of financial position was considered, after which the elements used in preparing the statement were defined in section 2.4.3, and their recognition criteria explained in section 2.4.4. In section 2.4.5, the measurement of the elements was explored and reference was made to the development of the various normative accounting value measurement theories that have evolved over time. In closing, it is clear that the Conceptual Framework does not prescribe a specific measurement base but allows for a mixed measurement base to be applied in financial statements.

2.5 CONCLUSION

Section 2.1 introduced the topic of discussion in this chapter, namely a literature review of accounting theory, which underlies the main objective of the study, which was the preparation of a statement of financial position for the household sector based on micro-level data.

Section 2.2 dealt with the Three Worlds framework that was incorporated into this study to illustrate the levels of theory reflection necessary to conduct an accounting study. The different world views were elaborated on and included a detailed review of different identified equity theories in section 2.3 that could potentially impact the study. The effect of these theories on the study was described and led to the identification of a main normative theory, namely the Conceptual Framework, which underpins the study (section 2.4). The use of the Conceptual Framework as the main normative theory to assist with the classification, recognition and measurement of the elements that constitute household net wealth was discussed and illustrated. The Conceptual Framework promotes the correct classification, recognition and measurement of household assets and liabilities as well as the presentation of a disaggregated statement of financial position compared to the household balance sheet currently prepared by the South African Reserve Bank.

In Chapter 3, the household as a unit of analysis is considered. The chapter also provides a literature review of applicable macro-economic theories that affect the asset and liability accumulation of households and household financial behaviour. In conclusion, the chapter provides a literature review of the preparation and presentation of the current household balance sheet prepared by the South African Reserve Bank according to the System of National Accounts (United Nations et al., 2009). The classification and measurement applied by the South African Reserve Bank in the determination of the different categories of assets and liabilities for the household sector is also discussed. The South African Reserve Bank is still (at the time of the literature review in 2011) the only entity in South Africa that prepares household balance sheet estimates to report on the economic activity of South African households. The South African Reserve Bank's presentation and measurement of the net wealth estimates of households are discussed and illustrated and the applicability of these estimates as parameters for the current study determined.

CHAPTER 3

ECONOMIC PERSPECTIVE OF HOUSEHOLD NET WEALTH

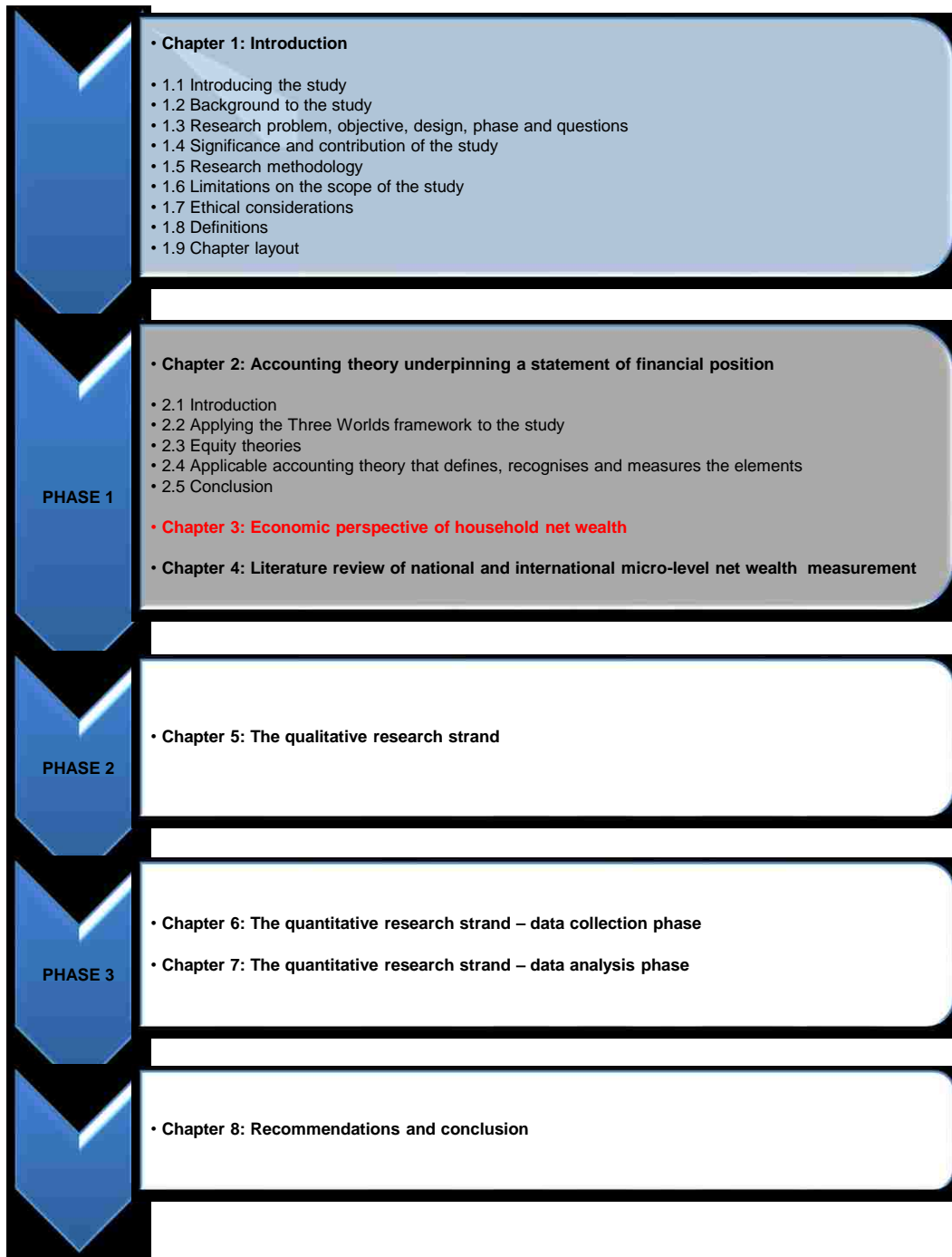
“In a country well governed, poverty is something to be ashamed of. In a country badly governed, wealth is something to be ashamed of.” – Confucius (Brainyquote.com, 2013.)

3.1 INTRODUCTION

The main objective of the study (section 1.3.1) was to disaggregate and measure the asset and liability base of South African households in metropolitan and non-metropolitan areas using micro-level data and to present the data in a statement of financial position for the two residential areas of the country. A secondary objective was to draw inferences from the data collected in order to establish whether age group, income group, education level, labour status and area of residence (metropolitan/non-metropolitan) and/or their interactions affected the asset and liability accumulation of South African households.

In Chapter 2 it was established that accounting was the overarching paradigm for the study. The Three Worlds framework was used to ensure that both the meta-scientific world and the scientific world of the study were included and examined. A literature review of the equity theories in accounting was presented and the proprietary theory was identified as being appropriate to view accounting for households. The Conceptual Framework (SAICA, 2010a) was identified as the underlying theory to help recognise and measure the elements in a disaggregated statement of financial position prepared for the South African household sector. The content of the preceding chapters and the way this chapter fits in with the rest of the study is indicated in Figure 3.1.

Figure 3.1
Presenting Chapter 3 in the layout of the study



Source: Researcher's own compilation

The central or entity postulate (section 2.2.2.3) views the household as an entity for which financial information is needed. The reason why the household was chosen as the unit of analysis and the definition of a household for purposes of this study were

discussed in section 3.2. Presenting the statements of financial position for the two areas as mentioned from micro-level data required an understanding of both macro-economic theories (section 3.3) that influence the financial decisions that households make to accumulate net wealth as well as the role of the macro-economy in household net wealth decision making (section 3.4). The aim of the study was to disaggregate the asset and liability categories presented in the household balance sheet. This household balance sheet is prepared by the South African Reserve Bank from net wealth estimates, and according to the prescriptions of the System of National Accounts (SNA). A basic understanding of the System of National Accounts was therefore necessary and is discussed in section 3.5. In order to compare the asset and liability classes in the household balance sheet with the disaggregated asset and liability classes proposed in this study, the composition of the assets and liabilities in the household balance sheet had to be understood. The South African Reserve Bank household balance sheet for the year ended 31 December 2011 is presented in section 3.6 and analysed in terms of its main assets and liability classes. It was thus possible to use the South African Reserve Bank household balance sheet to verify the parameters for the results obtained in this study from micro-level data, as set out in section 7.4.

3.2 THE HOUSEHOLD AS THE UNIT OF ANALYSIS

The unit of analysis in any study is of importance, not only to determine the object to be studied, but also to limit the boundaries of this object to ensure successful completion. In section 3.2.1, the household as a unit of analysis is discussed, and in section 3.2.2, various definitions for the household are reviewed and their applicability to this study evaluated.

3.2.1 Identifying the unit of analysis

According to researchers in global net wealth estimate studies (Davies, Sandstrom, Shorrocks & Wolff, 2009a:17, 18 & 43) the unit of analysis in net wealth measurement studies differs across countries. These authors studied 20 countries with reliable net wealth estimates. They reported that in New Zealand, the term “economic unit” is used to define the unit of analysis. “Economic unit” is defined as a couple or an unpartnered adult (Davies, Sandstrom, Shorrocks & Wolff, 2009b:17). Canada, Denmark, Switzerland and the United States of America use “family” as unit

of analysis, where “family” includes a group of people living together who are related by blood or marriage (Bricker et al., 2011; Davies et al., 2009b:18). In China, France and the United Kingdom, net wealth is measured at individual level (Daffin, 2009; Li & Zhao, 2007; Sierminska et al., 2006). Countries that use “household” as the unit of analysis are Australia, Finland, Germany, India, Indonesia, Ireland, Italy, Japan, South Korea, Norway, Spain, Sweden and South Africa (for example the household as the unit of analysis is used by the South African Reserve Bank and Statistics SA).

Davies et al. (2009b:18) note that “household” is a broader term than “family” and denotes a group of people sharing a common dwelling. Although Davies et al. (2009b) do not mention the effect that the unit of analysis has on net wealth measurement, Guiso, Haliassos and Jappellini (2002:6-7) argue that the “features and problems of each survey” (such as the definition of the unit of analysis across surveys) should be kept in mind, specifically in cross-country comparisons.

The household, as the unit of analysis in studies, has generated a body of knowledge over time (Akresh & Edmonds, 2010; Beaman & Dillon, 2011; Randall, Coast & Leone, 2011) that is guided by an active debate on issues such as the meaning of the term “household” (Davies et al., 2009b; Iceland, 2000), defining households for data collection purposes (Randall et al., 2011) and the implications of various definitions for survey results (Beaman & Dillon, 2011; Iceland, 2000).

Academic debates on the various ways of defining a household are mostly based on the specific aspect of the household that is observed or studied. These debates, however, fall outside the scope of this study because the “household” was chosen as the unit of analysis at the start of the study. The main reason for this choice was based on the financial constraints associated with net wealth measurement at individual level as well as the necessity of having established net wealth parameters that could be used to benchmark the results of this study. The South African Reserve Bank also uses the term “household” as the unit of analysis in its net wealth estimates. Similarly, studies on income and expenditure (SSA, 2000; Tustin, 2010) and advertising (SAARF, 2010a) in South Africa also use the term “household” as the unit of analysis. Using the same unit of analysis allows for comparison should a future need arise.

3.2.2 Defining the household

The research commenced with a study of the following two general household definitions in order to identify key considerations when defining a household for the purposes of the study:

- According to the *Dictionary of economics* (Bannock, Baxter & Davis, 2003) the household is

[a]n economic unit defined for the purpose of a census of population as a single person living alone or a family or group voluntarily living together, having meals together and benefiting from housekeeping shared in common. Shared use is a household characteristic.

- In *The economic organisation of the household* (Bryant & Zick, 2006:3) the “household” is defined as

a small group of people who use their collective resources to pursue the same goals. A household therefore can be an individual, a family (by which we mean a group of individuals living together and related by marriage, birth or adoption), or a small group of families or unrelated individuals (so long as they jointly use their resources to pursue the same goals).

From the two definitions, the key factors one needs to consider in a definition of household are “economic unit”, “shared use” and “collective resources to pursue the same goals”. For the purposes of this study, the household was viewed as an economic unit. Shared use and mutual financial goals are key considerations when determining the household members to be included. To refine the general definitions, the following three definitions of “household” used in existing South African studies were also considered:

- The first was that of the 2010 South African Advertising Research Foundation’s All Media and Products Survey. The purpose of this survey is to identify service and product prospects that media use to best reach target markets (SAARF, 2010a:18):

A household consists either of one person living alone or a group of persons, usually but not always members of one family, who live together and whose expenditure on food and other household items is jointly managed. Boarders and lodgers may be included as members of a household, provided that they have at least one main meal

communally. Resident domestic workers are, however, excluded and are regarded as forming a household of one or more persons in their own right.

Although this definition includes the concept of shared use of food and expenditure, only “eating from the same pot” is considered to determine shared use. The fact that the household must form an economic unit with shared financial goals is ignored.

- The second definition is that of Statistics South Africa (SSA, 2007a), which is used for census purposes. According to this definition, a household is

a person, or a group of persons, who occupy a common dwelling (or part of it) for at least 4 days a week and who provide themselves jointly with food and other essentials for living, i.e. they live together as a unit.

Although the household is seen as a unit, only eating from the same pot for a minimum of four days determines inclusion as members of the household. The definition does not consider shared financial goals and does not address the living and working conditions of many South Africans. These household members often work away from home but still support the family left behind. For the purposes of the study, this definition therefore assumed the existence of two separate households, which was unacceptable since these two households would have had shared financial goals.

- The final definition that was considered was that of the System of National Accounts 2008 (United Nations et al., 2009:82,462), which represents the framework used in presenting economic sector accounting.

A household is defined as a group of persons who share the same living accommodation, who pool some, or all, of their income and wealth and who consume certain types of goods and services collectively, mainly housing and food.

According to the System of National Accounts 2008, households consist of one individual or a group of individuals, but all persons in an economy can only belong to one household (United Nations et al., 2009:17). An unincorporated entity owned by a household is treated as an integral part of that household and not as a separate institutional unit (United Nations et al., 2009:65). Household members generally have some claim on the collective resources of the household, and households may be of any size and may assume a wide

variety of forms in different societies or cultures. Furthermore, the residence of an individual person is determined by that of the household of which he/she forms part of and not by his/her place of work (United Nations et al., 2009:83).

Although this definition makes use of the shared use principle as well as the economic unit principle it was still not deemed to be completely acceptable for this study because it does not address the issue of the living and working conditions of many South Africans and does not provide for the inclusion of a household member who lives and works in different locations.

To address all the identified concerns, the researcher decided that the definition of “household” had to form one of the discussion points to be presented to a group of experts in household finances to help the researcher correctly define the term “household” for this study. To facilitate the discussion with the experts, it was decided to use the System of National Accounts’ definition (United Nations et al., 2009:82,462) as the point of departure. The outcome of the deliberations among the focus group members is discussed in Chapter 5 and a final definition of the term “household” for the purposes of this study formulated in section 5.5.2.4.

3.2.3 Summary

The decision to use the household as the unit of analysis was explained in section 3.2.1, and various household definitions were considered in section 3.3.2. The shortcomings of the definitions under discussion led to the need to use the opinions of an expert focus group to ultimately formulate a definition of “household”. This is discussed in detail in Chapter 5. In the following section, macro-economic theories affecting the consumption and saving patterns of households are discussed.

3.3 MACRO-ECONOMIC THEORIES AFFECTING HOUSEHOLD ECONOMIC BEHAVIOUR AND DECISION MAKING

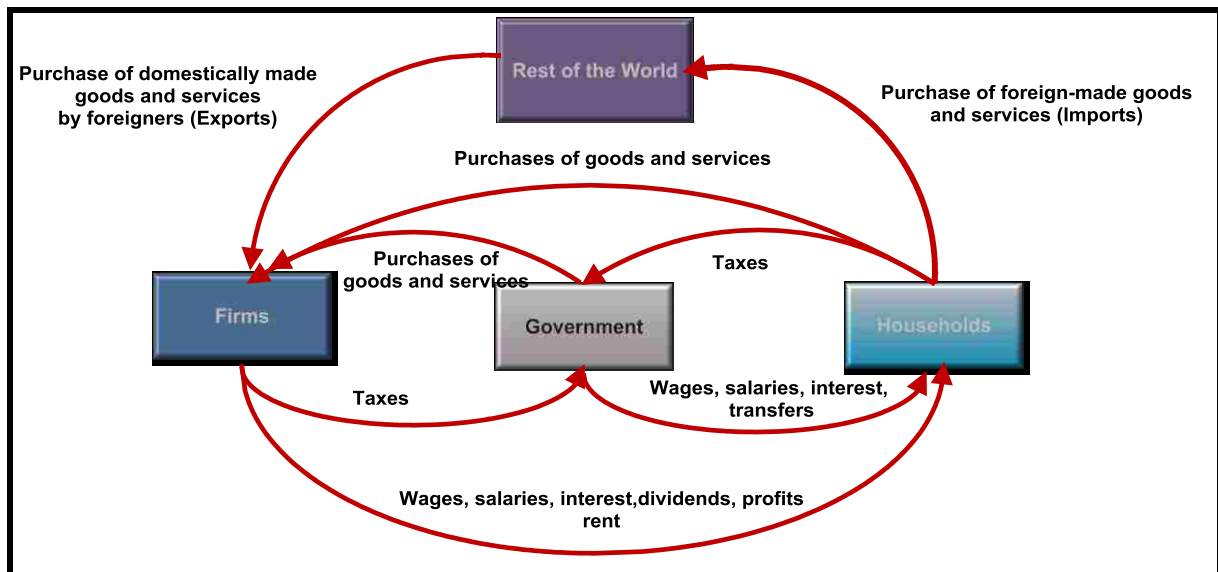
In order to understand asset and liability accumulation by households, one needs to appreciate the role that households play in a country’s economy (section 3.3.1) as well as household economic behaviour theories that influence and can explain asset and liability accumulation by households (section 3.3.2). In this section, these theories are studied to gain an understanding of household choice and decision

making in the accumulation of assets and liabilities. This is necessary when inferences are drawn about the demographic variables and/or their interaction effects on the accumulation of household assets and liabilities. The variables were identified from macro-economic theories and international research and are analysed in Chapter 7.

3.3.1 The household as an institutional unit of the economy

A country's economy is made up of institutional units or sectors (United Nations et al., 2009:2). According to Case, Fair and Oster (2009:139), there are two fundamental decision-making units in the economy, namely households and legal entities/firms. Households consist of all resident households in a country (United Nations et al., 2009:83), whereas firms/entities are production entities, entities created by political processes such as governments and financial institutions (Case et al., 2009:139). The defining characteristics of an institutional unit are that it owns goods and assets, incurs liabilities and engages in transactions with other units in its own right (United Nations et al., 2009:2). Case et al. (2009:437) utilise a circular flow diagram, which illustrates the interactions of the four main institutional units of an economy. It also illustrates the flow of income received and payments made, and is depicted in Figure 3.2.

Figure 3.2
Economic interaction between institutional units



Source: Case et al. (2009:437)

A country's economy is based on supply and demand (Case et al., 2009:139). Producers are the suppliers of outputs (goods and services) and can be households and legal entities that transform resources into usable outputs (products) (Case et al., 2009:73). Consumers demand outputs (good and services) from producers, who in turn need inputs (capital and labour) in their production processes, which they obtain from consumers/households. The process results in a circular flow of funds between institutional units in the economy operating in output or product markets as well as input or factor markets (Stretton, 2000). Households are the primary consuming units in an economy (Case et al., 2009:102). To enable consumers to obtain what they want, desire or need, they "sell" to firms (the primary producing unit in an economy) and to government the use of their capital and/or labour in factor markets and buy what they need, desire or want in the final goods market. Consumers determine the amount to be spent on goods and/or consumables and consumer choice determines production. According to Stretton (2000:302), this is referred to as the theory of consumption and production and it is equally applicable to households, government and firms or legal entities.

Furthermore, households can also use income net of consumption to expand their asset base (section 1.2). Their accumulated net wealth in the form of assets and investments enables households to receive rent, interest and/or dividends as well as

the capital appreciation of their assets, which result in the growth of their net wealth. Not all household income, however, is available for consumption. Taxes are payable on income earned and flow back to government.

The discussion points to the undeniably vital role of households in an economy. The consumer or investor decisions that households make are based on well-researched macro-economic theories, which are discussed in the following section. These theories will promote an understanding of why households acquire certain assets and liabilities over their lifespan.

3.3.2 Applicable macro-economic theories influencing households' economic behaviour

The British economist, Lord Lionel Robbins, defined economics as a science that studies human behaviour as a relationship between ends and scarce means (Van Tonder et al., 2011:8). According to these authors, Nobel Prize winner Paul Samuelson introduced efficiency and the making of choices as significant determinants of economic behaviour (Van Tonder et al., 2011:8). Economic theories attempt to generalise and explain what is observed (Case et al., 2009:48) and macro-economic theories are useful in understanding the financial decisions and behaviour of households concerning consumption, income and net wealth accumulation.

Stretton (2000:293) posits that households in modern societies are rarely independent, self-reliant producers of all their needs and wants and require the goods and services provided by public and private entities. Figure 1.1 depicted the relationship between past decisions about asset and liability accumulation, its impact on present income and consumption patterns and the corresponding effect on future asset and liability accumulation. Past net wealth accumulation and present income levels enable households to provide themselves with the goods and services they need or want. However, the decisions households make about consumption, saving and investment are subject to what happened in the past and what is expected in the future (Bryant & Zick, 2006:85).

Individuals and households acquire their existing net wealth through earned income, income transfers, individual business success, savings, inheritances, gifts, marriage,

credit facilities, capital appreciation of property, speculating with foreign exchange rates and commodity prices, gambling and even crime and corruption (Stretton, 2000:592–593; Van Tonder et al., 2011:11). Commitments made in the past have to be honoured in the present and future as illustrated in Figure 1.1 (the household's past saving, investment and consumption behaviour affect current income and enable households to save or invest for their future). Current income levels and consumption behaviour allow households to save for future periods (when income exceeds consumption) or forces households to dissave (when consumption exceeds income). Dissaving involves the transfer of future resources to the present in order to cover current consumption, and often involves borrowing (Case et al., 2009:88). The financial behaviour decisions of households can be based on Engel's Law, Keynesian theories and others which are elaborated on in this section.

One of the basic assumptions in economic theory about personal income and consumption is Engel's Law formulated in 1857 (Bannock et al., 2003). According to this law, the proportion of income spent on food diminishes as income increases, given certain tastes and preferences (Bannock et al., 2003:119). This enables households to afford assets and introduces the concept of net wealth accumulation. Subsequent theories on income and consumption were developed on the basis of this assumption.

One of the most influential theories underlying personal or household income and consumption originated from the famous article by Keynes, "General theory of employment, interest and money" published in 1936 (Miller, 1996). According to Miller (1996:2), Keynes introduced the absolute income and consumption function, which states that "men are disposed as a rule and on average to increase their consumption as their income increases but not by as much as the increase in their income". This theory differs from previous theories that had either not linked income to consumption or the classical economic theory that a rise in income would lead to an equal rise in consumption (Miller, 1996:2). According to Miller (1996), the absolute income and consumption function introduced the concept of saving by stating that the amount of income in excess of consumption can be saved.

Another two significant theories that built on the work of Keynes (1936, in Bryant & Zick, 2006) are the permanent income hypothesis developed by Milton Friedman in

1957, and the life-cycle hypothesis developed by Franco Modigliani and Albert Ando in 1963 (Bryant & Zick, 2006:104). In the permanent income hypothesis, Friedman argues that the consumption of households depends not so much on the household's current income, but rather on expected permanent income levels (Schenk, 2002). According to this hypothesis, households attempt to maintain a fairly constant standard of living even though their income may vary over time. Any increases or decreases in income when viewed as temporary have little effect on consumption. Only when such increases and decreases are deemed permanent will consumption change (Schenk, 2002). This implies that when a household's actual income decreases below its permanent level, the household will borrow or use past savings to sustain consumption levels. When actual income increases above the permanent income level, the household will rather save than consume more (Fourie & Burger, 2011:48).

According to the life-cycle hypothesis, households plan their consumption expenditure in terms of an expected pattern of income earned over their life (Bryant & Zick, 2006). Young people with low earnings will borrow to support higher levels of consumption in the expectation of higher earnings later in their careers (when they will be able to repay the debts previously incurred). They will also have to save for retirement (when consumption is often higher than income) in these later periods of higher income earned (Fourie & Burger, 2011:49). According to Dasgupta (2007:107), there is a human desire to smooth consumption. The consumption-smoothing phenomenon implies that consumption is likely to be relatively stable over the life cycle and will vary less than the variation in income (Fourie & Burger, 2011:49). Mortgages, savings and retirement provision enable households to transfer expenditure across time. Life cycle is therefore associated with the age of individuals or household members.

The life-cycle and permanent income hypotheses explain why households engage in borrowing and lending activities to even out income and consumption streams over expected life cycles. Households allocate their resources, namely income, savings and investments as well as available finance and credit among goods and services to maximise their utility. Budget constraints, however, are introduced by existing net wealth, income and prices, and these compel households to make choices that are influenced by their personal preference and satisfaction (Case et al., 2009:159).

Other factors that also influence consumption patterns are household size and changes in the household composition. Household size affects household demands, whereas a change in the household composition (the household members) alters the household's preference for goods and services (Bryant & Zick, 2006:76-77). A detailed discussion of these factors, however, is beyond the scope of this study.

In closing, recent studies have indicated that the education level of household members and their labour status are factors that directly influence income patterns (and indirectly saving and consumption patterns) of households (Bollen et al., 2007; Carasso & McKerman, 2007; Daffin, 2009). According to Bollen et al. (2007:17), researchers often treat education, labour status and income as distinct components of stratification or prediction with a distinct impact. Furthermore, education and/or labour status sometimes serve as proxies for income (Bollen et al., 2007:18). Education and labour status are causal indicators of income (Bollen et al., 2007:18–21) because, according to these researchers, Friedman's conceptualisation includes labour status and education as influence variables of income instead of vice versa. According to Carasso and McKerman (2007:7), education is a predictor of potential lifetime income and is associated with higher income in the long run. The authors also maintain that classifying households according to education status is one of the best proxies for long-term economic status (Carasso & McKerman, 2007:8).

Being employed or the labour status of individuals in the household, like education, has a direct effect on income (De Clercq et al., 2012:39). Employment is a significant classifier or predictor because it is closely associated with income generation (Swart, 2002). Bollen et al. (2007:23) contend that higher income is generally associated with better labour status. Furthermore, according to Bollen et al. (2007:18), researchers such as Houthakker (1957) and Mayer (1963) treated labour status as a proxy for income, and Hauser and Warren (1997 in Bollen et al., 2007) argued that labour status is a proxy for income because of its stability over time. The ability of labour status and education to influence income, which in turn affects household asset and liability accumulation, necessitates their mention in this section although they are not economic theories as such. In Chapter 7, the analysis of the data, inferences about age group, income group, education group, area (Nissan & Carter, 2005) and labour status and/or their interaction effects on asset and liability accumulation are discussed.

3.3.3 Summary

This section introduced the household as one of the four institutional units/sectors of an economy and explained the importance of households as consumers in the economic cycle. The section also reviewed the principal economic theories and hypotheses on household consumption and saving patterns and therefore fostered a better understanding of household economic behaviour. These theories predict whether the average household will increase or decrease its purchases/activities in response to changes in prices, incomes or preferences, taking cognisance of changes in the technical, legal or socio-cultural constraints facing households. Because these theories help to explain the income earning, consumption and saving patterns of households, they also clarify net wealth accumulation.

3.4 MACRO-ECONOMIC FACTORS AFFECTING HOUSEHOLD ECONOMIC BEHAVIOUR AND DECISION MAKING

Understanding the macro-economic influences on household financial behaviour is as important as understanding macro-economic theories and their influences, as discussed in section 3.3. Section 3.4.1 explains the macro-economic influences on household, income, consumption and saving behaviour and sections 3.4.1.1 to 3.4.1.5 the way each of these macro-economic influences affects households. This discussion highlights all the factors that influence the asset and liability accumulation of households and will promote an understanding of household net wealth decision making, especially when reporting on the analysis of the detailed asset and liability accumulation by households in the two residential areas in Chapter 7.

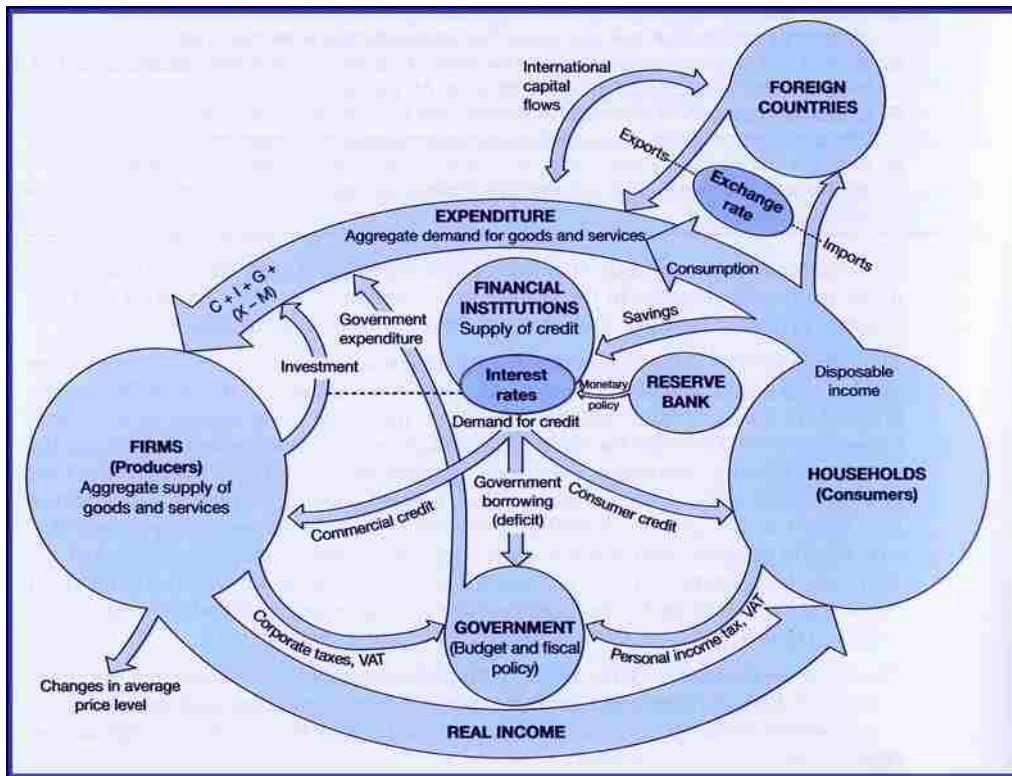
3.4.1 Macro-economic influences affecting households

Macro-economics is associated with an understanding of the behaviour of the economy as a whole and its influence on the individuals and institutions that make up the country's economy (Fourie & Burger, 2011:1). It is concerned with the consumption of all institutional units (including households) in the economy, the total amount of labour supplied and demanded by individuals and firms in the economy and the total number of all goods and services produced (Case et al., 2009:445).

Figure 3.2 indicated the basic economic interactions between sectors of the economy. In Figure 3.3, the concepts are elaborated on and more detail provided of

the interrelatedness of the different economic sectors and flows between sectors. The figure gives a bird eye's view of the working of a country's economy.

Figure 3.3
Macro-economic influences



Source: Fourie and Burger (2011:222)

Figure 3.3, which focuses on the income and expenditure flow between firms and households, shows that the volume of real income flowing in the bottom half (input market) depends on the volume of expenditure or consumption in the top half (output market). If demand increases, it is likely that production will also increase and result in an adjusted level of sales (and real income) of firms. This increase in the real income of firms may result in increases in income flowing to households through increased employment. According to Fourie and Burger (2011:67), Figure 3.3 indicates the different components of expenditure, namely consumption (C), investment (I), government expenditure (G) and net exports (X-M). A decrease in expenditure will lead to increases in inventory levels, followed by a decline in production, which could influence household income and employment negatively. The inverse also applies. A chain reaction is evident from the description, and one can conclude that changes in an economy's expenditure cause adjustments in

production and real income and thus affect households. Saving, imports and taxes are shown as leakages from the flow of expenditure to firms, whereas government expenditure, export earnings and firm investment are seen as injections into the flow of expenditure. An increase or decrease in any of these will either boost or diminish the stream of aggregate expenditure and thus affect the real income of households. Figure 3.3 also shows the effect of financial institutions as suppliers of credit on the expenditure of government, firms and households as well as the effect of price-level changes. Price-level changes are leakages in the sense that an increase in the price level implies a dilution of real income from firms flowing to households. The larger the price increases, the less real income will flow to households (Fourie & Burger, 2011).

The macro-economic influences that affect households, from the working of the economy depicted in Figure 3.3, can be regarded as the up- and down-swings of the economy and economic growth, employment, inflation, interest rates and exchange rates, development and distribution and equity objectives of government (Fourie & Burger, 2011:9–11). These influences determine macro-economic policy, which government uses to improve the lives of a country's citizens (Fourie & Burger, 2011:9). The standard objectives of macro-economic policy are to promote economic growth, increased employment and the stability of output and input levels in order to ensure a stable and low inflation, distributional and equity objectives, economic development and poverty reduction (Fourie & Burger, 2011:11). In the following sections, the effect of each of these influences on households is briefly described.

3.4.1.1 Economic growth and employment effect

A country's economic growth is defined as a sustained increase in the trend level of aggregate production (either in gross domestic product (GDP) or per capita gross domestic product) (Case et al., 2009:449). According to Dasgupta (2007:15), gross domestic product measures the value of the country's output, and he (2007:15) defines it as the value of all the goods that are produced by the citizens of a country in a year. As a rule, increases in gross domestic product are specifically beneficial to households when these increases are associated with an increase in employment opportunities, allowing more households a source of income. Fourie and Burger (2011:12) regard the pursuit of high economic growth as the most obvious objective

to pursue owing to the belief that economic growth leads to improved living standards. The simplest measure of aggregate economic growth is the annual growth rate of real gross domestic product, which is the percentage increase in real gross domestic product from one year to the next (Fourie & Burger, 2011:12). The pursuit of economic growth, however, involves costs such as the depletion of natural resources, increased waste and pollution, which are constraints to growth. Furthermore, according to Fourie and Burger (2011:15), growth in gross domestic product does not necessarily lead to a corresponding long-run increase in employment. Often, growth results in decreasing employment because of the substitution of capital or machinery for labour, which affects households negatively. In developing countries such as South Africa, where poverty is a major concern, employment remains an economic priority to households as a steady flow of income is needed not only to survive but also to increase net wealth through increased employment opportunities.

3.4.1.2 *The effect of inflation*

Inflation is defined as a sustained increase in the average price level of goods and services (Case et al., 2009; Fourie & Burger, 2011). Adjustments to wages and salaries enable consumers and households to keep abreast of inflation, but often result in increased taxation because of the effect of bracket creep (Fourie & Burger, 2011:17). Inflation is particularly harmful to households with a slow-growing income source and who rely on interest income. However, households with debts can benefit from inflation because the value of the debt diminishes on account of a decreasing repayment value. If the inflation rate remains persistently high in a country, it impairs exports to other countries and encourages imports, which put the equilibrium of the country's balance of payments at risk (Fourie & Burger, 2011:16). The control of inflation is therefore a crucial macro-economic objective to ensure that households experience overall economic and financial well-being (Fourie & Burger, 2011:16).

3.4.1.3 *Distribution and equity objectives*

The study of the distribution of income and wealth between the citizens in an economy evaluates the optimality of the processes and interactions of the institutions in that economy (Fourie & Burger, 2011:18). The objective is that all individuals and households should possess a fair or equitable share of national income and net

wealth. In a perfect society, everyone would share net wealth and income evenly. However, this is not the case and even more so in South Africa with its political past where the majority of the population were previously disadvantaged. The Gini coefficient (Fourie & Burger, 2011:18) is one of the measures used to determine the inequality of the distribution of income and net wealth in a country. It indicates the proportion of income or net wealth belonging to the poorest, middle-income and the richest people in a country, and ranges between 0 and 1 (where a value of 1 reflects complete inequality and a value of 0 complete equality) (Fourie & Burger, 2011:18). The income and expenditure survey conducted by South African Statistics in 2005/2006, indicated South Africa's Gini coefficient index as 0.679, whereas the All Media and Products Survey in 2007 indicated a Gini coefficient of 0.66 (Pressly, 2009). This indicates that income distribution in South Africa was highly unequal at that stage. According to Fourie and Burger (2011:19), this disparity has been a government concern requiring redress for many years. Presenting the assets and liabilities of households in a disaggregated statement of financial position, which is one of the aims of this study, will enhance policy making. Distributional changes can be monitored over time to ensure that policy decisions are affecting those households that are supposed to benefit from the decisions.

3.4.1.4 *The effect of development*

Fourie and Burger (2011:21) describe development as the integrated process of expanding the range of choices that citizens (and households) have in order to improve their general standard of living. It entails more than merely increasing gross domestic product and employment. The development of households' potential and abilities can bring about both economic growth and poverty reduction by boosting productivity. However, development often comes with significant cost implications that have to be financed through either an increased tax burden or a budget deficit, which in turn affects households negatively (Fourie & Burger, 2011:24).

3.4.1.5 *The effect of interest rates and exchange rates*

Interest rates determine household consumption and saving behaviour (Bryant & Zick, 2006:121). Interest rate expectations affect savers and borrowers differently, but expectations of prices affect borrowers and savers in the same way. According to the above authors (2006), when the interest rate rises (keeping resources, prices

and utility constant), saving becomes relatively cheaper than current consumption and households tend to save instead of consume. However, if households are in a net borrowing position, borrowing becomes more expensive with a rise in interest rates, which compels households to reduce borrowing. Government uses changes in interest rates to stimulate and/or discourage economic behaviour. Use of the exchange rate, like the use of interest rates as a governmental policy instrument, also harms or benefits people and is used by government to influence the economy. Fourie and Burger (2011:25) refer to interest rates and exchange rates as intermediate macro-economic objectives that are used to ensure positive implications for a country's main macro-economic objectives.

3.4.2 Summary

This section explained in broad terms the macro-economic influences on households' consumption, income and resultant net wealth. These macro-economic influences are often in conflict. The pursuit of one frequently affects another negatively, and a trade-off is the only answer where one objective is pursued to the detriment of another. The result of macro-economic influences on households is indirectly evident in national accounts of governments. This is further explained in section 3.5.

3.5 THE ROLE OF THE SYSTEM OF NATIONAL ACCOUNTS IN PRESENTING THE FINANCIAL POSITION OF HOUSEHOLDS

In Chapters 1 and 2, the main aim of the study was formulated, namely to disaggregate the asset and liability classes currently presented in the household balance sheet prepared by the South African Reserve Bank by using micro-level data to recognise and measure the asset and liability base of the household sector in South Africa. The data is presented as statements of financial position for households residing in metropolitan and non-metropolitan areas. The recognition and measurement criteria of the Conceptual Framework (SAICA, 2010a) was discussed in sections 2.4.4 and 2.4.5 and this will help to recognise and measure the elements, namely assets, liabilities and equity or net wealth, in the respective financial statements.

The purpose of financial statements is to provide information on the financial performance and financial position of entities by summarising and presenting all

transactions recorded in the accounting records of the entity for a specific period (section 2.2.2.3). This is similar to the purpose of national accounts, namely to provide information on the different types of economic activities of a country and present the results as balance sheets for the different sectors of a country's economy (United Nations et al., 2009:4–5).

This section will outline the role of the System of National Accounts (United Nations et al., 2009) in presenting the financial information of the economy to enable the researcher to determine whether the elements in national accounts are defined in the same way as the accounting elements and whether the recognition and measurement principles of the elements are similar to those proposed in Chapter 2. This is necessary to determine whether comparability is at all possible between the household balance sheet prepared by the System of National Accounts and the statement of financial position prepared in this study. Comparison is inevitable because the purpose of the study was to disaggregate the asset and liability classes of the household balance sheet by using micro-level data. Furthermore, the household balance sheet prepared by the South African Reserve Bank from national accounts data is used as a benchmark for the validity of the results obtained in the current research. An understanding of the System of National Accounts is necessary to ensure that comparison is viable. Section 3.5.1 describes the status of the framework underlying the preparation of national accounts. Similarities and differences between the two frameworks are noted in section 3.5.2, and the balance sheet of institutional units prepared by the System of National Accounts is considered in section 3.5.3.

3.5.1 The status of the framework underlying the preparation of national accounts

The System of National Accounts is intended for use by all countries and is the accepted international statistical framework for the preparation of national accounts (United Nations et al., 2009:iii). A further objective of the System of National Accounts is to enhance comparability across nations in the preparation of national accounts (United Nations et al., 2009:15). The System of National Accounts is the standard set of regulations for compiling measures of economic activity (national accounts) in accordance with accounting conventions based on economic principles

(United Nations et al., 2009:1). According to Fourie and Burger (2011:195, 217), the System of National Accounts is the primary data system in macro-economics. It is a complete accounting system for the economy organised in a number of accounts that are linked and are required to balance. It provides information on economic activities in a country for a specific period as well as the asset and liability levels and thus the net wealth of the country's inhabitants at a particular point in time.

In South Africa, the South African Reserve Bank prepares national accounts for the main institutional units of the economy of which the household sector is one, as explained in section 3.3.1. In section 2.4, the Conceptual Framework, the primary accounting theory underpinning the study, was discussed and its role explained in recognising and measuring the assets and liabilities of the household. The System of National Accounts is similar in this regard because it is the underlying framework for the presentation of national accounts and allows the measurement of the assets and liabilities of institutional units of the economy. Balance sheets are compiled for these institutional units and record the values of the assets these sectors own and/or the liabilities they have incurred (United Nations et al., 2009:7). A basic understanding of the concepts underlying the System of National Accounts in presenting institutional balance sheets is therefore imperative and will be discussed in section 3.5.3.

3.5.2 Similarities and differences between the accounting in national accounts and the accounting for entities

The design and structure of the System of National Accounts draw on economic theory and principles as well as business accounting practices (United Nations et al., 2009:10). The System of National Accounts, like accounting for entities, also makes use of the double-entry accounting principle whereby a transaction gives rise to a pair of matching debit and credit entries in the accounts of the institutional unit. However, because two institutional units are involved in preparing national accounts, quadruple-entry accounting is applied to record an entry for the buyer and seller in national accounts, and this is an extension of the double-entry principle (United Nations et al., 2009:10).

In principle, national accounts record actual transactions for institutional units on an accrual as opposed to a cash basis (United Nations et al., 2009:21). The time of recording of the acquisition of assets and liabilities is the moment when the

economic ownership of those goods changes hands, which is conceptually similar to the principles applied for entities (United Nations et al., 2009:55–56).

The main difference between the System of National Accounts and an entity accounting system lies in the fact that the System of National Accounts is designed primarily for the purposes of economic analysis and policy making. Priority is therefore given to applying economic principles when accounting practices for entities conflict with economic principles. Furthermore, national accounts apply basic economic concepts such as production and consumption, which are rooted in economic theory (United Nations et al., 2009:10), whereas accounting for entities applies accounting principles and standards.

Finally, the term “balance sheet” is used in the System of National Accounts to refer to the statement of financial position prepared for entities (section 2.1). Balance sheets may be compiled for institutional units, institutional sectors and the total economy from national accounts data based on the concepts applied in the System of National Accounts (United Nations et al., 2009:257).

3.5.3 The balance sheet of institutional units

A balance sheet is a statement, drawn up at a particular point in time, of the values of assets owned and of the liabilities owed by an institutional unit or group of units (United Nations et al., 2009:257). Assets, liabilities and net wealth are the components (or elements, as referred to in accounting) in balance sheets of the total economy and/or the individual institutional sectors (United Nations et al., 2009:19). Assets and liabilities appear in the balance sheet of the unit that is the economic owner of the asset or the unit liable for payment of the liability (United Nations et al., 2009:257). Balance sheets allow economists to assess the financial status of a sector and also to assess the distribution of net wealth and general liquidity (United Nations et al., 2009:257). Except for terminology differences, the balance sheet of institutional units or sectors is the same as the statement of financial position prepared for entities (section 2.1). In section 3.5.3.1, the elements that constitute national accounts balance sheets are defined according to the System of National Accounts (United Nations et al., 2009). This enabled the researcher to determine whether the elements are defined conceptually differently from the definitions in the

Conceptual Framework (SAICA, 2010a). In section 3.5.3.2, the measurement of the elements of the two frameworks is compared.

3.5.3.1 *The elements of national accounts balance sheets*

In section 2.4.3, the elements in the statement of financial position were described as assets, liabilities and equity, as defined by the Conceptual Framework (SAICA, 2010a). According to the System of National Accounts (United Nations et al., 2009:19), assets, liabilities and net wealth are also the components of the balance sheets of the total economy and institutional sectors.

Assets, as defined in the System of National Accounts (United Nations et al., 2009:39), are stores of value owned by institutional units, and from which economic benefits are derived in holding or using them over a period of time. This definition is similar to that in the Conceptual Framework (SAICA, 2010a), where an asset is regarded a resource, controlled by the entity and from which future economic benefits are expected to flow (Exhibit 2.2).

The System of National Accounts defines liabilities as established obligations. Liabilities are established when one unit (the debtor) is obliged, under specific circumstances, to provide a payment or a series of payments to another unit (the creditor) (United Nations et al., 2009:39). The Conceptual Framework (SAICA, 2010a) defines liabilities as present obligations, which is conceptually the same as the above definition (Exhibit 2.2).

Finally, net wealth is defined as the value of all the assets owned by an institutional unit or sector, less the value of all its outstanding liabilities (United Nations et al., 2009:49,257), which is similar to the definition of equity in the Conceptual Framework (SAICA, 2010a) (Exhibit 2.2). Since no conceptual differences exist between the definitions of the elements according to the Conceptual Framework and the System of National Accounts, the measurement of the elements between the two frameworks should also be considered.

3.5.3.2 *Measurement of the elements in national accounts balance sheets*

Market prices are the basic valuation or measurement instrument in the System of National Accounts (United Nations et al., 2009:22). Market prices for transactions are

defined as amounts of money that independent, willing buyers pay to acquire something from independent, willing sellers based only on commercial considerations (referred to as “at arm’s length”) (United Nations et al., 2009:50). Market prices are similar to fair value in accounting, which was defined as the amount for which an asset can be exchanged or a liability settled, between knowledgeable, willing parties in an arm’s length transaction (SAICA, 2010d) (section 2.4.5).

The System of National Accounts applies the concept of opportunity cost, as defined in economics, to value produced assets. The cost of using an asset in the production process is measured by the benefits that could have been secured by using the asset in alternative ways (United Nations et al., 2009:10). Conceptually opportunity cost accounting is similar to value-in-use whereby assets and goods used in production are valued at their actual or estimated current market values at the time of production (United Nations et al., 2009:10). Table 3.1 is a summary of the prescribed valuations or measurements in the System of National Accounts for assets and liabilities in institutional balance sheets (United Nations et al., 2009:261–266).

Table 3.1
SNA-prescribed valuation for balance sheet elements

| Assets and liabilities | SNA-prescribed valuation |
|--|---|
| Land (excluding ownership transfer costs) | Current prices paid by owners |
| Property and improvements (including ownership transfer costs) | Prevailing market prices for assets in the same condition with the same technical specifications and age |
| Inventories | Prices prevailing on the balance sheet date. Inventory should not be valued at the prices at which the products entered inventory |
| Works of art, antiques, jewellery, precious stones and metals | Current prices. To the extent that well-organised markets exist for these items, they should be valued at the actual or estimated prices that would be paid to the owner when sold, excluding fees or commissions payable |
| Currency | Nominal or face value of the currency |
| Deposits (credit and debit) | Principal amounts contractually payable. The amount of principal outstanding includes any interest and service charge due but not yet paid |

| Assets and liabilities | SNA-prescribed valuation |
|--|---|
| Short-term securities (credit and debit) | Current market value |
| Long-term securities (credit and debit) | Current market price |
| Loans (credit and debit) | Principal amount outstanding including interest earned but not yet paid |
| Shares (traded) | Current prices |
| Shares (untraded) | Require an estimate such as net asset value |
| Options (traded) | Current value |
| Employee stock options | Fair value of the equity instrument granted |
| Trade creditors such as taxes, dividends, rent, wages, contributions | The contractual amount due to extinguish the debt |

Source: United Nations et al. (2009:261--266)

From the above table it is clear that market prices are the basic valuation or measurement instrument in the System of National Accounts. When fair values instead of historical cost are used to value the assets and liabilities for entities, this coincides with the valuation method applied in national accounts data. This study applied the use of market values instead of historical cost to value the assets and liabilities of households, as discussed in section 2.4.5. Households were requested to give their estimation of the market value and to supply the original historical cost of the applicable elements in the financial position section. The original historical cost price, together with applicable information such as capital extensions and information on the date of purchase, helped to verify the household's estimation where necessary.

3.5.4 Summary

This section focused on the role of the System of National Accounts in preparing national accounts balance sheets for the institutional units in an economy. It was deemed necessary to establish whether comparison of the results of this study with national accounts data was feasible and whether the elements were defined and measured in a similar fashion in balance sheets prepared from national accounts data and statements of financial position prepared from micro-level data. From the discussion it was apparent that the household balance sheet prepared by the South African Reserve Bank was conceptually similar to a statement of financial position

constructed according to the Conceptual Framework (SAICA, 2010a) insofar as it defines and measures the elements. The next section verifies in greater detail whether the balance sheet for the household sector as currently prepared by the South African Reserve Bank using national accounts data, is suitable to be used as parameter for the results obtained in this study.

3.6 THE SOUTH AFRICAN RESERVE BANK HOUSEHOLD BALANCE SHEET

Two approaches are commonly used to collect the data necessary to prepare balance sheets in national accounts that indicate household net wealth, namely the indirect and direct approach (Aron et al., 2007:10). The indirect approach collects data to estimate household net wealth using three collection methods:

- Firstly, data on household net wealth is collected from financial institutions and is called “counterpart data estimates” (Aron et al., 2007).
- Secondly, data on household net wealth can be obtained as residual estimates (Aron et al., 2007). Residual estimates are calculated when, for example, the total asset base of an economy is known as well as the asset base of other sectors, excluding one data-poor sector. Using the total asset base and subtracting the asset base of the other sectors then results in a residual amount being allocated to the data-poor sector.
- Thirdly, data on household net wealth can be collected by surveying registers, such as the share registers of companies (Aron et al., 2007).

The indirect approach of collecting data results in secondary data that is often lacking in detail, as opposed to primary data, which is collected directly from households. The South Africa Reserve Bank currently applies the indirect approach to obtain net wealth estimates for the household sector (Aron et al., 2006c; 2007; Kuhn, 2010; Walters & National Accounts Division, 2011).

The direct approach entails collecting primary data on the financial net wealth of households by collecting and measuring the assets and liabilities of households directly from household members by means of surveys. South Africa has household surveys such as the General Household Survey (SSA, 2011b) and the All Media and Product Survey (SAARF, 2012), which collect data on some household assets and

liabilities. However, financial wealth measurement *per se* is not the primary focus of these surveys. In the detailed literature review conducted in section 4.2, it is established that these surveys lack detail on the components of financial net wealth measurement, which made them inappropriate to use for purposes of this study. This lack of aggregated assets and liabilities classes necessitated the current research.

The first South African household net wealth estimate was published by the Reserve Bank in their June 2006 *Quarterly Bulletin* (Aron et al., 2006c). This was made possible through the research of economists, Aron and Muellbauer from the United Kingdom and Prinsloo from the South African Reserve Bank. The published net wealth estimates are a refinement of previous net wealth estimates that were published and which preceded this publication. These were as follows:

- “The compilation and importance of household debt in South Africa” (Van der Walt & Prinsloo, 1995).
- “Revised estimates of personal sector wealth for South Africa” (Aron & Muellbauer, 2004).
- “Estimates of household sector wealth for South Africa, 1970–2003” (Aron & Muellbauer, 2006).
- “Estimating the balance sheet of the personal sector in an emerging market country: South Africa 1975–2003” (Aron et al., 2006b).
- “Towards official balance sheet estimates for South Africa’s household sector, which was presented as a conference paper” (Aron et al., 2006a).

These estimates were further refined in a working paper entitled “Balance sheet estimates for South Africa’s household sector from 1975–2005” (Aron et al., 2007). In 2010, further enhancements were introduced, which resulted in a “Note on household wealth in South Africa” (Kuhn, 2010), which extended the balance sheet to cover the period after 2005. In 2011, “Note on recent developments in the household balance sheet” (Walters & National Accounts Division, 2011) was published to update the September 2010 release of the “Note on household wealth in South Africa”.

It is because of the work of these authors that the South African Reserve Bank is one of the leading institutions dealing with household net wealth knowledge in South

Africa. Since the beginning of 2012, the Bank has also been publishing household net wealth estimates in every issue of the *Quarterly Bulletin*. At the time of this study, the latest issue was the September 2012 *Quarterly Bulletin* (SARB, 2012). The household balance sheet as prepared by the South African Reserve Bank includes non-profit institutions and non-incorporated business entities and is provided in Table 3.2.

Table 3.2
SARB household balance sheet at year end (R billions)

| 31 December | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 |
|--|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| *Durable consumer goods | 212 | 245 | 286 | 334 | 375 | 398 | 402 | 418 | 439 |
| Total household assets | 2 719 | 3 308 | 3 996 | 4 883 | 5 581 | 5 414 | 5 987 | 6 573 | 6 895 |
| Non-financial assets | 796 | 1 043 | 1 256 | 1 483 | 1 722 | 1 790 | 1 900 | 1 968 | 2 048 |
| Residential buildings | 608 | 839 | 1 030 | 1 237 | 1 446 | 1 496 | 1 590 | 1 646 | 1 716 |
| Other non-financial assets | 188 | 204 | 226 | 245 | 276 | 294 | 310 | 321 | 332 |
| Financial assets | 1 923 | 2 265 | 2 740 | 3 401 | 3 859 | 3 623 | 4 087 | 4 605 | 4 848 |
| Assets with monetary institutions | 285 | 314 | 352 | 400 | 463 | 546 | 563 | 577 | 637 |
| Interest in pension funds and long-term insurers | 1 014 | 1 214 | 1 410 | 1 762 | 1 969 | 1 927 | 2 126 | 2 406 | 2 584 |
| Other financial assets | 624 | 737 | 978 | 1 239 | 1 427 | 1 151 | 1 399 | 1 622 | 1 626 |
| Total household liabilities | 451 | 557 | 697 | 873 | 1 071 | 1 157 | 1 183 | 1 257 | 1 365 |
| Mortgage advances | 235 | 307 | 395 | 517 | 658 | 731 | 752 | 781 | 793 |
| Other debt | 216 | 250 | 302 | 356 | 413 | 426 | 431 | 476 | 572 |
| Household net wealth | 2 268 | 2 751 | 3 299 | 4 010 | 4 511 | 4 257 | 4 804 | 5 315 | 5 531 |
| Household net wealth including durable consumer goods | 2 480 | 2 996 | 3 585 | 4 344 | 4 886 | 4 655 | 5 206 | 5 733 | 5 970 |

* Not supplied as a line item in SARB's condensed balance sheet.

Source: 2003 year – SARB (2011:69)

Source: 2004–2011 years – SARB (2012:S-130)

Table 3.2 was extracted from the September 2012 *Quarterly Bulletin* (SARB, 2012) and adding differences are assumed due to rounding. The growth in household wealth over the years is apparent in Table 3.3, and disaggregating the various asset and liability classes would contribute to more in-depth knowledge to assist with the management of household net wealth. The 31 December 2011 household balance sheet is used as parameter in Chapter 7 for the results obtained in this study. Table 3.3 was compiled on the basis of the 2011 balance sheet information to assist comparison by analysing the balance sheet information. The information in the table

represents the asset or liability as a percentage of total assets including durable consumer goods for the 2011 financial year.

Table 3.3

SARB assets and liabilities as a percentage of total household assets including durable consumer goods at 31 December 2011

| SARB classes | % |
|--|--------------|
| Durable consumer goods | 5.98 |
| Non-financial assets | 27.93 |
| Residential buildings | 23.40 |
| Other non-financial assets | 4.53 |
| Financial assets | 66.09 |
| Assets with monetary institutions | 8.69 |
| Interest in pension funds and long-term insurers | 35.23 |
| Other financial assets | 22.17 |
| Total liabilities | 18.61 |
| Mortgage advances | 10.81 |
| Other debt | 7.80 |
| Net wealth (including durable consumer goods) | 81.39 |

Source: Researcher's own calculations

These ratios were used to establish how well the household net wealth, presented in this study, approximates these ratios as reported on in Chapter 7. According to research conducted by Unisa's Personal Finance Research Unit (De Clercq et al., 2012), the compilation of the South African Reserve Bank's household balance sheet makes use of approximately 30 time series for constructing the asset and liability values, and not all of these are in the public domain. In consideration of how the different assets and liabilities were constructed, the research of Kuhn (2010) and that of Walters and the National Accounts Division (2011) were used to compile Table 3.4. Table 3.4 summarises the compilation of assets and liabilities in the South African Reserve Bank household balance sheet.

Table 3.4

Compilation of assets and liabilities in the SARB household balance sheet

| SARB classes | Compilation and sources |
|--|---|
| Non-financial assets | |
| Residential buildings | Capital stock at constant prices calculated according to the perpetual inventory method (PIM) inflated by an average house price index. Currently, the Absa bank index is used. Land value is a ratio of the housing value. |
| Other non-financial assets | <ul style="list-style-type: none"> •Non-residential buildings and non-residential land estimated indirectly from the capital stock at constant prices adjusted with indexes derived from the Economic Activity Surveys (EAS). Land value is derived indirectly as a ratio of the value of non-residential buildings. •Construction works, machinery and equipment, computer equipment, transport equipment and orchards. Compiled from unpublished estimates of replacement value (as proxy for market value) obtained from capital stock (using PIM). Unpublished annual estimates of the market value of agricultural land are obtained from National Department of Agriculture. •Inventories of the total industry at their carrying amount. Institutional sector ratios obtained from annual financial statistical surveys are used. |
| Financial assets | |
| Assets with monetary institutions | Deposits with banks and mutual banks, the Land and Agricultural Bank, Postbank and the value of notes and coins held by households. The value of notes and coins is the difference between the total value of notes and coins issued by banks minus those held by banks. |
| Interest in pension funds and long-term insurers | <ul style="list-style-type: none"> •The investment in official (Department of Finance, Transnet, Telkom and the Post Office) and private self-administered pension and provident funds. The values of private and official pension funds are obtained from returns submitted by these institutions and published in the <i>Quarterly Bulletin</i>. •The investment in long-term insurance. The values of existing policies from long-term insurance are directly surveyed from the institutions and published in the <i>Quarterly Bulletin</i>. |
| Other financial assets | <ul style="list-style-type: none"> •Investment in government and public entities stock obtained from flow of funds data at revalued amounts. Deposits in participating mortgage bond schemes are calculated from counterpart data and published in the <i>Quarterly Bulletin</i>. •Collective investment schemes. Market values are published in the <i>Quarterly Bulletin</i>. •Corporate bonds and equities. Valued according to Johannesburg Securities Exchange (JSE) all-share index adjusted for trading and management costs. The households' share is calculated from the flow of funds. •Other long-term deposits include deposits with non-financial entities such as municipalities and are obtained from flow of funds. •The household sector investment in foreign assets. Value obtained from balance of payment division and data is unpublished. |
| Liabilities | |
| Mortgage advances | Consists of the loan financing from the commercial banking sector. The value is obtained from monthly returns from the banks. |
| Other debt | <ul style="list-style-type: none"> •Trade credit (open account credit). Includes retail debt and amounts owing to buy-aid institutions. Compiled indirectly from retail credit sales information. •Personal bank loans include overdraft facilities and other advances granted. Value obtained from monthly returns from the banks. •Credit card debt. Obtained from monthly returns from the banks. •Instalment sales and lease agreements. The commitments of hire purchase agreements and financial lease agreements are included. The values are provided from the banks and hire purchase values are obtained from the trade sector. •Other personal loans include loans granted by long-term insurers. The value |

| SARB classes | Compilation and sources |
|--------------|---|
| | <p>is published in the <i>Quarterly Bulletin</i>.</p> <ul style="list-style-type: none"> •Non-bank loans consist mainly of credit granted by micro-lenders and values obtained from the Micro Finance Regulatory Council (MFRC). |

Source: Kuhn (2010); Walters and National Accounts Division (2011)

From the information presented in Table 3.4, one can conclude that the methodologies used to prepare the South African Reserve Bank household balance sheet are different from those used to construct the statement of financial position from micro-level data obtained directly from households. Despite the differences, this study attempted to address the lack of detail on household asset and liability classes and used the South African Reserve Bank balance sheet to establish whether the results from the study were comparable with the macro-economic estimates.

3.7 CONCLUSION

This chapter discussed the household as one of the main institutional units in any economy. The reason the household was chosen as the unit of analysis was explained in section 3.2, and an attempt was made to define a “household” for the purposes of this study by utilising current household definitions in various research studies. Owing to the shortcomings of these definitions, the researcher decided to use focus group discussions to ensure a final comprehensive definition of “household”. The results of these discussions are presented in Chapter 5.

The role of the household in the economy was described in section 3.3, and in order to understand factors that could influence the accumulation of household net wealth, macro-economic theories were reviewed. These theories fostered an understanding of the way households accumulate assets and liabilities, influencing their net wealth. The following macro-economic theories were reviewed: Engel’s Law (1857 in Bannock et al., 2003); Keynesian consumption theory (1936 in Bryant & Zick, 2006); the permanent income hypothesis of Friedman (1957 in Bryant & Zick, 2006); and the life-cycle hypothesis of Modigliani and Ando (1963 in Bryant & Zick, 2006). These theories helped the researcher to gain an understanding of the asset and liability accumulation behaviour of households when the data from this study was analysed, and inferences drawn, as reported on in Chapter 7.

Households do not operate in isolation in an economy but form part of an intrinsic web of relationships with the other institutional sectors of the economy. In section 3.4,

the macro-economic factors that influence households were explained. The way in which government applies these factors to influence economic behaviour helped the researcher to understand household economic behaviour and net wealth accumulation. Section 3.5 focused on the role of the System of National Accounts, which is the framework used to present the financial position of the various economic sectors in national accounts (United Nations et al., 2009). The current status of the framework was explained and the definitions of the elements and their measurement in national accounts and according to the Conceptual Framework (SAICA, 2010a) were compared in order to establish whether the household balance sheet prepared from national accounts could be used as a comparator for the results obtained in this study.

In closing, section 3.6 reported on the presentation of the household balance sheet prepared from macro-economic estimates. Although the methodologies used to prepare a national accounts balance sheet for households from macro-economic estimates differ from those used to prepare a statement of financial position from micro-level data, the household balance sheet prepared by the South African Reserve Bank could still assist with parameter verification to enhance the reliability of the results obtained from this study.

The next chapter reviews the national and international literature on household micro-level net wealth measurement to enable the researcher to design a South African financial position section that could be included in an omnibus survey. The omnibus survey was conducted among South African households to determine the disaggregated assets and liabilities in which households invest and/or use.

CHAPTER 4

LITERATURE REVIEW OF NATIONAL AND INTERNATIONAL MICRO-LEVEL NET WEALTH MEASUREMENT RESEARCH

“Education must precede motivation.” – E.J. Rohn (1994:43)

4.1 INTRODUCTION

In Chapter 2, the household was identified as the unit of analysis that was observed in this study, while in Chapter 3, the household was identified as one of the main institutional units or sectors of an economy (United Nations et al., 2009). Its role in the economic sector was illustrated and the current South African Reserve Bank household balance sheet presented. The household balance sheet is based on macro-economic wealth estimates. At the time of the study (2011–2013), the household balance sheet was the only household net wealth indicator prepared in South Africa.

The main objective of the study, as stated in section 1.3.1, can be subdivided into the following three sub-objectives:

- to disaggregate the asset and liability classes presented in the South African Reserve Bank household balance sheet;
- to measure the disaggregated asset and liability base of South African households in metropolitan and non-metropolitan areas using micro-economic data; and
- to prepare a statement of financial position for metropolitan and non-metropolitan areas based on the recognition and measurement principles of the accounting Conceptual Framework (SAICA, 2010a).

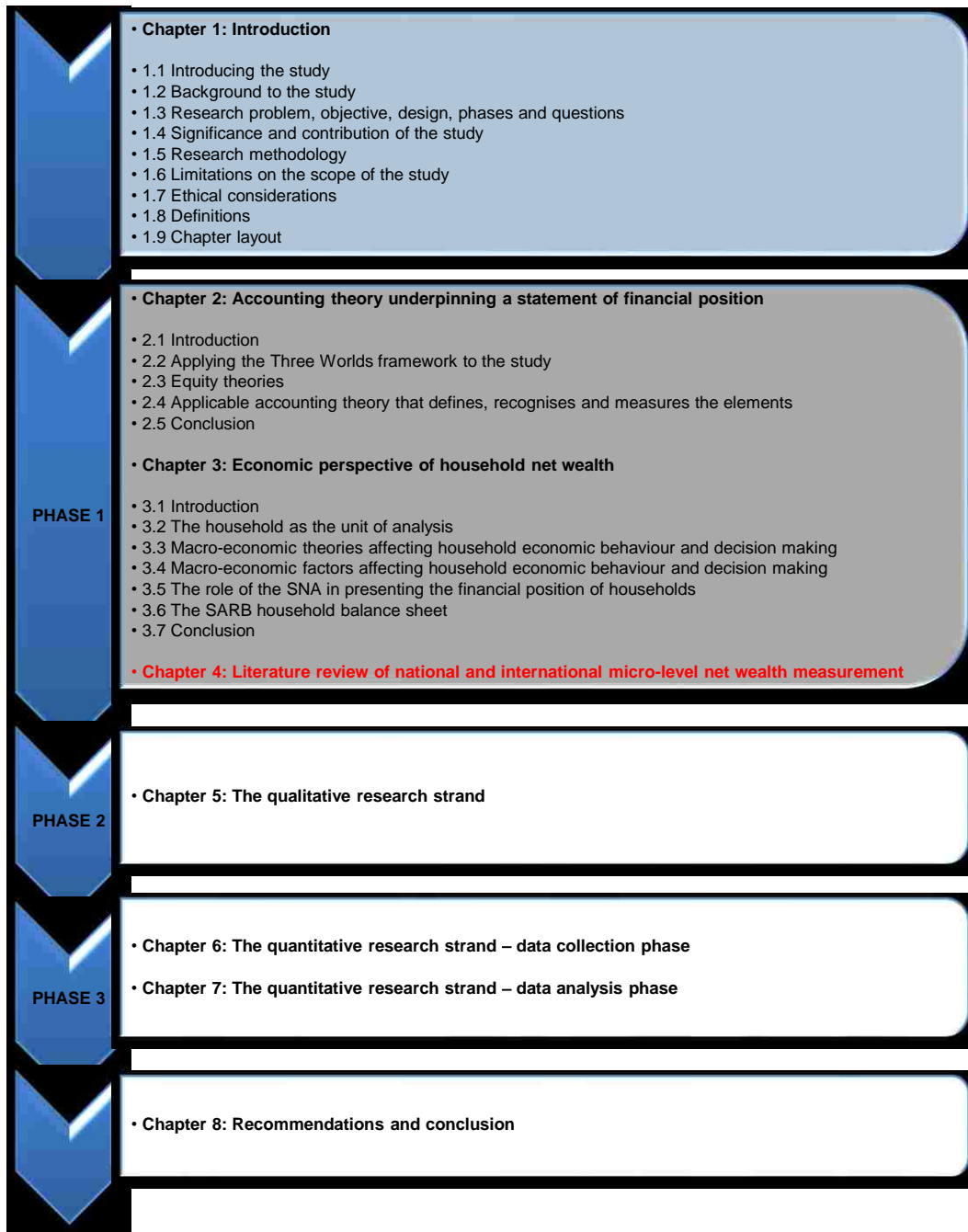
In order to achieve these sub-objectives, this chapter commences with a national literature review (section 4.2) to establish whether current household studies could contribute to identifying possible household assets and liabilities and help to

measure those at household (micro-) level. If national studies could not help to identify and measure micro-level household assets and liabilities, it would have been necessary to design a measurement instrument (financial position section) which could disaggregate the current asset and liability classes used in the South African Reserve Bank balance sheet. To ensure that the financial position section would indeed recognise all possible assets and liabilities, an international literature review (section 4.3) was conducted and international survey instruments scrutinised to help disaggregate the asset and liability classes.

To ensure that the literature review included the most appropriate studies, the search incorporated the following terms: “wealth” (Bricker et al., 2011; Daffin, 2009; Davies et al., 2007), “net wealth” (Kuhn, 2010; 2011), “net worth” (Sierminska et al., 2006), “household wealth” (Bloxham & Betts, 2009) and “household net worth” (Shorrocks et al., 2011). These terms are used interchangeably in asset and liability measurement studies and their definition across international and national research is similar to “equity” as defined in section 1.8 of this study.

The current status of worldwide net wealth measurement was the starting point in the international literature review. This starting point would help to identify those countries that have advanced net wealth measurement instruments. This enabled the researcher to develop a heuristic model of the South African financial position section from which data at household level could be obtained and measured in section 4.4. The heuristic model was used to prepare a South African asset and liability (net wealth) measurement instrument or financial position section for use in an omnibus survey that was well developed and able to identify and measure the current asset and liability base of the South African household sector. This instrument was used to collect micro-level household data. The data is presented as statements of financial position for the two main areas of the country as specified. The layout of the study is presented in Figure 4.1 to place this chapter and its contents in the broad perspective of the study.

Figure 4.1
Presenting Chapter 4 in the layout of the study



Source: Researcher's own compilation

4.2 SOUTH AFRICAN HOUSEHOLD STUDIES

In section 1.2, the accounting equation was used to illustrate that the difference between the assets and liabilities of an entity represents the equity or net wealth pertaining to that entity. The way in which income and expenditure contribute to an increase or decrease in equity or net wealth was also discussed. A general postulate of this study construed in Chapter 2 was to view households as entities and a detailed literature review should therefore include studies on assets and liabilities of households as well as studies on household income and expenditure.

A detailed literature review should also include all applicable household studies conducted by governmental agencies such as Statistics South Africa (SSA) as well as other research agents such as the Bureau of Market Research (BMR) at Unisa. Research by independent research organisations should help to establish whether existing research can help to disaggregate the asset and liabilities base of South African households.

To enable researchers in general to draw from a well-founded research source when preparing multi-topic household surveys, the World Bank publication, *Designing household survey questionnaires for developing countries* (Grosh & Glewwe, 2000a; Grosh & Glewwe, 2000b) was used. This publication is based on past best practice in living standards measurement (LSM) surveys and special topic household surveys, and on the strength of this, the publication was also used as the starting point of the literature review.

In simple terms, living standards measurement (LSM) surveys collect data on how much people spend on various goods and services. These surveys have a variety of names such as income and expenditure surveys, household consumption surveys and consumer expenditure surveys (Grosh & Glewwe, 2000a). South Africa is one of the developing countries that make use of living standards measurement-type surveys in the form of the Income and Expenditure Survey and the General Household Survey conducted by Statistics South Africa and the Income and Expenditure Survey conducted by Unisa's Bureau of Market Research.

Although living standards measurement surveys do not have the measurement of the assets and liabilities of households as their core objective, some of the modules

included in those survey types can assist with the type of questions to include in an instrument used to measure possible household assets and liabilities (Grosh & Glewwe, 2000a). *Designing household survey questionnaires for developing countries* (Grosh & Glewwe, 2000a) helped the researcher identified the core modules or sections that could assist net wealth measurement as housing, durable goods, household enterprises, saving, consumption and credit. The national literature review commences in section 4.2.1 with a review of the living standards measurement surveys conducted by Statistics South Africa. In section 4.2.2, household studies conducted by Unisa's Bureau of Market Research are reviewed, and in section 4.2.3, other household studies conducted in South Africa are scrutinised to establish whether these studies could provide sufficient data to disaggregate the assets and liabilities currently presented in the South African Reserve Bank household balance sheet.

4.2.1 Living standards measurement studies conducted by Statistics South Africa

Statistics South Africa is the organisation with the government mandate to collect and disseminate official statistics to assist with social and economic planning in South Africa (SSA, 2011d). This organisation has been conducting research on households in many different forms for many decades. The studies discussed below were identified as those that could help identify household assets and liabilities, and their measurement instruments were scrutinised to establish their possible contribution to disaggregating and measuring household assets and liabilities.

4.2.1.1 Income and Expenditure Survey (IES)

At the time of this study, the 2010/2011 Income and Expenditure Survey was under way. The Statistics South Africa website provided a link to the Income and Expenditure Survey and enabled the researcher to establish whether results from this survey could be used to disaggregate the assets and liabilities used by South African households. The Statistics South African website (SSA, 2011d) was used to ascertain the main objective of the Income and Expenditure Survey as well as the main categories covered by the survey.

The Income and Expenditure Survey is conducted every five years (SSA, 2011d). The purpose of the survey is to determine the income and expenditure patterns of households and to identify goods and services purchased by households with a view to updating the consumer price index (CPI). This index is used as an economic indicator by the South African Reserve Bank to establish interest rates in the country (SSA, 2011d). The survey covers household composition as well as demographic information relating to the members of the household, namely education, health and information on dwellings and the services to which they have access. The majority of the questions in the survey deal with the expenditure of households and the income members earn. Although this is helpful in determining the possible income and spending patterns of households, information about these cannot be used to disaggregate the current asset and liability categories of households *per se*.

4.2.1.2 Living Conditions of Households in South Africa (LCHS)

The Living Conditions of Households Survey (LCHS), which was conducted in 2008/2009 by Statistics South Africa was the first of its kind in the country. The aim of this survey was to profile poverty in South Africa and to establish a framework for future poverty measures as well as to ascertain the progress in poverty reduction across households in the future (SSA, 2011c). Although the survey included a section on household assets, it contained mainly a measure of durables and vehicles that households possess, which contribute to only two categories of assets. The study was conducted in 2008/2009, which complicated comparison for the purposes of this study. This is because the market values of those assets were subject to constant price increases and resulted in the researcher having to estimate their market value for 2011. Thus, although the survey could contribute to the measurement of vehicles, which is currently included as part of durables in the South African Reserve Bank household balance sheet, the fact that the data was outdated meant that the research did not contribute sufficiently to the main objective of the current study.

4.2.1.3 General Household Survey (GHS)

Statistics South Africa has conducted the General Household Survey (GHS) annually since 2002. The latest survey, at the time of this study, was conducted in July to September 2011. The aim of the survey is to establish the level of development of

the country's households and to determine their general living conditions and the quality of service delivery to households. The survey collects information from households on a variety of subjects such as education, health, the labour market, dwellings, and access to services, transport and quality of life (SSA, 2011a). Based on the latest report on the General Household Survey (SSA, 2011b), the researcher established that this survey would also not be able to help her disaggregate and measure the asset and liability base of households.

4.2.1.4 Other studies conducted by Statistics South Africa

Two other economic surveys conducted by Statistics South Africa were also scrutinised to ascertain whether they could provide details on the measurement of the assets and liabilities of households in the country. These surveys were:

- The Labour Force Survey (LFS) is conducted quarterly and is designed to measure the dynamics of employment and unemployment in the country (SSA, 2013).
- Profiling South African middle-class households: 1998–2006 was a once-off study that identified a set of factors that defines a middle-class standard of living. These factors were residing in formal housing, having tap water in the residence, having a flush toilet in the residence, having electricity as the main lighting source, having electricity or gas as the main cooking source and having a landline or a household member having a cell phone (SSA, 2010).

Neither of these studies provided the detail and measurement of assets and liabilities that the current study required. The literature review was extended to other institutions in South Africa that have conducted household studies in the past and the publications from these studies were scrutinised to determine whether they could be used to disaggregate and measure the asset and liability base of households for the purposes of this study.

4.2.2 Bureau of Market Research studies

A list of the applicable household studies conducted by the Bureau in the past five years was obtained and scrutinised. The applicable studies on the list were as follows:

- Research Report 396: Personal income estimates for South Africa, 2010.

- Research Report 395: Income and expenditure of households in South Africa, 2008–2009.
- Research Report 393: Household saving behaviour in Gauteng: Exploring economic and non-economic factors impacting on saving behaviour and planning.
- Research Report 387: Personal income patterns and profiles for South Africa, 2009.
- Research Report 383: Income and expenditure of households in South Africa, 2007–2008.
- Research Report 378: Personal income by province, population group, sex, age and income group, 2007 and 2008.
- Research report 361: Personal income of South Africans at national and provincial levels by population group, income group, life stage and life planes, 2000–2007.

On the basis of the above-mentioned studies, it was established that similar to the Statistics South Africa economic surveys, the income and expenditure of households has been one of the Bureau's key focus areas. However, these studies were also not able to help disaggregate the asset and liability base of households because their focus was on the income and expenditure of households as opposed to measuring the assets and liabilities (or net wealth) of households.

4.2.3 Other South African household economic surveys

The literature review on South African household studies identified studies conducted by Finmark Trust, namely the FinScope South Africa 2010 study (Finmark Trust, 2010) (section 4.2.3.1), the All Media and Products Survey conducted by the South African Audience Research Foundation (section 4.2.3.2) and studies conducted by the South African Labour and Development Research Unit (section 4.2.3.3). These studies were scrutinised to identify possible assets and liabilities used by households.

4.2.3.1 Studies conducted by Finmark Trust

The FinScope South Africa 2010 survey commissioned by Finmark Trust (2010) was conducted in order to inform financial service providers with insights into the financial

needs, preferences and attitudes of adult South Africans and to better understand money matters among South Africans (Finmark Trust, 2010:16–21). The FinScope South Africa 2010 survey provides insight into income generation in South Africa, the dependency of households on other people or institutions to obtain income, the “unserved” market in South Africa (households that do not make use of formal sector financial services), savings and money management in the formal financial services sector. The FinScope South Africa 2010 survey provides insight into how people source their income and manage their financial affairs. On the basis of the survey, the researcher could establish the details of the classes of financial assets and liabilities. These included the use of formal financial services. Examples are “mzansi” accounts (a low-cost bank account, according to Finmark Trust, 2010:64), current or cheque accounts, call and savings accounts, money market accounts, bank overdrafts, garage and petrol cards, credit cards, home loans, vehicle loans, personal loans, store cards and the use of funeral and other insurance cover (Finmark Trust, 2010:131). Informal sector borrowing identified by the survey includes borrowing from friends and family, making use of loan sharks or “mashonisas” and informal investing in “stokvels” and burial societies (Finmark Trust, 2010:141). The FinScope survey therefore helped the researcher to disaggregate the financial asset and liability base of the household balance sheet by identifying the categories of financial assets and liabilities that most South African households use. Although the survey provides details on how to disaggregate the classes of financial assets and financial liabilities used by households, measurement of those assets and liability classes was not the objective of the survey and therefore did not enable the researcher to measure the respective financial asset and liability classes.

4.2.3.2 Studies conducted by the South African Audience Research Foundation (SAARF)

The South African Audience Research Foundation (SAARF) conducts media audience and product or brand research in South Africa (SAARF, 2012) of which the All Media and Product Survey is one. The survey covers the adult population of South Africa. The aim is to establish the use of mass media, products and services in South Africa and to help advertising agencies to buy appropriate media time and space (SAARF, 2005). Possible prospects for products and services are identified and the most appropriate media can be established in order to reach the target

consumer market (SAARF, 2012:1). The All Media and Products Survey collects information on vehicle ownership, the use and purchase of durable consumer goods and housing ownership. However, because net wealth measurement is not the focus of the survey, it does not measure the identified assets and could therefore not be used in this study.

4.2.3.3 South African Labour and Development Research Unit (SALDRU)

The School of Economics at the University of Cape Town (UCT) established the South African Labour and Development Research Unit (SALDRU). The unit conducts the National Income and Dynamics Study (NIDS). At the time the national literature review was conducted for the present research (2011), only information on Wave 1 of the survey was available (Bhorat, Van der Westhuizen & Cassim, 2009). Wave 1 measured access to public assets (access to dwellings, piped water, electricity and ablutions) and access to private assets (access to motor vehicles, radios and televisions), but no measurement of these public and private assets was included (Bhorat et al., 2009). The survey used to conduct Wave 1 also did not help the researcher to disaggregate and measure the assets and liabilities of households.

On completion of the national and international literature review and the fieldwork for this study, Wave 2 of the National Income and Dynamics Study was conducted and published in 2012 (Daniels, Finn & Musundwa, 2012). According to these authors (2012:1), Wave 2 marks the first nationally representative household survey to collect sufficient information to calculate individual and household net wealth. The household net wealth variable is constructed as the difference between total assets and total liabilities (Daniels et al., 2012:6). According to them (2012), total assets comprise the sum of real estate assets (value of house and other property), vehicles, business assets (residual business equity), financial assets (cash, bank account, life insurance, stocks), superannuation assets (pension/retirement annuity), and livestock assets. The value of total liabilities is calculated as the sum of real estate debt (bond on main house, bonds on other properties and home loans) vehicle finance, business equity debt and financial debt (loans) (Daniels et al., 2012:6–9). The inclusion of household net wealth measurement in the National Income and Dynamics Study reiterates the need for micro-level household data, as established in section 1.2. The current study contributed in this regard and also provided details on

metropolitan/non-metropolitan household wealth, which had not been done in the National Income and Dynamics Study.

4.2.4 Summary of the South African literature review conducted

From the South African literature review on household studies it is clear that the recent emphasis and focus of household studies in the country have been on the income and expenditure of households and the financial product usage by households, as well as the impact of these on the economic decision making of the household sector. Although the impact of the myriad of studies is undeniably profound, the degree of household financial well-being and net wealth is vested equally in the assets and liabilities of the household and not only in the ability of households to procure income (Daniels et al., 2012:3). Table 4.1 provides a summary of the national literature review conducted and indicates the contribution to this study to identify, disaggregate and measure household assets and liabilities.

Table 4.1

Summary of the national literature review of contributing studies

| Study | Classification contribution | Measurement contribution |
|---|--|--|
| Living Conditions of Households in South Africa | Durables, vehicles | No measurement |
| FinScope 2010 | Financial assets: "Mzansi" account, cheque account, call and savings accounts, moneymarket account, "stokvels", burial society Financial liabilities: Bank overdraft, garage and petrol cards, credit cards, home loans, vehicle loans, personal loans, store cards, informal borrowing | No measurement No measurement |
| All Media and Product Survey | Vehicle ownership, use and ownership of durable goods, household ownership | No measurement |
| National Income and Dynamics Study (NIDS) | Wave 1: Access to motor vehicles, access to radios and televisions and access to dwellings Wave 2 assets: | No measurement Measurement of assets, |

| Study | Classification contribution | Measurement contribution |
|-------|---|--|
| | House, other property, vehicles, business assets, cash, bank, life insurance, stocks, superannuation assets, livestock Wave 2 liabilities: Bond on main house, other property bonds, home loans, vehicle finance, business equity debt, loans | liabilities and net wealth from 2011 (results published in 2012 – national figures only) |

Source: Researcher's own compilation

At the time the literature review was conducted in 2011, no studies measuring the asset and liability base of households with micro-level data with the purpose of establishing household net wealth could be found, except for the research conducted by the South African Reserve Bank, as discussed in section 3.6. As mentioned earlier, the South African Reserve Bank calculates net wealth estimates from macro-economic data, whereas the purpose of this study was to disaggregate and measure the South African household asset and liability base by using household micro-level data. The South African Labour and Development Research Unit's working paper (Daniels et al., 2012) only became available after the researcher had developed the net wealth measurement section of the survey instrument from international sources and the fieldwork had been conducted to collect micro-level data from South African households.

The private sector and policy makers (Daniels et al., 2012; De Clercq et al., 2012:2; Sanchez-Munoz & Tzamourani, 2008:2) have identified the need for information on the assets and liabilities of households. Financial institutions, for one, will be able to make better-informed decisions on the granting of credit based on knowledge of the asset and liability base of the households applying for the credit. Financial advisors need the same knowledge to enable households to plan more comprehensively for future retirement. Policy makers need knowledge of the asset and liability base of households to enable them to determine the impact of policy decisions on the general and financial well-being of households, which is the aim of the National Development Plan 2030 (NPC, 2013).

Owing to the perceived usefulness of this data to enhance overall net wealth management in the country (Aron et al., 2006c), a financial position section was developed to collect micro-level data from households. To ensure that this instrument would be able to recognise and measure all possible household assets and liabilities, international net wealth measurement studies had to be reviewed to determine the broadest applicable asset and liability base for South Africa. This would enable the researcher to disaggregate and measure the asset and liability base of households currently prepared from macro-economic estimates.

4.3 INTERNATIONAL HOUSEHOLD NET WEALTH REVIEW

Globally, the core objective of net wealth measurement studies is the measurement of assets and liabilities for households, individuals or the family. The importance of the household as a net wealth-generating unit of an economy should not be underestimated, as explained in section 3.3.1. According to Davies and Shorrocks (2005:1–2), the measurement of net wealth in developing countries (South Africa being one such country) is even more important because of the economic uncertainties households face in these countries.

Household net wealth directly affects general household well-being (Sierminska et al., 2006:17). This is so because a household's assets provide a vital buffer to guard households against economic shocks such as increases in interest rates, the household tax burden and unforeseen risks such as sickness and unemployment. Assets can be converted into cash to enable households to cover consumption when household income is insufficient. Having adequate assets is therefore invaluable in order to cope with threatening emergencies that are often part and parcel of the economic conditions surrounding developing countries. Furthermore, net wealth is a source of finance for consumption during retirement and helps to smooth consumption over time (Davies et al., 2009a:1112). Net wealth also enhances entrepreneurial activities by providing sources of finance and it is a key component in any economic system to drive economic growth and capital accumulation (Shorrocks et al., 2011:6–9). However, reliable and accurate net wealth distribution data is a prerequisite for managing net wealth (Sierminska et al., 2006).

In conducting an international literature review, it is appropriate to commence with a global perspective of net wealth measurement studies (section 4.3.1). On the basis of these global studies, the countries that conduct net wealth measurement surveys were identified to be included in the international literature review. Only those measurement instruments that the researcher could access and that were in an understandable language were included in the international literature review.

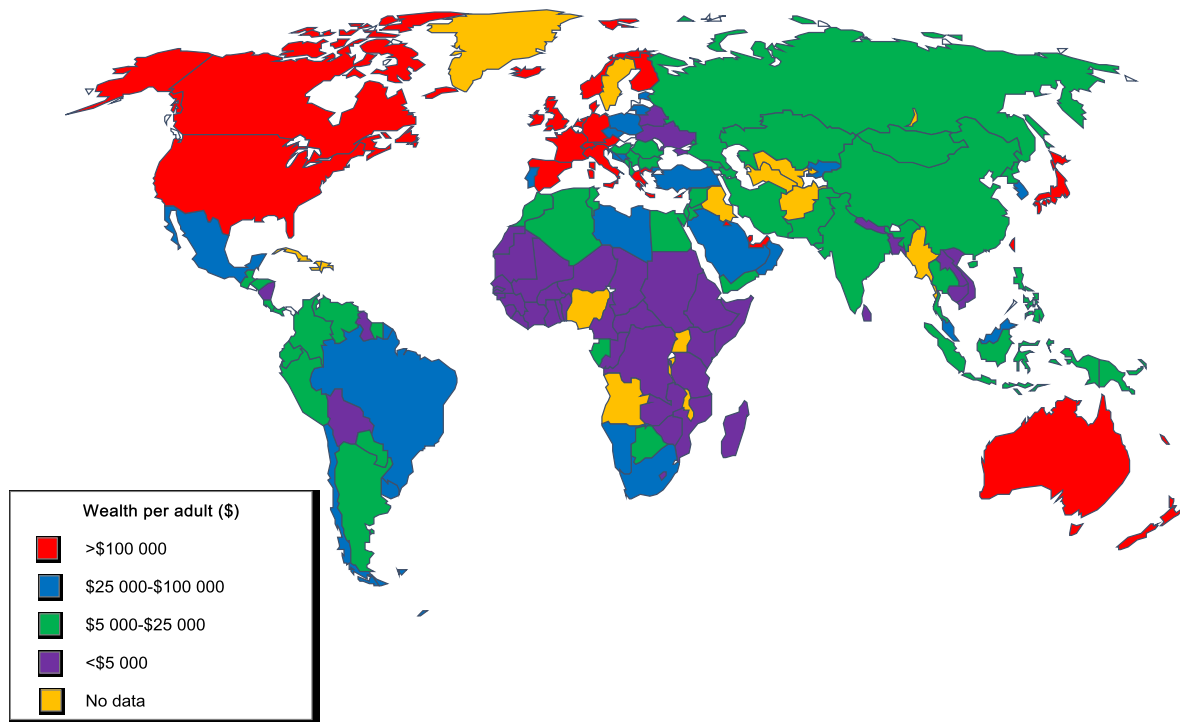
4.3.1 Net wealth from a global perspective

The number of countries that have either wealth estimates or wealth survey data, or both, has increased in recent years (Davies et al., 2009b:1). From this information, global wealth estimates per adult per country are being produced (Shorrocks et al., 2011:6).

One of the most comprehensive studies on world wealth is that of the Credit Suisse Research Institute (CSRI) (Shorrocks, et al., 2011; Shorrocks, Davies & Lluberas, 2012). The study measures and analyses trends in global wealth across nations and the Institute recently published its third global wealth report (Shorrocks et al., 2012).

The study covers the bottom of the wealth pyramid as well as the ultra-high net worth adult individuals, and although usual sources of wealth data, namely sample surveys and official statistics, become increasingly unreliable and incomplete at high wealth levels, the study bridges the gap by exploiting well-known statistical regularities in the top wealth tail (Shorrocks et al., 2011:16). The results of the study are disseminated as adult wealth estimates (Shorrocks et al., 2011). *The Credit Suisse Research Institute Global Wealth Report 2011* corresponds to the year in which the present South African study's net wealth measurement was conducted and provides valuable data on adult global wealth levels in different countries, as illustrated in Figure 4.2.

Figure 4.2
2011 world wealth levels



Source: Shorrocks et al. (2011:8)

The richest (red) countries in the world with wealth in 2011 in excess of USD100 000 per adult range are Switzerland, Australia, Norway, Singapore, Sweden, Belgium, Japan, the United Kingdom, North America, Germany, Italy and France. The countries in blue (of which South Africa is one) represent emerging wealth. The countries in green represent frontier wealth, while countries that fall below USD5 000 per adult are indicated in purple. It is interesting to note that South Africa was reclassified in 2012 as a frontier wealth country along with Botswana, Namibia, and Swaziland (Shorrocks et al., 2012:11). This is an indication of how much the recent recession has affected net wealth in South Africa.

Table 4.2 is a summary from the 2011 (2012 in brackets) wealth report and indicates the most important statistics applicable to South Africa.

Table 4.2**Summary of South Africa's statistics from the 2011 and 2012 global wealth reports**

| South Africa | Statistics |
|------------------------|--|
| Population | 51 million |
| Adult population | 31 million |
| GDP | 12 626 USD per adult |
| Total wealth | 1 trillion USD (2012:0.7 trillion USD) |
| Mean wealth | 34 288 USD per adult (2012 = 21 458 USD per adult) |
| Dollar millionaires | 71 000 |
| Quality of wealth data | Fair |

Source: Shorrocks et al. (2011:38–52; 2012:57)

The Credit Suisse Research Institute study rates the quality of net wealth data of some of the countries included in the report. The net wealth data quality is rated as “fair” when there is at least a recent household survey on net wealth present in the country, whereas a rating of “good” suggests the existence of an official household sector balance sheet as well as an acceptable way of estimating the wealth distribution. A “satisfactory” rating, according to the report, means the data is somewhat outdated (Shorrocks et al., 2011:36).

South Africa currently has an official household sector balance sheet as discussed in Chapter 3, but no official net wealth survey. This could be the reason for the data quality being rated as “fair” as opposed to “good” for both the 2011 (Shorrocks et al., 2011:50) and 2012 years (Shorrocks et al., 2012:57), as indicated in Table 4.2. By introducing a reliable net wealth measurement instrument, the current study could help to increase the rating of data quality of South African in the future.

The global availability of appropriate net wealth measurement data was the objective of a study conducted by Davies et al. (2009b). The availability of global household net wealth estimates and of some form of direct net wealth measurement data (micro-level data) in 2000 for different countries was reported on by Davies et al. (2009b) and the results of the study are summarised in Table 4.3.

Table 4.3

Available household balance sheet data and/or wealth survey data in 2000

| Countries | Household balance sheet data | | Wealth survey data |
|--------------------------|------------------------------|---------|--------------------|
| | Complete | Partial | |
| Australia | √ | | √ |
| Canada | √ | | √ |
| Czech Republic | √ | | |
| China | | | √ |
| Denmark | √ | | |
| Finland | √ | | √ |
| France | √ | | |
| Germany | √ | | √ |
| India | | | √ |
| Indonesia | | | √ |
| Italy | √ | | √ |
| Japan | √ | | √ |
| Netherlands | √ | | √ |
| New Zealand | √ | | √ |
| Poland | √ | | |
| Portugal | √ | | |
| Singapore | √ | | |
| South Africa | √ | | |
| Spain | √ | | √ |
| Taiwan | √ | | |
| United Kingdom | √ | | |
| United States of America | √ | | √ |
| Austria | | √ | |
| Belgium | | √ | |
| Bulgaria | | √ | |
| Croatia | | √ | |
| Estonia | | √ | |
| Greece | | √ | |
| Hungary | | √ | |
| Latvia | | √ | |
| Lithuania | | √ | |
| Romania | | √ | |
| Slovakia | | √ | |
| Slovenia | | √ | |
| South Korea | | √ | |
| Sweden | | √ | |
| Switzerland | | √ | |
| Turkey | | √ | |

Source: Researcher's own compilation from Davies et al. (2009b:36–39)

In 2000, net wealth survey data and completed balance sheet data were available in only 13 countries (indicated in purple). (Countries that only had survey data are indicated in blue). Table 4.3 shows that complete balance sheet data was available for 19 countries at the time. The term “complete data” implies that the household balance sheet data for those countries covers financial assets, non-financial assets

and liabilities. (As a rule, the classification of financial assets and non-financial assets is generally based on liquid assets and equities versus real-estate assets.) Most of the countries with complete balance sheet data are high-income countries, except for the Czech Republic, Poland and South Africa (Davies et al., 2009b:3). Sixteen other countries have data on financial assets but no information on real-estate assets (Davies et al., 2009b:38).

It is apparent in the study of Davies et al. (2009b) that micro-data on household net wealth is deemed important to enhance national accounts net wealth data and national net wealth management. This fact was underscored by a study by Avery, Elliehausen and Kennickell (1986). They compared the wealth estimates from micro-data obtained from the Survey of Consumer Finances (SCF) in the United States of America with the wealth estimates constructed from macro-data (flow of funds data). It was ascertained that micro-data provides insights into the effects of macro-economic changes and should be used to support macro-economic data from other sources and not be viewed as more accurate than macro-economic data.

At the time of the literature review conducted in South Africa (section 4.2), a micro-level net wealth measurement survey had not yet been conducted in South Africa. Applicable data to disaggregate and measure the asset and liability base of South African households could not be found in existing South African household studies. The objective of this study was therefore to develop a South African financial position section to disaggregate the asset and liability classes of the South African Reserve Bank household balance sheet and to measure the disaggregated assets and liabilities so that the distribution of net wealth in metropolitan and non-metropolitan areas could be reported on.

To ensure that this instrument was well developed, the international literature review on similar instruments had to include countries that have both complete household balance sheets and survey data. According to Table 4.3, countries that have both are Australia, Canada, certain European countries (Finland, Germany, Italy, the Netherlands and Spain), Japan, New Zealand and the United States of America. Because these are all well-developed countries, a few emerging wealth countries with survey data should also be included, such as China and India. The researcher also scrutinised countries without both balance sheets and survey data in 2000 to

establish whether they had added survey data after 2000 and whether their surveys could disaggregate the asset and liability classes.

A discussion of the net wealth measurement studies conducted in the United States of America (section 4.3.2), Canada (section 4.3.3), Australia (section 4.3.4), New Zealand (section 4.3.5), certain European countries (section 4.3.6) and other international surveys conducted (section 4.3.7) follows in the subsections below. The aim of these sections is to identify disaggregated assets and liabilities measured by the surveys in these countries.

4.3.2 United States of America

Because of its status as one of the richest countries (Davies et al., 2009b:2) and one of the most important world economies, wealth studies in the United States of America have been conducted frequently over the years. Wolff (1989) captured United States estimates of aggregated household wealth between 1900 and 1983 and was the first researcher to present a single set of data for the recorded period. Although Wolff's (1989) study was not based on survey data but on estimates of wealth, the categories of assets and liabilities to be addressed in a survey are apparent from this study and add to the understanding of how wealth measurement was addressed in the early years. Wolff (1989:4) constructed household balance sheets by relying on the wealth estimates of Goldsmith, Brody and Mendershausen (1956 in Wolff, 1989), Lipsey and Mendelsen (1963 in Wolff, 1989), Ruggles and Ruggles (1984 in Wolff, 1989), Musgrave (1986 in Wolff, 1989) and the Federal Reserve System (1986 in Wolff, 1989). Wolff (1989:26) divided total wealth into two components, namely life-cycle wealth based on Modigliani and Brumberg's (1954 in Wolff, 1989) life-cycle model, and capital wealth, which is a household's estate wealth. According to Wolff (1989), the middle class held life-cycle wealth and the upper class almost exclusively held capital wealth. Exhibit 4.1 contains a summary of the assets and liabilities that were included in Wolff's (1989) calculation of household net wealth estimates.

Exhibit 4.1**Asset and liability classes identified by Wolff (1989)**

| Section | Components | |
|--------------------|---|--|
| Assets | <ul style="list-style-type: none"> • Owner-occupied housing • Other real estate • Consumer durables • Demand deposits | <ul style="list-style-type: none"> • Unincorporated business equity • Trust fund equity (actuarial value) • Cash surrender value of insurance • Cash surrender value of pensions |
| Liabilities | <ul style="list-style-type: none"> • Mortgage debt • Consumer debt | <ul style="list-style-type: none"> • Other debt |

Source: Wolff (1989)

The survey with the most comprehensive data on net wealth in the United States of America, according to Campbell (2006:1556), is the Survey of Consumer Finances. This Survey of Consumer Finances is a triennial data collection of household wealth conducted in the United States of America and collects data on household assets and liabilities as well as auxiliary information useful for analysis, such as income, demographics, marital history, employment history and attitudes (Kennickell, 2000:2). The intellectual foundation of the Survey of Consumer Finances was the 1962 Survey of Financial Characteristics of Consumers (SFCC) and, according to Kennickell (2000:3), even then it was clear that the capture of the data from affluent households was problematic because of its sensitive nature. In 1983, a rebirth of the realisation of the importance of net wealth data occurred, which led to the design and implementation of the Survey of Consumer Finances as it is currently known (Kennickell, 2000:6; 2009). A consistent methodology was designed for the survey, which is still applicable (Kennickell, 2000:6). Since 1989, the survey has been conducted every three years among a cross-section of the population and is sponsored by the United States Federal Reserve Bank.

The latest Survey of Consumer Finances was conducted in 2009 (the results were not available when the literature review for this study was conducted) and still contains the asset and liability classes indicated in earlier studies (Kennickell, 2003). Exhibit 4.2 provides a summary of these classes.

Exhibit 4.2

Asset and liability classes identified from the Survey of Consumer Finances in the United States of America

| Section | Components | |
|--------------------|--|--|
| Assets | Financial assets | Non-financial assets |
| | <ul style="list-style-type: none"> • Cheque accounts • Savings accounts • Money market accounts • Call accounts • Certificates of deposits • Savings bonds • Bond holdings • Mutual funds • Retirement funds • Cash value of life insurance • Equity holdings • Other miscellaneous financial assets | <ul style="list-style-type: none"> • Market value of vehicles and planes • Market value of residential real estate • Market value of other than principal residences • Net equity in businesses • Pensions • Other non-financial assets such as artwork and antiques |
| Liabilities | <ul style="list-style-type: none"> • Mortgage debt on principal residences • Mortgages on other real estate • Instalment debt • Credit lines | <ul style="list-style-type: none"> • Credit card debt • Other miscellaneous debts such as loans from pensions, friends and family |

Source: Kennickell (2000:26). Only assets and liabilities applicable to South African households are mentioned.

Studies that were conducted on the basis of the Survey of Consumer Finances are the tracking of changes in net wealth over the years. The first was for the period 1983 to 1989 (Kennickell & Starr-McCluer, 1997), which enquired about changes in the assets and liabilities base of respondents in 1983 compared to the changes in 1989. Kennickell and Starr-McCluer (1997:463) found that, although data on wealth changes has information content, it should not replace panel data but should rather be used to further explain the latter. A study of the follow-up changes in wealth studies was conducted in 2003 (Kennickell, 2003) and the latest in 2007 (Bucks, Kennickell, Moore & Mach, 2009). By scrutinising these findings, the importance of wealth measurement in the United States of America becomes apparent. Disaggregated categories of assets and liabilities from the Survey of Consumer

Finances were identified for consideration to be included in the South African net wealth measurement section that was designed for purposes of this study.

4.3.3 Canada

A Survey of Consumer Finances was also conducted in Canada from 1974 until 1997, but has been replaced with the Survey of Household Spending (SHS) to reduce costs and to ease the reporting burden in Canada (SC, 2010). The latter survey has been conducted annually since 1997. The most recent Survey on Household Spending in Canada (SC, 2010:1–22) collected information on household expenditures and income as well as changes in assets, mortgages and other loans. The survey covers the expenditure incurred to acquire assets in a specific period rather than the complete measurement of assets. Wealth *per se* is not defined in the survey, and is not its prime objective. However, the survey does identify categories of assets and liabilities that were deemed useful to the current study. Exhibit 4.3 shows the type of information gathered in the survey on the asset and liability categories.

Exhibit 4.3

Asset and liability classes identified from the Survey of Household Spending in Canada

| Section | Components |
|---------------|---|
| Changes in: | <ul style="list-style-type: none"> • Bank balances • Money on hand • Money owed to the household • Money owed by the household |
| Detail about: | <ul style="list-style-type: none"> • Purchase and sale of stocks and bonds • Personal property and real estate • Expenditure on improvements to real estate • Contributions and withdrawals from registered retirement saving plans • Trade-in values of vehicles • The characteristics of dwellings owned • Content within dwellings • Addition and repayment of mortgages on principal residences as well as other properties • Measurement of all outstanding mortgage debt |

Source: SC (2010)

In 2011, a National Household Survey (NHS) was conducted in Canada to provide information on the demographics of Canadian residents, social and economic characteristics and information on the housing units in which they live (SC, 2011). Although the survey could be useful to determine detailed questions on the housing unit, wealth measurement *per se* is also not a primary objective and was therefore not further reviewed.

Another study that was useful in identifying the asset and liability base of households was the comparison study between Canada and the United States of America conducted by Chawla (1990). This study, which was conducted in 1984, is a comparative study on household wealth in Canada and the United States of America. Both countries defined net wealth as the value of total assets less total debt, and the assets and debts that were measured are summarised in Exhibit 4.4.

Exhibit 4.4

Asset and liability classes identified by Chawla (1990)

| Section | Components |
|--------------------|--|
| Assets | <ul style="list-style-type: none"> • Ownership of bonds, stocks and shares • Deposits in financial institutions • Owner-occupied homes • Other real estate • Vehicles • Savings plans • Farms • Professional practices |
| Liabilities | <ul style="list-style-type: none"> • Mortgages on owner-occupied and other real estate • Money owed on charge accounts • Loans from banks |

Source: Chawla (1990)

It is evident from the literature review on Canadian wealth studies that wealth measurement in Canada is not done as explicitly as in the United States of America, but is indirectly measured by the Survey of Household Spending. The study by Chawla (1990) helped to identify some asset and liability categories that could be included in the South African financial position section of the survey instrument.

4.3.4 Australia

By international standards, Australia has a rich set of household wealth data (Bloxham & Betts, 2009:228). Australia, however, is exceptional in the sense that it

currently has two major net wealth measurement surveys. These surveys, together with net wealth estimates such as the quarterly time series measures constructed by the Reserve Bank of Australia (RBA) and the Australian Bureau of Statistics (ABS), assist with the compilation of the Australian System of National Accounts. The two surveys are the Household Income and Labour Dynamics in Australia (HILDA) survey and the Survey of Income and Housing (SIH) (Bloxham & Betts, 2009). According to Bloxham and Bets (2009), the advantage of having two net wealth measurement surveys with different scopes, is that it promotes a dynamic comparison of data collected from both surveys. These researchers (2009) claim that both measures of household net wealth provide similar estimates of the value of household assets, liabilities and net wealth in comparable periods. Variation in measurement is ascribed to a difference in focus and the scope of measurement of each survey (Bloxham & Betts, 2009:218). Both surveys are based on periodic, direct surveys of households and warrant individual discussion in sections 4.3.4.1 and 4.3.4.2 in order to determine their focus and the assets and liabilities covered.

4.3.4.1 *The Household Income and Labour Dynamics in Australia (HILDA) survey*

The HILDA survey is a household panel survey funded by the Commonwealth (Headey, Marks & Wooden, 2005). The wealth module commenced in 2002. The survey defines net wealth as the difference between the assets and liabilities of households (Headey et al., 2005). The core survey is conducted annually, but information on the financial position of households or net wealth measurement is collected quadrennially. Geographically, the HILDA survey provides data at local area level as well as longitudinal data (Bloxham & Betts, 2009:219–227). The core focus of the survey is household structure and formation, income and economic well-being (Headey et al., 2005:161). The main classes of assets and liabilities measured in the HILDA survey are indicated in Exhibit 4.5.

Exhibit 4.5

Asset and liability classes identified by the HILDA survey

| Section | Components |
|--------------------|--|
| Assets | <ul style="list-style-type: none"> • Owner-occupied dwellings • Other property (including and other residential and non-residential properties) • Pensions/superannuation • Businesses and farms • Equity investments (shares and managed funds) • Cash-type investments (for example bonds and debentures) • Bank accounts • Vehicles • Other assets, including cash investments, trust funds, cash-in value of life insurance and collectibles (such as artworks) |
| Liabilities | <ul style="list-style-type: none"> • Property loans (including all mortgages held by the household on residential property) • Businesses and farm loans (including mortgages associated with such property) |

Source: Creedy and Tan (2007); Headey et al. (2005)

In Australia, the association of household net wealth with household characteristics such as age, marital status, education and income is interrogated (Headey et al., 2005). According to Creedy and Tan (2007), property assets and financial assets are reported at the market value estimated by the respondent, while debts are reported at outstanding book value (or amortised value). Household contents are excluded from the survey. Vehicles and collectibles are reported as the value respondents think they would receive if these were sold immediately.

4.3.4.2 *The Survey of Income and Housing (SIH)*

The core purpose of this survey is the collection of data on net wealth and its distribution (ABS, 2011). Information on household assets and liabilities was first collected in 2003/2004, again in 2005/2006 and the latest (at the time of the literature review) in 2009/2010. Since the 2009/2010 survey, data has been collected every six years. Geographically, the Survey of Income and Housing identifies household data for cities and states. The survey defines wealth as a net concept, and measures the extent to which the value of household assets exceeds the value of liabilities (ABS, 2011:4). According to the researchers (ABS, 2011:1–10), household net worth varies

between states and territories and between capital cities and rural areas. The main types of assets and liabilities measured in the Survey of Income and Housing are indicated in Exhibit 4.6.

Exhibit 4.6

Asset and liability classes identified by the Survey of Income and Housing

| Section | Components | |
|---------|---|---|
| Assets | Financial assets <ul style="list-style-type: none"> • Value of accounts held with financial institutions • Value of shares • Value of public unit trusts • Value of private unit trusts • Value of debentures and bonds • Superannuation | Non-financial assets <ul style="list-style-type: none"> • Property assets (value of owner-occupied dwelling and other property) • Value of own unincorporated business • Value of contents • Value of vehicles |
| | Liabilities | Property loans <ul style="list-style-type: none"> • Principal outstanding on loans for owner-occupied dwelling • Principal outstanding on other property loans |

Source: ABS (2011:36)

The two surveys provide data on similar classes of assets and liabilities as identified in surveys in Canada and the United States of America and contributed to the disaggregation of the current asset and liability base of the South African Reserve Bank household balance sheet (SARB, 2012).

4.3.5 New Zealand

The New Zealand literature review resulted in access to two surveys on household wealth. The first was the 2001 Household Savings Survey (HSS), which was a once-off nation-wide survey conducted by Statistics New Zealand (SNZ) (HESD, 2001). The main aim of the survey was to raise public awareness of retirement issues. According to the researchers (HESD, 2001:7), it was the first detailed collection of

data on the assets and liabilities of New Zealanders and was done for individuals as opposed to households. The survey contained an asset and liability module that collected the following data from respondents, as indicated in Exhibit 4.7.

Exhibit 4.7

Asset and liability classes identified by the Household Savings Survey

| Section | Components | |
|--------------------|--|---|
| Assets | <p>Residential property consists of 5 modules:</p> <ul style="list-style-type: none"> • Owner-occupied property • Rental property • Holiday homes • Other property • Overseas property <p>Bank module:</p> <ul style="list-style-type: none"> • Cheque account • Current account • Savings account • Term deposits • Overseas accounts • Term accounts • Bonus bonds | <ul style="list-style-type: none"> • Business equity (net selling value) • Cash (only more than NZ\$1 000) • Collectibles (only more than NZ\$1 000) • Commercial property • Farms • Financial assets (including shares, managed funds and other financial assets) • Life insurance • Maori assets • Vehicles • Owed money assets • Superannuation (including personal schemes, defined benefit schemes and defined contribution schemes) • Timeshare • Trusts |
| Liabilities | <ul style="list-style-type: none"> • Principal outstanding on every property sub-classified as revolving credit mortgage or flat mortgages (including farms and business mortgages) | <ul style="list-style-type: none"> • Student loans • Credit cards (including store cards and charge cards) • Hire purchases <p>Bank module:</p> <ul style="list-style-type: none"> • Normal bank loan • Finance company loans • Building society loans • Credit union loans |

Source: HESD (2001:14–17)

The second survey is a longitudinal study, developed in 1997, called the Survey of Families, Income and Employment (SoFIE), which was first used in October 2002.

SoFIE is a single fixed-panel study (Le, Gibson & Stillman, 2010). The survey is conducted annually on income and related matters, and biannually on assets and liabilities (wealth) in order to monitor net wealth and savings among the same individuals or families. The overall objective of the survey is to provide information on the economic well-being of individuals over time as well as the factors that affect economic well-being (Carter, Cronin, Blakely, Hayward & Richardson, 2009:653). The main asset and liability classes of the survey are indicated in Exhibit 4.8.

Exhibit 4.8

Asset and liability classes identified by SoFIE

| Section | Components | |
|--------------------|--|--|
| Assets | <ul style="list-style-type: none"> • Home • Investment property • Workplace pension • Personal pension • Bank accounts • Life insurances • Mutual funds | <ul style="list-style-type: none"> • Other financial assets • Farms and businesses • Trusts • Vehicles • Leisure equipment • Household items • Other assets |
| Liabilities | <ul style="list-style-type: none"> • Mortgage • Bank accounts • Credit cards | <ul style="list-style-type: none"> • Student loans • Other liabilities |

Source: Le et al. (2010:3)

From the literature review, it is apparent that the Household Savings Survey provides a greater number of detailed asset and liability classes than SoFIE, but because it was a once-off survey, only the details of SoFIE are included in the comparison in the present research of the most comprehensive surveys. Both surveys, however, contribute to the disaggregation of the current asset and liability classes from the South African Reserve Bank household balance sheet (SARB, 2012).

4.3.6 European countries

The most prominent studies and surveys in Europe on the distribution and composition of household net wealth to which access could be obtained are discussed in this section. These are the Luxembourg Wealth Study (LWS) (section

4.3.6.1), the Spanish Survey of Household Finances (EFF) (section 4.3.6.2), the Household Finance and Consumption Survey (HFCS) conducted under the auspices of the European Central Bank (ECB) (section 4.3.6.3) and the Wealth, and Asset Survey (WAS) which was conducted in Great Britain (section 4.3.6.4).

4.3.6.1 Luxembourg Wealth Study (LWS)

According to Jantti, Sierminska and Smeeding (2008:30), the idea of the Luxembourg Wealth Study originated at a conference of the International Association for Research in Income and Wealth (IARIW) in 2002. Countries that produce household micro-data agreed to create a harmonised cross-national database on household assets and liabilities. Nine countries participated in the initial phase of the Luxembourg Wealth Study, which started in 2005, namely Canada, Cyprus, Finland, Germany, Italy, Norway, Sweden, the United Kingdom and the United States of America, while a tenth country, Austria, joined in 2006. In time, the aim is to adopt similar definitions and methodologies in the various surveys that make up the database, which should enhance cross-country comparisons (Sierminska et al., 2006:5). Currently, differences in the unit of analysis as well as definitions and methodologies make the construction of the comparable wealth aggregates a daunting task. This was initially addressed by defining a set of ideal variables and a general classification of wealth aggregates. According to Sierminska et al. (2006:9), these aggregates are as follows:

- financial assets, which consist of transactions and savings accounts, bonds, stocks, mutual investment funds, life insurance, pension assets and other financial assets;
- non-financial assets, which include the main residence, other properties, businesses, vehicles, collectibles, durables and other non-financial assets;
- liabilities, which consist of residence mortgages, other mortgages, credit lines, vehicle debt, instalment debt, other loans from financial institutions and informal debt; and
- net wealth, which is the financial and non-financial assets less the liabilities.

The aggregates are mostly valued at their realisation values or market values at the date of the survey (Sierminska et al., 2006). Although the aggregates are broadly comparable across countries, they are not perfectly comparable owing to the

difference in units of analysis, purpose, definitions and methodologies used by the different surveys, something which will hopefully be addressed in the future (Jantti et al., 2008:7; Sierminska et al., 2006:12–19).

By taking cognisance of the categories of data used in the Luxembourg Wealth Studies, a cross-country comparison between South Africa and these countries could be attainable in future. The different classes of assets and liabilities in the database contributed to establishing the different asset and liability classes for the South African financial position section of the survey instrument.

4.3.6.2 Spanish Survey of Household Finances (EFF)

The Spanish Survey of Household Finances (EFF), under the auspices of the Banco de España (Bank of Spain), has been collecting data on household assets, debts and consumption since 2002. It is the only statistical source in Spain that permits the linkage of income, assets, debt and consumption at household level (Bover, 2008:9). The survey manages to sample the wealthy in that country because it is done in collaboration with the Tax Office and the National Statistics Institute in Spain (Bover, 2008:9). The section dealing with the measurement of income and consumption covers the labour market situation and labour income of all household members, non-labour income, consumption and savings. Exhibit 4.9 shows the asset and liability classes covered in the wealth measurement section of the survey.

Exhibit 4.9
Asset and liability classes identified by the Spanish Survey of Household Finances

| Section | Components | |
|--------------------|--|--|
| Assets | <p style="text-align: center;">Real estate assets</p> <ul style="list-style-type: none"> • Main residence • Other real estate | <p style="text-align: center;">Financial and other assets</p> <ul style="list-style-type: none"> • Listed and unlisted shares • Mutual funds • Fixed income securities • Pension plans • Life insurance • Business market value |
| Liabilities | <ul style="list-style-type: none"> • Amount owed on main residence • Amount owed on other real estate | |

Source: Bover (2008:1–30)

Before the 2008 wave of the survey, the Bank of Spain decided to revise its survey to incorporate the core output variables of the Household Finance and Consumption Survey (HFCS) (Sanchez-Munoz & Tzamourani, 2008:11), which will be discussed in the next subsection. As a result of most euro area countries following this route to net wealth measurement, according to the authors (2008), the literature review in terms of Europe is limited to the Household Finance and Consumption Survey conducted under the auspices of the European Central Bank (ECB).

4.3.6.3 European Central Bank (ECB)

The Household Finance and Consumption Network (HFCN) was established in December 2006 and consists of statisticians and economists from the European Central Bank, the Euro System National Central Banks (comprising the Deutsche Bundesbank, the Banque de France, the Banca D'Italia and the Bank of Greece) and a number of other institutes (European Central Bank/Household Finance and Consumption Network, 2009). The main aim of the Household Finance and Consumption Network is to collect household-level data on finances and consumption in the euro area (European Central Bank/Household Finance and Consumption Network, 2009; Sanchez-Munoz & Tzamourani, 2008). Although surveys on household net wealth exist in some euro countries such as Greece,

Spain, Italy, France, Cyprus, the Netherlands, Portugal and Finland, there was extreme heterogeneity in the measurement of different household assets and liabilities in the different surveys (Sanchez-Munoz & Tzamourani, 2008).

The need for comparable data across the euro area necessitated the development of a cross-national multidisciplinary survey that would address the characteristics of heterogeneity in the financial behaviour and financial holdings of households across the euro area (Sanchez-Munoz & Tzamourani, 2008:3). The purpose of the cross-national multidisciplinary survey was not to design a general questionnaire that could be conducted in all countries, but to compile a questionnaire that could be adjusted for the particular needs of each country to compensate for the vast array of differences across countries. To achieve this aim, the Household Finance and Consumption survey (HFCS) was developed with harmonised and defined output variables. A set of so-called “core” output variables is delivered by all participating countries to make cross-country comparison possible. The survey is conducted by means of face-to-face interviews. The mediation of an interviewer is deemed essential because of the complexity and sensitivity of the data to be collected (Sanchez-Munoz & Tzamourani, 2008:4).

The questionnaire covers the following: demographics, real assets and their financing, other liabilities, private businesses, financial assets, employment, income, pensions and insurance policies, transfers and gifts and consumption. The detailed coverage of the main sections is indicated in Exhibit 4.10.

Exhibit 4.10

Asset and liability classes identified by the European Central Bank/Household Finance and Consumption Network

| Section | Components | |
|---------------------|---|--|
| Demographics | <ul style="list-style-type: none"> • Each household member's relationship to the reference person • Identification • Gender • Age | <ul style="list-style-type: none"> • Country of birth • Period of residence in the country • Marital status • Level of education |
| Assets | <p>Real assets</p> <ul style="list-style-type: none"> • Value of main residence | <p>Financial assets</p> <p>Extensive coverage of the use and</p> |

| Section | Components | |
|--------------------|--|--|
| | <ul style="list-style-type: none"> • Other properties • Vehicles • Valuables <p style="text-align: center;">Other assets</p> <ul style="list-style-type: none"> • Private businesses (includes passive investments in private businesses and self-employed businesses) • Pension entitlements (the value of public, employment-related and private pension schemes) • Value life insurances | value of – <ul style="list-style-type: none"> • Sight accounts • Savings accounts • Mutual funds • Bonds • Traded shares • Debtors • Other financial assets |
| Liabilities | <ul style="list-style-type: none"> • Financing of real assets (Includes detail on collateralised loans on real assets such as refinancing, interest rates, purpose of the loans, outstanding amounts and loan terms) | Extent and use of – <ul style="list-style-type: none"> • Overdrafts • Credit lines • Credit card borrowing • Leases • Consumer instalment loans (non-collateralised loans) (For each liability, the purpose, outstanding amounts, interest rates and terms of repayment is required). |

Source: European Central Bank/Household Finance and Consumption Network (2008, 2009); Sanchez-Munoz and Tzamourani (2008)

The survey also contains sections on employment, income, transfers and gifts and consumption. “Employment” covers employment status, an employment history and the expected retirement age of each household member. The section on income records gross income per individual, past average household income and future household expected income. The item, “transfers and gifts”, includes the most important transfers, gifts and inheritances as well as an estimation of future expectancies. In the survey, “consumption” is not meant to cover consumption extensively under a budget-type survey, but instead refers to consumption indicators such as food, expenses and saving motives. Common definitions and questions corresponding to each of the core output variables are included in the blueprint

questionnaire that can be used by countries implementing the survey for the first time.

The Household Finance and Consumption Survey (HFCS) was pretested successfully in Spain, Belgium, Germany, Greece, France and Portugal. The Governing Council of the European Central Bank subsequently decided in September 2008 that the Household Finance and Consumption Survey would be conducted in all 15 euro area countries (Sanchez-Munoz & Tzamourani, 2008:11). Because the euro area countries now conduct this similar survey (Household Finance and Consumption Survey), the European literature review conclude with a discussion of a recent survey conducted in Great Britain.

4.3.6.4 Wealth and Assets Survey (WAS) in Great Britain

The requirement for wealth measurement in Britain originated in the 1970s. Previous surveys had collected savings information and were generally not comprehensive enough to measure private net wealth - hence the need to conduct further feasibility work (Black, 2011:2). Two feasibility studies were conducted in 1976 and 1977 to establish the content of a questionnaire that would satisfy net wealth measurement. However, these studies were put on hold because of the high non-response rates of studies conducted by the Office of Population Censuses and Surveys (Black, 2011).

The Family Resources Survey (FRS) commenced in 1992, and provided a comprehensive picture of income levels and some detail on assets and savings. In 2002, the English Longitudinal Survey of Ageing (ELSA) was launched, which included questions on certain assets, especially pensions. The aim of the latter survey was to investigate the relationships between economic position, health and social participation as people age (Daffin, 2009:3).

The success of the Family Resources and the ELSA surveys aroused interest in household net wealth measurement, and in January 2004, development of the Wealth and Assets Survey (WAS) commenced. A feasibility study was completed in June 2005 and, following its success, a pilot study was conducted in 2006 (Daffin, 2009:1–4). During the period, July 2006 to June 2008, the first wave of the Wealth and Assets Survey was conducted in Great Britain (Daffin, 2009:xx). The objective was to address gaps in the data on household well-being and to gather information

on the level of assets, savings and debt, retirement savings and the distribution of wealth among households in that country. Over 30 000 private households were surveyed in Wave 1.

In 2008/2010, the second wave of the survey was conducted on households from Wave 1 who indicated their willingness to be re-interviewed, as well as households that could not be contacted in Wave 1. A total of 20 170 households were included in Wave 2 (Black, 2011:4–5). At the time of the literature review for this study in 2011, only Part 1 of the report on the second wave (Black, 2011), which covers property and physical wealth of households, was available.

According to the above survey, the total net wealth of private households is defined as the value of accumulated assets minus the value of accumulated liabilities at a particular point in time (Black, 2011:10; Daffin, 2009:8). “Total net wealth” is the sum of net property wealth, net financial wealth, physical wealth (contents of the main residence and other properties, collectables and valuables, vehicles and personal number plates) less household borrowing plus private pension wealth (excluding state pension funds and calculated as the present value of future income streams). The survey excludes business assets owned by households (Daffin, 2009:10).

The main classes of assets and liabilities covered in the Wealth and Assets Survey 2006/2008 and 2008/2010 conducted in Great Britain is indicated in Exhibit 4.11.

Exhibit 4.11

Asset and liability classes identified by the Wealth and Assets Survey

| Section | Components | |
|---------------------|---|---|
| Demographics | <ul style="list-style-type: none"> • Age • Gender • Household type | <ul style="list-style-type: none"> • Socio-economic status • Regions and qualifications |
| Assets | <p>Household property wealth</p> <ul style="list-style-type: none"> • Value of the household’s main residence • Other property values <p>Physical wealth</p> <ul style="list-style-type: none"> • Contents (main residence and other property content) | <p>Formal financial assets</p> <ul style="list-style-type: none"> • Current accounts • Savings accounts • National savings certificates • Bonds • UK shares • Insurance products |

| Section | Components | |
|--------------------|--|---|
| | <ul style="list-style-type: none"> • Collectables and valuables (antiques, artworks or stamps) • Vehicles (cars, vans, motorbikes, other and personalised number plates) <p>Private pension wealth</p> <ul style="list-style-type: none"> • Employer-provided defined benefit schemes (DB) • Employer-provided defined contribution schemes (DC) • Personal pensions | <ul style="list-style-type: none"> • Fixed-term bonds • Personal equity plans • Employee shares and share options • Unit/investment trusts • Overseas shares • UK bonds/gilts • Overseas bonds/gilts • A category for other <p>Informal financial assets</p> <ul style="list-style-type: none"> • Money saved at home or elsewhere • Money lent to someone • Money paid into a savings or loan club |
| Liabilities | <p>Mortgage loans</p> <ul style="list-style-type: none"> • Mortgage debt on all properties | <p>Non-mortgage borrowing</p> <ul style="list-style-type: none"> • Any credit or store cards that were not settled in full each month • Overdrafts • All forms of fixed-term loans (including formal and informal personal loans, student loans, hire purchase agreements and mail order accounts) <p>Household bills</p> <ul style="list-style-type: none"> • Utility bills • Council tax • Rent |

Source: Black (2011); Daffin (2009)

Net household property wealth consists of the value of the household's main residence and other property values owned minus mortgage debt on all properties (Black, 2011:19; Daffin, 2009:20). Net financial wealth consists of the value of formal and informal financial assets held by adults and children minus financial liabilities of the same.

Owing to a problem with data collection, assets held in trusts were not included in the 2006/08 survey (Daffin, 2009:6). Because trusts are held by the wealthiest

households, adding the missing data on trusts would increase wealth at the top end of the distribution, according to Daffin (2009:6). Furthermore, net wealth is based on households' personal, private wealth. This means that it does not include business assets owned by household members, for instance, if they run a small business; nor does it include rights to state pensions, which people accrue during their working lives and draw on in retirement (Daffin, 2009:8). Although business assets were not included in total wealth, the survey did collect information on business assets (Daffin, 2009:138).

The Wealth and Asset Survey provided the present study with disaggregated asset and liability categories, which were included in the surveys scrutinised to enable the researcher to prepare a comprehensive financial position section in the survey instrument to measure household net wealth in South Africa.

4.3.7 Other surveys

A number of wealth measurement surveys and studies conducted in various other countries were also reviewed to determine whether the asset and liability classes established from the studies and surveys could help to further disaggregate household assets and liabilities. These other surveys did not contribute new information to the existing body of knowledge obtained from the above summarised surveys to further disaggregate household assets and liabilities, and are therefore merely mentioned. The section includes studies on household net wealth in China (section 4.3.7.1), India (section 4.3.7.2), Indonesia (section 4.3.7.3) and Moldova and Turkey (section 4.3.7.4).

4.3.7.1 China

One of the most prominent studies on household wealth in China was conducted by Li and Zhao (2007). The study was based on changes in the wealth distribution using the data from two national household surveys conducted in 1996 and 2003. The research team of the Institute of Economics, Chinese Academy of Social Sciences (CASS) and international scholars conducted these surveys. Data obtained from the two surveys was compared, and Li and Zhao's (2007:3–22) study reported on net wealth with its components, namely land value, net housing value, financial assets, fixed production assets, durable consumer goods and non-housing liabilities.

However, these broad categories did not help the researcher to further expand the existing knowledge base in the current study.

4.3.7.2 India

India was also included in the literature review on wealth measurement conducted in other countries. According to Subramanian and Jayaraj (2006), India's principal source of wealth distribution statistics is constituted by five decennial Reserve Bank of India Surveys on Debt and Investment of 1961–1962, 1971–1972, 1981–1982, 1991–1992, and at the time of the literature review, the latest was in 2002–2003. According to the above authors (2006), household wealth comprises physical and financial assets and excludes human capital. A household asset is an item owned by the household that has monetary value. Physical assets are valued at current market, sales or purchase prices, as may be applicable. The following eight categories of assets are distinguished: land, buildings, livestock and poultry, agricultural machinery, non-farm business equipment, all transport equipment, durable household assets and financial assets (the last disaggregated into shares, deposits and accounts receivable). For each asset category, information is also available on the proportion of households reporting ownership of the asset. However, debt *per se*, is not measured, but indebtedness is captured with two indicators, namely the incidence measure or proportion of households reporting indebtedness and the debt–asset ratio of each household (Subramanian & Jayaraj, 2006:5). These categories did not help to further expand the existing knowledge base in this study.

4.3.7.3 Indonesia

The Indonesian Family Life Survey (IFLS) (RAND Family Life Surveys, 2007) is a multi-purpose survey collecting data from households on fertility, health, education, migration, employment and the social and economic status of the household. It was first administered in 1993, and at the time of the literature review, the fourth and latest survey was conducted in 2007. As with all multi-purpose surveys, many publications in a multitude of fields arose from the results of the survey over the years. Net wealth measurement, however, is not the key focus of the survey, which consists of several books (the books cover the various sections described above).

Book II of the Indonesian Family Life Survey contains questions on the household economy and was deemed the appropriate section to review for the purposes of this study. The sections of Book II are household characteristics, farming and non-farming businesses, household assets, non-labour income and borrowing. From the farming business section, the value of farmland, poultry, livestock, hard-stem plants, houses, buildings, vehicles and equipment was determined. The same information was obtained for non-farming business, with more detailed information on the type of business, income generated, expenditure and profit or loss. The household asset section determines the value of assets not used for farming or non-farming businesses. The main categories are house and land, other houses/buildings, land, poultry, livestock, hard-stem plants, vehicles, household appliances, savings accounts, deposits, stock values, receivables, jewellery and household furniture and utensils. In the borrowing section, the purpose is to determine the implications of natural disasters for household borrowing, the source of household borrowing and the purpose of the loan. Questions on the value aspect of borrowing consider the term of the amount borrowed, the repayment date, the duration of the loan, instalments and the outstanding amount of the loan. There is no differentiation between loan types (Frankenberg, Karoly, Gertler, Peterson & Wesley, 1995; RAND Family Life Surveys, 2007). These categories did not help to further expand the existing knowledge base for this study.

4.3.7.4 *Moldova and Turkey*

The household surveys conducted in Moldova and Turkey are the Household Budget Survey of the Republic of Moldova and the Turkey 2006 Household Budget Survey (IHSN, 2001; IHSN, 2006). However, limited wealth measurement was found in comparison with the other above-mentioned studies, and the survey was focused on determining the income and expenditures of the households with limited measurement of the value of assets and almost non-existing measurement of liabilities.

4.3.8 Summary of the international literature review conducted

Based on the literature review conducted in the countries referred to, Table 4.4 indicates the main categories of assets and liabilities covered in the net wealth measurement surveys conducted in the United States of America, Canada, Australia,

New Zealand and Europe. In terms of the literature review, those surveys were identified as the most comprehensive.

Table 4.4

Asset and liability classes identified by the most comprehensive surveys

| Net wealth measurement categories | United States: Survey of Consumer Finances (SCF) | Canada: Survey of Household Spending (SHS) | Canada & United States: Chawla | Australia: Household Income and Labour Dynamics (HILDA) | Australia: Survey of Income and Housing (SIH) | New Zealand: Survey of Family, Income and Employment (SoFIE) | European studies: Spanish Survey of Household Finances (EFF) | European Central Bank (HFCS) | Great Britain: Wealth and Asset Survey (WAS) |
|--|--|--|--------------------------------|---|---|--|--|------------------------------|--|
| TOTAL ASSETS | | | | | | | | | |
| Main residence/Owner-occupied housing/Principal residences | x | x | x | x | x | x | x | x | x |
| Other property/Other real estate/Residential real estate | x | x | x | x | x | x | x | x | x |
| Improvements to real estate | | x | | | | | | | |
| Vehicles | x | x | x | x | x | x | | x | x |
| Planes | x | | | | | | | | |
| Collectibles/Valuables | x | | x | x | | x | | x | x |
| Contents – main residence | | x | x | | x | | | | x |
| Contents – other property | | | | | x | | | | x |
| Financial assets | | | | | x | x | x | | |
| • Cash investments/Accounts held with financial institutions | | | | x | x | | x | | |
| • Cheque account/Bank balances/Sight accounts | x | x | | x | | x | | x | x |
| • Savings account/Call accounts | x | | | | | | | x | x |
| • Money market account/ Personal equity plans | x | | | | | | | | x |
| • Fixed deposits/Demand deposits/Certificates of deposits | x | | x | | | | | | x |
| • Bonds (RSA Retail)/ Government bonds/ Debentures | x | x | x | x | x | | | x | x |
| • Collective investments/Mutual funds | x | | | | x | x | x | x | x |
| • Equity investments/Shares held/Stocks | x | x | x | x | x | | | x | x |
| • Shares – Listed/Equity Holdings/Stocks | | | | | | | x | | |
| • Shares – unlisted | | | | | | | x | | |
| • Employee share/Options scheme | | | | | | | | | x |
| • Insurances/Savings plans | x | | x | x | | x | x | x | x |
| • Offshore investment | | | | | | | | | x |

| Net wealth measurement categories | United States: Survey of Consumer Finances (SCF) | Canada: Survey of Household Spending (SHS) | Canada & United States: Chawla | Australia: Household Income and Labour Dynamics (HILDA) | Australia: Survey of Income and Housing (SIH) | New Zealand: Survey of Family, Income and Employment (SoFIE) | European studies: Spanish Survey of Household Finances (EFF) | European Central Bank (HFCS) | Great Britain: Wealth and Asset Survey (WAS) |
|--|--|--|--------------------------------|---|---|--|--|------------------------------|--|
| • "Stokvels"/Savings or loan club | | | | | | | | | x |
| • Unbanked cash/Money on hand | | x | | | | | | | x |
| • Debtors/Money owed to the household | | x | | | | | | x | x |
| • Other | | | | | | | | x | x |
| Pension reserves/Retirement funds/Superannuation | x | x | x | x | x | x | x | x | x |
| Social security reserves | | | x | | | | | | |
| Business interest/Unincorporated business equity | x | | x | x | x | x | x | x | x |
| Trusts | | | | | | x | | | |
| TOTAL LIABILITIES | | | | | | | | | |
| Mortgage loans – main residence/principal residences | x | x | x | x | x | x | x | x | x |
| Mortgage loans/Other properties/Other real estate | x | x | x | x | x | | x | x | x |
| Instalment debt/Hire purchase debt | x | | x | x | | | | x | x |
| Financing – vehicles | | | | x | x | | | | x |
| Financial liabilities/Consumer debt | | | | | | | | | |
| • Bank overdraft/Credit lines/Bank loans | x | | x | x | x | x | | x | x |
| • Credit card | x | | | x | x | x | | x | x |
| • Store cards/Charge accounts | | | | | | | | | x |
| • Student loan | | | | x | x | x | | | x |
| • Personal loan | | | | | | | | | x |
| • Cash loan | | | | | | | | | x |
| • Loan from employer | | | | | | | | | x |
| • Loan from friend/relative | | | | | | | | | x |
| • Hire purchase agreement | | | | | | | | | x |
| Other debts | x | | | x | x | x | x | | |
| Financial liabilities – short-term | | | | | | | | | |
| • Municipal | | | | | | | | | x |
| • Rent (arrears) | | | | | | | | | x |

Source: Researcher's own compilation

It is clear from Table 4.4 that the Wealth and Asset Survey conducted in Great Britain is the most comprehensive. The literature review conducted on the other surveys did not contribute any new information to the existing body of knowledge gleaned from the above summarised surveys. Hence the literature review on current

net wealth measurement surveys was deemed sufficient for the purposes of the present research.

4.4 A HEURISTIC MODEL FOR THE SOUTH AFRICAN FINANCIAL POSITION SECTION OF THE SURVEY INSTRUMENT

Table 3.2 indicated the household balance sheet prepared by the South African Reserve Bank with its main and sub-classes of asset and liabilities. The various asset classes are durable consumer goods, residential buildings, other non-financial assets, assets with monetary institutions, interest in pension funds and long-term insurers and other financial assets. The liability classes are mortgage advances and other debt. The aim with the national (section 4.2) and international (section 4.3) literature review conducted, was to help further disaggregate the asset and liability classes. The literature reviews enabled the researcher to identify assets and liabilities most frequently owned and owed by households, as well as being applicable to South African households. Table 4.5 provides a heuristic model of household assets and liabilities that disaggregates the asset and liability classes of the household balance sheet prepared by the South African Reserve Bank into various sub-classes.

Table 4.5**Heuristic model of household assets and liabilities for inclusion in the preliminary financial position section**

| Asset category | Liability category |
|--------------------------------------|---|
| Main residence | Mortgage(s) on main residence |
| Other property | Mortgage(s) on other properties |
| Vehicles, including boats and planes | Financing of vehicles, boats and planes |
| Collectibles and household content | Financing of collectibles and household content |
| Pensions | |
| Business interests | |
| Trusts | |
| Financial assets | |
| Overseas investments | |
| Current accounts | |
| Savings or deposits | |
| Fixed-term investments | |
| Collective investments | |
| Employee share options | |
| Share investments | |
| Bonds and gilts | |
| Policies | |
| Loans | |
| Children's assets | |
| Informal savings | |
| Inheritances | |
| | Other non-mortgage liabilities |
| | Credit cards |
| | Store cards |
| | Personal loans |
| | Cell phone agreements |
| | Short-term financial liabilities |
| | Household bills |
| | Bank overdraft |

Source: Researcher's own compilation

The development of the financial position section based on the heuristic model presented in Table 4.5 is explained in Chapter 5.

4.5 CONCLUSION

This chapter commenced with a national literature review (section 4.2) to ascertain whether current South African instruments collecting household data could help to disaggregate and measure the different classes of assets and liabilities of South African households. The aim was to disaggregate the main asset and liability classes presented in the household balance sheet currently prepared by the South African Reserve Bank (section 3.6). However, none of the South African instruments reviewed had net wealth measurement as a prime objective and could therefore only disaggregate household assets and liabilities to a limited degree.

To realise the main research objective (section 1.3.1) and because no existing micro-level net wealth measurement instrument could be found in South Africa, the design of a financial position section was essential. To ensure that the newly designed financial position section would indeed recognise all possible assets and liabilities, an international literature review was conducted in section 4.3.

The international literature review included countries that are leaders in net wealth measurement like the United States of America, Canada, Australia, New Zealand and European countries such as Spain, and Great Britain. The net wealth measurement instruments of these countries were scrutinised to determine those asset and liability categories that would be applicable to South African households. Not only were the survey instruments of leading countries scrutinised, but those of other developing countries were also studied to determine whether they could help to further disaggregate the asset and liability base. Table 4.4 provided a comparison of the surveys contributing most to the research and the Wealth and Asset Survey of Great Britain was deemed the most extensive survey in its contribution to this research.

On the basis of the national and international literature review conducted, a heuristic model for a financial position section was constructed (Table 4.5). The heuristic model disaggregates the main classes of assets and liabilities into different sub-classes.

Chapter 5 focuses on the research methodology associated with finance and accounting research in general and a mixed methodology study in particular. The

chapter also describes the development of the South African financial position section that was included in an omnibus survey. The financial position section is based on the recognition (section 2.4.4) and measurement principles (section 2.4.5) of the Conceptual Framework (SAICA, 2010a). To ensure the development of a financial position section that would indeed be able to recognise and robustly measure all possible household asset and liability classes applicable to South African households, it was necessary to present the preliminary financial position section prepared from the heuristic model to different focus group participants.

CHAPTER 5

THE QUALITATIVE RESEARCH STRAND

“If the map shows a different structure from the territory presented ... then the map is worse than useless, as it misinforms and leads astray.” – Alfred Korzybski (Hofstee, 2006:107)

5.1 INTRODUCTION

The main objective of this study was to disaggregate and measure the asset and liability classes of South African households residing in metropolitan and non-metropolitan areas and, on the basis of the principles of the Conceptual Framework (SAICA, 2010a), to present the data in a statement of financial position for the two areas. From the data, inferences were drawn as a secondary objective, to determine whether independent variables such as age group, income group, education level, labour status and area (metropolitan/non-metropolitan) and/or their interactions influenced the accumulation of assets and liabilities of households.

Chapter 4 provided a comprehensive literature review on South African household studies. The aim was to establish whether any available household asset and liability measurement instrument existed that could be used to disaggregate and measure the asset and liability classes presented in the current household balance sheet prepared by the South African Reserve Bank. South African studies conducted at the time of the literature review made some disaggregation possible, but did not help to measure the disaggregated assets and liabilities. The literature review was extended to include international studies that recognised and measured the asset and liability base of households in various countries. On the strength of the literature review conducted, a heuristic model of the different assets and liabilities that households own and owe was developed. Table 5.1 provides a summary of the heuristic model of asset and liability classes.

Table 5.1**Summary of the heuristic model of household assets and liabilities for inclusion in the preliminary financial position section**

| Asset category | Liability category |
|-------------------------------------|---|
| Main residence | Mortgage(s) – main residence |
| Other property | Mortgage(s) – other properties |
| Vehicles including boats and planes | Financing of vehicles, boats and planes |
| Collectibles and household content | Financing of collectibles and content |
| Pensions | Other non-mortgage liabilities |
| Business interests | Short-term financial liabilities |
| Trusts | |
| Financial assets | |
| Children's assets | |
| Informal savings | |
| Inheritances | |

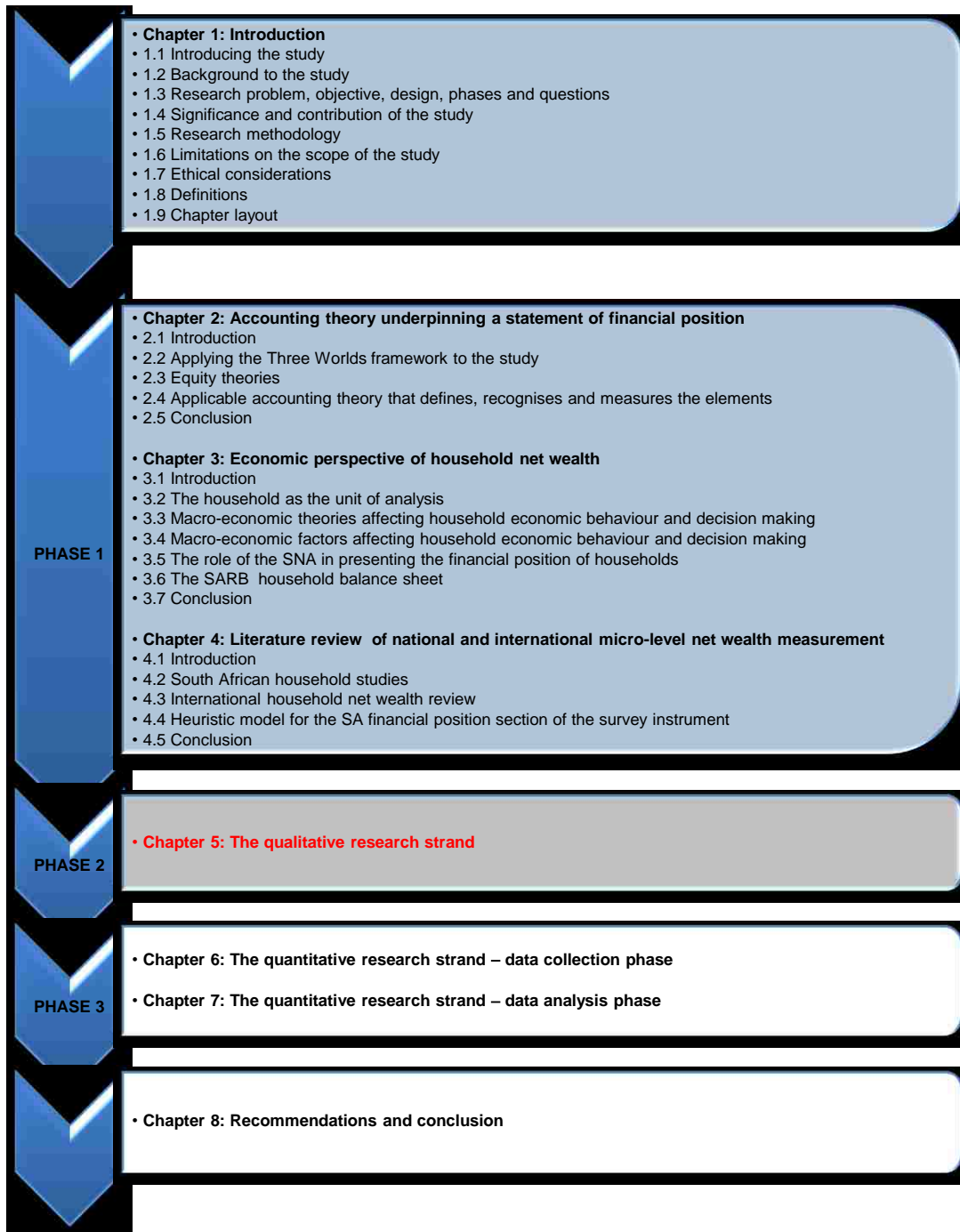
Source: Researcher's own compilation

The study took the form of a three-phased project commencing with a detailed literature review on accounting and economic theory and application (Chapters 2 and 3) as well as an overview of national and international household asset and liability measurement studies (Chapter 4).

This chapter focuses on the second phase of the study in which the research methodology applicable to finance and accounting in general and to this study in particular (section 5.2) and the related research design (section 5.3) is explained. The ontology and epistemology of the study are discussed. Based on the researcher's stance on these methodological issues and the research sub-questions the study was supposed to answer, appropriate research methods were identified and described. The study used a mixed methods research design because it integrated quantitative and qualitative data collection and analysis in a single study (Creswell & Plano Clark, 2011:5). Before the qualitative strand of the research could commence (section 5.5), the researcher had to compile a preliminary financial position section of the survey instrument which could be finalised in the qualitative strand. The compilation of the preliminary financial position section is described in section 5.4. The preliminary financial position section is based on the recognition and measurement principles of the Conceptual Framework (SAICA, 2010a).

To ensure that the preliminary financial position section identified all applicable household assets and liabilities and measured them reliably, the qualitative phase of the mixed methods research design is described in section 5.5. This phase was in the form of face-to-face (section 5.5.1) and online focus group interviews (section 5.5.2). The sampling method applied in the qualitative phase and the research sub-questions were described in section 1.3.4. The implementation of the results of the focus group discussions helped the researcher to develop a final financial position section that robustly recognised and measured all possible household assets and liabilities. In closing, the final financial position section that was included in the omnibus survey used in the quantitative strand is presented in section 5.6. Figure 5.1 indicates the layout of the study in order to place this chapter and its contents in the broad perspective of the study.

Figure 5.1
Presenting Chapter 5 in the layout of the study



Source: Researcher's own compilation

5.2 RESEARCH METHODOLOGY OF ACCOUNTING AND FINANCE DISCIPLINES

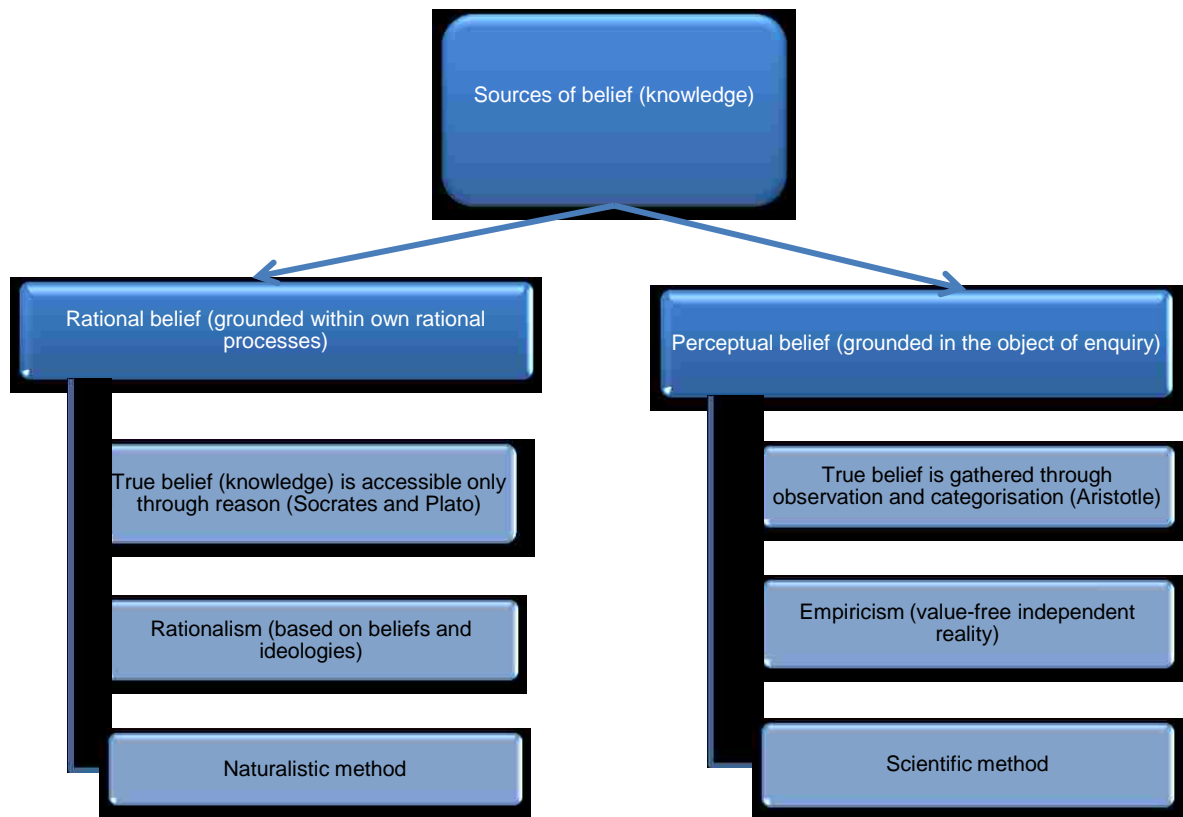
Henning et al. (2004) and Neuman (2000) state that research in the social sciences is underpinned by three main research frameworks or meta-theoretical traditions, namely the positivistic, the interpretive and the critical framework or tradition.

According to Ryan, Scapens and Theobald (2002:9), research in accounting and finance is generally accepted as being social scientific. In their book, *Research method and methodology in finance and accounting*, they summarise the development of philosophies in these two research disciplines that led to a dominant methodology (as well as other methodologies) often applied in accounting and finance research. Ryan et al. (2002) contend that the philosophical stance of the researcher determines the appropriate methodology to be applied in a research project.

The belief or knowledge posed by the subject (researcher) about an object (the phenomenon to be researched) is driven either by perception or reason (Ryan et al. 2002:10). According to these authors (2002), the epistemology or justified true belief depends on (1) the nature of belief, (2) the basis of truth, and (3) the justification of true belief. Babbie et al. (2006:9) refer to epistemology as the quest for truthful knowledge.

Belief, according to Ryan et al. (2002:11), stems from two broad sources, namely rational belief (grounded in our rational processes as enquiring subjects) and perceptual belief (grounded in the object that the subject perceives). This is represented in Figure 5.2.

Figure 5.2
Sources of belief



Source: Ryan et al. (2002)

These broad sources are not a dichotomy but a continuum, with rational belief at the one extreme and perceptual belief at the other. Ryan et al. (2002:11) hold that philosophers such as Socrates and Plato subscribed to the idea that justified true belief is accessible only through reason, and that rational belief is the foundation. Philosophers such as Aristotle, however, disagreed with rationalism and argued that knowledge could also be gathered by observation and categorisation (Ryan et al., 2002:12). According to these authors (2002), Aristotle maintained that repeated observations are amenable to extension and analysis. This school of thought paved the way for empiricism. Ryan et al. (2002:12–13) argued that modern empiricists accept that knowledge is determined by experience and that experience can be a justification for our beliefs about what we know.

Two distinct methodologies emerged from the above philosophies, namely the naturalistic and the scientific method. The scientific method of research starts from well-formulated theory, which is obtained from a careful review of previous literature on the object. This theory is used to formulate hypotheses that express relationships between variables. Data is collected by means of a predetermined set of procedures or methods and analysed using statistical and/or mathematical techniques to validate hypotheses. The approach is based on abstraction, reduction and statistical methods and, according to Ryan et al. (2002:35), Neuman (2000:64–75) and Henning et al. (2004:17), it is widely accepted as mainstream accounting research. Empiricism and the scientific method led to one of the most significant philosophical movements, namely positivism, which has greatly influenced the disciplines of accounting, finance and economics.

However, knowledge can also be obtained by means of the naturalistic method. Researchers such as Tomkins and Groves (1983) believe that, although scientific methods have their place, in accounting research other methods might be more appropriate. They argue that the naturalistic research methods are more appropriate to study, for example, behavioural elements. Such research would use field study methods to explore behavioural interactions. Naturalistic methods are based on realism, holism and analytical methods (Ryan et al., 2002:35). According to Tomkins and Groves (1983), the selection of the most appropriate methodology depends on the nature of the phenomenon under investigation.

In section 5.2.1, the ontological and epistemological assumptions of the study are argued. Based on the philosophical stance of the researcher, the research design is identified and elaborated on in section 5.3.

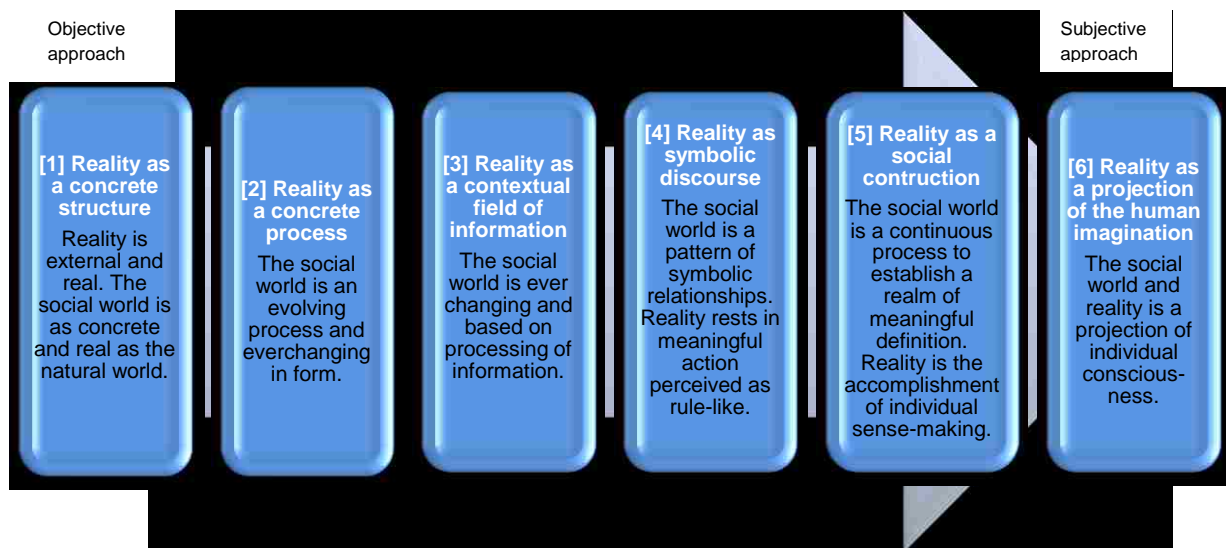
5.2.1 Ontology and epistemology of the current study

As mentioned above, rationalism and empiricism as classical distinctions focus on the source of knowledge. By contrast, realism and idealism describe the ontology of what the researcher knows. According to Ryan et al. (2002:13), ontology is the study of existence and relates to what the researcher discerns as “real”. Realists hold that reality subsists in objects, whereas idealists hold that reality exists in the mind of the subject.

Ryan et al. (2002:36) propose that the assumptions the researcher holds about the nature of the reality of the phenomenon (ontology) will affect the way in which knowledge of the phenomenon is gained (epistemology), which in turn affects the process through which research is conducted (methodology). In the current study, the researcher had to select an appropriate research methodology after considering the ontological and epistemological assumptions underpinning the main research question.

Morgan and Smircich (1980:494–495) developed six different ontological assumptions. These assumptions are perceived as six alternative ways of viewing the world across an objective–subjective continuum. These six ontological views and the objective–subjective continuum are depicted in Figure 5.3.

Figure 5.3
Morgan and Smircich’s ontological views



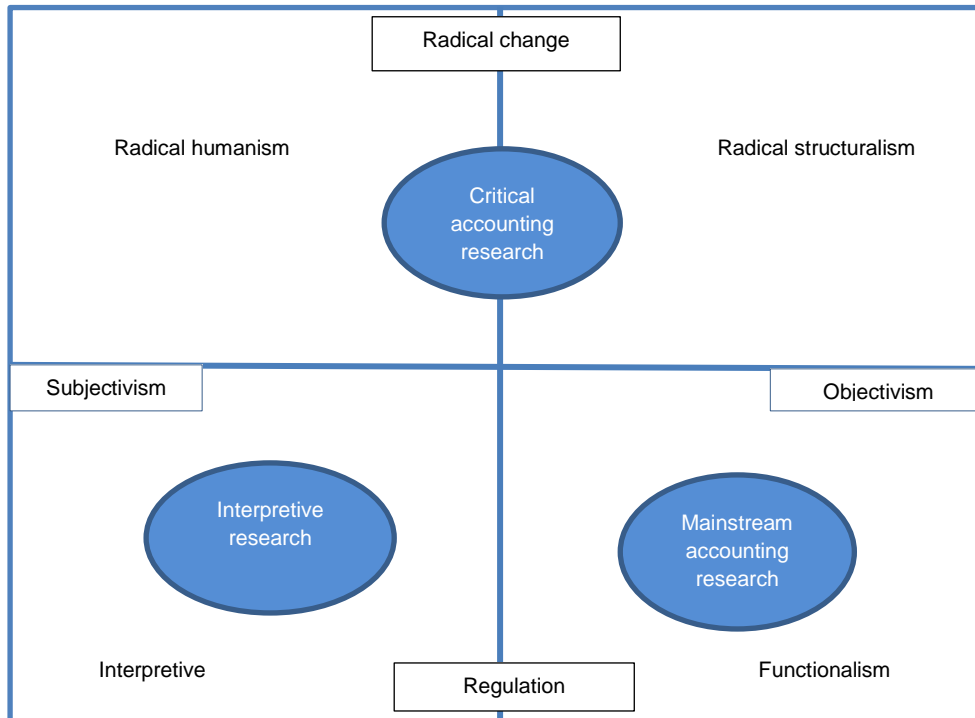
Source: Morgan and Smircich (1980:494–495); Ryan et al. (2002:36–38)

According to Ryan et al. (2002:38), ontological assumptions (1 to 3) require a scientific approach, and where reality becomes more subjective (assumptions 4 to 6), naturalistic methods are required.

Hopper and Powell (1985) also used a subjective–objective continuum and added another dimension, namely the stance researchers adopt towards the society they are researching. At the one end of the continuum, researchers are concerned with regulation, while at the other end of the continuum, they are interested in the

conflicts and inequalities in society and concerned with the potential for radical change. This resulted in Hopper and Powell's four-way taxonomy of accounting research as set out in Figure 5.4.

Figure 5.4
Hopper and Powell's taxonomy of accounting research



Source: Ryan et al. (2002:40)

Hopper and Powell (1985:431) drew on the work of Burrell and Morgan (1979 in Hopper and Powell, 1985), who used two dimensions, namely the nature of social science and the nature of society. Hopper and Powell (1985) added assumptions about human nature to ontology and epistemology where individuals are regarded as having free will at the one end of a continuum, and their behaviour is determined by their environment, at the other end.

According to Ryan et al. (2002:39), ontological assumptions range from individual consciousness (where reality exists in the individual's mind) to concrete construction (where there is an independent external reality). Furthermore, different methods of gaining knowledge are needed for the different ontological assumptions which represent the epistemological dimension, and range from interpretation to observation in the concrete external world. According to these authors (2002), when

reality is concrete and human behaviour is deterministic, knowledge is gained through observation and the scientific method is appropriate. When reality is grounded in subjective experiences and individuals have free will, knowledge is gained through interpretation, and hermeneutical methods (interpretation of the subjective experiences of individual “social actors”) are required (Ryan et al., 2002:40).

As described by Ryan et al. (2002), the research methodology applicable to the current study was therefore dependent on the ontology and epistemology relevant to this research. The main research objective the researcher wished to investigate was the disaggregation, recognition and measurement of all possible assets and liabilities that households in South African utilise. Households were viewed as stable and concrete external realities and survey data was used to identify and measure the data collected. To ensure that the researcher identified all possible household assets and liabilities, the opinions of experts in the field of household finance were needed - hence the subjective approach. The research fell within both the positivistic paradigm (mainstream accounting research) and the interpretative paradigm. The epistemology of the research was both objective and subjective in that “reality” was viewed as the accomplishment of individual sense-making, at the subjective end of the continuum, and the assets and liabilities were recognised and measured by way of identified variables in a survey, at the objective end of the continuum. It is therefore clear that the research employed mixed methods since both quantitative (survey) and qualitative (focus groups) methods were applied.

5.2.2 Summary

Section 5.2 established the overarching methodology applicable to accounting and finance studies, and in section 5.2.1, the ontological and epistemological issues to be considered when deciding on an appropriate methodology for the study were described. After due consideration of these issues, the researcher decided to follow a plurality of methodological approaches (Ryan et al., 2002:49) to answer the research questions and sub-questions. Both mainstream accounting research (positivistic) using the scientific method (conducting a survey) and interpretative accounting research (using focus groups) were employed.

5.3 MIXED METHODS RESEARCH DESIGN

In this study, the design of the financial position section (also referred to as the instrument to be included in an omnibus survey) was of primary significance, whereby the assets and liabilities of South African households could be identified and measured. The use of the instrument enabled the researcher to achieve the main objective of the study, namely to prepare statements of financial position for the two main areas of residency of the population, namely metropolitan and non-metropolitan. The researcher designed a heuristic model of the household assets and liabilities on the basis of a detailed international literature review and prepared a preliminary financial position section. The preliminary financial position section had to be finalised for inclusion in an omnibus survey. To determine whether the financial position section would be able to recognise and measure all possible household assets and liabilities and allow inferences to be drawn from the results, a dual methodology was followed, which was best addressed by adopting a mixed methods research design. The mixed methods research design in general and the mixed methods design used in this study are described in section 5.3.1. Section 5.3.2 focuses on the key decisions the researcher had to make about the research design.

5.3.1 Mixed methods research design

Mixed methods research studies involve integrating quantitative and qualitative data collection and analysis in a single study (Creswell & Plano Clark, 2011:5). Mixed methods research studies originated in the fact that a single method was found to be insufficient to address multiple research questions. Hence a combination of both forms of data was deemed appropriate to provide the most complete analysis (Creswell & Plano Clark, 2011:21). The intrinsic goal of mixed methods research is to complement one research method with another by integrating the strengths of one research method to enhance the performance of another (Creswell, Fetters & Ivankova 2004:7).

A key principle of mixed methods design is to identify the reasons for mixing qualitative and quantitative methods in a study (Creswell & Plano Clark, 2011:61). Greene, Caracelli and Graham (1989) identified five justifications for applying mixed methods, namely triangulation, complementarity, development, initiation and expansion. Bryman (2006) extended these justifications to 16 justifications, namely

triangulation, offset, completeness, process, different research questions, explanation, unexpected results, instrument development, sampling, credibility, context, illustration, utility, confirmation and discovery, diversity of views and enhancement. The authors (2006) agree that the reason for mixing methods should be viewed as a general framework to weigh alternative choices. The researcher should at least be able to provide one clear reason for mixing methods in order to justify his or her choice of this methodology (Creswell & Plano Clark, 2011:61).

The rationale for using mixed methods research in this study was the development of an enhanced financial position section for the omnibus survey. This was accomplished by using qualitative data obtained from focus group participants to ensure that all asset and liability classes were identified, included and measured. Furthermore, the focus groups also helped the researcher to ascertain whether alternative measurement was possible and to ensure that the questions required to collect the relevant information were included. The financial position section finalised in the qualitative phase was used in an omnibus survey to collect micro-level data from South African households. The data was analysed in the quantitative phase of the study (Chapter 7).

Following the reasoning for choosing a mixed method design, key decisions about the different ways in which the quantitative and qualitative strands of the study relate to each other had to be made. In mixed methods research, reference is made to a strand, which is the component of the study that encompasses qualitative or quantitative research (Creswell & Plano Clark, 2011:63). According to these authors (2011:64), there are four key decisions in the choice of an appropriate mixed methods design, namely:

- (1) the level of interaction between the strands;
- (2) the relative priority of the strands;
- (3) the timing of the strands; and
- (4) the procedures for mixing the strands.

These key decisions are examined further in section 5.3.2.

5.3.2 Key decisions to be considered in selecting the mixed methods research design

The first key decision relates to the level of interaction or the extent to which the two strands interact or are kept separate. In this study, the researcher intended to keep the qualitative and quantitative research questions, data collection and analysis separate. This was necessary because the qualitative data analysis was used to finalise the financial position section of the survey instrument, which was used in the quantitative phase to collect data.

The second key decision was to determine the priority of the strands. The priority decision involved the question whether the qualitative or quantitative method was the principal tool for gathering data for the study and whether it could have equal priority, that is, have both a qualitative priority or a quantitative priority (Creswell & Plano Clark, 2011:65; Morgan, 1998). The main research question in the study addressed the disaggregation, measurement and presentation of the assets and liabilities of South African households. In this study, quantitative micro-level data was collected from households. This was the principal or primary data collection method that the researcher sought to optimise. A complementary research method was applied in the study to enhance the primary or principal method and to ensure that all possible assets and liabilities were identified and measured. In this study, it implied the use of qualitative data from focus group discussions held with experts in the field of household finance. The study therefore had a quantitative priority.

The third key decision a researcher has to make when applying mixed methods is the timing of the two strands (Creswell & Plano Clark, 2011:65) or, according to Morgan (1998), the sequence decision. This decision relates to the order in which the two data collection methods will be conducted during the research. Creswell and Plano Clark (2011:66) contend that sequential timing occurs when the two strands are implemented in two distinct phases with the collection and analysis of the one type of data occurring after the collection and analysis of the other, and the researcher chooses the sequence. In this study, the sequence of the two methods was first the qualitative strand, which encompassed focus group discussions, after which the data obtained from the participants was incorporated to prepare a final financial position section to be included in the measurement instrument (omnibus

survey). The measurement instrument was used in the second or quantitative strand to collect micro-level data from South African households.

The fourth and final key decision was to determine where and how to mix the qualitative and quantitative strands. This could be done during interpretation (the two strands are mixed during the final step of the research process after both sets of data have been collected and analysed); during analysis (the two strands are mixed when the researcher analyses the two sets of data and combines the analysis); during data collection (the two strands are mixed when the researcher collects the second set of data and the results of the first strand are used to collect the data of the second strand); or mixed at the level of design (the two strands are mixed during the design stage of the research process) (Creswell & Plano Clark, 2011:68). In this study, the data from the first strand was used to finalise the financial position section of the survey instrument, which was used in the quantitative strand to collect household-level data.

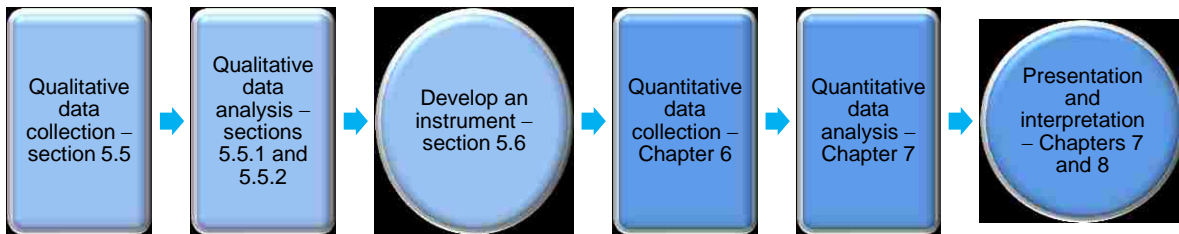
An appropriate mixed methods design can be selected on the basis of the key decisions. Creswell and Plano Clark (2011:69–70) identified the following six major mixed methods research designs:

- (1) the convergent parallel design;
- (2) the explanatory sequential design;
- (3) the exploratory sequential design;
- (4) the embedded design;
- (5) the transformative design; and
- (6) the multiphase design.

Based on the detailed description of these designs, the researcher could identify the design most appropriate for this research study. According to Creswell and Plano Clark (2011:69), when the qualitative data collection and analysis build towards the quantitative data collection and analysis, the study follows an exploratory design. When the two strands are implemented in two distinct phases with the quantitative data collection and analysis occurring after the qualitative data has been collected, analysed and interpreted, the study follows a sequential design. Creswell and Plano Clark (2011:63–68) contend that this type of study is referred to as a mixed methods exploratory sequential design study as depicted in Figure 5.5.

Figure 5.5

Mixed methods exploratory sequential design



Source: Creswell and Plano Clark (2011:124)

5.3.3 Summary

In section 5.3, mixed methods research design in general and the mixed methods design used in this study were described. Mixed methods research studies involve integrating quantitative and qualitative data collection and analysis in a single study. In the current study, the rationale for using a mixed methods study was to enhance the quality of the financial position section that would be included in an omnibus survey. Using qualitative data obtained from focus group participants would ensure that all asset and liability classes would be identified and measured in the final financial position section of the survey instrument. Key decisions were made about the different ways that the quantitative and qualitative strands of the study were interrelated, and the type of mixed methods study was identified as a mixed method exploratory sequential design study. The format and layout of such a study are depicted in Figure 5.5 above. However, before qualitative data could be collected, a preliminary financial position section had to be compiled from the results of the international literature review. This was based on the heuristic model. The compilation of the preliminary South African financial position section is described in the next section.

5.4 COMPILING THE PRELIMINARY SOUTH AFRICAN FINANCIAL POSITION SECTION OF THE SURVEY INSTRUMENT

According to Campbell (2006:1555–1556), the ideal positivistic (section 5.2) household net wealth study has the following four characteristics:

- The study representatively covers the entire population, especially representative of age and wealth.
- The data for each household should measure both total net wealth and an exhaustive breakdown of net wealth into relevant categories.
- These categories should be sufficiently disaggregated to distinguish between asset and liability classes.
- Finally, the data should follow households over time – in other words, panel as opposed to cross-sectional data.

This study addressed the first three points above, but was unable to present longitudinal or panel data because this was the first wave of the study conducted in South Africa.

According to Grosh and Glewwe (2000a:13), the design of a comprehensive omnibus survey consists of the following steps:

- **The fundamental objectives of the survey must be established.** The fundamental objectives of the research were the design of a household financial position section for a survey instrument and the administration of the instrument to South African households to establish the disaggregated financial position statement of households in the two main residential areas.
- **The overall design of the survey and modules or sections to be included in the survey must be chosen.** Owing to the financial implications of conducting a household omnibus survey, the survey consisted of different sections, namely household demographics, household income and expenditure, household financial position and household financial behaviour. Household demographics, income and expenditure and financial behaviour fell beyond the scope of this study - hence only the design and development of the financial position section formed part of the main objective of this study. To enable the

researcher to prepare a heuristic model for the financial position section, various surveys conducted in countries across the world as well as South African studies were investigated and were reported on in sections 4.2 and 4.3.

- **The design of each section or module must be worked out on a question basis in terms of the objective of the section or module and the approximate length of the survey.** Again, only the financial position section was addressed. The main objective of the financial position section was to ensure that the main asset and liability classes in the household balance sheet prepared by the South African Reserve Bank could be disaggregated in applicable asset and liability classes. These disaggregated classes had to be recognised and measured. The recognition and measurement had to be done in accordance with the principles prescribed by the Conceptual Framework (SAICA, 2010a). Questions that would realise the main objective had to be included.
- **The modules must be combined and field tested.** The field test of the omnibus survey is discussed in Chapter 6.

The basic principles followed in designing the South African financial position section were similar to those adopted by Sanchez-Munoz and Tzamourani (2008:6) in that the content had to address the primary research questions. Furthermore, it was essential for the definitions used in the financial position section to correspond to macro-economic aggregates (closely related to national accounts) since these estimates could serve as parameters for the survey results. Parameter verification was necessary because survey data is subject to under- or over-reporting and/or non-response (Sanchez-Munoz & Tzamourani, 2008:6) and is reported on in section 7.4.

Before justifying the inclusion of the disaggregated asset and liabilities as elements in the financial position section, general principles concerning recognition and measurement had to be considered. These principles were applicable to all the assets and liabilities identified in the heuristic model (Table 5.1).

Recognition and measurement

Sections 2.4.4 and 2.4.5 mentioned that, for any asset or liability to be included as an element in financial statements, it must be recognised and measured. The questions to be included in each section of the heuristic model had to fulfil the aim of enabling the household to recognise whether it held the asset and owed the liability. Once recognition had taken place, questions that would measure the asset and liability had to be included. According to Kochar (2000:194), experience has shown that when household respondents are asked about the value of different assets and liabilities, the accuracy of their estimate improves compared to when the household respondents are asked to estimate their total net wealth.

The international literature review confirmed that net wealth measurement (assets minus liabilities) is accomplished using current or market value of assets and liabilities. In the current study, the household respondents were asked what they expected the market value of their assets to be. This was based on what they presumed they would receive after selling the assets on that day. Liabilities were measured as the outstanding amount owed by household respondents. Measurement, for the purposes of the statement of financial position, was thus on current or market values and implied mixed measurement (Barth, 2008). The respondent was requested to give his or her best estimate of the current or market value on the date of the interview (HESD, 2001:14). To facilitate the process of measurement when a household respondent could not estimate a particular value, a range of values was supplied from which the respondent could choose the best estimate of the current or market value.

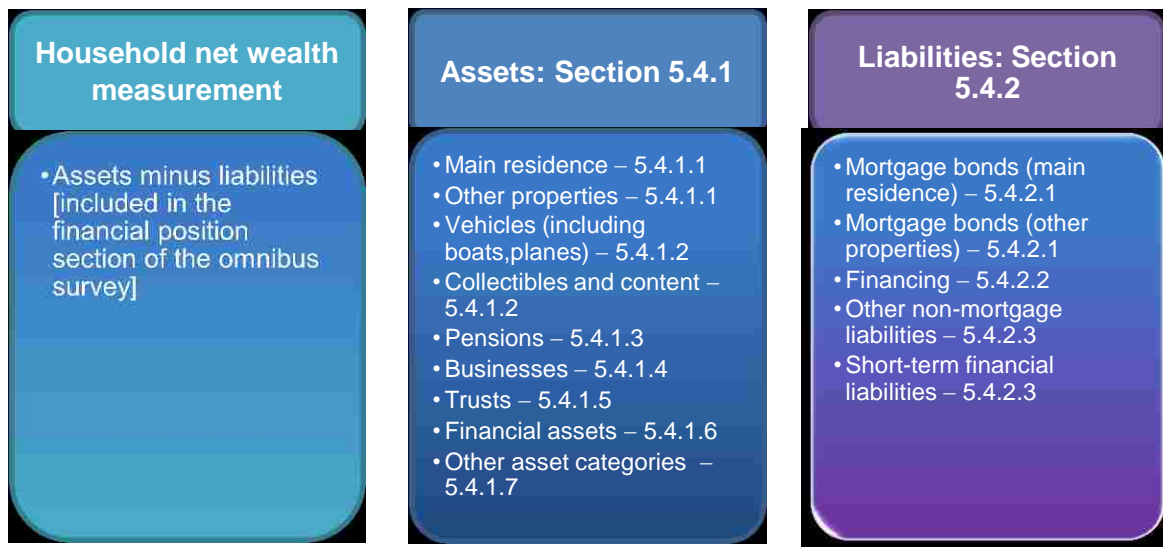
One could, however, argue that the amounts that the household members provided might have been overstated on the asset side and understated on the liability side. To minimise this possibility, counter-measurement questions were included. The household members were asked to give the cost prices of the different assets to enable the researcher to approximate the market values provided. In terms of liabilities, the interest rates, the initial amount borrowed and repayment amounts were requested from the household members to enable the researcher to establish the accuracy of the outstanding liability value provided. These measures helped the researcher to calculate estimates in order to benchmark the reliability of the

estimated values provided. However, benchmarking was only possible if the household respondents supplied sufficient information.

The compilation of the preliminary financial position section commenced with the literature review discussed in sections 4.2 and 4.3. Appendix A contains the preliminary version of the omnibus survey. Section III of the omnibus survey depicts the preliminary financial position section constructed by the researcher. Figure 5.6 indicates the main and disaggregated categories of assets and liabilities identified from the heuristic model (Table 5.1).

Figure 5.6

Disaggregated household assets and liabilities according to the heuristic model, used to compile the preliminary financial position section



Source: Researcher's own compilation

5.4.1 Assets

Every country is different in terms of housing, its tenure and how it is paid for (Malpezzi, 2000:305). Therefore, although the questions of various surveys could be an indication of the type of questions to ask, each survey should be made country-specific to ensure concise, accurate and relevant data based on the experience and use of various financial instruments, financing options and products available and in use in the particular country. The following sub-section justifies the inclusion of the asset category and presents the recognition and measurement questions that were included in the preliminary financial position section (Appendix A).

5.4.1.1 Main residence and other property

According to Malpezzi (2000:293–314), the following data should be collected to make possible the measurement of the main residence and other properties:

- data to establish whether the household owns or rents the dwelling in question;
- data on the physical characteristics of the dwelling, which can be recorded to help establish the household's living standards;
- data on the cost and market value of dwellings;
- pricing data on market-related prices;
- information on the income level of households who can afford housing;
- data on whether households who own their houses make payments on loans or mortgages, the size and term thereof, the term of the loan or finance agreement, and mortgage interest rates;
- information on the sources of finance available for ownership;
- data on non-metro or rural housing markets because this is a neglected area in developing countries;
- data in order to distinguish between housing and agricultural real estate in non-metro or rural areas and between housing, shops, offices and other non-residential use in metro and non-metro areas; and
- where there is no active housing market in some areas, data on prices collected from community leaders.

Recognition and measurement

Questions C02–C11, D01–D07, D10–D15 and D23–D24 (Appendix A) were included to enable the respondents to recognise the existence of property assets and to establish ownership for inclusion. Questions C12–C14, C16–C19, D08–D09 and D16–D19 were included to facilitate measurement.

5.4.1.2 Vehicles, boats, planes, collectibles and content

Similar to household property investments, the investment in durable consumer goods had to be established to ensure accurate net wealth measurement. According to Deaton and Grosh (2000:128), durable consumer goods will vary from country to country in the same way as the prices of these assets may vary in different countries. Vehicles, boats and planes, collectibles and household content are all classified as

durable consumer goods in national accounts. In this study, durable consumer goods were disaggregated in vehicles, boats and planes (one sub-category) and collectibles and content (a second sub-category).

Recognition and measurement

Questions D20, E01–E13, E15–E17, E29–E30, E31, F01, F06 and F13 (Appendix A) were included to enable the respondents to recognise the existence of durable consumer goods and to establish ownership for inclusion. Questions D20–D21, E14–E20, F02–F05 and F06–F09 were included to facilitate measurement.

5.4.1.3 Pensions

It is well documented that although pensionable assets are essential for net wealth measurement, especially for lower-income households, most surveys fail to capture this data (Carasso & McKerman, 2007:1; Ratcliffe et al., 2007:35–36). Pension assets include retirement annuity fund investments, defined benefit (DB) and defined contribution (DC) plans. Surveys that include this data ask households detailed questions about their rights to these plans and retirement funding, but exact calculation is often not possible without assumptions about life-time earnings, inflation, discounted rates and mortality.

Recognition and measurement

Questions G01–G04 and G09–G10 (Appendix A) were included to enable the respondents to recognise the existence of pension assets. Questions G05–G08 and G11–G14 were included to facilitate measurement.

5.4.1.4 Business assets

Household business entities fulfil a poverty-alleviating role and knowledge of these businesses is necessary to stimulate and encourage growth (Vijverberg & Mead, 2000:105–137). To expedite the value measurement of these entities, these authors (2000) envisaged, *inter alia*, the following information: the number of different household entities, the structure and characteristics of the entity, profit levels, training and education of entrepreneurs and the availability and use of financing. Business assets include property, plant and equipment as well as inventory levels and the value of these assets needs to be determined.

Recognition and measurement

In line with some international studies (Daffin, 2009), the questions on business entities focused on determining the net value of the business entity. Questions H01–H02 and H05–H10 (Appendix A) were included to assist with recognition and eliminate double counting of assets and liabilities. Questions H03–H04 facilitated measurement.

5.4.1.5 Trusts

The international literature review contained limited information on the usage of trusts as household assets. The Wealth and Assets Survey conducted in Great Britain was the only international survey found that included trusts. However, according to Daffin (2009), trust assets were not included in wealth measurement of the first wave because of problems with data collection. The South African trust section is based on the Wealth and Asset Survey and includes questions for settlors (households who have put assets in a trust) and beneficiaries of a trust.

Recognition and measurement

The questions on trusts focused on determining the value of the trust and ensuring that trust assets were not double counted. Questions I01–I05, I08–I14 and I17–I23 (Appendix A) facilitated recognition and the elimination of double counting, while questions I06–I07 and I15–I16 facilitated measurement.

5.4.1.6 Financial assets

The value of the household's stock of financial assets is necessary to estimate wealth (Kennickell, 2003). It covers the different types of financial assets that a household can invest in or make use of (Kochar, 2000:183). Policy makers in developing countries need to know the value and spread of financial assets invested in both the formal and informal sector to encourage and increase savings in any country with accurate and enabling policy decisions (Kochar, 2000:187). The items that should be included as financial assets will depend on the nature of financial markets in the economy and the financial instruments available to households (Kochar, 2000:206). The *FinScope South Africa 2010* study (Finmark Trust, 2010)

reviewed in section 4.2.3.1 helped the researcher to disaggregate financial assets into various elements.

Recognition and measurement

The aim of the questions included in the financial asset section (Appendix A) was to recognise the existence of the financial asset and to determine their current or market value. Questions J01–J011, J14, J17, J20, J23, J26, J31, J34, J36, J41 and J43 (Appendix A) enabled the respondent to recognise ownership. Questions J12–J13, J15–J16, J18–J19, J21–J22, J24–J25, J27–J30, J32–J33, J34–J35, J37–J40 and J41–J42 facilitated measurement.

5.4.1.7 Other categories

The international literature review (Daffin, 2009) identified children's assets and informal assets as separate categories, and these were treated in the same way in the South African preliminary financial position section. The same applied to the inclusion of inheritances. Although inherited assets were assumed to have been included in the various asset categories, additional information on inheritances was beneficial in explaining the assets of income poor households. Questions avoiding double counting had to be considered.

Recognition and measurement

Questions K01–K04 and K07 (Appendix A) enabled the participants to recognise children's assets, while questions L01–L05 enabled them to recognise informal savings. Questions K05–K06, K08–K09 and L06–L07 facilitated measurement. Questions M01–M02 and M05–M07 enabled the respondents to recognise inheritances, and helped to avoid double counting, whereas questions M03–M04 facilitated measurement.

5.4.2 Liabilities

Liabilities result from the granting of credit, which in turn is the formal or informal present trade of money and/or goods and/or services for future payment in a variety of arrangements (Scott, 2000:212). The use of credit is an economic welfare protection tool with the potential to improve financial well-being (Scott, 2000:211). Data on the use of credit by households provides valuable information on the

sources of credit, the reasons why households make use of credit, the cost and availability thereof and the interrelations between credit and household characteristics (Scott, 2000:211). This information can assist with designing policies to increase access to credit and to develop well-functioning credit markets (Scott, 2000:216).

Furthermore, in any given country there is a vast array of credit sources (Scott, 2000:217). At the one end of the spectrum, there are formal institutions such as national and commercial banks. At the other end of the spectrum, there are informal lenders such as moneylenders and individuals who are often not regulated but who provide credit because they know the borrower. In between there is an array of semiformal institutions, credit unions and non-governmental organisations. Household-level data is crucial for providing a detailed picture of a country's credit market and to determine the effectiveness of credit policies (Scott, 2000:216–219). According to Scott (2000:217), only credit provision from the formal sector and some semi-formal operations appear in national accounts and other national credit databases. Household survey data sets are thus often the only source of information on informal sector lending in developing countries. A successful survey should cover every possible credit use at individual level to ensure the accurate measurement of credit use and to ensure that unbiased conclusions are drawn (Scott, 2000:217–220). The survey should therefore contain a list of all credit sources, the amount of the debt and the purpose of the loan (Scott, 2000:229).

5.4.2.1 Mortgage debt

In terms of housing, the primary debt is mortgages (Scott, 2000). A significant recommendation by Scott is that questions on credit should be included where information on the asset is captured when no separate credit module is used (Scott, 2000:233). Once again, the aim was to help the household recognise the liability and to enable them to value the amount outstanding and provide the researcher with additional information to verify the outstanding mortgage value, if the need arose. To ensure that all mortgage debt was captured and that it could be verified if the need arose, questions were included on the outstanding amount of the loan, the applicable interest rate, the instalment amount and the term of the loan.

Recognition and measurement

Regarding mortgages, the following questions were included to facilitate recognition: C20–C22, C32 and D22 (Appendix A). Measurement was accomplished for the main residence mortgage and other property mortgages by including questions C23–C31.

5.4.2.2 Instalment debt

Instalment debts, such as hire purchases and vehicle financing (finance leases), are financing methods used to acquire durable consumer goods (vehicles and household content) (Van der Walt & Prinsloo, 1995). To ensure that finance agreements were captured, the liability measurement was included directly after the recognition and measurement of the applicable asset. The respondents were asked to supply additional information to enable the researcher to calculate the outstanding instalment debt in case verification was deemed necessary.

Recognition and measurement

Vehicle debt financing was recognised by including questions E21 and E32 (Appendix A) and questions F10 and F14 for other durable goods financing. Vehicle financing was measured by including questions E22–E28 and questions F11–F12 to measure financing of other durable goods.

5.4.2.3 Other non-mortgage liabilities and short-term liabilities

Other non-mortgage financial liabilities include formal debt financing such as bank loans, bank overdrafts, credit lines, credit card debt, student loans and informal financing such as cash loans from informal institutions, for example, micro-lenders and loans from friends and family (Scott, 2000; Van der Walt & Prinsloo, 1995). Short-term liabilities include household bills payable.

Recognition and measurement

To ensure that all non-mortgage and short-term liabilities were recognised and captured, questions N01–N02, N05–N06, N09–N11, N17–N18, O01 and O03–O04 (Appendix A) were included. Questions N03–N04, N07–N08, N12–N16, N19–N21, O01–O02 and O05–O06 facilitated the measurement of liabilities.

In closing, the proper compilation of the preliminary financial position section of the omnibus survey resulted in many versions of the latter, with each version improving on the previous version either in the clarity of the questions or the reduction of the number of questions. Table 5.2 summarises the compilation of the main asset and liability sections included in the preliminary financial position section, which was finalised in the qualitative phase.

Table 5.2
Summary of the preliminary financial position section developed from the heuristic model

| Section III in omnibus survey (Appendix A) | Asset/liability category | Questions in the preliminary financial position section associated with recognition and ownership (Appendix A) | Questions in the preliminary financial position section associated with measurement (Appendix A) |
|--|---|--|--|
| C | Date | C01 | |
| C | Main residence (excluding content and collectibles) | C02–C11 | Cost price: C12–C14 Market value: C16–C19 |
| C | Mortgages on main residence | C20–C22 and C32 | Current value: C23–C31 |
| D | Other property (including content) | D01–D07, D10–D15 D20–D21 and D23–D24 | Cost price: D08–D09 Market value: D16–D19 |
| D | Mortgages on other property | D22 | Current value: Repeat C21–C31 |
| E | Vehicles including boats and planes | E01–E13, E15–E17, E29–E30 and E31 | Cost price: E14–E17 Market value: E18–E20 |
| E | Financing of vehicles, boats and planes | E21, and E32 | Market value: E22–E28 |
| F | Collectibles and household content | D20, F01, F06, F13 | Market value: D20–D21, F02–F05 and F06–F09 |
| F | Financing of collectibles and content | F10, F14 | Current value: F11–F12 |
| G | Pensions | G01–G04, G09–G10 | Current value: G05–G08, G11–G14 |
| H | Business interests | H01–H02, H05–H10 | Market value: H03–H04 |
| I | Trusts | I01–I05, I08–I14, I17–I23 | Market value: I06–I07, I15–I16 |
| J | Financial assets: | J01–J09, J43 | |

| Section III in omnibus survey (Appendix A) | Asset/liability category | Questions in the preliminary financial position section associated with recognition and ownership (Appendix A) | Questions in the preliminary financial position section associated with measurement (Appendix A) |
|--|-----------------------------------|--|--|
| | <i>Overseas investments</i> | J10–J11 | Market value: J12–J13 |
| | <i>Current accounts</i> | J14 | Current value: J15–J16 |
| | <i>Savings or deposits</i> | J17 | Current value: J18–J19 |
| | <i>Fixed-term investments</i> | J20 | Current value: J21–J22 |
| | <i>Collective Investments</i> | J23 | Market value: J24–J25 |
| | <i>Employee share options</i> | J26 | Market value: J27–J30 |
| | <i>Share investments</i> | J31 | Market value: J32–J33 |
| | <i>Bonds and gilts</i> | J34 | Market value: J34–J35 |
| | <i>Policies</i> | J36 | Market value: J37–J40 |
| | <i>Loans</i> | J41 | Current value: J41–J42 |
| K | Children's assets | K01–K04, K07 | Market value: K05–K06, K08–K09 |
| L | Informal savings | L01–L05 | Current value: L06–L07 |
| M | Inheritances | M01–M02, M05–M07 | Current value: M03–M04 |
| N | Other non-mortgage liabilities: | | |
| | <i>Credit cards</i> | N01–N02 | Current value: N03–N04 |
| | <i>Store cards</i> | N05–N06 | Current value: N07–N08 |
| | <i>Personal loans</i> | N09–N11 | Current value: N12–N16 |
| | <i>Cell phone agreements</i> | N17–N18 | Current value: N19–N21 |
| O | Short-term financial liabilities: | | |
| | <i>Household bills</i> | O01 | Current value: O01–O02 |
| | <i>Bank overdraft</i> | O03–O04 | Current value: O05–O06 |
| | Total number of questions | 141 questions | 121 questions |

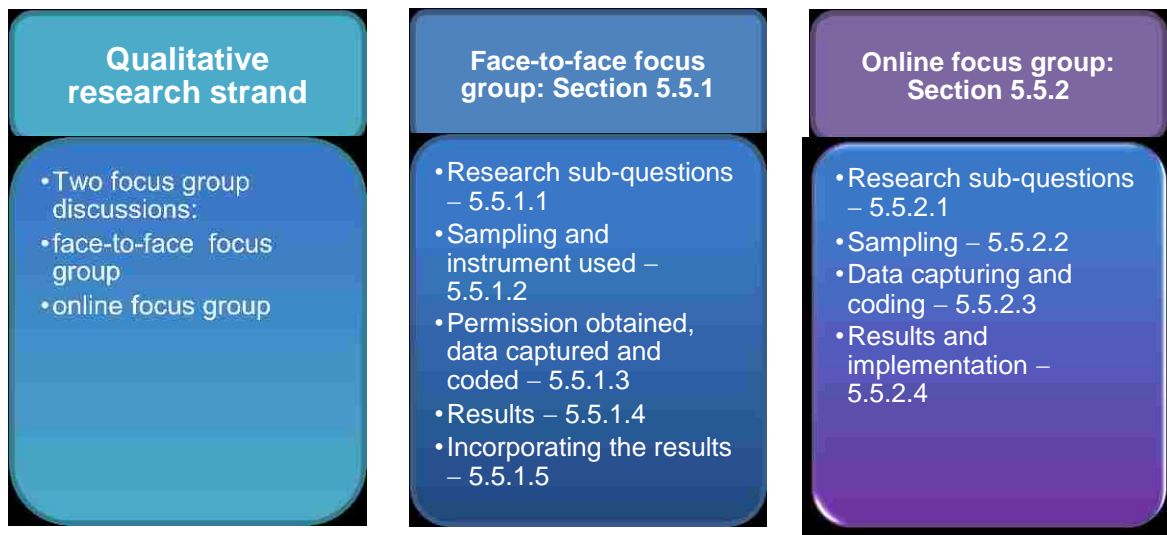
Source: Researcher's own compilation

Appendix A contains the preliminary financial position section, which was distributed to the face-to-face and online participants. The process to ensure the reliability of the instrument and the optimisation thereof with the help of expert focus group deliberations is described in section 5.5.

5.5 QUALITATIVE RESEARCH STRAND

Following the layout and design of the mixed methods study as depicted in Figure 5.5, the next section in this chapter focuses on the design and implementation of the qualitative strand of the overall mixed methods exploratory sequential design. During the qualitative phase (Figure 5.5) of the research design, the preliminary financial position section that had been compiled earlier was finalised by enlisting the services of experts via focus group deliberations. This included a face-to-face focus group as well as an online focus group to incorporate the inputs from a wider expert audience, including international experts. Figure 5.7 indicates the qualitative research strand.

Figure 5.7
Qualitative research strand



Source: Researcher's own compilation

The aim of the focus group discussions was to finalise and enhance the preliminary financial position section compiled by the researcher in section 5.4. In section 5.5.1, the face-to-face focus group deliberations are described and in section 5.5.2, the online focus group deliberations.

5.5.1 Face-to-face focus group discussions

Figure 5.7 indicated the various sub-sections pertaining to the conduct of face-to-face focus group deliberations. The section commences by recalling the research

sub-questions that had to be considered in developing a comprehensive and robust financial position section, as explained in section 1.3.4.1.

5.5.1.1 Research sub-questions explored via a face-to-face focus group

Key informants in household finance (section 5.5.1.2) were used to explore the research sub-questions in order to enhance the quality of the preliminary financial position section. The qualitative strand followed a phenomenological approach (Leedy & Ormrod, 2010:141) in an attempt to understand the perceptions, opinions and perspectives of the key informants.

In section 3.2.2, the researcher explained that the definition of the household for the purposes of the study was a pertinent factor to discuss with the focus group participants so that the final financial position section would be able to recognise and measure all household assets and liabilities. The following three research sub-questions were formulated in section 1.3.4.1:

- Are all the possible assets and liabilities that households can utilise, identified and recognised in the preliminary prepared financial position section?
- Will the South African financial position section be able to classify and measure the recognised assets and liabilities?
- Who are the members of a typical South African household for the purposes of the study and with whom should the interview be conducted?

These research sub-questions were presented to the face-to-face focus group participants on the day of the focus group discussion.

5.5.1.2 Sampling and instrument used in conducting the face-to-face focus group

Primary data was collected from the face-to-face focus group in the form of field notes and a tape-recording of the informal, semi-structured interview. The data was used to improve the preliminary financial position section developed from the heuristic model (Table 5.1). The heuristic model was developed from the international literature review conducted in section 4.3. The data was also used to help the researcher define the household members to be included in the quantitative strand of the research.

A non-probability sample that conformed to set criteria, namely purposive sampling (Cooper & Schindler, 2003:201) was used in this strand of the study to explore the different research sub-questions (section 5.5.1.1). Sampling elements were selected with a specific purpose in mind, and in the case of this study, to obtain participants' views on the research sub-questions identified in section 1.3.4.1. This enabled the researcher to prepare a comprehensive financial position section for an omnibus survey that would collect micro-level data from households. Sample elements were selected according to a pre-selected criterion, namely the person had to be a subject specialist in the field of South African household finance (Mack, Woodsong, MacQueen, Guest & Namey, 2005:5).

The list of subject specialists at Unisa's Bureau for Market Research (BMR) was used to identify possible focus group participants, and their selection was based on their representation of various industries relating to the household sector. This sampling method ensured that at least one participant from the different industries was included in the face-to-face focus group. Twenty-two participants were invited, representing the banking and insurance sector as well as government and other research institutions. Ten industry-related participants and nine members from academia attended the face-to-face focus group held on 18 March 2011. The high number of focus group participants was necessary to ensure representation of all related industries. Table 5.3 summarises the industry representation of the focus group participants.

Table 5.3
Face-to-face focus group representation

| Representative industry | Description | Number of focus group participants |
|-------------------------------------|---|------------------------------------|
| Banking | Commercial banks – Segment and consumer finance division | 1 |
| | Commercial banks – Research divisions | 2 |
| Insurance | Commercial insurer– Marketing division | 3 |
| | Commercial insurer – Group strategy division and research division | 2 |
| Government | South African Revenue Services (SARS) | 1 |
| Research institutions | Finmark Trust – Consumer finance division | 1 |
| | Unisa academia – economists, accountants, data analysts and fieldwork supervisors | 9 |
| Total number of participants | | 19 |

Source: Researcher's own compilation

5.5.1.3 Permission obtained and capturing and coding the face-to-face focus group data

The preliminary financial position section (Appendix A) was distributed via email to all participants who indicated their willingness to attend the face-to-face focus group discussion. On the day the face-to-face focus group discussion was conducted, the participants were again informed about the nature and purpose of the research and the proposed dissemination of the results of the study (Leedy & Ormrod, 2010:151). They were also informed of the necessity to record the discussion to ensure that the facts remained true and objective, and all participants were assured of their anonymity. The focus group participants' consent to tape-record the proceedings was obtained verbally.

The moderator introduced the issues to be discussed and facilitated the discussions to ensure that the participants remained focused on the specific issue at hand (Leedy & Ormrod, 2010:148). The researcher and an assistant were responsible for recording the responses verbatim using handwritten notes. The results of the two handwritten summaries were compared and, where necessary, the original tape-recording was referred to.

5.5.1.4 Results of the face-to-face focus group discussions

Section 1.3.4.1 identifies the research sub-questions that guided the researcher in capturing the responses of the focus group participants. The first question to be answered by the participants was as follows:

- Who are the members of a typical South African household for purposes of the study and with whom should the interview be conducted?

a) Defining a household and the survey respondent

Section 3.2.2 described the issues to be considered in defining a household for the purposes of the study. The decision was made to incorporate the views of focus group participants to help compile a suitable definition. To promote fruitful deliberation on the household as unit of analysis, the United Nations definition of a household (UN, 1997:50 par 1.324) was provided:

The concept of household is based on the arrangements made by persons, individually or in groups, for providing themselves with food or other essentials for living. A household may be either

- (a) a one-person household, that is to say, a person who makes provision for his or her own food or other essentials for living without combining with any other person to form part of a multi-person household; or
- (b) a multi-person household, that is to say, a group of two or more persons living together who make common provision for food or other essentials for living. The persons in the group may pool their incomes and may, to a greater or lesser extent, have a common budget; they may be related or unrelated persons or constitute a combination of persons both related and unrelated.

The essence of the definition is that a household is viewed as one person or a group of people who meet and eat together. The problematic issues with the definition were conveyed to the focus group participants for discussion. The first problem was that in the definition, the household is not viewed as an economic unit that pools its finances for the purpose of wealth creation, but instead as people sharing regular meals together. Another problem was the fact that the definition views household members working away from home as a separate household. After deliberation, the participants suggested the following:

- Spending patterns determine the allocation of the household from a banking perspective, and the main household is deemed where the income is generated.
- The Statistics South Africa definition should be considered because it uses the 4x4 rule that views a household as the place where a person spends more than four nights in a four-week period. Such a definition encapsulates the complexity of the household dynamics.
- The participants agreed that, from a wealth perspective, a household where one or more members work away from home, but pool their financial interests in order to create wealth, should be regarded as one household. The classification of the household in a specific geographical area should be based either on the place the main spending takes place or where the income is generated, as long as it is constantly applied throughout the study. However, care should be taken to record the income generation and spending in the same geographical area to prevent skewing of the results.

The decision was made to request the online focus group participants to make further suggestions in search of a final definition that would encapsulate all the issues.

Regarding the person who should be interviewed, the focus group participants stated that care should be exercised when considering the head of the household as the main interviewee, owing to the contentious definition of the concept. The participants could not reach consensus on who should be interviewed and identified as potential interviewees, the person with the highest income, the oldest person in the household, a male person, the husband or the person making most of the financial decisions in the household. The decision was made to present the issue for further discussion to the online focus group participants.

In the following section, the participants attempted to address the following two research sub-questions that were identified in section 5.5.1.1:

- Are all the possible assets and liabilities that households can utilise, identified and recognised in the preliminary prepared financial position section?
- Will the South African financial position section be able to classify and measure the recognised assets and liabilities?

b) *Asset and liability base of households*

The main findings of the focus group participants concerning the above-mentioned questions were as follows:

- Property owned is the most significant asset of households, and together with vehicles, should make up the main percentage of a household's asset base.
- When the question was raised whether households would know their property values, especially in the township areas where property turnover is less frequent, one of the participants mentioned that from previous studies, it was clear that people in the township areas do know the market clearing price of properties in those areas. However, caution had to be exercised because households would tend to overvalue their assets and undervalue their liabilities.
- One of the participants indicated that people tend to sell their properties for between 12 and 15% below their estimated value. The focus group participants were divided on whether communal land should form part of a household's net wealth measurement, and it was suggested that settlement land should be valued per square metre and allocated accordingly to the number of households in the area when necessary.
- Regarding the measurement and alternative measurement considerations, the area in which the property was situated should be known so that housing indexes could be used as an alternative valuation method. Participants also identified other sources of data and the strengths and weaknesses of each. In urban areas, municipal valuations could be helpful, but in rural areas, these values are non-existent or not updated on a regular basis. For low-end property values, a good source of valuation information is the Affordable Land and Housing Data Centre (ALHDC) which is a cost-free database and sponsored by Finmark Trust. Lightstone as a data source is extremely reliable for high-end property values, but tends to be costly. The Deeds Offices are also a potential source of information for property values in rural areas, but this is again subject to costs.
- The class of the vehicle and year the vehicle was acquired are necessary as an alternative valuation method for vehicles. Conducting a search on a suitable database can assist with the valuation of vehicles based on market values. One

of the participants also cautioned against the possibility that households could regard property or vehicles on which they owe money as liabilities rather than assets. It was suggested that the wording of the question should resolve this problem.

- The participants were asked whether insurance products should be regarded as assets or household expenditure. One participant suggested splitting insurance payments between short- and long-term insurance, where the latter should be treated as an asset of the household. Another suggestion was to establish whether the household regards insurance as providing for retirement before classifying it as an asset of the household. The participants felt that whether households would know the value of their insurance products would depend on the product type. Access to information on older products could be limited, and to enable the respondent to assign a value to these products, one would need to know the number of years that payments had been made and the amount of the monthly payment.
- Determining the value of retirement assets can be problematic. According to the participants, retirement information should be known because statements are made available to members, albeit at irregular intervals. Concerning the classification between pensions and financial assets, the participants were of the opinion that the questions should be carefully phrased to make the distinction possible. Some people use financial assets such as their collective investment schemes for retirement provision, while others regard it as part of their financial asset base. From a net wealth measurement perspective, these views give a similar result but classification depends on the household's perception.
- Household liabilities can be classified in different ways, for example, mortgages, non-mortgage liabilities as well as short-term liabilities or long-term loans and other short-term liabilities. Other short-term liabilities would include store cards as well as a range of household payables such as school fees, medical bills, municipal accounts and so forth. Households might not be able to separate arrears from payables, and double counting could therefore occur. The classification of cell phones as an asset or expense elicited the following view: the upper-income band probably views cell phones as an expense item,

while the lower-income bands often regard it as one of the household's main "assets". However, the treatment of the cell phone contract should be considered because it could result in a liability to the household if the cell phone is lost or stolen. The participants agreed to view the contract as a financial liability.

- When analysing the data obtained from the study, the participants suggested the use of the National Credit Regulator to benchmark household liabilities but warned against their undercounting of secured liabilities such as mortgages and vehicle finance. A sound methodology to follow would be to establish the financing directly after capturing the asset to ensure that all liabilities are accounted for.
- At the time of the focus group discussion, the questionnaire contained a section on inheritances received as part of the household asset base. Although the participants agreed that inheritances could affect and often explain household net wealth, which cannot be explained by the income levels of households, care should be taken to avoid double counting. The suggestion was made to include a section where households would be asked about significant gifts or inheritances received as a way of explaining net wealth creation instead of measuring the inheritance separately and possibly double count.
- Some households view children's education as part of their savings and therefore as being representative of an asset, while households in the higher-income groups see education merely as an expense. The participants suggested that households should be asked whether they view education as an asset or expense and what the amount was that they "invest" or "spend" on education. The classification of education, however, merits further investigation to provide clarity and did not form part of household net wealth measurement in this study.

In closing, the face-to-face focus group members also helped to establish the demographics that had to be included in section I of the omnibus survey to achieve the secondary objective of the research (section 1.3.1). The focus group participants were of the opinion that the most important demographics required for the study were age, gender, ethnicity, province, employment status and income, but that it

would depend on the intended use of the information. One of the participants mentioned that the addition of life stage classifications could improve the benchmarking of the study.

The measurement of income as a demographic factor raised the following comments:

- Income classification and the demographics of the household should be surveyed per individual household member, whereas expenditure, assets and liabilities should be captured in total for the household.
- Income and expenditure in kind should be measured in relation to staples such as maize meal or bread, and fieldworkers had to be trained to convert these staples into a monetary value.

5.5.1.5 *Incorporating the results of the face-to-face focus group discussions into the financial position section*

The main purpose of the expert focus group was to ensure that all household assets and liabilities were recognised, classified and measured in the preliminary financial position section. The researcher used the information from the discussions to compile a slightly revised financial position section. The revisions were minor and the survey in Appendix A was distributed to online focus group participants for their consideration. The sampling of the online focus group participants and the results of their deliberations are discussed in section 5.5.2.

5.5.2 Online focus group discussions

Figure 5.7 depicted the various sub-sections pertaining to the online focus group deliberations. In this section, the research sub-questions (section 1.3.4.1) are revisited in order to finalise a comprehensive and robust financial position section.

5.5.2.1 *Research sub-questions explored via an online focus group*

The online focus group participants (section 5.5.2.2) were requested via an email sent from Unisa's Personal Finance Research Unit to supply feedback on the research sub-questions identified in section 1.3.4.1. They were also asked to make suggestions about improving the omnibus survey in general and the financial position section of the survey in particular. The following questions were posed:

- Are all the possible assets and liabilities that households can utilise, identified and recognised in the preliminary prepared financial position section?
- Will the South African financial position section be able to classify and measure the recognised assets and liabilities?
- Who are the members of a typical South African household for purposes of the study and with whom should the interview be conducted?

5.5.2.2 Sampling of the online focus group

To ensure that the preliminary financial position section covered all possible asset and liabilities of households and would be able to measure and classify them, the study used key informants in household finance. The online focus group section of the qualitative strand also followed a phenomenological approach (Leedy & Ormrod, 2010:141) in an attempt to understand the perceptions, opinions and perspectives of the key informants in household finance about the identified research questions on the survey in general and the financial position section in particular.

The online focus group participants were again selected with a specific purpose in mind in order to conform to the requirements of purposive sampling. The participants were selected on the basis of their knowledge of South African household finance and/or household financial surveying (Mack et al., 2005:5). The list of subject specialists at Unisa's Bureau for Market Research was used to select the online focus group participants. The international experts in conducting household finance surveys (mainly academics) were identified on the strength of their past publication record in international journals.

Sixty-five participants were invited to participate and supply feedback on the survey. Participants were allowed to forward the survey to other household finance experts whom they deemed knowledgeable on the matters concerned. Table 5.4 summarises the industry representation of all the online focus group participants and those who provided the researcher with comments on the survey.

Table 5.4
Online focus group representation

| Representative industry | Description | Number of focus group participants | Responses received |
|---|---|------------------------------------|--------------------|
| Banking | Commercial banks | 17 | 1 |
| | South African Reserve Bank | 2 | 2 |
| | Bank of Italy | - | 1 |
| Insurance | Commercial insurers | 6 | 3 |
| Government | South African Revenue Services (SARS) | 1 | |
| | National Treasury | 3 | |
| | Human Resource Council (HRC) | 1 | |
| Industries | Association for Savings and Investment South Africa (ASISA) | 1 | |
| Research Institutions | Finmark Trust | 2 | |
| | TMS Research | 9 | |
| Academia | London School of Economics (UK) | 2 | 1 |
| | Oxford University (UK) | 1 | |
| | Nuffield University (UK) | 1 | 1 |
| | Bristol University (UK) | 1 | 1 |
| | University of South Africa (Unisa) (SA) | 4 | 4 |
| | Personal Finance Research Unit (Unisa) (SA) | 4 | 4 |
| | North-West University (NWU) (SA) | 1 | |
| | University of Cape Town (UCT) (SA) | 5 | |
| | Stellenbosch University (SU) (SA) | 1 | |
| University of the Free State (UFS) (SA) | 3 | | |
| Total number of participants | | 65 | 18 |

Source: Researcher's own compilation

The responses received provided valuable insight. The online focus group provided useful inputs because three international experts in the field of household balance sheet studies from the London School of Economics, Nuffield and Bristol Universities gave their opinions. One of the international experts forwarded the survey to an expert on household net wealth measurement surveys at the Bank of Italy and the European Central Bank. This expert had conducted similar studies for the European Central Bank. Her response gave the researcher useful input, which was subsequently incorporated into the financial position section and helped to formulate a comprehensive definition of the household and to identify the respondent with whom to conduct the interview.

5.5.2.3 Capturing and coding the online focus group data

All the responses received from the participants in the online focus group were categorised into themes providing information on the research questions and other

matters raised (section 5.5.2.1). The themes were analysed to determine similarities and differences in the responses received. The results of the identified themes are presented in section 5.5.2.4.

5.5.2.4 Results and implementation of the online focus group discussions

Section 5.5.2.1 identified the research sub-questions that guided the researcher to capture the responses as themes from the online focus group participants. The participants were asked to respond to the following sub-question:

- Who are the members of a typical South African household for the purposes of the study and with whom should the interview be conducted?

a) Defining a household and the survey respondent

The definitions of a household and the person with whom the interview should be conducted were again considered by the online focus group participants. The helpful suggestions from the expert who worked on the European Central Bank household survey enabled the researcher to obtain permission from the European Central Bank/Household Finance and Consumption Network (2009:6–8) to use the core output variables from their survey. The definitions, where deemed appropriate, could be duplicated or adjusted to be more country specific. The core output variables provided the researcher with suitable definitions of a household and the interviewee to ensure that accurate and reliable information was collected. Based on these considerations, the financially knowledgeable person (European Central Bank/Household Finance and Consumption Network, 2009) in a household was chosen for the interview and was defined as follows:

“Financially knowledgeable person” (FKP) is defined as the person who is most knowledgeable on financial matters regarding both the household as a whole and its individual members.

A screening section was added to the interviewer training manual (Appendix C) to enable the interviewer to identify the financially knowledgeable person. In situations where more than one financially knowledgeable person could be identified, selection criteria were developed and added to the interviewer training manual.

In an attempt to consider the multitude of living arrangements in the South African context as well as population mobility (where some of the household members work

and live in different areas), and after deliberations with the members of the Personal Finance Research Unit, the researcher decided to adapt the household definition as suggested in the core output variables (European Central Bank/Household Finance and Consumption Network, 2009) as follows:

A “household” is defined as an economic unit consisting of a person living alone or a group of people who live together in the same private dwelling and share expenditures, including the joint provision of the essentials of living. Employees of other residents (i.e. live-in domestic servants, au pairs, etc.) and roommates without other family or partnership attachments to household members (e.g. resident boarders, lodgers, tenants, visitors, etc.) are considered as separate households.

Subject to the further and specific conditions shown below, the following persons must, if they share household expenses, be regarded as household members:

- persons usually resident, but temporarily absent from the dwelling (for reasons of holiday, travel, work, education or similar);
- children of household being educated away from home;
- persons absent for long periods, but having household ties: persons working away from home; and
- persons temporarily absent but having household ties: persons in hospital, nursing home, boarding school or other institution.

This definition was deemed to cover most of the living arrangements of South Africans. The principle according to which the household is seen as an economic unit that pools resources and shares in wealth mutually was also maintained.

The underlying intention of incorporating these definitions into the interviewer training manual (Appendix C) to help the interviewer determine the household members as well as the person with whom the interview had to be conducted, was to minimise the risk of enumerating household members with more than one residence and to avoid double counting in the sampling frame. Furthermore, stating the definitions was also an attempt to minimise the risk of individuals being excluded as household members when they were not physically present.

Sub-themes (b) to (d) addressed the online participants’ comments based on the remainder of the sub-questions identified in section 5.5.2.1:

b) *Asset and liability base of households*

Some participants identified assets and liabilities when they were unsure whether these had to be included or where they had to be added. The comments relating to this (Appendix A) were as follows:

On the asset side, I couldn't find "money under the mattress" though in a high inflation economy there probably is little of that, but where do Kruger Rands fit?

Section N [Other non-mortgage liabilities], I didn't see hire purchase type loans captured (other than in relation to vehicles). These are quite common in the UK (for products such as washing machines), though I'm not sure of their relevance in the RSA.

Under N11, might it not be a good idea to include "loan shark/mashonisa"? Are you confident that you have included a question to cover all/any hire purchase agreements here?

E02–E28 [Vehicles, boats and planes]: The questions seem only to allow for one vehicle of each type, but conceivably a household may have more than one of each type.

You will need to be aware of some potential double counting between items in section B [Household expenses] and sections N [Other non-mortgage liabilities] and O [Short-term financial liabilities].

Each of these comments was dealt with to ensure that all concerns were addressed. Krugerrands would be classified as collectibles and valuables and "money under the mattress" as cash on hand, hire purchases and loan sharks were included and vehicles extended to accommodate the capturing of three household vehicles individually. The researcher heeded the comment on possible double counting by including measures to limit potential double counting such as deleting the section on children's assets and liabilities and including those assets and liabilities with adult household members' assets and liabilities. Informal savings were incorporated into the financial asset sub-section, and only one section on trusts remained in the survey.

The survey included a separate section on retirement funding, which seemed to pose difficulties for online participants. The following comment resulted in the moving of this section to the income and expenditure section:

Just before the expenses table, it is stated that the information requested up to now was required for individuals but that the remainder of the information is required for the household in total. However, in the pensions section (start page 21), the wording of the question would prompt answers referred to the respondent only. Is an indication that these questions should be given to all adult members missing? Then again in the business interests section (page 23), the wording seems directed only to the respondent. In contrast to the pensions section where information about each individual adult member of the household is needed, here I would recommend to change the wording to reflect that information about businesses owned by your household is required.

The reason for moving the section was that, from a conceptual perspective, planning for retirement funding and the valuation of these products are done on an individual basis instead of on a household basis. According to McKay (2000:83–84), it is always useful to collect comprehensive data on household income because it is valuable in its own right to establish a household's standard of living as well as explanatory variable for important household characteristics, wealth accumulation and poverty determinant and to estimate household saving. Income is usually collected per individual member of the household instead of for the household in total. Retirement assets, like income, usually belong to a specific individual (the policy holder or the member of the fund). Furthermore, because financial literacy among citizens in a developing country can be a problem, the decision was subsequently made to merely ask the household what they thought the value of their pensionable assets was and to include this section with the income and expenditure section.

Another contentious issue for participants was the measurement date question at the start of the financial position section. Respondents were asked to provide their financial position information either as at 31 December 2010 or as at 28 February 2011. The online respondents provided the following feedback:

In the introduction to the survey, is it possible to explain what is meant by “the balance sheet at 31 December 2010 or 28 February 2011” and the reasoning behind it for those who need further clarification (or perhaps under section D01).

p.7 “period’ ending Feb 28 or Dec 31” is vague.

Finally, for some of the monetary values asked to households, it is too hard to press them to tell whether they refer to 28 February 2011 or 31 December 2010 (except if some big macro shock hit the economy in between) ...

The main objective of the study was to prepare a statement of financial position for households in metropolitan and non-metropolitan areas. To achieve this, the measurement of assets and liabilities needed to be done at a specific point in time. To enable the participants to construct a household statement of financial position, it was necessary to stipulate the date on which financial information was accumulated. Respondents were allowed to select the date for which they had the most information available.

c) *Measurement of values*

The following response enabled the researcher to formulate decision rules for measurement:

How to deal with “Don’t know” or “Not want to answer” (DK/NA) a particular money quantity. Here I would recommend the following sequence:

- (i) First ask for a point estimate (it is important to probe here to try to get even approximate quantities);
- (ii) If DK/NA, ask the respondent if he could provide an interval (an interval specific to that household and question); and
- (iii) If not able to provide a self-reported interval, ask if he could choose an interval from a list. But we have a unique list of pre-defined intervals (around 20 intervals) for all money questions instead of a different list of predefined intervals for each money question (which is what the SA survey seems to aim at – see highlights in yellow).

Where there are ranges, is it possible to include an option at the end for complete refusal or for those who genuinely don’t know the answer?

The following decision rules were formulated for the interview process:

- Respondents will be asked to supply a value.
- If the respondent is unable to supply a value, a range of values will be given from which the respondent can select an estimated value. The range will have an option for a “don’t know” answer or a “refused to answer”, in instances where the respondent feels that he/she is truly unable to supply a value from the range or does not want to answer. If a “nil” value is possible, this option will be available as an alternative for selection.

Although only one participant supplied possible range values, these values were used by an economist and statistician to develop a range of values that would be

applicable to measure all questions. All the interviewers used the range values during the interviews to enable the financially knowledgeable person to supply his/her best estimate of the value of assets and liabilities.

d) *Demographics and other comments and suggestions received*

No comments on the demographics were received and this section of the survey seemed to be adequate.

At the outset of the focus group discussions, an introductory letter accompanying the survey explained, *inter alia*, the reasons for the research, ethical considerations and assurance of the respondents' anonymity. The letter specifically stated that it was a household wealth study the aim of which was to determine values of assets and liabilities (Appendix A). An accompanying index highlighted the main sections of the survey, namely the demographics section, the income and expenditure section, the financial position section and the financial behavioural section. A number of important issues for consideration were mentioned:

Surveys of personal finance matters in the United Kingdom are considered very sensitive. I am not sure to what extent this applies in South Africa as well. Here, the name of the survey in the field referred to "household assets" instead of "wealth", and the terms "wealth" and "debt" were avoided throughout the survey. If there are similar sensitivities, you may wish to use slightly different terminology in the cover letter: perhaps assets, financial situation or circumstances, financial health and well-being and so on.

... And it is very important to gain the household[s'] trust so that their answers are as close to the truth as possible. There are techniques/recommendations for gaining cooperation. One thing I am adamant about for the EFF (Spanish Survey of Household Finances) is that we do not use the fact that the survey is part of our national statistical plan which makes it compulsory. I prefer to convince households to participate rather than force them because then I really would not be confident they have answered to the best of their abilities. In fact I have just seen a survey that has used the argument that it is compulsory and has ended up with high response rates but then very low response rates to monetary questions.

These responses led to the design of a pamphlet (Appendix D) introducing the survey and changing the sensitive wording to contain the words "financial well-being" instead of "wealth" and to refer to "assets, income and consumption" of the

household instead of “expenses, liabilities and debt”. However, to remain ethical and to divulge the true purpose of the study, the phrase “assets, income and consumption” was kept.

Similar responses received led to changes in the format of the omnibus survey to closely resemble international surveys where the measurement of income and expenditures was included at the end of the survey:

Flow of the questionnaire. We find that asking detailed questions on income at the very beginning does not go well with households.

Some of the participants commented that the terminology used might be unfamiliar to both the interviewer and the respondent. Comments on this matter included the following:

For the lower-income consumer (Mass Market), will they understand the questions? (Feedback from banking consumers is that some of our terminology is sometimes difficult for them to understand.)

To ensure the accuracy of data collected, a glossary of terms was developed and included in the interviewer training manual (Appendix C), which accompanied the survey. Owing to the necessity to ensure intelligibility, formal definitions were replaced with definitions using simplified or plain language.

Several of the respondents expressed the opinion that the survey was too long. The following comments were made:

I think when we spoke to individuals in the business everybody was just glad they did not need to complete it :)

How long do you anticipate the completion of the questionnaire is going to take? – consumers might get frustrated to answer such a lot of questions.

These comments resulted in a revision of all the sections in the survey, especially of all questions that did not directly measure or classify an income/expense or asset/liability or which did not provide demographic or behavioural information. This resulted in the removal of several questions (including questions with terminology issues).

Some of the participants' comments could not be directly incorporated into the finalisation of the financial position section in the omnibus survey, but did help with the data analysis reported on in Chapter 7:

The general construction of the questionnaire suggests a potential for (slight) underestimation of the values it captures – particularly in relation to unsecured liabilities and personal assets. This is partly due to assets and liabilities of individuals seemingly being captured in the survey collectively at the household level. With this I was not sure who was expected to be present during the course of the interview, and data for partners who are not present are especially likely to be underestimated. In each case, there is a high computational load on the respondent (and the interviewer) in the field, so greater risk of data collection errors. The effect of this will be magnified for larger households and those with more complex affairs, so this should be borne in mind at the point of analysis and reporting.

Overall, since the wealth distribution is highly unequal, practice in other countries is to oversample more affluent households using some observable criterion such as property value declared for tax purposes or previous census information on size of house or other indicators of wealth or income by location.

5.5.3 Summary

The face-to-face (section 5.5.1) and online (section 5.5.2) focus group participants interviewed during the qualitative research strand helped the researcher to finalise the preliminary financial position section included in the omnibus survey (Appendix B, section III). The omnibus survey was conducted among South African households, and the aim of the section in the survey was to classify, recognise and measure the assets and liabilities of households residing in the two main residential areas of the country. The aim of the focus group deliberations was to ensure that the instrument would be able to classify, recognise and measure all possible assets and liabilities. Furthermore, for the purposes of the study, the household was defined, the respondent with whom the interview would be conducted was identified and all the demographics necessary to analyse the data were collected. The focus group deliberations helped the researcher with a shortened and comprehensive omnibus survey (Appendix B), which flowed logically and defined all financial terminology and concepts to be presented to the population of South African households.

5.6 PRESENTING THE OMNIBUS SURVEY THAT INCLUDED THE FINAL FINANCIAL POSITION SECTION

The expert opinions obtained during the face-to-face and online focus groups enabled the researcher to compile a final and shortened version of the omnibus survey in general and the final financial position section in particular (Appendix B). The final omnibus survey was presented to all the members of the Personal Finance Research Unit as well as 19 academics enrolled for their master's degree in the field of personal finance. All were requested to scrutinise the omnibus survey to ensure that it was free of errors and bias. A few additional comments were received. After making all the changes, the omnibus survey (Appendix B) was deemed to be final and ready for the pilot study.

A summary of the composition of the final Personal Finance Research Unit Household Financial Well-being Survey (Appendix B) is provided in Table 5.5.

Table 5.5
Personal Finance Research Unit Household Financial Well-being Survey format

| Survey sections | Content | Questions |
|--|--|---|
| Cover page | Informed consent Ranges | |
| Section I Household demographics | Section B1: First name Section B2: Status in the household Section B3: Age Section B4: Gender Section B5: Marital status Section B6: Educational qualification Section B7: Field of qualification Section B8: Employment status Section B9: Occupational classification Section B10: Employment sector Section B11: Child's first name Section B12: Status in household Section B13: Age Section B14: Social grant Section B15: Province Section B16: Type of area Section B17: Population group | |
| Section II Household financial behaviour | Section C | C1–C15 |
| Section III Financial position of the household | Date | D0 |
| | Section D ₁ : Vehicles (including vehicle finance) | D1–D14 |
| | Section D ₂ : Boats and planes (including finance) | D15–D20 |
| | Section E: Main residence (including mortgages) | E1–E16 |
| | Section F: Collectibles and household content (including finance) | F1–F5 |
| | Section G: Properties other than main residence (including mortgages) | G1–G17 |
| | Section H: Financial assets | H1–H22 |
| | Section I: Loans | I1–I12 |
| | Section J: Household bills | J1–J8 |
| | Section K: Business interest | K1–K8 |
| Section L: Trusts | L1–L7 | |
| Section M: Inheritances received | M1–M2 | |
| Section IV Household income and expenditure | Section N ₁ : Expenditure Section N ₂ : Income Section N ₃ : Retirement provision Section N ₄ : Income of children | N1–N32 N33–N45 N46–N52 N53–N67 |

Source: Researcher's own compilation

The financial position section of households developed by the researcher is indicated in blue. Table 5.2 indicated the number of questions in the preliminary financial position section as 262. Through face-to-face and online focus group deliberations, the number of questions in the final financial position section was reduced to 118 (Table 5.5).

5.7 CONCLUSION

In section 5.2, the ontological and epistemological issues to be considered when deciding on an appropriate methodology for the study were described. The study used a plurality of methodological approaches to answer the research question and sub-questions. Both mainstream accounting research using the scientific method (conducting a survey) and interpretative accounting research (using focus groups) were used.

The study included a mixed methods research design, which was described in section 5.3. Mixed methods research studies involve integrating quantitative and qualitative data collection and analysis in a single study. The rationale for using a mixed methods study was explained. The key decisions on the different ways in which the quantitative and qualitative strands of the study relate to each other were made, and the study type was identified as a mixed methods exploratory sequential design study.

From the international literature review reported on in section 4.3, a heuristic model for the financial position section was compiled in section 4.4. The inclusion of the different asset and liability classes in the preliminary financial position section was justified in section 5.4 and based on the recognition and measurement principles of the Conceptual Framework (SAICA, 2010a). Section 5.5 described the design and implementation of the qualitative strand of the study. To ensure that the final financial position section would indeed be able to disaggregate and measure all asset and liability classes applicable to South African households, it was necessary to present the preliminary financial position section to different expert focus group participants.

Two focus group discussions were held, namely a face-to-face focus group (section 5.5.1) and an online focus group (section 5.5.2). The sample design, the results of the discussions and the implementation of the findings of the two focus groups in the final financial position section were explained. The qualitative strand of the mixed methods study enabled the researcher to prepare a final financial position section that would be able to recognise, classify and measure all possible household assets and liabilities robustly. The final financial position section included in the omnibus survey was presented in section 5.6.

Chapter 6 deals with piloting the omnibus survey and a comprehensive discussion of the third or quantitative phase of the study. The quantitative strand of the mixed methods research study is viewed and described. The quantitative strand provided disaggregated micro-level household data, which was used to recognise and measure the asset and liability base of households and present the findings in statements of financial position for the metropolitan and non-metropolitan areas of the country.

CHAPTER 6

THE QUANTITATIVE RESEARCH STRAND — DATA COLLECTION PHASE

“To fail to plan is to plan to fail” – Robert Wubbolding (Hofstee, 2006:7)

6.1 INTRODUCTION

In an attempt to gain a better understanding of South African household asset and liability ownership and accumulation in this study, a multi-phase mixed method research model was applied. The model made use of qualitative and quantitative research to recognise, classify and measure household assets and liabilities by way of a financial position section in an omnibus survey. The model enabled the researcher to achieve the main objective of the study, namely to disaggregate and measure the asset and liability base of South African households in metropolitan and non-metropolitan areas and to present the data in a statement of financial position for the two areas, based on the principles of the Conceptual Framework (SAICA, 2010a). From the data, inferences were drawn as a secondary objective to determine to what extent age group, education level, labour status, income group and area (metropolitan/non-metropolitan) and/or all possible interactions between these independent variables influence the accumulation of the assets and liabilities of South African households.

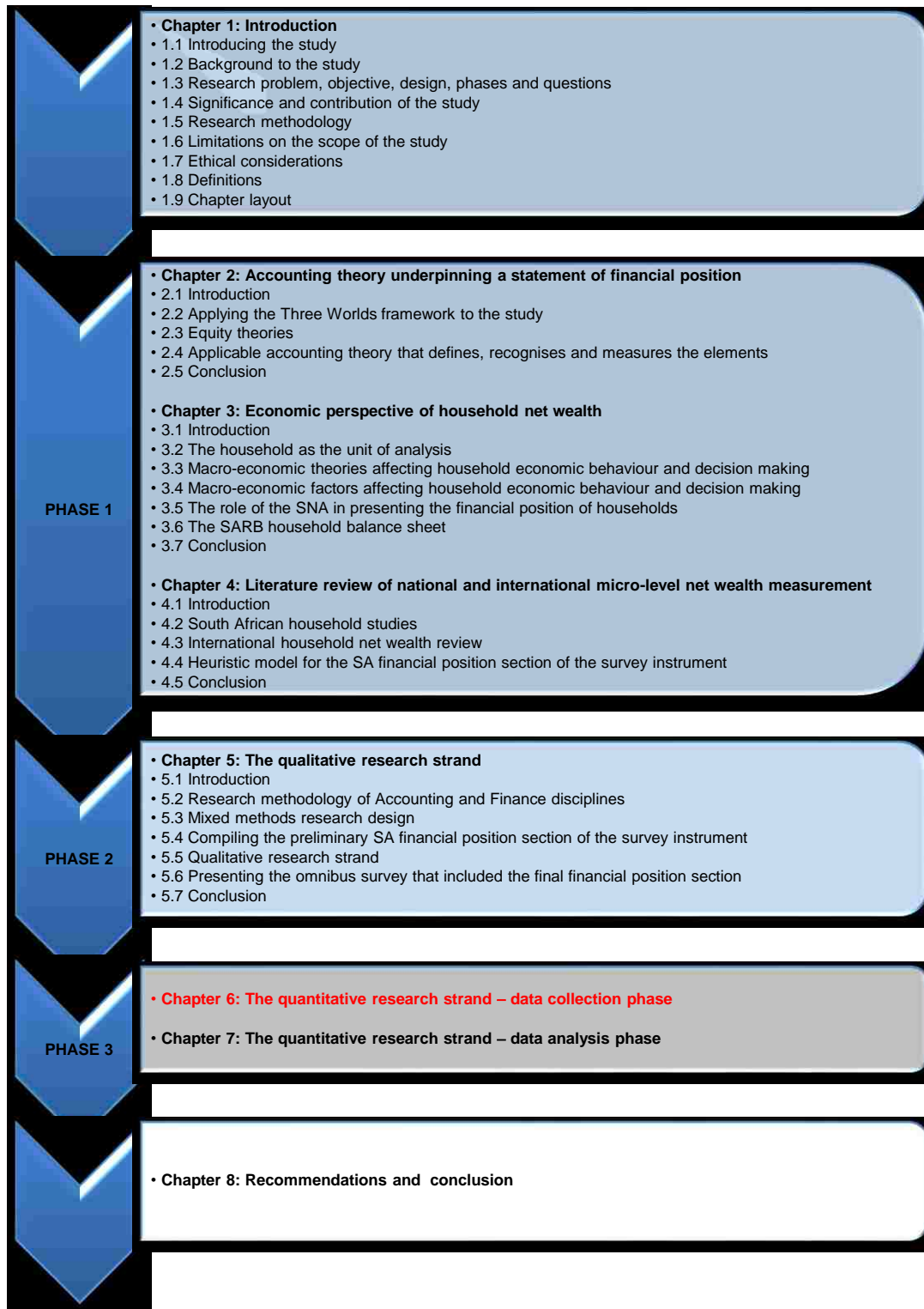
In Chapter 5, the ontological and epistemological issues to be considered when selecting an appropriate methodology for the study were described. The study used both interpretative (focus groups) and positivistic (survey) research. The second or qualitative phase of the study was also described in section 5.5. The qualitative phase consisted of face-to-face and online focus group discussions and the inclusion of their views to ensure an enhanced omnibus survey in general and a well-developed financial position section in particular. This phase culminated in a final omnibus survey, which incorporated the financial position section developed during the first or literature review phase of the study (Chapters 2, 3 and 4). The use of the

qualitative strand of the study provided the researcher with information on household net wealth from a broad range of key informants such as credit providers, banks, insurance providers, real estate and investment consultants.

This chapter describes the third phase of the study, namely the quantitative research strand of the mixed methods study (Figure 5.5). The aim of the quantitative strand was to analyse the data collected in the South African financial position section of the survey instrument developed by the researcher. The research question formulated in section 1.3.4.2 is addressed, the hypotheses are tested and the data is described in Chapter 7. To achieve this, section 6.2 describes the quantitative research design, section 6.3 the fieldwork that was conducted to collect the data and section 6.4 the strategies employed in the study to reduce sample errors and to increase the overall validity and reliability of the asset and liability data collected in the study.

The layout of the study is represented in Figure 6.1 to place this chapter and its contents in the broad perspective of the study.

Figure 6.1
Presenting Chapter 6 in the layout of the study



Source: Researcher's own compilation

6.2 QUANTITATIVE RESEARCH DESIGN

This section focuses on the quantitative research design. The quantitative strand provided micro-level household data, which enabled the researcher to disaggregate, recognise and measure the asset and liability base of South African households and to present the findings in a statement of financial position for the metropolitan and non-metropolitan areas of the country. Applying econometric models and population weights, a sampling expert from Unisa's Bureau of Market Research helped the researcher to weight the responses (Van Aardt, 2007). The reweighted population data enabled the researcher to draw inferences about the population from the sampled responses. This stage relied on self-reported estimates from households, a matter that had to be considered when analysing the data "as people might be telling us what they believe to be true or what they think we want to hear" (Schwarz, 1999).

The quantitative strand of the study followed an *ex post facto* design because no control existed for the researcher to manipulate the variables that were recorded by means of the survey instrument (Cooper & Schindler, 2011). It was also a cross-sectional study in the sense that it attempted to present a snapshot of household assets and liabilities at the time the survey was conducted (Cooper & Schindler, 2011). This section of the chapter commences with a description of the piloting of the final omnibus survey in section 6.2.1. In section 6.2.2, the data collection methods are described and the sample plan design explained in section 6.2.3.

6.2.1 Piloting the final omnibus survey

The piloting of the data collection instrument is usually the first step in the data gathering process and should be done using the target population to simulate the procedures and protocols designated for the collection of data (Tustin, Lighthelm, Martins & Van Wyk, 2005:414). The size of a pilot test may vary from 25 to 100 participants and participants need not be statistically selected (Cooper & Schindler, 2011:89). A pilot test on the data gathering instrument is usually conducted to detect any weaknesses in the design and to provide proxy data for the selection of a probability sample (Cooper & Schindler, 2011:89). In this study, the main reason for piloting the survey was to test the survey length and ensure that the flow of the questions in the survey was appropriate.

This study followed two phases of pretesting, namely the testing of the survey instrument among colleagues, as described in section 5.6, and an actual test of the instrument among the target population. On 19 July 2011, a group of 19 computer-aided telephone interviewers were requested to pilot the survey among themselves. For actual piloting purposes, each had to also test the survey with one other willing party. A total of 38 completed interviews were returned the following day and discussions were held to identify the problems experienced. According to the fieldworkers, it took between 20 and 75 minutes to complete the survey. No major problems were detected and only minor comments were made on the layout of the survey. These comments were incorporated into the interviewer's guide (Appendixes B and C). The final survey (Appendix B) was used as the data collection instrument. The data collection method is described in the next section.

6.2.2 Data collection method

According to Cooper and Schindler (2011:248–249), the researcher must determine whether interviewing is appropriate for the study and then decide on the methods to collect information from participants. This section explains the researcher's *modus operandi* in this study.

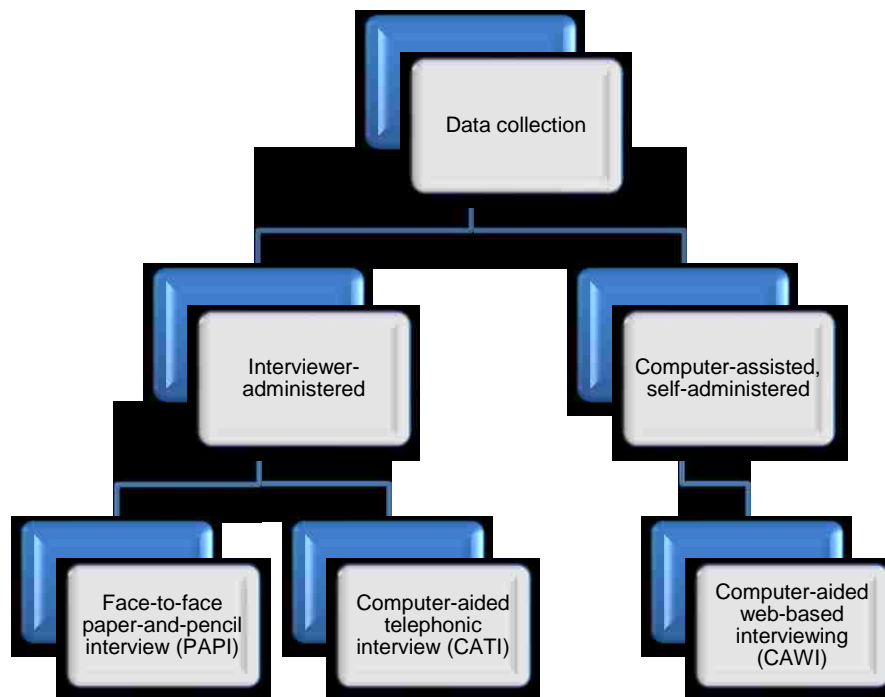
The personal interview method is the most commonly applied data collection method for large-scale household surveys in developing countries (United Nations, 2005a:17). Not only does it improve the response rates in general, but owing to the high illiteracy rate in most developing countries, it is also the most appropriate method to collect complex financial information. Personal interviews involve trained interviewers visiting selected households and collecting data by asking questions (Tustin et al., 2005:438).

The main advantages of this method are that interviewers can explain the objectives of the study and motivate the respondents to answer the questions. The disadvantages of this method are that different interviewers may give different interpretations of questions or read questions in such a way that they may be incorrectly interpreted, the personalities of the interviewers may influence the respondents and the interviewers (consciously or unconsciously) may suggest the appropriate answers. These disadvantages could introduce bias in the survey results, which is often referred to as interviewer bias (United Nations, 2005a:17).

Section 6.4 discusses the ways in which interviewer bias was minimised in the current study.

In this study, the personal interview was chosen as the preferred data collection method owing to the sensitivity of the data as well as the complexity and length of the survey, with due consideration of the high literacy level needed to complete the survey. Primary research data was collected via an interviewer-administered, structured survey and to broaden the access to more affluent households, a computer assisted self-administered web-based survey was also designed. The interviewer-administered survey made use of telephonic and face-to-face structured interviews. Figure 6.2 indicates the data collection strategy applied in this study.

Figure 6.2
Data collection strategy



Source: Researcher's own compilation

Publicity is a key element to ensure that the data collection is successful, especially when collecting sensitive personal data as in this study (United Nations, 2005a:22). A press release campaign was launched by Unisa's Personal Finance Research Unit with the assistance of certain radio stations, in newspapers and on television in an effort to increase the public's awareness of the authenticity of the study. Contact details were provided and the public were encouraged to participate. The pamphlet

(Appendix D) served to introduce the survey and was made available at all the face-to-face interviews.

The advantage of face-to-face interviews is that they establish rapport with participants. This method encourages the respondents to participate, especially when the requested information is highly sensitive (Tustin et al., 2005). Furthermore, the fact that household responses are kept anonymous may influence financially knowledgeable persons to be more truthful in their responses. This type of interview is also appropriate when large quantities of data need to be collected and respondents cannot be reached telephonically, or they are illiterate or not financially literate (Tustin et al., 2005:150). The disadvantages of face-to-face interviews are the high costs involved, the difficulty gaining access to households, interviewer and respondent interaction, which may lead to bias, as well as socially acceptable instead of truthful answers (Leedy & Ormrod, 2010:188–189; Schwarz, 1999; Tustin et al., 2005:140–155).

In this study, landline telephonic interviews were conducted. This type of interview is mainly used in national surveys when respondents are geographically widely dispersed. One of the advantages of this method is that it is less expensive, but the disadvantage is that the sample may be biased to the extent that households without a landline are not included in the study. Furthermore, the length of the survey could affect respondents negatively and result in the termination of the call. Limited landline availability in South Africa, unlisted numbers and outdated telephone directories made control over the sample difficult (Leedy & Ormrod, 2010:188–189; Tustin et al., 2005:155–160).

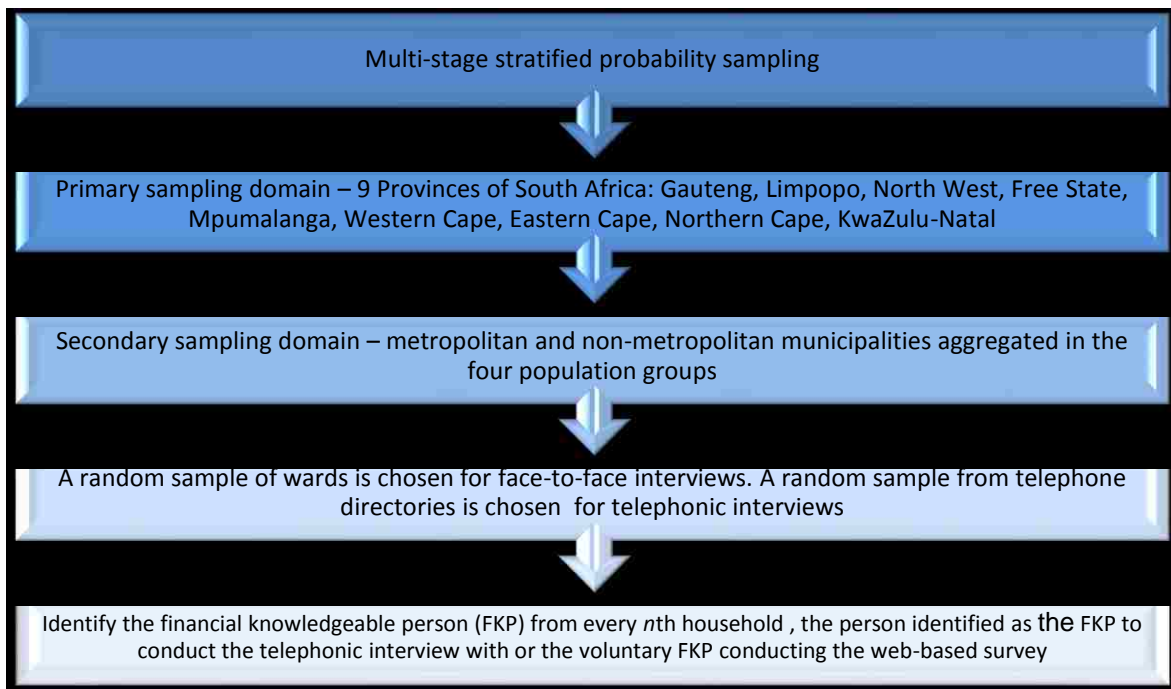
The final data collection method applied in this study was the self-administered computer-aided web-based survey which was designed using software from Survey Monkey (<http://www.surveymonkey.com>). The specific aim of the web-based survey was to collect data from the higher-income sector of the population because a self-administered survey evokes a greater sense of privacy and improves disclosure (Tustin et al., 2005:224). This survey was also pretested by members of the Personal Finance Research Unit and the financial experts included in the face-to-face focus group discussions. Non-probability convenience sampling was used to distribute these surveys to respondents. Willing experts in the field of household

finance were requested to send the survey web-link to their clients and to request them, via the short message system (SMS), to participate in the study. Respondents who decided to participate could contact an administrator of the Personal Finance Research Unit, who then either supplied them with the web-link to complete the survey or, if requested by the respondent, put them in contact with a computer-aided telephonic interviewer who conducted the interview telephonically. Participation in the survey in both these instances was voluntary, as recommended by Tustin et al. (2005:244–251).

The selection of the appropriate sample of households to represent the entire population is a crucial process when conducting empirical research (Tustin et al., 2005:336). The design of an appropriate sampling plan is discussed in the next section. To ensure the inclusion of a representative sample of households, the sample was drawn to cover all metropolitan and non-metropolitan areas in all nine provinces and across all four main population groups in South Africa. The sampling process is indicated in Figure 6.3.

Figure 6.3

The sampling process



Source: Researcher's own compilation

6.2.3 Sample plan design

This section focuses on the sample plan design, which enabled the researcher to select a representative sample of households with whom to conduct face-to-face or telephonic interviews. According to Tustin et al. (2005), in order to understand the importance of a well-considered sample plan, it is necessary to:

- define the population(section 6.2.3.1);
- specify the sample frame used to select the sample (section 6.2.3.2);
- choose the sampling method and the select the sample (section 6.2.3.3);
- select the wards for the face-to-face interviews (section 6.2.3.4); and
- select the households with whom telephonic interviews will be conducted (section 6.2.3.5).

6.2.3.1 *Define the population*

The population is defined as the total group of people or entities from whom information is required. A sample is a sub-set of the population. The survey population consists of sampling elements and units. A sampling element is the primary level of investigation, whereas the sampling unit is the basic level of investigation (Tustin et al., 2005:337–340).

In this study, the population was all private households in South Africa and their members residing in national territory at the time of data collection. The household, for the purposes of the study, was defined in section 5.5.2.4.a. The sampling element of the study was randomly selected households, while the sampling unit was metropolitan and non-metropolitan municipalities.

6.2.3.2 *Specify the sample frame*

The sample frame is the list of elements from which the sample is actually drawn, ideally the complete population (Cooper & Schindler, 2011:372). There are many ways and sources to establish the number of households or sample frame. The use of base numbers such as those provided by Statistics South Africa is one such method. Another method is using population statistics from censuses that have been conducted. Census enumeration areas provide an explicit list of all areas, which are

often used as first-stage units in the sample selection process (United Nations, 2005a:1–7).

Censuses conducted in 1996 and 2001 were the only all-inclusive censuses that had been conducted prior to this study under the new democratic dispensation in South Africa. These censuses provided the primary base source of provincial population figures (SSA, 2008:1–4). In 1994, the Municipal Demarcation Board (MDB) was established to create a spatial design of the country. This Board divided the country into different municipalities inside the nine provinces to eliminate the previous urban–rural areas that used to be reported on (SSA, 2007b:ii). For the purposes of reporting, municipalities are subdivided into:

- Category A or metro-municipalities;
- Category B or local municipalities; and
- Category C or district municipalities.

In this study, households in areas with Category B and Category C municipalities are referred to as “non-metropolitan households” and households residing in areas with Category A municipalities, as “metropolitan households”.

The demarcation described above was used to conduct the nationally representative 2007 Community Survey conducted by Statistics South Africa, which the sample expert that helped the researcher, utilised to construct the sample frame for this study because it contains the estimated population of households per province and per municipality (SSA, 2007a). The changing household dynamics of South Africa as a result of declines in fertility, HIV/AIDS and the frequent change of provincial boundaries, necessitated the updating of the sample frame to ensure that data was collected from all representative households in South Africa.

Unisa’s Bureau of Market Research has been conducting research on population and household projections since 1999 (Van Aardt, 1999; 2001; 2004; 2007). The aim of these studies was to incorporate what was known about population and household sizes and dynamics at the time of the research into a projection model in order to arrive at household and population projections of greatest likelihood for the respective periods (Van Aardt, 2007:x). The projections were based on methodologies developed by the United States Bureau of Census and first estimated

population size, then household estimates, and these estimates were disaggregated by province and population group (Van Aardt, 2007:x). "Research report 364" (Van Aardt, 2007) was used to determine the average household projection for South Africa for the 2010/2011 year. This study collected household data for the year 2011, and the average population in 2010 and 2011 was therefore used to estimate the number of households for 2011. Table 6.1 is an extract from household projections until 2021 (Van Aardt, 2007:xiii).

Table 6.1
Household projection until 2021

| Year | Number of households | Year | Number of households |
|------|----------------------|------|----------------------|
| 2002 | 11 859 597 | 2012 | 14 416 603 |
| 2003 | 12 142 786 | 2013 | 14 689 879 |
| 2004 | 12 415 422 | 2014 | 14 975 097 |
| 2005 | 12 676 972 | 2015 | 15 274 881 |
| 2006 | 12 929 389 | 2016 | 15 587 093 |
| 2007 | 13 171 503 | 2017 | 15 913 537 |
| 2008 | 13 412 776 | 2018 | 16 256 442 |
| 2009 | 13 654 415 | 2019 | 16 614 917 |
| 2010 | 13 901 499 | 2020 | 16 989 407 |
| 2011 | 14 155 017 | 2021 | 17 379 366 |

Source: Van Aardt (2007:xiii)

The current study was conducted in the middle of 2011; the average household population projection applicable to this study was calculated from Table 6.1 above as $(13\,901\,499 + 14\,155\,017) / 2 = 14\,028\,259$. Prof CJ van Aardt of the Bureau of Market Research, who was responsible for these household projections, is a sampling expert and helped the researcher to establish an updated sample frame from which a representative sample of the population could be drawn.

An Excel spreadsheet containing a municipal matrix prepared from the 2007 Community Survey, served as the basic sample frame in this study. The constructed matrix was increased with a growth factor (calculated as the 2011 mid-year projection for the number of households divided by the number of households per municipality according to the 2007 Community Survey). "Research report 364" (Van Aardt, 2007:36–53) provided proportions for disaggregation into province and main population groups, and was used to subdivide the projected number of households obtained in the nine provinces and the four main population groups. During the construction of the matrix, the weighting of data led to decimal fractions which were

rounded to whole numbers. Because of rounding, there were slight proportional differences from the proportions in “Research report 364”. The detailed matrix consisted of the projected number of households in the nine provinces disaggregated into the different municipalities and according to the four main population groups. Table 6.2 below provides a summary of the municipal matrix that was constructed to form the sample frame for this study.

Table 6.2
Population projection per province and population group

| Province | African | Asian | Coloured | White | Total |
|-----------------------------------|-------------------|----------------|------------------|------------------|-------------------|
| Eastern Cape | 1 736 281 | 6 686 | 122 976 | 138 238 | 2 004 181 |
| Local municipalities | | | | | 1 391 559 |
| Two metropolitan municipalities | | | | | 612 622 |
| Free State | 790 154 | 995 | 23 130 | 124 359 | 938 638 |
| Local municipalities | | | | | 700 440 |
| Metropolitan municipality | | | | | 238 198 |
| Gauteng | 2 365 031 | 52 978 | 86 507 | 698 913 | 3 203 429 |
| Local municipalities | | | | | 480 637 |
| Three metropolitan municipalities | | | | | 2 722 792 |
| KwaZulu-Natal | 2 068 998 | 250 679 | 31 675 | 238 674 | 2 590 026 |
| Local municipalities | | | | | 1 605 266 |
| Metropolitan municipality | | | | | 984 760 |
| Limpopo | 1 437 752 | 1 717 | 2 885 | 40 961 | 1 483 315 |
| Local municipalities | | | | | 1 483 315 |
| Metropolitan municipality | | | | | - |
| Mpumalanga | 941 258 | 4 209 | 5 672 | 89 881 | 1 041 020 |
| Local municipalities | | | | | 1 041 020 |
| Metropolitan municipality | | | | | - |
| Northern Cape | 168 531 | 810 | 124 863 | 40 314 | 334 518 |
| Local municipalities | | | | | 334 518 |
| Metropolitan municipality | | | | | - |
| North West | 968 830 | 3 105 | 14 330 | 86 144 | 1 072 409 |
| Local municipalities | | | | | 1 072 410 |
| Metropolitan municipality | | | | | - |
| Western Cape | 350 444 | 12 923 | 601 688 | 395 668 | 1 360 723 |
| Local municipalities | | | | | 476 567 |
| Metropolitan municipality | | | | | 884 156 |
| Total | 10 827 279 | 334 102 | 1 013 726 | 1 853 152 | 14 028 259 |

Source: Extracted from the sample frame constructed from the 2007 Community Survey and Research report 364 (SSA, 2007a; Van Aardt, 2007:36–53)

The shading in Table 6.2 indicates the split between local or non-metropolitan municipalities and metropolitan municipalities. According to Table 6.2, metropolitan households (5 442 528) amounted to 38.8% of the projected population. The effects

of urbanisation, such as more employment opportunities and better salaries (as discussed in section 1.2), resulted in the expectation that there could be statistically significant differences between the composition of the asset and liability base of households residing in metropolitan areas versus those living in non-metropolitan areas. The aim of the study was to explore these differences in net wealth by presenting different statements of financial position for these two main areas of the country. From the data, statements of financial position were prepared for households living in metropolitan and non-metropolitan areas. Comparisons were made of the net wealth composition of the two areas to establish whether differences in composition were indeed a reflection of where the household was residing or whether the differences were due to other factors such as age, income, education levels and labour status, or a combination of all these factors and their interaction effects.

At the time of the study, South Africa had 226 non-metropolitan municipalities and eight metropolitan municipalities, namely Buffalo City (East London), Cape Town, Ekurhuleni (East Rand), eThekweni (Durban), Johannesburg, Mangaung (Bloemfontein), Nelson Mandela Bay (Port Elizabeth) and Tshwane (Pretoria) (GCIS, 2010). The next sub-section describes the methods used to ensure that a representative sample was chosen from metropolitan and non-metropolitan areas.

6.2.3.3 Sampling method and selection of the sample

a) Sampling method

Owing to constraints such as time, financial means and the sensitivity of the required information, this study made use of a sample to represent the population. To ensure that the sample was a valid representation of the population, the sampling selection process comprised various stages and made use of probability sampling. In probability sampling, every household in the country has a known, mathematical, non-zero chance of being included in the sample (Tustin et al., 2005:344). It is the mathematical nature of probability sampling that permits scientifically grounded estimates and inferences to be made about the population from which the sample is drawn (Tustin et al., 2005:367; United Nations, 2005a:32). Probability sampling also allows for an estimation of errors from the data collected, which non-probability sampling does not. According to the United Nations (2005a:32), it is the

recommended approach, even though sampling costs are higher than for non-probability sampling and must be used in each stage of the sampling selection process.

b) Selection of the sample

The sample was selected in stages from the design of the sample frame until pinpointing the locations where the interviews would be conducted. In order to reduce sampling error, the design was stratified to cover the main geographical areas and the main population groups in those areas (United Nations, 2005a:27). Strata are independent and mutually exclusive sub-sets of the population (United Nations, 2005a:48), and each stratum had to be sampled in order to represent the population and calculate an unbiased estimate of the population mean. Each created stratum had to be different from other strata but with homogeneity in the stratum (United Nations, 2005a:54). The strata in this study were the municipalities in all nine provinces disaggregated into the main population groups.

According to Tustin et al. (2005:360), sample size is determined on the basis of statistical and practical considerations such as:

- the degree of variability in the population – the more heterogeneous the population, the larger the sample size;
- the degree of precision required of population estimates based on the sample – the greater the precision required, the larger the sample size;
- the degree of confidence associated with population estimates – the higher the degree of confidence required, the larger the sample size; and
- the use of sub-samples and statistical techniques, which require a minimum sample size to produce meaningful results.

A rule of thumb is that the sample must be large enough to include 100 or more units per breakdown category and a minimum of 25 in the minor breakdown categories (Diamantopoulos & Schlegelmilch, 1997).

The sample size for the study was pre-specified (Tustin et al., 2005:359) at 2 000 households to be distributed across all nine provinces across the four main population groups, covering all metropolitan and non-metropolitan areas. The number of possible samples that could be drawn from the population was 2^n (Tustin

et al., 2005:359) where $n = 14\,028\,259$. However, budget restrictions and the wide range of topics included in the survey necessitated the limitation of the sample (United Nations, 2005b:37).

The sampling selection of metropolitan and non-metropolitan municipalities was done with the aid of a Monte Carlo simulation. Monte Carlo is a computer software program that generates random numbers (Tustin et al., 2005:351) and assigns numbers to every household in the population. In simple random sampling, each household has one chance to form part of the population. The sampling expert explained that, by using a Monte Carlo simulation, each household was given 10 000 chances to be included in the sample. This enabled the researcher to draw a representative sample of the population across the sample frame. A total of 10 000 random samples were drawn with a score of 1 as minimum and 1 000 as maximum. Owing to the mid-point integration process as explained by the central limit theorem (Tustin et al., 2005:367), limited differences in the average values of the 10 000 samples were observed. According to the sampling expert, all received a net score of 500 out of 1 000. The number of random samples were reduced to 5 000 and 1 000 with the same results. The average scores finally identified after 500 samples had been drawn, were far enough removed from the mid-point to enable the researcher to select specific sampling units (metropolitan and non-metropolitan municipalities) from the sample frame. These sampling units in the different provinces were disaggregated per main population group and are indicated in Table 6.3.

Table 6.3

Selected sample based on all municipalities in all provinces and disaggregated into the main population groups

| Municipalities | African | Asian | Coloured | White | Total |
|--|---------|---------|----------|---------|-----------|
| Eastern Cape | | | | | |
| Nelson Mandela Bay Metropolitan Municipality | 211 448 | 3 925 | 57 719 | 75 795 | 348 888 |
| Mnquma Local Municipality | 95 062 | 77 | 155 | 142 | 95 436 |
| Free State | | | | | |
| Setsoto Local Municipality | 30 599 | 113 | 307 | 3 627 | 34 646 |
| Mangaung Local Municipality | 188 375 | 208 | 8 788 | 40 827 | 238 198 |
| Gauteng | | | | | |
| City of Johannesburg Metropolitan Municipality | 850 119 | 32 655 | 51 817 | 232 420 | 1 167 012 |
| Lesedi Local Municipality | 15 681 | 94 | 205 | 4 825 | 20 805 |
| KwaZulu-Natal | | | | | |
| Endumeni Local Municipality | 12 056 | 1 035 | 601 | 2 275 | 15 967 |
| eThekweni Metropolitan Municipality | 631 649 | 192 817 | 19 615 | 140 679 | 984 760 |
| Limpopo | | | | | |
| Bela-Bela Local Municipality | 13 568 | 98 | 258 | 3 029 | 16 953 |
| Polokwane Local Municipality | 147 414 | 537 | 1 495 | 8 464 | 157 909 |
| Mpumalanga | | | | | |
| Emalahleni Local Municipality | 97 431 | 454 | 911 | 18 073 | 116 870 |
| Govan Mbeki Local Municipality | 72 025 | 712 | 654 | 14 230 | 87 620 |
| Northern Cape | | | | | |
| Nama Khoi Local Municipality | 690 | 40 | 14 367 | 1 522 | 16 619 |
| Sol Plaatjie Local Municipality | 38 410 | 418 | 18 828 | 10 055 | 67 710 |
| North West | | | | | |
| Kgetlengrivier Local Municipality | 10 481 | 80 | 143 | 1 636 | 12 340 |
| Potchefstroom Local Municipality | 27 571 | 212 | 1 877 | 11 293 | 40 953 |
| Western Cape | | | | | |
| Saldanha Bay Local Municipality | 3 323 | 104 | 11 646 | 6 354 | 21 427 |
| City of Cape Town Metropolitan Municipality | 260 182 | 11 718 | 346 617 | 265 639 | 884 156 |

Source: Sample frame constructed (SSA, 2007a; Van Aardt, 2007).

Often, when surveys are based on complex sample designs to control costs, the sample design may lead to imperfections such as bias and departures between the sample and the population. Weighting is used to rectify these imperfections by compensating for unequal probabilities of selection, non-response and adjusting the weighted sample distribution for key interest variables to make it conform to a known population distribution (United Nations, 2005a:119). The identified key interest variables for the purposes of the sample frame of the study were all municipalities and their respective representation by the four main population groups. The sample had to be representative of the population across these key variables.

According to Boniaszczuk (2009), weighting in a research survey has two components. First, there is the up-weighting factor that expresses the sample in

terms of the population represented and the adjustment of proportions in the sample to match those in the population. The up-weighting factor is known as the sampling fraction. In this study, the up-weighting factor was calculated as $14\,028\,259/2\,000 = 7\,014$ (rounded) meaning that each respondent household represented 7 014 households in the population. Boniaszczuk (2009) argues that applying such a multiplier does not change any ratio or measure in the data.

The second component is more controversial and involves the up-weighting of the under-representative sampling units in the sample and the down-weighting of the over-representative sampling units in the sample, based on certain criteria. Boniaszczuk (2009) calls this the sample balancing component. According to Boniaszczuk (2009), the two components of weighting can be combined with a single weight which does both up-weighting and down-weighting. According to him (2009), this method is often applied in industry standard surveys such as the All Media and Product Survey. The requirement is that the sample must be balanced on a whole range of demographics, which tends to complicate the weighting. Boniaszczuk (2009) explains that this requires the application of rim weighting. Rim weighting works out a weight so that each cell will be populated through the use of least squares regression to evaluate the calculated weights. According to Lipovetsky (2007:2313), sample balance (also known as “ranking”) is necessary in social surveys because the composition of the respondents’ characteristics can often not be controlled to match the proportions in the population. Sample balancing helps to determine the maximum effective sample size (Lipovetsky, 2007:2319).

With the aid of the sampling expert, sample balancing was applied in this study with respect to population group and province. The down-weighting rim applied by the sample expert was 0.5 and the up-weighting rim weights that were tested were 1.5, 2.0 and 2.5. The calculated rim weights that resulted in the most appropriate sample, according to the sampling expert, were 0.5 and 2.5. These rim weights were applied to the population projection in Table 6.2 and the results of the rim weighting are illustrated in Tables 6.4 to 6.6.

To ensure that all population groups were represented in the sample, the rim weighting applied by the sampling expert was to down-weight the highest population group (African) as per Table 6.2 by 0.5, and to up-weight the lowest population group

(Asian) by 2.5. The results of the weighting of population groups are provided in Table 6.4.

Table 6.4
Population projection per province rim-weighted according to population group

| Province | African | Asian | Coloured | White | Total |
|---------------|------------------|----------------|------------------|------------------|------------------|
| Eastern Cape | 868 141 | 16 715 | 122 976 | 138 238 | 1 146 070 |
| Free State | 395 077 | 2 487 | 23 130 | 124 359 | 545 053 |
| Gauteng | 1 182 516 | 132 445 | 86 507 | 698 913 | 2 100 381 |
| KwaZulu-Natal | 1 034 499 | 626 697 | 31 675 | 238 674 | 1 931 545 |
| Limpopo | 718 876 | 4 292 | 2 885 | 40 961 | 767 014 |
| Mpumalanga | 470 629 | 10 523 | 5 672 | 89 881 | 576 705 |
| Northern Cape | 84 265 | 2 025 | 124 863 | 40 314 | 251 467 |
| North West | 484 415 | 7 763 | 14 330 | 86 144 | 592 652 |
| Western Cape | 175 222 | 32 308 | 601 688 | 395 668 | 1 204 886 |
| Total | 5 413 640 | 835 255 | 1 013 726 | 1 853 152 | 9 115 773 |

Source: Constructed from Table 6.2

The three lowest provinces in terms of population in Table 6.4 were the Free State, Mpumalanga and the Northern Cape, and their household numbers were up-weighted by 2.5. The highest three provinces in Table 6.4 were the Eastern Cape, Gauteng and KwaZulu-Natal, and their household numbers were down-weighted by 0.5. The results of the weighting are presented in Table 6.5.

Table 6.5
Population projection per population group rim-weighted according to province

| Province | African | Asian | Coloured | White | Total |
|---------------|------------------|----------------|------------------|------------------|------------------|
| Eastern Cape | 434 071 | 8 357 | 61 488 | 69 119 | 573 035 |
| Free State | 987 693 | 6 218 | 57 825 | 310 897 | 1 362 633 |
| Gauteng | 591 258 | 66 223 | 43 253 | 349 457 | 1 050 191 |
| KwaZulu-Natal | 517 250 | 313 348 | 15 838 | 119 337 | 965 773 |
| Limpopo | 718 876 | 4 292 | 2 885 | 40 961 | 767 014 |
| Mpumalanga | 1 176 573 | 26 308 | 14 180 | 224 702 | 1 441 763 |
| Northern Cape | 210 662 | 5 063 | 312 158 | 100 785 | 628 668 |
| North West | 484 415 | 7 763 | 14 330 | 86 144 | 592 652 |
| Western Cape | 175 222 | 32 308 | 601 688 | 395 668 | 1 204 886 |
| Total | 5 296 020 | 469 880 | 1 123 645 | 1 697 070 | 8 586 615 |

Source: Constructed from Table 6.4

A random sample of 2 000 households was proportionately selected on the basis of the percentages of each population group in each province as indicated in Table 6.5 and rounded to the nearest number of households. Table 6.6 indicates the number of households per population group and per province.

Table 6.6
Random sample from weighted population projection

| Province | African | Asian | Coloured | White | Total |
|---------------|--------------|------------|------------|------------|--------------|
| Eastern Cape | 101 | 2 | 14 | 16 | 133 |
| Free State | 230 | 2 | 14 | 72 | 318 |
| Gauteng | 138 | 15 | 10 | 82 | 245 |
| KwaZulu-Natal | 120 | 73 | 4 | 28 | 225 |
| Limpopo | 167 | 1 | 1 | 10 | 179 |
| Mpumalanga | 274 | 6 | 3 | 52 | 335 |
| Northern Cape | 49 | 1 | 73 | 23 | 146 |
| North West | 113 | 2 | 3 | 20 | 138 |
| Western Cape | 41 | 8 | 140 | 92 | 281 |
| Total | 1 233 | 110 | 262 | 395 | 2 000 |

Source: Constructed from Table 6.5

Table 6.6 represents the distribution of the pre-specified 2 000 households that were selected across all nine provinces and across the four main population groups using probability proportionate to size sampling (PPS). Probability proportional to size sampling is a technique that employs auxiliary data to yield increases in the precision of survey estimates and it is the methodology of choice for sampling primary sampling units in most household surveys (United Nations, 2005b:16).

In order to ensure statistical representation across all cells, the sampling expert applied a general guideline (as suggested by Tustin et al., 2005:360) of between 20 to 50 households per cell. Owing to the heterogeneous nature of the population, the sampling expert advised the researcher that the lower margin had to be a minimum of 50 households per cell and the upper margin limited to 150 households per cell. These margins were applied to the number of households in Table 6.6 and the results are indicated in Table 6.7.

Table 6.7**Weighted population projection per population group and province incorporating minimum and maximum households per cell**

| Province | African | Asian | Coloured | White | Total |
|---------------|--------------|------------|------------|------------|--------------|
| Eastern Cape | 101 | 50 | 50 | 50 | 251 |
| Free State | 150 | 50 | 50 | 72 | 322 |
| Gauteng | 138 | 50 | 50 | 82 | 320 |
| KwaZulu-Natal | 120 | 73 | 50 | 50 | 293 |
| Limpopo | 150 | 50 | 50 | 50 | 300 |
| Mpumalanga | 150 | 50 | 50 | 52 | 302 |
| Northern Cape | 50 | 50 | 73 | 50 | 223 |
| North West | 113 | 50 | 50 | 50 | 263 |
| Western Cape | 50 | 50 | 140 | 92 | 332 |
| Total | 1 022 | 473 | 563 | 548 | 2 606 |

Source: Constructed from Table 6.6

The total sample size for the survey was thus 2 606, to be distributed across all provinces and across all population groups, as indicated in Table 6.7. For every cell in Table 6.7, the principles of the central limit theorem were again applied to enable the sampling expert to split the metropolitan and non-metropolitan municipalities. The following rules were applied by the sampling expert to subdivide the weighted population projection between the different municipalities:

- Where a province contained a metropolitan and non-metropolitan (local) municipality, the population group percentage (Table 6.3) was applied with a minimum of 10 households per population group. The sampling expert advised that the bottom margin of 10 households had to be increased to ensure greater inclusion among the African, Asian and white population in Gauteng, among the African and Asian population in KwaZulu-Natal and among the white population in the Western Cape.
- Where a province contained only non-metropolitan municipalities, the population group percentage (Table 6.3) was applied, but with a minimum of 10 households per population group.

The result of the application of this method is indicated in the final sample in Table 6.8.

Table 6.8
Household sample

| FINAL HOUSEHOLD WELL-BEING SAMPLE | African | Asian | Coloured | White | Total |
|--|----------------|--------------|-----------------|--------------|--------------|
| Eastern Cape | | | | | |
| Nelson Mandela Bay Metropolitan Municipality | 70 | 40 | 40 | 40 | 190 |
| Mnquma Local Municipality | 31 | 10 | 10 | 10 | 61 |
| Free State | | | | | |
| Setsoto Local Municipality | 21 | 18 | 10 | 10 | 59 |
| Mangaung Local Municipality | 129 | 32 | 40 | 62 | 263 |
| Gauteng | | | | | |
| City of Johannesburg Metropolitan Municipality | 110 | 50 | 40 | 65 | 265 |
| Lesedi Local Municipality | 22 | 10 | 10 | 13 | 55 |
| KwaZulu-Natal | | | | | |
| Endumeni Local Municipality | 22 | 15 | 10 | 10 | 57 |
| eThekweni Metropolitan Municipality | 98 | 58 | 40 | 40 | 236 |
| Limpopo | | | | | |
| Bela-Bela Local Municipality | 13 | 10 | 10 | 12 | 45 |
| Polokwane Local Municipality | 137 | 40 | 40 | 40 | 257 |
| Mpumalanga | | | | | |
| Emalaheni Local Municipality | 86 | 19 | 29 | 28 | 162 |
| Govan Mbeki Local Municipality | 64 | 31 | 21 | 22 | 140 |
| Northern Cape | | | | | |
| Nama Khoi Local Municipality | 10 | 10 | 32 | 10 | 62 |
| Sol Plaatjie Local Municipality | 40 | 40 | 41 | 40 | 161 |
| North West | | | | | |
| Kgetlengrivier Local Municipality | 31 | 14 | 10 | 10 | 65 |
| Potchefstroom Local Municipality | 82 | 36 | 40 | 40 | 198 |
| Western Cape | | | | | |
| Saldanha Bay Local Municipality | 10 | 10 | 10 | 15 | 45 |
| City of Cape Town Metropolitan Municipality | 40 | 40 | 130 | 77 | 287 |
| TOTAL | 1 016 | 483 | 563 | 544 | 2 606 |

Source: Final sample obtained from sample expert

Because the survey was conducted by means of computer-aided telephonic interviews and face-to-face interviews, as discussed in section 6.2.2, the need arose to allocate the final sample in Table 6.8 proportionately between computer-aided telephonic interviews and face-to-face interviews. The methodology that follows enabled the sample expert to allocate the number of households that were interviewed by means of the computer-aided telephonic interview system and the remaining number of households that were covered in face-to-face interviews.

The Bureau of Market Research subscribes to the South African Advertising Research Foundation (SAARF) All Media and Product Survey database, and this

database was used as the basis for the allocation. The sample expert used the AMPS2010B (SAARF, 2010b) survey data base to establish the household population per metropolitan area in possession of a fixed telephone line at home. The results of this extraction of data are indicated in Tables 6.9 and 6.10.

Table 6.9

Household population per metropolitan area from AMPS 2010B database

| Metropolitan | African | Asian | Coloured | White | Total |
|--------------------------|------------------|----------------|----------------|----------------|------------------|
| Bloemfontein | 89 762 | – | 9 975 | 52 748 | 152 485 |
| Cape Town | 197 761 | 11 936 | 349 364 | 246 642 | 805 703 |
| Durban | 444 660 | 62 528 | 19 696 | 147 743 | 774 627 |
| Greater Johannesburg | 531 413 | 28 704 | 42 428 | 166 379 | 768 924 |
| Kimberley | 32 296 | 6 | 9 086 | 11 878 | 53 266 |
| Port-Elizabeth/Uitenhage | 200 818 | 1 039 | 59 175 | 72 955 | 333 987 |
| Total | 1 496 710 | 204 213 | 489 724 | 698 345 | 2 888 992 |

Source: SAARF (2010b)

Table 6.10

Household population with fixed lines per metropolitan area (numbers and percentages)

| Metropolitan | Household (HH) | African | Asian | Coloured | White | Total |
|---------------------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Bloemfontein | HH number | 3 876 | – | 532 | 15 941 | 20 349 |
| | HH % | 4.32 | – | 5.33 | 30.22 | |
| Cape Town | HH number | 25 350 | 7 384 | 182 091 | 143 874 | 358 699 |
| | HH % | 12.82 | 61.86 | 52.12 | 58.33 | |
| Durban | HH number | 78 076 | 105 667 | 9 136 | 96 225 | 289 104 |
| | HH % | 17.56 | 65.01 | 46.39 | 65.13 | |
| Greater Johannesburg | HH number | 80 050 | 13 114 | 15 379 | 96 225 | 204 768 |
| | HH % | 15.06 | 45.69 | 36.25 | 57.83 | |
| Kimberley | HH number | 1 836 | 6 | 2 766 | 5 170 | 9 778 |
| | HH % | 5.68 | 100.00 | 30.44 | 43.53 | |
| Port Elizabeth/Uitenhage | HH number | 20 999 | 482 | 17 880 | 35 580 | 74 941 |
| | HH % | 10.46 | 46.39 | 30.22 | 48.77 | |
| Total (HH numbers) | | 210 187 | 126 653 | 227 784 | 393 015 | 957 639 |

Source: SAARF (2010b)

The next step was to determine the household population per province with access to a fixed telephone line at home. The results of this data are provided in Tables 6.11 and 6.12.

Table 6.11**Household population per province according to AMPS 2010B database**

| Province | African | Asian | Coloured | White | Total |
|---------------|------------------|----------------|----------------|------------------|-------------------|
| Eastern Cape | 1 634 502 | 1 395 | 126 018 | 154 190 | 1 916 105 |
| Free State | 806 864 | 18 | 10 357 | 159 842 | 977 081 |
| Gauteng | 1 908 316 | 49 499 | 80 255 | 756 949 | 2 795 019 |
| KwaZulu-Natal | 2 068 862 | 254 912 | 27 503 | 275 205 | 2 626 482 |
| Limpopo | 1 445 238 | 205 | 141 | 62 334 | 1 507 918 |
| Mpumalanga | 780 539 | 520 | 280 | 100 512 | 881 851 |
| Northern Cape | 144 040 | 6 | 116 160 | 45 824 | 306 030 |
| North West | 968 435 | 70 | 442 | 118 785 | 1 087 732 |
| Western Cape | 198 790 | 11 947 | 633 999 | 425 690 | 1 270 426 |
| Total | 9 955 586 | 318 572 | 995 155 | 2 099 331 | 13 368 644 |

Source: SAARF (2010b)

Table 6.12**Household population with fixed lines per province (numbers and percentage) according to AMPS 2010B database**

| Province | Household (HH) | African | Asian | Coloured | White | Total |
|---------------|----------------|----------------|----------------|----------------|----------------|------------------|
| Eastern Cape | HH number | 74 533 | 713 | 25 775 | 74 290 | 175 311 |
| | HH % | 4.56 | 51.11 | 20.45 | 48.18 | |
| Free State | HH number | 30 285 | 10 | 610 | 58 372 | 89 277 |
| | HH % | 3.75 | 55.56 | 5.89 | 36.52 | |
| Gauteng | HH number | 204 057 | 20 880 | 27 268 | 290 021 | 542 226 |
| | HH % | 10.69 | 42.18 | 33.98 | 38.31 | |
| KwaZulu-Natal | HH number | 139 783 | 152 360 | 11 437 | 170 534 | 474 114 |
| | HH % | 6.76 | 59.77 | 41.58 | 61.97 | |
| Limpopo | HH number | 103 637 | – | – | 13 056 | 116 693 |
| | HH % | 7.17 | – | – | 20.95 | |
| Mpumalanga | HH number | 22 276 | 394 | – | 25 754 | 48 424 |
| | HH % | 2.85 | 75.77 | – | 25.62 | |
| Northern Cape | HH number | 2 895 | 6 | 7 939 | 22 280 | 33 120 |
| | HH % | 2.01 | 100 | 6.83 | 48.62 | |
| North West | HH number | 43 988 | 70 | 36 | 36 805 | 80 899 |
| | HH % | 4.54 | 100 | 8.14 | 30.98 | |
| Western Cape | HH number | 25 975 | 7 384 | 242 846 | 232 960 | 509 165 |
| | HH % | 13.07 | 61.81 | 38.30 | 54.73 | |
| Total | | 647 429 | 181 817 | 315 911 | 924 072 | 2 069 229 |

Source: SAARF (2010b)

The household percentages of the main population groups in Table 6.10 were applied to all metropolitan municipalities in the final sample (Table 6.13) to indicate the number of households per metropolitan municipality to be telephonically

surveyed using the computer-aided telephonic interview system. The household percentages of the main population groups in Table 6.12 were applied to the non-metropolitan municipalities to indicate the number of households in non-metropolitan areas to be telephonically surveyed. The results of this methodology are provided in the computer-aided telephonic interview section in Table 6.13. More personal interviews were thus conducted in provinces where fewer computer-aided telephonic interviews were possible because of limited landline availability. This was also the methodology applied in the 2009 Consumer Vulnerability Study (Van Aardt & Moshoeu, 2009).

Table 6.13 indicates the final sample per province, per area and disaggregated in the four main population groups, interviewed during the face-to-face and computer-aided telephonic interviews.

Table 6.13
Final household sample

| FINAL HOUSEHOLD WELL-BEING SAMPLE | African | Asian | Coloured | White | Total |
|--|----------------|--------------|-----------------|--------------|--------------|
| Eastern Cape | | | | | |
| Nelson Mandela Bay Metropolitan Municipality | 70 | 40 | 40 | 40 | 190 |
| Mnquma Local Municipality | 31 | 10 | 10 | 10 | 61 |
| Free State | | | | | |
| Setsoto Local Municipality | 21 | 18 | 10 | 10 | 59 |
| Mangaung Local Municipality | 129 | 32 | 40 | 62 | 263 |
| Gauteng | | | | | |
| City of Johannesburg Metropolitan Municipality | 110 | 50 | 40 | 65 | 265 |
| Lesedi Local Municipality | 22 | 10 | 10 | 13 | 55 |
| KwaZulu-Natal | | | | | |
| Endumeni Local Municipality | 22 | 15 | 10 | 10 | 57 |
| eThekweni Metropolitan Municipality | 98 | 58 | 40 | 40 | 236 |
| Limpopo | | | | | |
| Bela-Bela Local Municipality | 13 | 10 | 10 | 12 | 45 |
| Polokwane Local Municipality | 137 | 40 | 40 | 40 | 257 |
| Mpumalanga | | | | | |
| Emalahleni Local Municipality | 86 | 19 | 29 | 28 | 162 |
| Govan Mbeki Local Municipality | 64 | 31 | 21 | 22 | 140 |
| Northern Cape | | | | | |
| Nama Khoi Local Municipality | 10 | 10 | 32 | 10 | 62 |
| Sol Plaatjie Local Municipality | 40 | 40 | 41 | 40 | 161 |
| North West | | | | | |
| Kgetlengrivier Local Municipality | 31 | 14 | 10 | 10 | 65 |
| Potchefstroom Local Municipality | 82 | 36 | 40 | 40 | 198 |
| Western Cape | | | | | |

| FINAL HOUSEHOLD WELL-BEING SAMPLE | African | Asian | Coloured | White | Total |
|--|----------------|--------------|-----------------|--------------|--------------|
| Saldanha Bay Local Municipality | 10 | 10 | 10 | 15 | 45 |
| City of Cape Town Metropolitan Municipality | 40 | 40 | 130 | 77 | 287 |
| TOTAL | 1016 | 483 | 563 | 544 | 2606 |
| FINAL COMPUTER-AIDED TELEPHONIC INTERVIEWSAMPLE | | | | | |
| Eastern Cape | | | | | |
| Nelson Mandela Bay Metropolitan Municipality | 7 | 19 | 12 | 20 | 58 |
| Mnquma Local Municipality | 1 | 5 | 2 | 5 | 13 |
| Free State | | | | | |
| Setsoto Local Municipality | 1 | 10 | 1 | 4 | 16 |
| Mangaung Local Municipality | 6 | 0 | 2 | 19 | 27 |
| Gauteng | | | | | |
| City of Johannesburg Metropolitan Municipality | 17 | 23 | 14 | 38 | 92 |
| Lesedi Local Municipality | 1 | 3 | 3 | 5 | 12 |
| KwaZulu-Natal | | | | | |
| Endumeni Local Municipality | 1 | 9 | 4 | 6 | 20 |
| eThekweni Metropolitan Municipality | 17 | 38 | 19 | 26 | 100 |
| Limpopo | | | | | |
| Bela-Bela Local Municipality | 1 | 0 | 0 | 3 | 4 |
| Polokwane Local Municipality | 10 | 0 | 0 | 8 | 18 |
| Mpumalanga | | | | | |
| Emalahleni Local Municipality | 2 | 15 | 0 | 7 | 24 |
| Govan Mbeki Local Municipality | 2 | 23 | 0 | 6 | 31 |
| Northern Cape | | | | | |
| Nama Khoi Local Municipality | 0 | 10 | 2 | 5 | 17 |
| Sol Plaatjie Local Municipality | 2 | 40 | 13 | 17 | 72 |
| North West | | | | | |
| Kgetlengrivier Local Municipality | 1 | 14 | 1 | 3 | 19 |
| Potchefstroom Local Municipality | 4 | 36 | 3 | 12 | 55 |
| Western Cape | | | | | |
| Saldanha Bay Local Municipality | 1 | 6 | 4 | 8 | 19 |
| City of Cape Town Metropolitan Municipality | 5 | 25 | 68 | 45 | 143 |
| TOTAL | 79 | 276 | 148 | 237 | 740 |
| FINAL FACE-TO-FACE SAMPLE | | | | | |
| Eastern Cape | | | | | |
| Nelson Mandela Bay Metropolitan Municipality | 63 | 21 | 28 | 20 | 132 |
| Mnquma Local Municipality | 30 | 5 | 8 | 5 | 48 |
| Free State | | | | | |
| Setsoto Local Municipality | 20 | 8 | 9 | 6 | 43 |
| Mangaung Local Municipality | 123 | 32 | 38 | 43 | 236 |
| Gauteng | | | | | |
| City of Johannesburg Metropolitan Municipality | 93 | 27 | 26 | 27 | 173 |
| Lesedi Local Municipality | 21 | 7 | 7 | 8 | 43 |
| KwaZulu-Natal | | | | | |
| Endumeni Local Municipality | 21 | 6 | 6 | 4 | 37 |
| eThekweni Metropolitan Municipality | 81 | 20 | 21 | 14 | 136 |
| Limpopo | | | | | |

| FINAL HOUSEHOLD WELL-BEING SAMPLE | African | Asian | Coloured | White | Total |
|---|----------------|--------------|-----------------|--------------|--------------|
| Bela-Bela Local Municipality | 12 | 10 | 10 | 9 | 41 |
| Polokwane Local Municipality | 127 | 40 | 40 | 32 | 239 |
| Mpumalanga | | | | | |
| Emalaheni Local Municipality | 84 | 4 | 29 | 21 | 138 |
| Govan Mbeki Local Municipality | 62 | 8 | 21 | 16 | 107 |
| Northern Cape | | | | | |
| Nama Khoi Local Municipality | 10 | 0 | 30 | 5 | 45 |
| Sol Plaatjie Local Municipality | 38 | 0 | 28 | 23 | 89 |
| North West | | | | | |
| Kgetlengrivier Local Municipality | 30 | 0 | 9 | 7 | 46 |
| Potchefstroom Local Municipality | 78 | 0 | 37 | 28 | 143 |
| Western Cape | | | | | |
| Saldanha Bay Local Municipality | 9 | 4 | 6 | 7 | 26 |
| City of Cape Town Metropolitan Municipality | 35 | 15 | 62 | 32 | 144 |
| TOTAL | 937 | 207 | 415 | 307 | 1866 |

Source: Final sample obtained from sample expert

The final household sample of 2 606 for this study comprised the following two sub-samples:

- 1 866 households in areas where limited amenities were available to be interviewed face to face; and
- 740 households with landlines to be contacted via the Bureau of Market Research computer-aided telephonic interview system.

In this study, the primary sample domain was the provinces to be sampled, followed by the secondary sample domain, namely the metropolitan and non-metropolitan municipalities to be included in the sample, which was disaggregated into the four main population groups. The final stage of the sampling process, as indicated in Figure 6.3, covered the selection of the wards and households in those areas where the face-to-face interviews were conducted and the selection of the households with whom computer-aided telephonic interviews were conducted.

6.2.3.4 Selection of wards sampled for the face-to-face interviews

The Bureau of Market Research obtained an Excel spread sheet with the list of all the wards in the Census 2001 areas, but updated with the latest wards in 2011, from the Municipal Demarcation Board in August 2011 (MDB, 2011). The sampling expert further developed the spread sheet to include the number of households in the different wards disaggregated in the main population groups. This spread sheet was

used as the wards' sample frame per selected municipality. The wards to be surveyed were determined by means of a Monte Carlo simulation, as previously explained in section 6.2.3.3.b. Table 6.14 contains a summary of the list of wards selected per municipality and the number of households per ward that was sampled.

Table 6.14
Sampled wards and number of households sampled

| Municipality | Ward no. | Sample size (n) |
|--|-----------------|------------------------|
| Mnquma Local Municipality | 18 | 24 |
| Mnquma Local Municipality | 29 | 24 |
| Nelson Mandela Bay Metropolitan Municipality | 25 | 33 |
| Nelson Mandela Bay Metropolitan Municipality | 3 | 33 |
| Nelson Mandela Bay Metropolitan Municipality | 2 | 33 |
| Nelson Mandela Bay Metropolitan Municipality | 26 | 33 |
| Setsoto Local Municipality | 12 | 22 |
| Setsoto Local Municipality | 4 | 21 |
| Mangaung Metropolitan Municipality | 1 | 30 |
| Mangaung Metropolitan Municipality | 2 | 30 |
| Mangaung Metropolitan Municipality | 3 | 30 |
| Mangaung Metropolitan Municipality | 4 | 30 |
| Mangaung Metropolitan Municipality | 5 | 30 |
| Mangaung Metropolitan Municipality | 6 | 30 |
| Mangaung Metropolitan Municipality | 7 | 30 |
| Mangaung Metropolitan Municipality | 8 | 26 |
| City of Johannesburg Metropolitan Municipality | 127 | 35 |
| City of Johannesburg Metropolitan Municipality | 73 | 35 |
| City of Johannesburg Metropolitan Municipality | 41 | 35 |
| City of Johannesburg Metropolitan Municipality | 118 | 35 |
| City of Johannesburg Metropolitan Municipality | 48 | 33 |
| Lesedi Local Municipality | 1 | 43 |
| Endumeni Local Municipality | 1 | 18 |
| Endumeni Local Municipality | 6 | 19 |
| Ethekwini Metropolitan Municipality | 95 | 34 |
| Ethekwini Metropolitan Municipality | 51 | 34 |
| Ethekwini Metropolitan Municipality | 73 | 34 |
| Ethekwini Metropolitan Municipality | 99 | 34 |
| Bela-Bela Local Municipality | 3 | 20 |
| Bela-Bela Local Municipality | 4 | 21 |
| Polokwane Local Municipality | 27 | 30 |
| Polokwane Local Municipality | 16 | 30 |
| Polokwane Local Municipality | 5 | 30 |
| Polokwane Local Municipality | 24 | 30 |
| Polokwane Local Municipality | 17 | 30 |
| Polokwane Local Municipality | 34 | 30 |
| Polokwane Local Municipality | 2 | 30 |
| Polokwane Local Municipality | 38 | 29 |
| Emalahleni Local Municipality | 1 | 46 |
| Emalahleni Local Municipality | 15 | 46 |
| Emalahleni Local Municipality | 11 | 46 |
| Govan Mbeki Local Municipality | 21 | 36 |
| Govan Mbeki Local Municipality | 3 | 36 |
| Govan Mbeki Local Municipality | 10 | 35 |

| Municipality | Ward no. | Sample size (n) |
|---|----------|-----------------|
| Nama Khoi Local Municipality | 3 | 45 |
| Sol Plaatjie Local Municipality | 21 | 30 |
| Sol Plaatjie Local Municipality | 20 | 30 |
| Sol Plaatjie Local Municipality | 12 | 29 |
| Kgetlengrivier Local Municipality | 5 | 23 |
| Kgetlengrivier Local Municipality | 3 | 23 |
| Tlokwe City Council Local Municipality | 22 | 29 |
| Tlokwe City Council Local Municipality | 23 | 29 |
| Tlokwe City Council Local Municipality | 11 | 29 |
| Tlokwe City Council Local Municipality | 16 | 29 |
| Tlokwe City Council Local Municipality | 14 | 27 |
| Saldanha Bay Local Municipality | 13 | 26 |
| City of Cape Town Metropolitan Municipality | 45 | 36 |
| City of Cape Town Metropolitan Municipality | 82 | 36 |
| City of Cape Town Metropolitan Municipality | 90 | 36 |
| City of Cape Town Metropolitan Municipality | 65 | 36 |
| TOTAL | | 1 866 |

Source: Final sample obtained from the sample expert

The selection of the nth-house in the selected wards to be surveyed was done and overseen by trained fieldwork supervisors of the Bureau of Market Research to ensure that the households were randomly selected. The face-to-face survey research was conducted during August and September 2011. The process and procedures followed are discussed in section 6.3.

6.2.3.5 Selection of the households with whom to conduct interviews via computer-aided telephonic interviews

The sampling method for the number of computer-aided telephonic interviews to be conducted according to Table 6.13 is discussed in this sub-section. The sampling expert suggested that the latest 2011 telephone directory for each province should be consulted and used as the telephonic sample frame. To ensure that each household was selected randomly, a systematic sample was selected. The number of pages per municipal area was divided by the number of households to be surveyed in that area in order to determine an interval. The first respondent was drawn by using a random number generator to obtain a number between 0 and 9. This number was used to indicate the first page of the telephone directory from which the computer-aided telephonic interviewers were to start phoning. Their phoning strategy was to start on the top left corner and to dial each number until they reached a respondent on that page. The interval calculated previously was then used to determine the next page, and so forth.

The total number of listed numbers in small towns covered by a few pages in the directory was calculated per page and then divided by the number of respondents to be surveyed in order to determine the interval of possible respondents. The computer-aided telephonic interviewers started on the first page of the town's directory to phone respondents randomly according to the calculated interval. The selection process was overseen by a fieldwork supervisor from the Bureau of Market Research. The telephonic interviews commenced in October 2011 and are elaborated on in section 6.3.

6.2.4 Summary

Section 6.2 described the quantitative research design, which consisted of:

- piloting the survey, as described in section 6.2.1;
- choosing the data collecting methods described in section 6.2.2; and
- designing the sample frame discussed in section 6.2.3.

The sample frame design was elaborated on in section 6.2.3.1 by first defining the population as South African private households (sampling element) in metropolitan and non-metropolitan areas (sampling unit). In section 6.2.3.2, the sample frame was developed to indicate the primary sample domain as metropolitan and non-metropolitan municipalities. In section 6.2.3.3, the sampling method was described as probability sampling, and the selected sample of 2 606 households explained. A total of 1 866 households were contacted via face-to-face interviews and 740 households were contacted telephonically. The selection of the wards in the different municipalities included in the sample was described in section 6.2.3.4, while section 6.2.3.5 described the selection of the households that were interviewed telephonically.

6.3 FIELDWORK AND TELEPHONIC INTERVIEWS CONDUCTED

Section 1.7 discussed the ethical clearance considerations of the interview process. In this section, the training of the supervisors and fieldworkers and the face-to-face fieldwork and computer-aided telephonic interviews conducted are explained.

To ensure better control over the fieldwork and telephonic interviews and because of the costs involved in the omnibus research project, Unisa's Bureau of Market

Research was contracted to conduct the fieldwork phase of this research project. The Bureau of Market Research had conducted many similar research projects in the past and is renowned as an expert organisation in the field of market research. Furthermore, the Bureau has a trained corps of supervisors and experienced fieldworkers to conduct the fieldwork. The appointment criteria for these fieldworkers can be summarised as

- having a matric or Grade 12 educational qualification (the highest South African school education level);
- being multi-lingual in order to be conversant in two or more official languages of the country; and
- having been trained in personal, face-to-face interviewing with structured and semi-structured survey instruments as well as having previous interview experience.

As indicated in section 6.2.1, all supervisors and computer-aided telephonic interviewers attended the survey training session in Pretoria on 19 July 2011. The aim and importance of the study were clearly conveyed and the survey (Appendix B) and training manual (Appendix C) discussed in detail. The interviewers and supervisors were briefed and received in-depth training on all aspects of data collection, including

- the flow of the survey and the use of the range cards;
- the use of the training manual to clarify definitions;
- identifying the financially knowledgeable person in the household;
- the process to be followed in the case of non-response; and
- the substitution rules to be followed when households refused to participate or were not at home.

According to Cooper and Schindler (2011:403), conducting face-to-face fieldwork and validating the fieldwork results is the responsibility of the field supervisors (2011:403). The validation and substitution rules applied were as follows:

- For control purposes, the supervisors prepared a matrix containing the number of surveys each fieldworker would receive to ensure completion of the survey.
- The supervisors evaluated each fieldworker's performance on a continuous basis to ensure that the interview was conducted appropriately and the survey

completed comprehensively and that the fieldworker was assisted with further training if and when needed.

- Fieldworkers had to make three return visits to the residence of a respondent before the respondent could be replaced by a seemingly similar household in the same area.
- Furthermore, the supervisors conducted a call-back checking procedure on 10% of the interviews to verify that respondents were indeed visited. Questions were asked randomly to check on the accuracy of the data captured by a particular fieldworker.

Because interviewers were used to conduct the face-to-face interviews in close proximity to their own residential addresses, it was necessary for the supervisors to travel to the different provinces to train the interviewers involved in those areas. As soon as the training had been completed in an area, the fieldworkers continued the fieldwork process to collect data from those areas.

During the face-to-face fieldwork stage, regular meetings were held with the fieldwork supervisors to establish progress and to address any issues that might have arisen. It was established at these feedback meetings that fieldworkers could complete between three and four interviews per day, and that the interviews lasted between 90 and 120 minutes, which was longer than the time anticipated during pilot testing (section 6.2.1). The face-to-face interviews were completed at the end of October 2011.

The computer-aided telephonic interviews commenced in October 2011 after the web-based survey instrument had been developed and finalised. However, it was subsequently decided that all computer-aided telephonic interviews were to be conducted using a hardcopy of the survey and that the responses would be captured afterwards by the interviewer to limit the amount of time spent on the telephone. Interviews were to be conducted between 17:00 and 21:00 during weekdays and all day over weekends, according to the process described in section 6.2.3.5.

Computer-aided telephonic interviewers were allowed to choose the municipal areas in which they felt comfortable to interview to ensure that bias stemming from language incapacities was reduced. Each municipal area was assigned a computer-aided telephonic interviewer who made the telephone calls. The supervisor of the

computer-aided telephonic interviewers kept a list of participating respondents so that successful call-backs could be made.

Every week, a summary of all the respondents was extracted from the survey statistics to determine the representativity, based on the main population group. From the summary, strategies were applied to increase the number of calls to ensure household representativity in the sample. All computer-aided telephonic interviews were completed by the end of November 2011. The web-based respondents were also allowed to submit web-based surveys until the end of November 2011.

6.4 LIMITING SAMPLE ERROR TO INCREASE VALIDITY AND RELIABILITY

All aspects of the research design were affected by the need to ensure reliability and validity. In this section, various errors that could occur in the quantitative phase of the study are considered. The ways that the study attempted to limit the possible errors and their effect in increasing reliability and validity (discussed in detail in Chapter 7) are explained.

According to Venter (2009:253), sample surveys mainly yield estimates and not precise values, and these are subject to error. Furthermore, because estimates are based on sample data, they differ from figures obtained from complete enumeration of the population using the same instrument (United Nations, 2005a:115–116). There are two types of error present in estimates based on a sample survey, namely sampling and non-sampling errors. Sampling errors occur because a sample, instead of the whole population, is observed, while sampling error is the deviation of a sample estimate from the average of all possible samples. Non-sampling errors can be attributed to many sources, such as the inability to obtain information from all sampling units, definitional difficulties, different interpretations of questions, respondents' inability or unwillingness to provide accurate responses, mistakes in the recording or coding of the data, errors of either collection, response, processing or coverage, and estimation for missing data (United Nations, 2005a:115).

The accuracy of survey results is determined by the joint effects of sampling and non-sampling error. The sample used in the current study was one of a large number of possible samples of the same size that could have been selected using the same

design (section 6.2.3.3b). Estimates derived from the different samples would differ from each other. These types of errors cannot be readily measured (United Nations, 2005a:116). Non-sampling errors, however, can be minimised through procedures used for data collection, editing, quality control and non-response adjustment (United Nations, 2005a:115).

According to Cooper and Schindler (2011:244–248), Tustin et al. (2005:375–380) and Venter (2009:253–254), the errors discussed below could affect the validity and reliability of the data. However, the manner in which the study attempted to address these is also considered.

- **Sample frame error.** These errors occur when the sample selected is not in all respects representative of the population. The use of a scientifically constructed sample frame in this study (section 6.2.3) reduced the effect of this form of error.
- **Interviewer error.** This type of error could occur as a result of failure to secure participation; failure to record answers correctly and completely (data entry error); failure to execute interviews consistently; possible falsification of answers or sometimes whole interviews; inappropriate influencing during interviews; and interviewer fatigue. Section 6.3 summarised the procedures followed to reduce this type of error in the current study.
- **Participant error.** Respondents cause error in two ways, namely whether or not they respond and how they respond – in other words, whether their responses are truthful and complete. Response bias is created when respondents consciously or unconsciously modify their responses to be socially acceptable or to appear rational or logical. To reduce some of these errors in the study, the interviewers, the accompanying pamphlet (Appendix D) and the media coverage explained the purpose of the study and the importance of participation. In line with Unisa’s ethics policy, anonymity was ensured, which contributed to increased truthfulness in responses.
- **Non-response error.** This type error occurs when the respondents’ responses differ in some systematic way from the “would-be” responses of non-participants. This occurs when the respondent cannot be located, or when the respondent is unwilling to participate. Respondents who fail to respond or who refuse to respond create a non-representative sample for a study overall or for

a particular question in the study. Section 6.3 explained how this type of error was minimised in the current study.

- **Coding and capturing error.** This type of error occurs when data is incorrectly coded or captured. Section 7.2 explains the process involved to minimise this type of error in the current study.
- **Error of explanation.** An error of explanation occurs when the researcher makes an inappropriate inference about a cause–effect relationship. According to Venter (2009:254), it is impossible to eliminate this type of error, taking into account the explanatory nature of the study but, where possible, the results were compared with those of other studies (SARB, 2012) to establish whether the results fell within acceptable parameters (section 7.4).

The following is a summary of the strategies that were adopted to reduce sampling and non-sampling error in the data collection phase and to increase the overall reliability and validity of the study:

- The survey was appropriately pretested to ensure that bias was reduced (section 6.2.1).
- The services of the Bureau of Market Research were used to conduct the survey, which enhanced independence and reliability.
- The researcher was involved with the training of the computer-aided telephonic fieldworkers and supervisors to ensure that the aim of the research was understood, the flow of the instrument was logical and that the questions were free from bias, as explained in section 6.3.
- To comply with sample representation, a participant was only replaced after three return visits by the interviewers, and the household was then replaced with a seemingly similar household in the same area.
- To ensure that there were no missing responses and that answers to questions were legible and comprehensively completed, the supervisors examined the completed surveys.
- Back-checks by supervisors were performed on 10% of the interviews conducted to verify that the interview had actually been conducted and to determine the reliability of the reported responses.
- The use of experienced interviewers (section 6.3) enhanced the reliability of the data and reduced bias.

- Data checks were done by appointing personnel to compare hardcopy surveys with the captured responses (section 7.2).
- Extensive media coverage was provided through radio and television. The use of an explanatory pamphlet (Appendix D) to enlighten the public about the study, their anonymity, the purpose of the study and the importance of their participation also helped to increase the voluntary participation of households.
- Owing to the length of the survey, interviewers were allowed to complete interviews at their own pace over a number of days.
- In this study, compensating for non-response was done by increasing the sample size to more than 2 600 households.

6.5 CONCLUSION

Chapter 5 focused on the overall methodological issues in the study. The study was identified as a mixed methods research study comprising a qualitative and quantitative research strand. The second phase of the study comprised the design of the qualitative research strand, and this was described in Chapter 5. Chapter 6 described the third phase or quantitative research strand of the study.

Section 6.2 explained the piloting of the survey and the data collection methods chosen for the study, and described in detail the overall sample plan design, which included defining the population and describing the design and development of the sample frame. The sample frame enabled the researcher to select 2 606 households as the final sample for the study (Table 6.13). The sample was representative of the main population groups, across all municipal areas and across all provinces, and comprised

- 1 866 households that were interviewed face to face in areas with limited amenities, and
- 740 households with landlines to be contacted via telephonic interviews.

The steps followed in choosing the wards and households to conduct the face-to-face interviews were described as well as the steps followed in choosing households for telephonic interviews.

The chapter concluded with a description of the fieldwork and telephonic interview process in section 6.3, and gave a broad overview of the possible survey errors in

the study. Ways of minimising these errors to increase the validity and reliability of the results were discussed in section 6.4.

The data analysis is described in the next chapter. Chapter 7 describes the process used to clean, edit and code the data and to establish the validity and reliability of the research process and data collection instrument. The chapter concludes with a descriptive data analysis and statistical inferences drawn to establish valid conclusions about the data.

CHAPTER 7

THE QUANTITATIVE RESEARCH STRAND —

DATA ANALYSIS PHASE

“Discovery consists of looking at the same things as everyone else does and thinking something different.” – Albert Szent-Gyorgyi (Ige, 2002:60)

7.1 INTRODUCTION

The main objective of the current study was to disaggregate and measure the asset and liability base of South African households in metropolitan and non-metropolitan areas using micro-level data. To achieve this, a three-phase approach was followed to ensure the development of the financial position section (the data collection instrument) in an omnibus survey.

In the first phase of the study, a heuristic model of the financial position section was developed. The model was based on a literature review of the subject fields of accounting (Chapter 2) and macro-economics (Chapter 3) and a national and international literature review on household net wealth (Chapter 4). This would ensure that the asset and liability base of households, as depicted in the household balance sheet prepared by the South African Reserve Bank, could be disaggregated to incorporate additional classes of assets and liabilities.

During the second and qualitative phase of the study (Chapter 5), focus group interviews were used to refine the financial position section in the omnibus survey and to help define “households” for the purposes of the study. National and international experts in household net wealth and questionnaire design provided input to ensure a top-quality survey in general and a robust financial position section in particular.

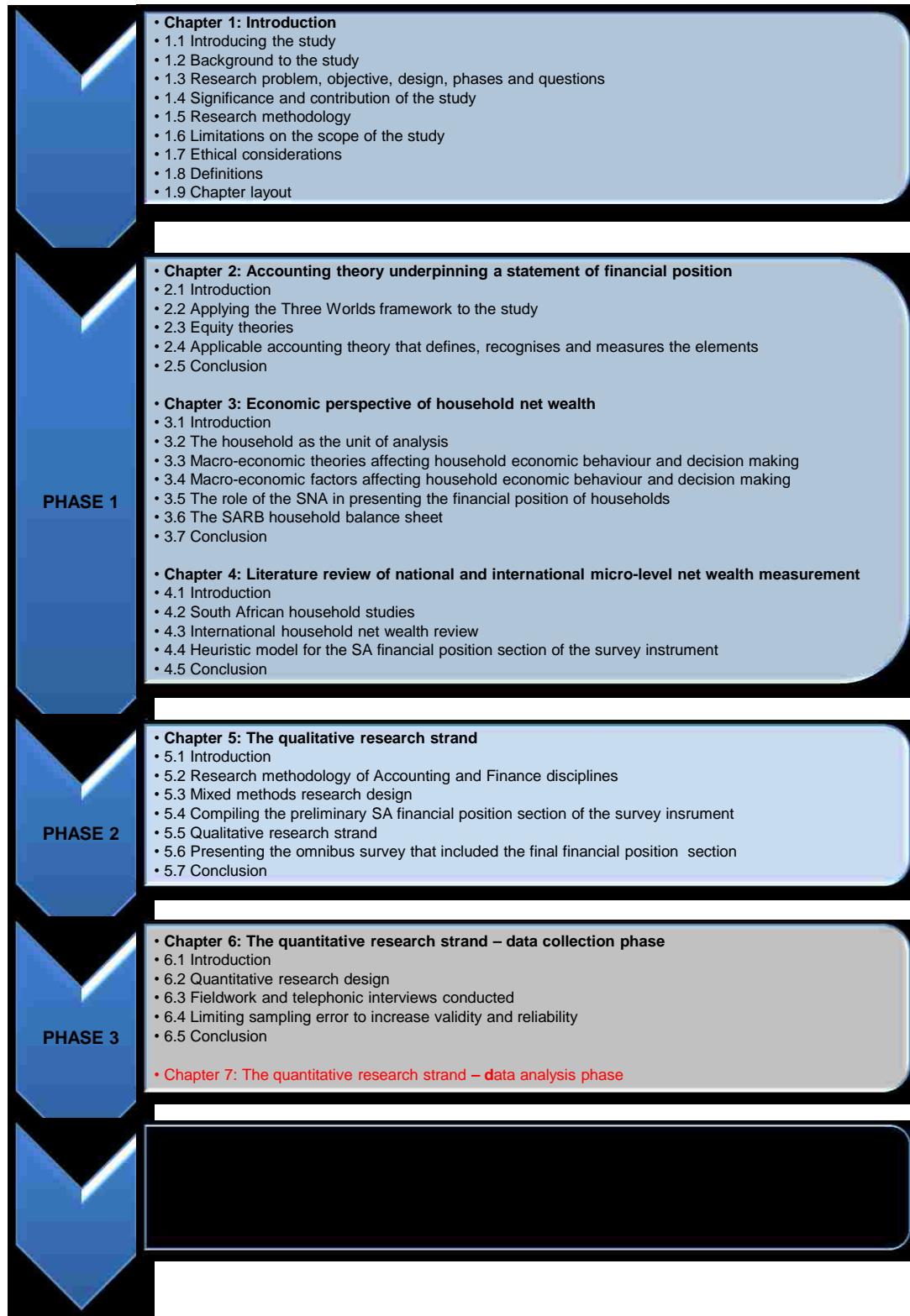
The third phase or data collection phase of the quantitative research strand was reported on in Chapter 6, supported by a description of the design of the quantitative research strand of the mixed methods study. The sample plan design that was

followed to draw a representative sample of households from the population was explained. The chapter concluded with a description of the fieldwork conducted to collect the data and of the strategies employed in the study to reduce sample errors.

This chapter focuses on the data analysis phase of the quantitative research strand. The chapter commences, in section 7.2, with an explanation of the data coding, editing and cleaning process. In this initial phase of the data validation process, certain limitations were observed. These limitations are discussed and were considered when analysing the data in more detail. The reliability and validity of the study in general and the data in particular are discussed in section 7.3. In section 7.4, the data from the study is parameter verified with the South African Reserve Bank's household balance sheet prepared for the same period. Part of the main objective of the study was to present statements of financial position for the metropolitan and non-metropolitan household population prepared according to the principles of the Conceptual Framework (SAICA, 2010a). In section 7.5, the data is segmented and classified, and in section 7.6, the data is presented as statements of financial position for the two main residential areas of the country. This is followed by a detailed analysis of the data in the statement of financial position in section 7.7.

In the economic literature review conducted in Chapter 3 and from international research, five demographic variables were identified, namely age group, education level, labour status, income group and area (metropolitan/non-metropolitan as described in section 1.2). These variables could possibly affect the investment in different asset classes and the incurrence of debt by households. To answer the secondary research question (section 1.3.4), that is, whether age group, income group, metropolitan/non-metropolitan area of residence, labour status and education level and their interactions affected the asset and liability accumulation of households, the demographic variables are elaborated on in section 7.8, and the eight categories of asset and liability data are described further to reveal the effect of the demographic variables. Inferential statistics are applied in section 7.9, to confirm whether the five demographic variables affect the main asset and liability categories. Finally, conclusions are drawn on the basis of the statistical analysis of the data. The layout of the study is represented in Figure 7.1 to place this chapter and its contents in the broad perspective of the study.

Figure 7.1
Presenting Chapter 7 in the layout of the study



Source: Researcher's own compilation

7.2 CODING, EDITING AND CLEANING THE DATA

As indicated in Chapter 6, personal interviews were chosen as the primary data collection method because of the sensitive nature of the data, the length of the survey instrument and the high literacy levels needed to complete the survey. Face-to-face personal interviews were conducted on sample elements selected from a random selection of wards (section 6.2.3.4). Telephonic interviews were also conducted (section 6.2.3.5) on the basis of a random selection of sample elements from telephone lists. Furthermore, a self-administered web-based survey was developed for completion by respondents wishing to follow that route (De Clercq et al., 2012:14).

Coding involves assigning numbers or symbols to respondents' answers in order to group data into a limited number of categories or classes. Categorisation is the process of using rules to partition data (Cooper & Schindler, 2011:405–409). The numerical mode was mainly used in this study to code the responses. Where applicable, the data administrator performed coding to edit and clean the data and to enable optimum data analysis. A statistical analysis computer package (IBM® SPSS® Statistics Version 20) was used for data analysis purposes.

Editing is the process of detecting errors and omissions, correcting them when possible and ensuring the quality of the data (Cooper & Schindler, 2011:402). According to them (2011), two forms of editing are normally applied, namely field and central editing. Cooper and Schindler (2011:403) maintain that field editing is the responsibility of the field supervisors. In the current study, the process entailed checking for errors during data collection and then ensuring that the adhoc abbreviations and symbols that were used were understandable and legible (section 6.4). The supervisors performed field editing to ensure that the surveys were completed in full. The respondents were contacted again in the case of incomplete surveys and surveys with errors to ensure that the correct responses were obtained and to avoid guesswork. The fieldwork was validated by the fieldwork supervisors who telephoned 10% of the households interviewed to confirm that an interview had indeed been conducted.

Owing to the size and scope of the study, central editing was also performed. Students were appointed to assist with the process to compare the hardcopy responses with captured data. During the central editing process, inconsistent and missing data was dealt with. The result was either correction of the data or discarding unsatisfactorily answered surveys. To ensure optimal data quality, the data was subjected to three levels of diagnostic analysis, namely tests for reliability, validity and structural integrity.

7.3 RELIABILITY, VALIDITY AND STRUCTURAL INTEGRITY OF THE DATA

The concept of reliability will be discussed in section 7.3.1, validity in section 7.3.2 and structural integrity in section 7.3.3. Processes and tests were conducted to ensure that optimal data quality was obtained.

7.3.1 Reliability

According to Neuman (2000:164), reliability means dependability and the fact that the numerical results produced by the survey instrument do not vary because of the nature of the measurement process or instrument. The reliability of a measurement instrument refers to the extent to which consistent results are yielded when the measured characteristics remain unchanged (Leedy & Ormrod, 2010:93). According to Leedy and Ormrod (2010:93), reliability is enhanced by standardisation of the use of the instrument by establishing specific criteria where subjective judgement is required and by training the persons using the research instrument to obtain consistent results (section 6.4).

According to Neuman (2000:164–165), there are three types of reliability:

- (1) Stability reliability is reliability across time. Although the financial position section was used for the first time in this study, it will be used in years to come to measure South African net wealth and financial wellness. The re-use of the instrument (with limited changes) by the Personal Finance Research Unit to conduct Wave 2, had occurred in 2012. The use of the instrument in years to come should further increase its stability reliability.
- (2) Representative reliability is reliability across sub-populations or groups of people. The instrument is considered to have high representative reliability if it

yields the same results when applied to different sub-populations and involves sub-population analysis. For the purposes of this study, financial measurement data was collected. No Likert-type response data and the testing of specific constructs were included. No representative reliability tests were therefore conducted.

- (3) Equivalence reliability is determined when multiple measures all measure the same construct. Equivalence reliability was therefore also not applicable in the current study owing to the financial nature of the data. No constructs were tested in this study.

The consistency of the data was determined by calculating the inter-correlations between education, labour status, income and total asset values. Low, instead of expected high, inter-correlations were found. A coefficient index was constructed on the basis of the inter-correlations. The index was used to identify cases reflecting a significantly low level of consistency between income, education, labour status and total asset values. These cases were excluded from the dataset after considering the structural integrity (section 7.3.3) of the dataset.

7.3.2 Validity

In this section, the validity (accuracy, meaningfulness and credibility) of the research project as a whole is first considered in section 7.3.2.1, after which the validity of the research instrument is discussed in section 7.3.2.2. The validity of a study can be determined by considering internal and external validity (Leedy & Ormrod, 2010:97–100).

7.3.2.1 Considering internal and external validity

The internal validity of the study is the extent to which the design of the study and the data yielded by the study allow the researcher to draw accurate conclusions about the data (Leedy & Ormrod, 2010:97). In this study, internal validity was ensured by using triangulation (Leedy & Ormrod, 2010:99). Triangulation occurs when multiple sources of data are collected in the hope that they will all converge to support a particular hypothesis/theory. This is common in mixed methods design in which both qualitative and quantitative data are collected to answer a single research question. In this study, the measurement instrument was developed from

comparable instruments used in net wealth studies across the world (section 4.3). Furthermore, the opinions of focus group participants (including international experts on net wealth measurement) were used to ensure that the measurement instrument was able to recognise, classify and measure all household assets and liabilities (section 5.5). Lastly, the asset and liability or household net wealth data gathered by the study to construct the country's household balance sheet was parameter verified (section 7.4) with data estimates used by the South African Reserve Bank. This ensured that the results of this research were comparable with household asset and liability measurement based on macro-data estimates already available in the public domain.

The external validity of a study is the extent to which the results of the study apply to situations beyond the study itself or the extent to which conclusions drawn can be generalised (Leedy & Ormrod, 2010:99). The current study used the following strategies to enhance external validity (Leedy & Ormrod, 2010:99–100):

- A real-life setting was used as actual households were interviewed.
- The study attempted to include a representative sample of the population to ensure that valid conclusions were drawn (see section 6.2.3 on the design of the sample frame to ensure representativity).

7.3.2.2 *Considering the validity of the research instrument and the data collected*

The validity of an instrument is the extent to which the instrument measures what it intends to measure (Leedy & Ormrod, 2010:92). Validity takes on different forms such as face validity (the instrument “seems” to measure a characteristic or value), content validity (measurement of all aspects of the construct), criterion validity (the extent to which the results of an instrument correlate with another related measurement) and construct validity. Construct validity was not applicable to this research because the data collected in this study was for financial measurement and not for the testing of constructs.

In this study, the validity of the measurement instrument was increased by making use of critique from a panel of experts (Leedy & Ormrod, 2010:92–93). Experts in a particular area of expertise were asked to scrutinise the instrument and give an

informed opinion on the instrument's content validity for measuring the characteristic (net wealth) in question. This was discussed in detail in section 5.5.

Furthermore, regression analysis was used to determine the criterion validity of the data by determining the extent to which income sources determine net wealth. Since income sources were viewed as the most important source to create net wealth for the purposes of the study, the percentage of variance explained should have been extremely high (at least 90%). The initial R-square value, however, was noticeably low (14%). The structural integrity (the extent to which the variables in the dataset as a whole reflect previous validated research results) was subsequently investigated through the use of neural networks to determine the cause of the low relationship value.

7.3.3 Structural integrity

The neural network analysis indicated the error term (linked to the percentage contribution) of the income variable specifically as a critical cause for the low initial R-square value. Hence the expenditure variable was used as a proxy for the latent income variable (Bollen et al., 2007:18; SARB, 2012:S112, S128). The reason for this decision was that, according to Masemola, Van Aardt and Coetzee (2011:14), expenditure in a specific area and over a specific period closely tracks income. Furthermore, Bollen et al. (2007:18) contend that long-term considerations drive consumption and household expenditure is therefore preferred to household income as a measure of long-run economic status.

In this study, on completion of the cleaning, editing and validation process, 1 674 usable responses remained. Using population weights, the responses were weighted (Van Aardt, 2007). The resultant dataset was used in the subsequent analysis as reported on in the remainder of the chapter.

7.3.4 Summary

In section 7.3, the reliability, validity and structural integrity of the data were reviewed and explained. Data quality was confirmed, and parameter verification is discussed in the next section.

7.4 PARAMETER VERIFICATION OF THE DATA

In section 4.4, the development of a heuristic model of disaggregated asset and liability classes/categories used by the South African household sector, was described. In section 5.5, the disaggregated asset and liability classes were used to develop a measurement instrument (the financial position section) with which household micro-level data could be collected by means of an omnibus survey.

Section 3.6 provided the South African Reserve Bank's household balance sheet at 31 December 2011. Table 3.4 in Chapter 3 was used to establish how each of the categories of assets and liabilities in the data set should be grouped to make comparison with the South African Reserve Bank balance sheet possible. This is indicated in Table 7.1.

Table 7.1

Comparison of SARB household balance sheet with the statement of financial position

| SARB household balance sheet | Household statement of financial position |
|--|---|
| Non-financial assets | |
| Residential buildings | Market value of residential property and other properties |
| Other non-financial assets | Market value of boats, planes, content, collectibles and valuables, vehicles, net business and trust assets |
| Financial assets | |
| Assets with monetary institutions | The values of cheque accounts, "mzansi" accounts, savings accounts, money market investments, fixed deposits, investments in "stokvels" and unbanked cash |
| Interest in pension funds and long-term insurers | The values of pension fund assets, funeral policies, specific needs policies, education policies, burial society policies |
| Other financial assets | Collective investment values, retail savings bonds, listed and unlisted share values, employee share scheme values, loan accounts in businesses and trusts, debtors, offshore assets/investments and other financial assets |
| Liabilities | |
| Mortgage advances | Mortgage values for residential and other properties |
| Other debt | Debt on vehicles, boats, planes, household content, bank overdrafts, credit cards, store cards, petrol cards, student loans, personal loans, cash loans, employer loans, loans from individuals, hire purchases, cell phone contracts and other loans as well as the following households bills payable: municipal accounts, airtime, arrear rent, alimony, school fees, television, medical expenses and other bills |

Source: Researcher's own compilation

The household asset and liability data obtained was parameter verified with the December 2011 household balance sheet prepared by the South African Reserve Bank to ensure that the data was congruent with household asset, liability and net wealth data estimates already in the public domain. The results of the data classification and the household balance sheet prepared by the South African Reserve Bank for the same period are indicated in Table 7.2

Table 7.2

**Household statement of financial position at 31 December 2011 and
SARB household balance sheet at 31 December 2011**

| HOUSEHOLD STATEMENT OF FINANCIAL POSITION AT 31 DECEMBER 2011 | | |
|--|--------------------------|--------------------------|
| ASSETS | | |
| | R (OWN) | R (SARB ESTIMATE) |
| Residential buildings | 2 953 967 643 781 | 1 716 000 000 000 |
| Residential property | 2 472 360 313 400 | |
| Other property | 481 607 330 381 | |
| Other non-financial assets | 1 151 758 989 338 | 771 000 000 000 |
| Vehicles | 474 509 078 265 | |
| Boats | 593 277 175 | |
| Household content | 411 779 509 469 | |
| Household collectibles | 90 873 225 849 | |
| Trust assets | 5 996 576 812 | |
| Business assets | 168 007 321 768 | |
| SARB: Other non-financial assets | | 332 000 000 000 |
| SARB: Durable consumer goods | | 439 000 000 000 |
| Financial assets | 3 305 394 515 334 | 4 847 000 000 000 |
| Assets with monetary institutions | 230 543 416 739 | 637 000 000 000 |
| Cheque accounts | 93 317 444 113 | |
| “Mzansi” accounts | 3 756 228 283 | |
| Savings accounts | 30 082 775 896 | |
| Money market accounts | 59 795 928 639 | |
| Fixed deposits | 22 384 094 266 | |
| “Stokvels” | 18 699 827 350 | |
| Cash at home | 2 507 118 192 | |
| Interest in pension funds and long-term insurers | 2 784 135 920 402 | 2 584 000 000 000 |
| Funeral policies | 286 791 669 405 | |
| Specific need policies | 485 158 484 396 | |
| Education policies | 50 202 662 290 | |
| Burial society policies | 24 797 131 585 | |
| Retirement funding assets | 1 937 185 972 726 | |
| Other financial assets | 290 715 178 193 | 1 626 000 000 000 |
| Collective investments | 60 872 287 626 | |
| Retail savings bonds | 10 108 673 178 | |
| Listed shares | 77 802 990 020 | |
| Unlisted shares | 13 540 932 300 | |
| Employee shares | 31 986 740 248 | |
| Offshore assets | 18 403 069 054 | |
| Loan accounts | 4 337 563 051 | |
| Debtors | 2 232 129 310 | |
| Other | 71 430 793 406 | |
| TOTAL ASSETS | 7 411 121 148 453 | 7 334 000 000 000 |

HOUSEHOLD STATEMENT OF FINANCIAL POSITION AT 31 DECEMBER 2011

LIABILITIES

| | R (OWN) | R(SARB ESTIMATE) |
|--|--------------------------|--------------------------|
| Mortgage advances | 285 332 117 797 | 793 000 000 000 |
| Mortgage on residential property | 271 690 099 252 | |
| Mortgages on other property | 13 642 018 545 | |
| Other debt | 295 537 082 254 | 572 000 000 000 |
| Debt: Vehicles | 140 892 143 208 | |
| Debt: Boat | – | |
| Debt: Household content and collectibles | 23 899 978 455 | |
| Other loans/liabilities | 88 112 773 577 | |
| Bank overdraft | 6 803 235 679 | |
| Credit cards | 22 047 084 227 | |
| Store cards | 14 567 307 542 | |
| Petrol/garage card | 939 376 340 | |
| Student loans | 6 213 616 517 | |
| Personal loans | 20 171 986 441 | |
| Cash loans | 4 869 347 307 | |
| Loan from employer | 2 005 912 231 | |
| Loan from friend, relative or private individual | 1 660 434 146 | |
| Hire purchase agreement | 3 164 781 787 | |
| Cell phone contract | 5 651 219 313 | |
| Other loans | 18 472 047 | |
| Household bills outstanding | 42 632 187 014 | |
| Municipal accounts | 8 104 709 422 | |
| Airtime accounts | 1 176 800 373 | |
| Outstanding rent repayments | 2 064 511 778 | |
| Outstanding alimony | 170 635 559 | |
| Outstanding school fees | 27 500 148 439 | |
| Outstanding SABC/DStv/TopTV | 1 422 265 797 | |
| Outstanding medical and other health bills | 1 293 753 357 | |
| Other outstanding bills | 899 362 289 | |
| TOTAL LIABILITIES | 580 869 200 051 | 1 365 000 000 000 |
| TOTAL NET WEALTH | 6 830 251 948 402 | 5 969 000 000 000 |

Source: Researcher's own compilation and SARB (2012)

It is apparent from Table 7.2 that the study succeeded in its main objective, namely to disaggregate the asset and liability classes currently depicted in the South African Reserve Bank household balance sheet into more detailed asset and liability classes.

In section 3.6, the methodology the South African Reserve Bank used to construct household balance sheet estimates was discussed. It was clear that a different methodology is used to create net wealth estimates compared with that used to construct a household statement of financial position from micro-level data. The South African Reserve Bank used macro-data estimates (Kuhn, 2010; Walters & National Accounts Division, 2011), where the survey obtained micro-data estimates of the values of assets and liabilities directly from household respondents. As anticipated, the South African Reserve Bank estimates and the statement of financial position constructed from micro-data differed. The difference between the South African Reserve Bank macro-data estimates (net wealth R5 969 billion) and the results of household micro-data (net wealth R6 830 billion) is considered to be reasonable within the set parameters of the household balance sheet, as explained in Bollard et al. (2006:9). According to them (2006), although surveys tend to over- or underestimate the overall assets and liabilities, the results of these surveys should be seen as indicative estimates rather than definitive measures. Differences should be viewed in the light of the different methodologies applied and the depiction of the best estimate by respondents.

In Table 3.3, the assets and liabilities as a percentage of total household assets were calculated for the South African Reserve Bank balance sheet at 31 December 2011. Table 3.3 was subsequently expanded with similar ratios calculated from the data obtained in the study. The expanded analysis is provided in Table 7.3 below.

Table 7.3
Comparison of SARB household balance sheet data with household data collected at 31 December 2011

| Ratio | Household data collected % | SARB balance sheet % |
|--|----------------------------|----------------------|
| Durable consumer goods | | 5.98 |
| Non-financial assets | 55.40 | 27.93 |
| Residential buildings | 39.86 | 23.40 |
| Other non-financial assets | 15.54 | 4.53 |
| Financial assets | 44.60 | 66.09 |
| Assets with monetary institutions | 3.11 | 8.69 |
| Interest in pension funds and long-term insurers | 37.57 | 35.23 |
| Other financial assets | 3.92 | 22.17 |
| Total liabilities | 7.84 | 18.61 |
| Mortgage advances | 3.85 | 10.81 |
| Other debt | 3.99 | 7.80 |
| Net wealth (including durable consumer goods) | 92.16 | 81.39 |

Source: Researcher's own calculations

The durable consumer goods category in the South African Reserve Bank balance sheet is included as "other non-financial assets" in the household micro-level data collected. Based on Bollard et al.'s (2006:9) explanation, one can conclude that the percentages calculated will also differ because of the difference in the methodology applied. The South African household data collected, however, confirmed the findings of Bollard et al. (2006). Assets might have been over-estimated and liabilities under-reported by households, resulting in a higher net wealth percentage (92.16%) compared to the 81.39% reported by the South African Reserve Bank.

Because the differences were within a reasonable range in comparing the estimates yielded by the survey of households with the South African Reserve Bank's estimates, the data from the survey relating to the households' financial position was further analysed.

7.5 SEGMENTATION AND CLASSIFICATION OF THE DATA

The segmentation of the data is explained in section 7.5.1. In section 7.5.2, the classification of the data into the main asset and liability classes is discussed before the data is presented in statements of financial position in section 7.6.

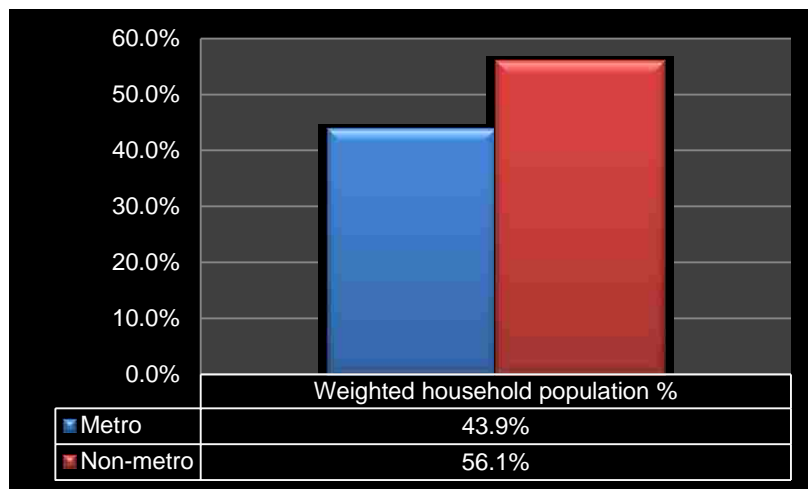
7.5.1 Segmentation

Part of the main objective of the study was to prepare a household statement of financial position for metropolitan and non-metropolitan households in South Africa based on the principles of the Conceptual Framework (SAICA, 2010a). The dataset was thus split into metropolitan and non-metropolitan households as indicated in section 1.2 and described in section 6.2.3.2.

The metropolitan and non-metropolitan segmentation of the data revealed 66 missing values and 37 misclassifications. The misclassifications were corrected by using related variable information such as the non-existence of metropolitan areas in certain provinces. All the missing values were replaced by consulting fieldworker records to make the replacement. The weighted proportion of metropolitan responses and non-metropolitan responses is indicated in Figure 7.2.

Figure 7.2

Segmentation of the weighted household population



Respondents living in metropolitan areas constituted 43.9% of the weighted population and non-metropolitan respondents, 56.1%. This percentage distribution was compared to the percentage distribution of the projected sample frame (SSA, 2007a; Van Aardt, 2007) of municipalities (Table 6.2). According to the latter, the eight metropolitan areas (mentioned in section 6.2.3.2) constituted 38.8% of the projected population and the non-metropolitan areas, 61.2%. Owing to the fact that households participated voluntarily in the study, the percentage distribution between

metropolitan and non-metropolitan areas was deemed acceptable for the purposes of the study.

Limitations of the data

Included in the non-metropolitan sub-classification was an extremely high number of respondents in towns, compared to a noticeably low (15.1%) number of respondents in truly rural areas. This could have potentially biased the data to reflect a metropolitan versus a non-metropolitan view, as opposed to an urban versus rural view.

The development of the heuristic model of most probable asset and liability classes used by South African households (section 4.4) and the subsequent design of a measurement instrument (the financial position section) to recognise, classify and measure the disaggregated asset and liability classes (section 5.5) in an omnibus survey, led to the data being collected, cleaned and coded. The data was segmented into the two main residential areas (also subsequently referred to as “demographic areas”), namely metropolitan and non-metropolitan. In order to study the data from the two main demographic areas, the assets and liabilities of respondents in the two areas were classified into eight main classes based on the disaggregation of the South African Reserve Bank household balance sheet classes, liquidity (as discussed in section 2.4.3), as well as applying the principles prescribed in the Conceptual Framework (SAICA, 2010a).

7.5.2 Classification of the disaggregated asset and liability classes using the data from the financial position section of the omnibus survey

Data from the financial position section of the omnibus survey was used for this classification. The eight main asset and liability classes used in further data analysis together with a description of them are indicated in Table 7.4.

Table 7.4
Eight main asset and liability classes

| Main classes of assets and liabilities | Description |
|--|--|
| Assets | |
| Non-current assets | This category contains the household market value responses for residential and non-residential property. |
| Other non-financial assets | The category consists of the household market value responses for vehicles, boats and planes, household content, collectibles, trust assets and business assets. |
| Retirement funding assets | The current value of household pension assets is captured in this category. |
| Non-current financial assets | This category contains the market values of long-term financial assets such as insurance policies (funeral, special needs, education and burial policies) as well as offshore investments, unlisted shareholdings, loan accounts, retail savings bonds, employee share/options and collective investments (unit trust investments). |
| Current financial assets | This category contains short-term financial assets of households. It includes the current/market value of debtors, "stokvel" assets, listed shares, fixed deposits, savings accounts, money market accounts, cheque accounts, "mzansi" accounts, cash at home and other financial assets. |
| Liabilities | |
| Mortgage loans | This category contains the amount households owe on mortgages acquired to finance residential and non-residential property. |
| Financial liabilities | Two sub-categories, namely "financing debt" and "loans" are included in this category: Financing debt includes vehicle, boat and plane financing, household content and collectible financing, hire purchase agreements and cell phone contracts. Loans include student loans, personal loans, employer loans, loans from friends, relatives or private individuals, cash loans and other loans. The purpose of this sub-classification was for presentation only, but the data analysis was done on the financial liability category. |
| Current liabilities | Short-term household liabilities are included in this category, which refers to the current amount owed on bank overdrafts, credit card debt, store card debt, petrol and garage card debt. This includes a sub-category for outstanding household bills. The "household bills" sub-category refers to municipal accounts, cell phone airtime bills, arrear rent, alimony, school fees, television subscriptions, medical bills and other household bills. Similar to the financial liabilities sub-classification, the category "current liabilities" is also sub-classified for presentation purposes only, but the data description is based on the entire current liability category. |

Source: Researcher's own compilation

7.6 PRESENTATION OF METROPOLITAN AND NON-METROPOLITAN STATEMENTS OF FINANCIAL POSITION

After classification of the different assets and liabilities in the dataset, a household statement of financial position for the different demographic areas of the weighted population was prepared, as indicated in Table 7.5.

Table 7.5

Household statement of financial position for the weighted metropolitan and non-metropolitan South African household population at 31 December 2011

| HOUSEHOLD STATEMENT OF FINANCIAL POSITION AT 31 DECEMBER 2011 | | | |
|---|--------------------------|---------------------------|--------------------------|
| | METROPOLITAN R | NON- METROPOLITAN R | TOTAL R |
| ASSETS | | | |
| Non-current assets | 1 397 627 489 116 | 1 556 340 154 665 | 2 953 967 643 781 |
| Residential property | 1 188 384 023 655 | 1 283 976 289 745 | 2 472 360 313 400 |
| Other property | 209 243 465 461 | 272 363 864 920 | 481 607 330 381 |
| Other non-financial assets | 391 713 772 103 | 760 045 217 235 | 1 151 758 989 338 |
| Vehicles | 234 517 853 637 | 239 991 224 628 | 474 509 078 265 |
| Boats | – | 593 277 175 | 593 277 175 |
| Household content | 113 466 573 758 | 298 312 935 711 | 411 779 509 469 |
| Household collectibles | 28 796 454 884 | 62 076 770 965 | 90 873 225 849 |
| Trust assets | 2 849 681 604 | 3 146 895 208 | 5 996 576 812 |
| Business assets | 12 083 208 220 | 155 924 113 548 | 168 007 321 768 |
| Retirement funding assets | 678 970 140 719 | 1 258 215 832 007 | 1 937 185 972 726 |
| Financial assets | 511 192 607 303 | 475 006 605 830 | 986 199 213 133 |
| Insurance | 459 424 626 520 | 387 525 321 156 | 846 949 947 676 |
| Funeral | 161 893 203 772 | 124 898 465 633 | 286 791 669 405 |
| Special needs | 268 857 979 078 | 216 300 505 318 | 485 158 484 396 |
| Education | 23 542 016 979 | 26 660 645 311 | 50 202 662 290 |
| Burial society policies | 5 131 426 691 | 19 665 704 894 | 24 797 131 585 |
| Offshore investments | 5 103 572 034 | 13 299 497 020 | 18 403 069 054 |
| Unlisted shares | 5 014 002 445 | 8 526 929 855 | 13 540 932 300 |
| Loan accounts | 2 971 521 657 | 1 366 041 394 | 4 337 563 051 |
| Retail savings bonds | – | 10 108 673 178 | 10 108 673 178 |
| Employee shares | 207 404 740 | 31 779 335 508 | 31 986 740 248 |
| Collective investments | 38 471 479 907 | 22 400 807 719 | 60 872 287 626 |
| Current assets | 154 813 769 004 | 227 195 560 471 | 382 009 329 475 |
| Debtors | 686 758 639 | 1 545 370 671 | 2 232 129 310 |
| “Stokvels” | 2 538 880 614 | 16 160 946 736 | 18 699 827 350 |
| Listed shares | 6 854 256 820 | 70 948 733 200 | 77 802 990 020 |
| Fixed deposits | 9 767 889 008 | 12 616 205 258 | 22 384 094 266 |
| Other | 68 048 731 142 | 3 382 062 264 | 71 430 793 406 |
| Savings accounts | 11 020 684 880 | 19 062 091 016 | 30 082 775 896 |
| Money market accounts | 35 397 210 817 | 24 398 717 822 | 59 795 928 639 |
| Cheque accounts | 18 136 613 203 | 75 180 830 910 | 93 317 444 113 |
| “Mzansi” accounts | 1 593 368 772 | 2 162 859 511 | 3 756 228 283 |
| Cash at home | 769 375 109 | 1 737 743 083 | 2 507 118 192 |
| TOTAL ASSETS | 3 134 317 778 245 | 4 276 803 370 208 | 7 411 121 148 453 |

| HOUSEHOLD STATEMENT OF FINANCIAL POSITION AT 31 DECEMBER 2011 | | | |
|--|---------------------------|------------------------------------|--------------------------|
| | METROPOLITAN R | NON- METROPOLITAN R | TOTAL R |
| LIABILITIES | | | |
| Non-current liabilities | | | |
| Mortgage loans | 109 663 914 875 | 175 668 202 922 | 285 332 117 797 |
| Mortgages on residential property | 107 359 243 302 | 164 330 855 950 | 271 690 099 252 |
| Mortgage on other property | 2 304 671 573 | 11 337 346 972 | 13 642 018 545 |
| Financial Liabilities | 90 762 275 442 | 117 785 616 009 | 208 547 891 452 |
| Financing | 79 316 423 399 | 94 291 699 364 | 173 608 122 763 |
| Vehicle financing | 60 090 192 887 | 80 801 950 321 | 140 892 143 208 |
| Boat financing | – | – | – |
| Household content and collectibles financing | 17 527 408 153 | 6 372 570 302 | 23 899 978 455 |
| Hire purchase agreements | 724 157 434 | 2 440 624 353 | 3 164 781 787 |
| Cell phone contracts | 974 664 925 | 4 676 554 388 | 5 651 219 313 |
| Loans | 11 445 852 043 | 23 493 916 646 | 34 939 768 689 |
| Student loans | 2 978 769 283 | 3 234 847 234 | 6 213 616 517 |
| Personal loans | 4 223 204 341 | 15 948 782 100 | 20 171 986 441 |
| Loan from employers | 1 713 888 795 | 292 023 436 | 2 005 912 231 |
| Loan from friend, relative or private individual | 258 864 904 | 1 401 569 242 | 1 660 434 146 |
| Cash loans | 2 270 573 930 | 2 598 773 377 | 4 869 347 307 |
| Other loans | 550 790 | 17 921 257 | 18 472 047 |
| Current liabilities | 52 311 197 245 | 34 677 993 557 | 86 989 190 802 |
| Bank overdrafts | 3 581 647 386 | 3 221 588 293 | 6 803 235 679 |
| Credit cards | 11 621 596 402 | 10 425 487 825 | 22 047 084 227 |
| Store cards | 4 790 232 562 | 9 777 074 980 | 14 567 307 542 |
| Petrol/Garage cards | 756 362 461 | 183 013 879 | 939 376 340 |
| Household bills payable | 31 561 358 434 | 11 070 828 580 | 42 632 187 014 |
| Municipal accounts | 3 406 763 510 | 4 697 945 912 | 8 104 709 422 |
| Airtime accounts | 600 520 771 | 576 279 602 | 1 176 800 373 |
| Rent in arrear | 887 402 176 | 1 177 109 602 | 2 064 511 778 |
| Alimony | 60 310 904 | 110 324 655 | 170 635 559 |
| School fees | 24 880 574 640 | 2 619 573 799 | 27 500 148 439 |
| SABC/DStv/TopTV | 737 343 302 | 684 922 495 | 1 422 265 797 |
| Medical and other related bills | 778 366 791 | 515 386 566 | 1 293 753 357 |
| Other bills | 210 076 340 | 689 285 949 | 899 362 289 |
| TOTAL LIABILITIES | 252 737 387 562 | 328 131 812 489 | 580 869 200 051 |
| TOTAL NET WEALTH | 2 881 580 390 683 | 3 948 671 557 719 | 6 830 251 948 402 |

Source: Researcher's own compilation

Table 7.5 indicates the disaggregated asset and liability categories in accordance with the requirements of the Conceptual Framework (SAICA, 2010a). The next section reports on the segment and trend analyses of the asset and liability classes to describe the data presented in the household statement of financial position.

7.7 DESCRIPTIVE DATA ANALYSIS – CONTRIBUTION OF ASSETS AND LIABILITIES IN THE STATEMENT OF FINANCIAL POSITION

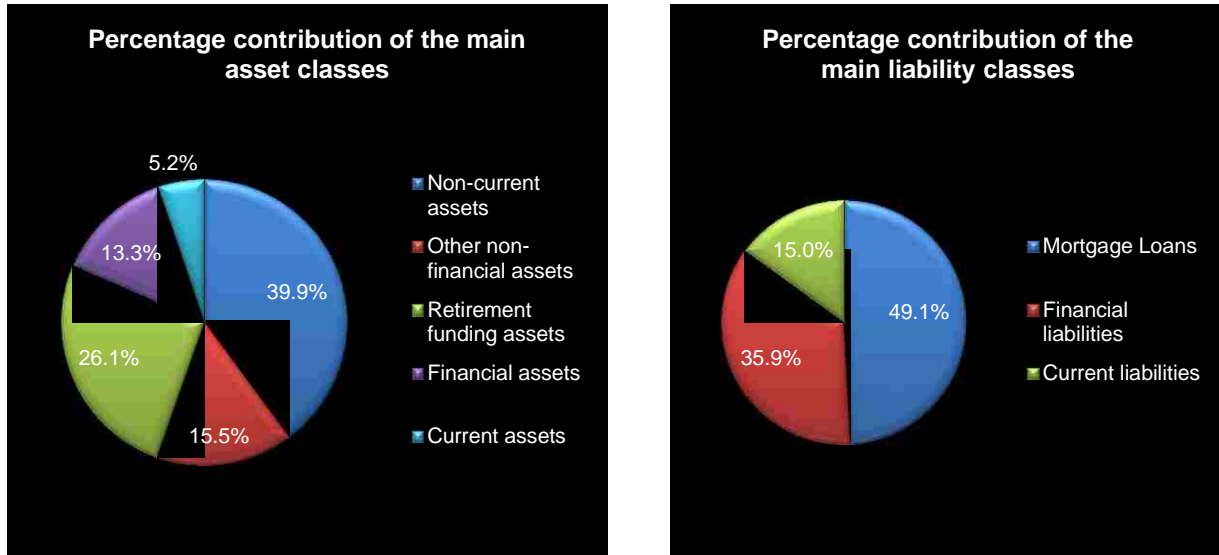
In section 7.7.1, the discussion of the descriptive data analysis commences with the percentage contribution of the eight main asset and liability classes to total assets and liabilities in the weighted metropolitan and non-metropolitan South African household population. These asset and liability classes are ranked according to their percentage contribution to establish which asset and liability classes were most preferred in which main area of residence. In section 7.7.2, the percentage contribution of the disaggregated assets and liabilities to total assets and liabilities in both weighted South African household populations is described. Finally, in section 7.7.3, the percentage contribution of disaggregated assets and liabilities to the main asset and liability classes in both weighted South African household populations is explained.

7.7.1 The percentage contribution of the eight main asset and liability classes to total assets and liabilities in the weighted metropolitan and non-metropolitan South African household population

The analysis commenced with the total weighted household population and the contribution of the main asset and liability classes to total weighted South African household assets and liabilities. The percentage contribution or holding is indicated in Figure 7.3.

Figure 7.3

Percentage contribution of the main asset and liability classes in the weighted South African household population



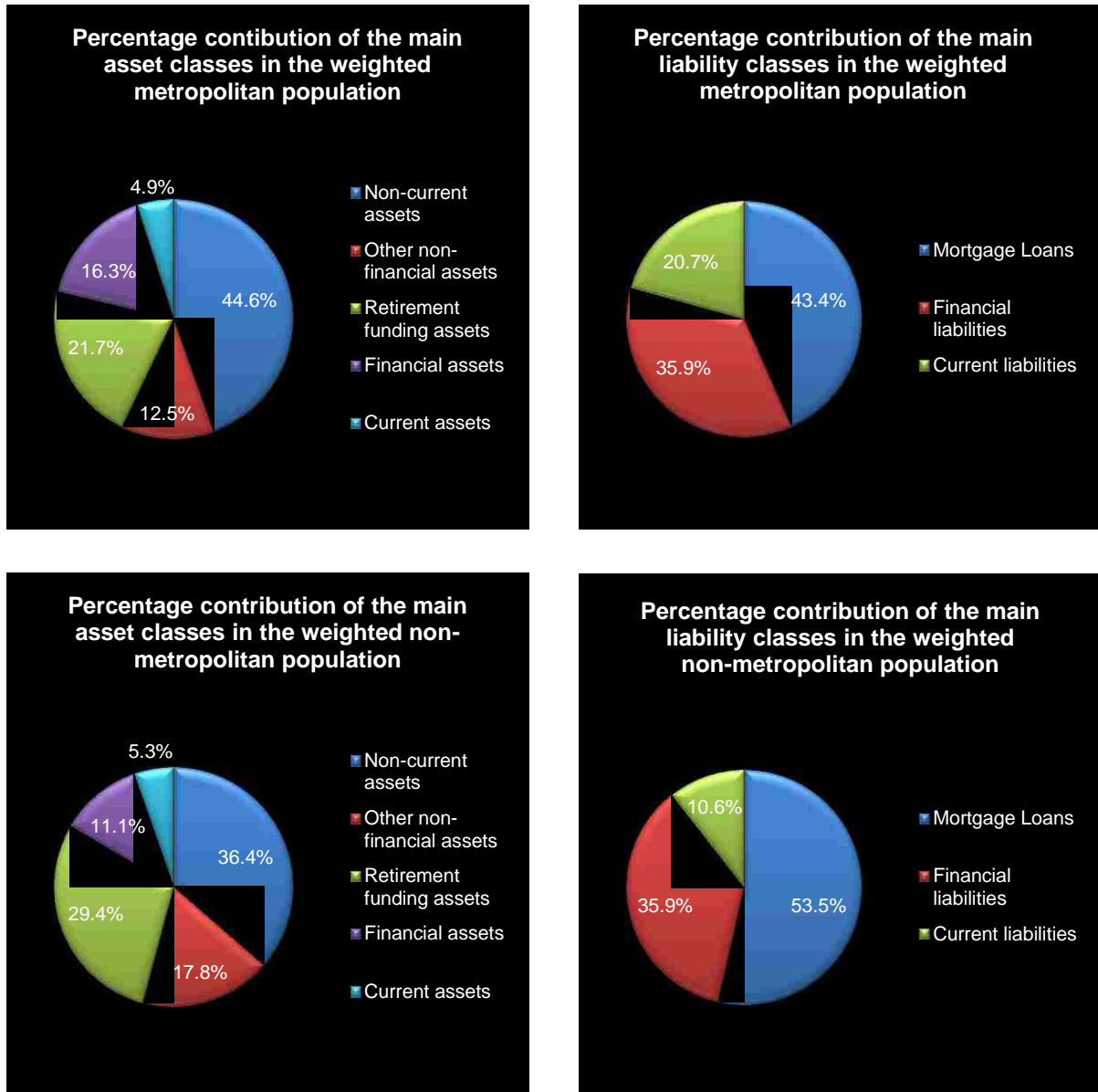
Non-current assets formed the largest asset class (39.9%) followed by retirement funding assets (26.1%). Caution had to be exercised in interpreting retirement funding assets. Retirement funding assets were requested as part of the income section of the survey, which was not comprehensively and reliably completed as established during the validity and structural integrity tests. This resulted in the decision to use expenditure as a proxy for income (section 7.3.3). However, there was no proxy for retirement funding assets, and any analysis in this regard should be viewed in the light of these data limitations, which could result in reporting bias. From a measurement perspective, a high level of financial knowledge was required of household respondents to report a reliable estimated value of retirement funding assets (Carasso & McKerman, 2007; Ratcliffe et al., 2007).

Mortgage loans formed the largest liability class, and contributed 49.1% to the weighted population's total liabilities, followed by financial liabilities (35.9%). Mortgage loans are entered into to finance "non-current assets", and were therefore expected to be the largest liability category.

Figure 7.4 depicts the percentage contribution of the main asset and liability classes to total assets and liabilities in the two main demographic areas, namely metropolitan and non-metropolitan areas.

Figure 7.4

Percentage contribution of the main asset and liability classes in the weighted metropolitan and non-metropolitan South African household population



In both the weighted metropolitan and non-metropolitan household populations, non-current assets were the largest asset class, and mortgage loans the largest liability class. However, when considering the contribution difference between the weighted

populations (depicted in Figure 7.2), it is apparent that in the weighted non-metropolitan population, non-current assets were lower than expected. The weighted metropolitan population seemed to have invested more in non-current assets (44.6% versus 36.4%) and financial assets (16.3% versus 11.1%) than the weighted non-metropolitan population, especially considering their lower percentage contribution to the total weighted population. Another noticeable difference was in the percentage contribution of current liabilities between the weighted metropolitan population (20.7%) versus the weighted non-metropolitan population (10.6%). One possible explanation could be that day-to-day living costs in the weighted metropolitan population were higher than similar costs in the weighted non-metropolitan population or that the respondents in the weighted non-metropolitan population used long-term financing such as mortgages instead of short-term financing options. A true reflection of these differences will become clearer in the detailed discussion of the contribution of each asset and liability to its main asset and liability class (section 7.7.3).

Table 7.6 contains a summary of the descriptive analysis of the percentage contribution per main asset and liability class indicated above. The percentage contribution of the main asset and liability classes to total assets/liabilities in the weighted metropolitan and non-metropolitan household population was ranked, with the differences in the contribution of a specific asset or liability class highlighted in red.

Table 7.6

Percentage contribution and ranking of the main asset and liability classes to total assets and liabilities in the weighted metropolitan and non-metropolitan South African household population

| Main asset/liability class | Rank | Metropolitan contribution % | Rank | Non-metropolitan contribution % | Difference |
|-------------------------------|------|-----------------------------|------|---------------------------------|------------|
| Main asset classes | | | | | |
| Non-current assets | 1 | 44.6% | 1 | 36.4% | 8.2% |
| Other non-financial assets | 4 | 12.5% | 3 | 17.8% | -5.3% |
| Retirement funding assets | 2 | 21.7% | 2 | 29.4% | -7.7% |
| Financial assets | 3 | 16.3% | 4 | 11.1% | 5.2% |
| Current assets | 5 | 4.9% | 5 | 5.3% | -0.4% |
| Main liability classes | | | | | |
| Mortgage loans | 1 | 43.4% | 1 | 53.5% | -10.1% |
| Financial liabilities | 2 | 35.9% | 2 | 35.9% | 0.0% |
| Current liabilities | 3 | 20.7% | 3 | 10.6% | 10.1% |

Source: Researcher's own compilation

Although the ranking table did not take into account the size effect of the distribution of the total weighted population (Figure 7.2), it still provided valuable information on the contribution of the main asset and liability classes to total assets and liabilities in the metropolitan and non-metropolitan weighted populations.

The key difference in percentage contribution was that, in the weighted metropolitan population, financial assets (16.3%) contributed more to total assets than other non-financial assets (12.5%), while for the weighted non-metropolitan population, other non-financial assets (17.8%) contributed more to total assets than financial assets (11.1%). To further explore these differences in contribution and ranking, it was necessary to understand the percentage contribution of the individual, disaggregated assets and liabilities that constituted the main asset and liability classes in the weighted metropolitan and non-metropolitan population. This is discussed in the next section.

7.7.2 The percentage contribution of disaggregated asset and liability classes to total assets and liabilities in the weighted metropolitan and non-metropolitan South African household population

The section commences with a ranking table similar to Table 7.6. Table 7.7 provides a summary of the individual, disaggregated assets and liabilities that constitute the main asset and liability classes and their individual contribution to total assets and liabilities in the weighted metropolitan and non-metropolitan household population. The blue and pink shading indicates the main asset and liability classes. The grey shading indicates sub-classes within the main classes. The individual assets and liabilities in a sub-class were ranked according to their contribution to the sub-class. The individual asset and liability classes and sub-classes that constitute the main class were ranked according to their percentage contribution to their respective main asset and liability class. Ranking differences in the contribution of a specific asset or liability class are shown in red, and these differences are reviewed when each main asset and liability category is discussed. Additions may differ because of the rounding off to one decimal, and zero values indicate minute values affected by rounding off rather than the actual absence of values. Table 7.7 depicts the ranking and percentage contribution.

Table 7.7

Percentage contribution and ranking of the disaggregated assets and liabilities to main asset and liability classes in the weighted metropolitan and non-metropolitan South African household population

| Assets/liabilities included in the main asset/liability class | Metropolitan contribution % to main classes of assets/liabilities | Ranking of item within each asset/liability class | Non-metropolitan contribution % to main classes of assets/liabilities | Ranking of items within each asset/liability class | Metro/non-metro contribution difference |
|---|---|---|---|--|---|
| Non-current assets | 44.6% | | 36.4% | | 8.2% |
| Residential property | 37.9% | 1 | 30.0% | 1 | 7.9% |
| Other property | 6.7% | 2 | 6.4% | 2 | 0.3% |
| Other non-financial assets | 12.5% | | 17.8% | | -5.3% |
| Vehicles | 7.5% | 1 | 5.6% | 2 | 1.9% |
| Boats and planes | – | – | – | – | – |
| Household content | 3.6% | 2 | 7.0% | 1 | -3.4% |
| Collectibles | 0.9% | 3 | 1.5% | 4 | -0.6% |
| Trust assets | 0.1% | 5 | 0.1% | 5 | 0.0% |
| Business assets | 0.4% | 4 | 3.6% | 3 | -3.2% |
| Retirement funding assets | 21.7% | | 29.4% | | -7.7% |

| Assets/liabilities included in the main asset/liability class | Metropolitan contribution % to main classes of assets/liabilities | Ranking of item within each asset/liability class | Non-metropolitan contribution % to main classes of assets/liabilities | Ranking of items within each asset/liability class | Metro/non-metro contribution difference |
|---|---|---|---|--|---|
| Financial assets | 16.3% | | 11.1% | | 5.5% |
| Insurance | 14.8% | 1 | 9.1% | 1 | 5.7% |
| • Funeral insurance | 5.2% | 2 | 2.9% | 2 | 2.3% |
| • Special needs insurance | 8.6% | 1 | 5.1% | 1 | 3.5% |
| • Educational policies | 0.8% | 3 | 0.6% | 3 | 0.2% |
| • Burial society policies | 0.2% | 4 | 0.5% | 4 | -0.3% |
| Offshore investments | 0.2% | 3 | 0.3% | 4 | -0.1% |
| Unlisted shares | 0.2% | 3 | 0.2% | 5 | 0.0% |
| Loan accounts | 0.1% | 4 | 0.0% | 6 | 0.1% |
| Retail savings bonds | 0.0% | 5 | 0.2% | 5 | -0.2% |
| Employee share options | 0.0% | 5 | 0.7% | 2 | -0.7% |
| Collective investments | 1.2% | 2 | 0.5% | 3 | 0.7% |
| Current assets | 4.9% | | 5.3% | | -0.4% |
| Debtors | 0.0% | 8 | 0.0% | 7 | 0.0% |
| “Stokvel” assets | 0.1% | 7 | 0.4% | 4 | -0.3% |
| Listed shares | 0.2% | 6 | 1.7% | 2 | -1.5% |
| Fixed deposits | 0.3% | 5 | 0.3% | 5 | 0.0% |
| Other current assets | 2.2% | 1 | 0.1% | 6 | 2.1% |
| Savings accounts | 0.4% | 4 | 0.4% | 4 | 0.0% |
| Money market investments | 1.1% | 2 | 0.6% | 3 | 0.5% |
| Cheque accounts | 0.6% | 3 | 1.8% | 1 | -1.2% |
| “Mzansi” accounts | 0.1% | 7 | 0.1% | 6 | 0.0% |
| Cash at home | 0.0% | 8 | 0.0% | 7 | -0.0% |
| Mortgage loans | 43.4% | | 53.5% | | -10.1% |
| Mortgage on residential property | 42.5% | 1 | 50.1% | 1 | -7.6% |
| Mortgages on other property | 0.9% | 2 | 3.5% | 2 | -2.6% |
| Financial liabilities | 35.9% | | 35.9% | | 0.0% |
| Financing: | 31.4% | 1 | 28.7% | 1 | 2.7% |
| • Vehicle financing | 23.8% | 1 | 24.6% | 1 | -0.8% |
| • Financing of boats and planes | – | – | – | – | – |
| • Household content/collectibles financing | 6.9% | 2 | 1.9% | 2 | 5.0% |
| • Other hire purchase agreements | 0.3% | 4 | 0.7% | 4 | -0.4% |
| • Cell phone contracts | 0.4% | 3 | 1.4% | 3 | -1.0% |
| Loans: | 4.5% | 2 | 7.1% | 2 | -2.6% |
| • Student loans | 1.2% | 2 | 1.0% | 2 | 0.2% |
| • Personal loans | 1.7% | 1 | 4.9% | 1 | -3.2% |
| • Loan from employers | 0.7% | 4 | 0.1% | 5 | 0.6% |
| • Loan from friend/relative/individual | 0.1% | 5 | 0.4% | 4 | -0.3% |
| • Cash loans | 0.9% | 3 | 0.8% | 3 | 0.1% |
| • Other loans | 0.0% | 6 | 0.0% | 6 | 0.0% |

| Assets/liabilities included in the main asset/liability class | Metropolitan contribution % to main classes of assets/liabilities | Ranking of item within each asset/liability class | Non-metropolitan contribution % to main classes of assets/liabilities | Ranking of items within each asset/liability class | Metro/non-metro contribution difference |
|---|---|---|---|--|---|
| Current liabilities | 20.7% | | 10.6% | | 10.1% |
| Bank overdrafts | 1.4% | 4 | 1.0% | 4 | 0.4% |
| Credit cards | 4.6% | 2 | 3.2% | 2 | 1.4% |
| Store cards | 1.9% | 3 | 3.0% | 3 | -1.1% |
| Petrol/garage cards | 0.3% | 5 | 0.1% | 5 | 0.2% |
| Household bills payable | 12.5% | 1 | 3.4% | 1 | 9.1% |
| Municipal accounts | 1.4% | 2 | 1.4% | 1 | 0.0% |
| Airtime accounts | 0.2% | 5 | 0.2% | 4 | 0.0% |
| Rent in arrear | 0.4% | 3 | 0.4% | 3 | 0.0% |
| Alimony | 0.0% | 7 | 0.0% | 5 | 0.0% |
| School fees | 9.8% | 1 | 0.8% | 2 | 9.0% |
| SABC/DStv/TopTV | 0.3% | 4 | 0.2% | 4 | 0.1% |
| Medical bills | 0.3% | 4 | 0.2% | 4 | 0.1% |
| Other bills | 0.1% | 6 | 0.2% | 4 | -0.1% |

Source: Researcher's own compilation

Table 7.7 reflects 54 different asset and liability categories of which 24 differed in ranking between metropolitan and non-metropolitan areas. This required further analysis of the data as discussed in the following sub-section. However, to enable the researcher to further compare the disaggregated, individual asset/liability class contribution to the main asset/liability class within metropolitan and non-metropolitan areas, the contribution of the individual asset/liability was divided by the main asset/liability class contribution to total assets/liabilities. For example, non-current assets in the weighted metropolitan population (44.6%) (Table 7.7) constituted residential property (37.9%) and other properties (6.7%). To calculate the percentage contribution of residential property to non-current assets in the weighted metropolitan population, the residential property contribution (to total assets) was divided by the contribution of the main asset class, namely $37.9\%/44.6\%$ equals 84.98% or 85% (rounded). The resulting ratio trend in the weighted metropolitan population was then compared with the ratio trend in the weighted non-metropolitan population.

7.7.3 The percentage contribution of disaggregated asset and liability classes to the main classes of assets and liabilities in the weighted metropolitan and non-metropolitan South African household population

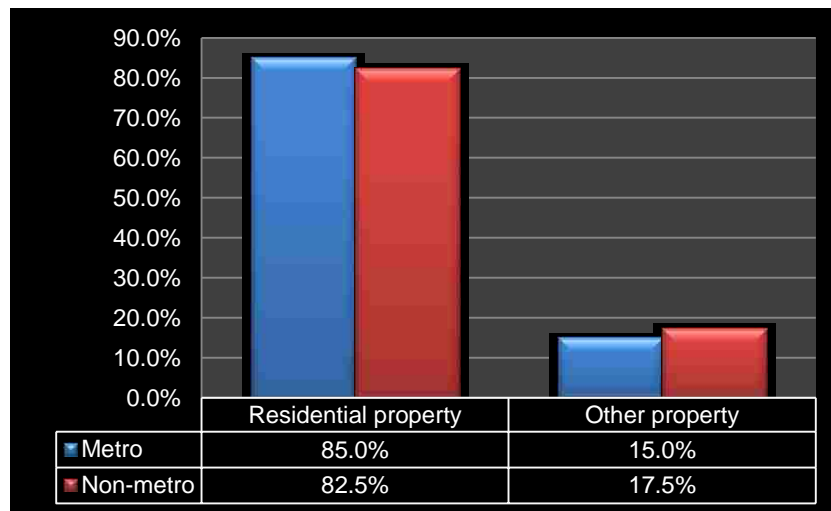
The contribution of the disaggregated asset and liability classes to the main asset and liability classes was analysed and is described in this section.

7.7.3.1 *Composition of non-current assets*

Non-current assets as a main asset class comprised the market value estimates of residential and other properties held in the two weighted populations. According to Table 7.7, the percentage contribution of non-current assets to total assets in the weighted metropolitan population was 44.6% and in the weighted non-metropolitan population, 36.4%. The percentage that the main residence and other properties contributed to non-current assets in the weighted metropolitan and non-metropolitan populations is indicated in Figure 7.5.

Figure 7.5

Percentage contribution of non-current assets' composition



In the weighted metropolitan population, residential property holding constituted 85.0% of the metropolitan non-current assets, whereas in the weighted non-metropolitan population, residential property holding constituted 82.5% of non-metropolitan non-current assets. A possible explanation could be higher property values in metropolitan areas. The percentage contribution of other properties

constituted 15.0% and 17.5% of non-current assets in the weighted metropolitan and non-metropolitan population respectively.

To summarise: The trend of the contribution of both the residential and other property assets in both the weighted metropolitan and non-metropolitan population was similar (85.0% and 15.0% versus 82.5% and 17.5% respectively).

7.7.3.2 *Composition of other non-financial assets*

According to Table 7.7, other non-financial assets contributed 12.5% to total assets in the weighted metropolitan population, and 17.8% to total assets in the weighted non-metropolitan population. Figure 7.6 shows the percentage contribution of the individual asset classes, namely vehicles, household content, collectibles, trust assets and business assets to other non-financial assets in the weighted metropolitan and non-metropolitan populations.

Figure 7.6

Percentage contribution of other non-financial assets' composition

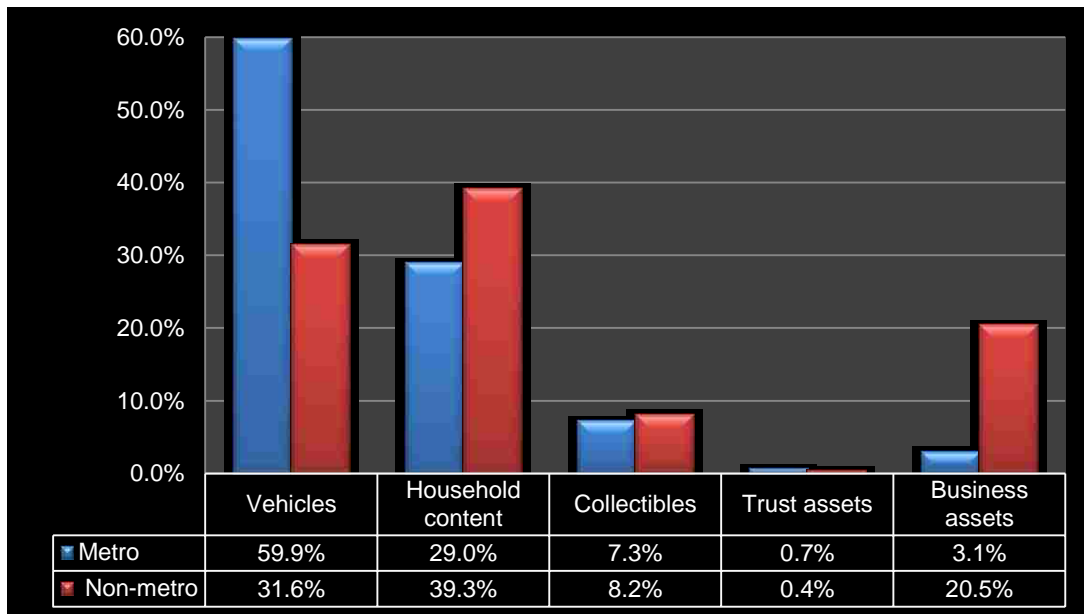


Figure 7.6 indicates that vehicles contributed the most to other non-financial assets in the weighted metropolitan population, namely 59.9%, followed by household content (29.0%), collectibles (7.3%) and business assets (3.1%). However, in the weighted non-metropolitan population, household content contributed the most to other non-financial assets, namely 39.3%, followed by vehicles (31.6%), business

assets (20.5%) and collectibles (8.2%). It seemed that in the weighted metropolitan population, vehicle acquisition was preferred, while household content acquisition was preferred in the weighted non-metropolitan population. The contribution of business assets to other non-financial assets in the weighted non-metropolitan population (20.5%) compared with its contribution to other non-financial assets in the weighted metropolitan population (3.1%) could be ascribed to a greater need in non-metropolitan areas to establish businesses as a source of household income than in metropolitan areas, where employment opportunities are possibly more readily available.

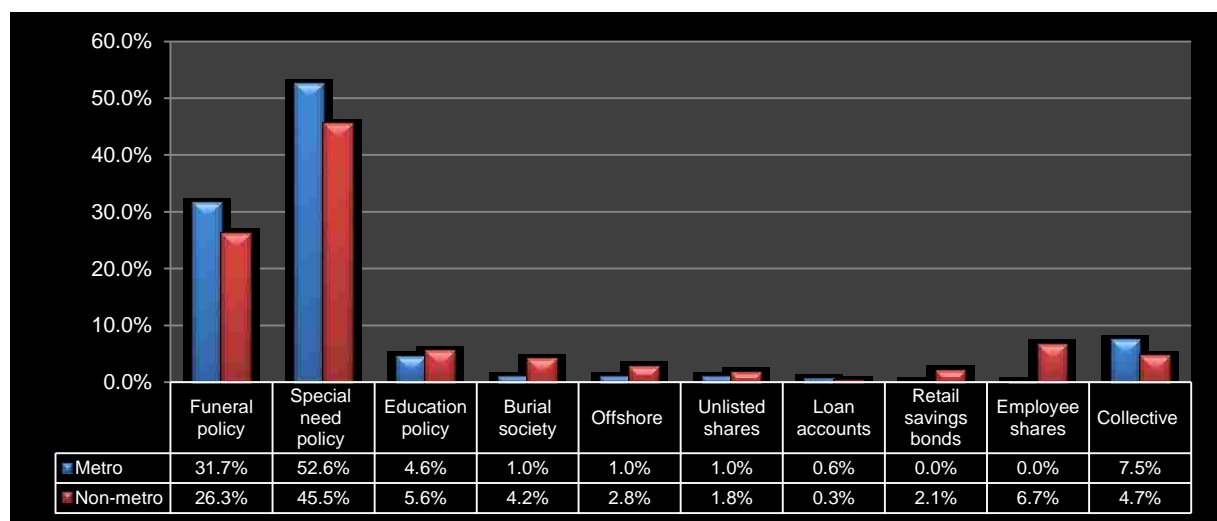
To summarise: The ratio trend highlighted the two key ranking differences – vehicles versus household content and collectibles versus business assets – between the weighted metropolitan and non-metropolitan populations respectively.

7.7.3.3 *Composition of financial assets*

According to Table 7.7, the investment in financial assets contributed 16.3% to total assets in the weighted metropolitan population, and 11.1% to total assets in the weighted non-metropolitan population. Figure 7.7 indicates the contribution of the different asset classes that constitute financial assets in the weighted metropolitan and non-metropolitan populations.

Figure 7.7

Percentage contribution of financial assets' composition



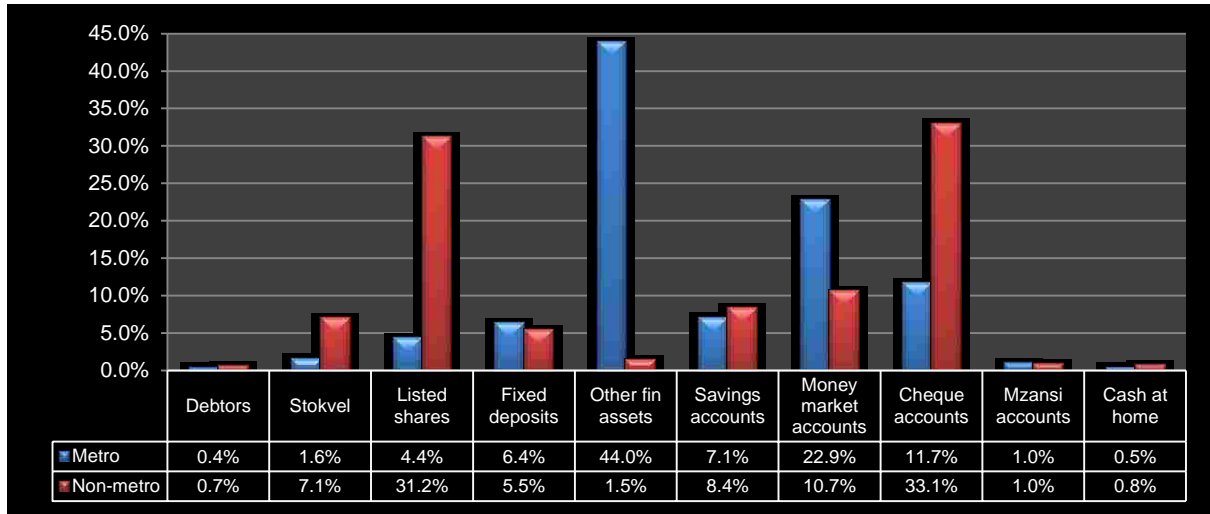
Insurance products were grouped as a sub-class and included funeral policies, special needs policies, educational policies and burial society policies. In both weighted populations, insurance products contributed most of all classes to financial assets. These products contributed 89.9% to financial assets in the weighted metropolitan population and 81.6% in the weighted non-metropolitan population. In the weighted metropolitan population, the second largest contributor to financial assets was the investment in unit trusts (collective investment schemes) at 7.5%, and equal third largest contributors were offshore investments and listed shares (1% each). In the weighted non-metropolitan population, employee share schemes were the second largest contributor to financial assets at 6.7%, and thirdly, collective investments at 4.7%. Employee share schemes contributed hardly anything (indicated as 0%) to financial assets in the weighted metropolitan population, compared to the 6.7% contribution in the weighted non-metropolitan population. From this it was evident that profit sharing by way of employee share schemes was more prevalent in non-metropolitan areas.

To summarise: The ratio trend highlighted the fact that for both the weighted metropolitan and non-metropolitan populations, the majority of assets in this class were insurance products (89.9% and 81.6% respectively). Other ranking differences were evident in the discussion above.

7.7.3.4 *Composition of current assets*

According to Table 7.7, the contribution of current assets to total assets for the weighted metropolitan population was 4.9%, and for the weighted non-metropolitan population, 5.3%. Figure 7.8 indicates the contribution of the disaggregated asset classes that constitute current assets in the weighted metropolitan and non-metropolitan population.

Figure 7.8
Percentage contribution of current assets' composition



In the weighted metropolitan population, other financial assets contributed the most to current assets, namely 44%, followed by money market accounts at 22.9% and cheque accounts at 11.7%. In the weighted non-metropolitan population, cheque accounts (33.1%) contributed the most to current assets, followed by listed share investments (31.2%) and money market accounts (10.7%). “Stokvel” investments contributed 7.1% in the weighted non-metropolitan and in the weighted metropolitan population, only 1.6%, which is an indication of respondents in metropolitan areas making less use of informal financial assets.

The seemingly large investment in other financial assets (44%) in the weighted metropolitan population could be due to respondents remembering assets they had not included in previous categories, and this was even more apparent when comparing this contribution with that of other financial assets in the weighted non-metropolitan population (only 1.5% of total current assets). On closer inspection of the data, this observation seemed to be true, and some of these assets (where respondents gave an indication of the asset type) were assets that could have also been included in financial assets. The decision was made to keep it as other financial assets in the current asset category instead of reclassifying only those that were known to be financial assets, because there were still some that could not be classified because of a lack of specific information from the respondents.

To summarise: The ratio trend of the various assets that constituted current assets in both weighted populations seemed to differ across this main class (see the ranking in Table 7.7) and this was explained in the discussion above. Only savings accounts, “mzansi” accounts, cash at home, fixed deposits and debtors were ranked similarly in both weighted populations.

7.7.3.5 *Composition of retirement funding assets*

According to Table 7.7, retirement funding assets contributed 21.7% and 29.4% to total assets in the weighted metropolitan and non-metropolitan population respectively, and according to Figure 7.3, 26.1% to total assets in the weighted population. All retirement funding assets were categorised into one asset class and did not consist of individual or disaggregated assets that constitute the main asset class as in the case of the other asset categories. The limitations relating to this asset class were explained in section 7.7.1 and additional discussion is thus unnecessary.

7.7.3.6 *Composition of mortgage loans*

The amount households owed on mortgages acquired to finance residential and non-residential property was included in this liability class. According to Table 7.7, mortgage debt was the largest liability class and contributed 43.4% to total liabilities in the weighted metropolitan population, and 53.5% to total liabilities in the weighted non-metropolitan population. Figure 7.9 indicates the percentage contribution of the disaggregated liability classes that constituted mortgage debt.

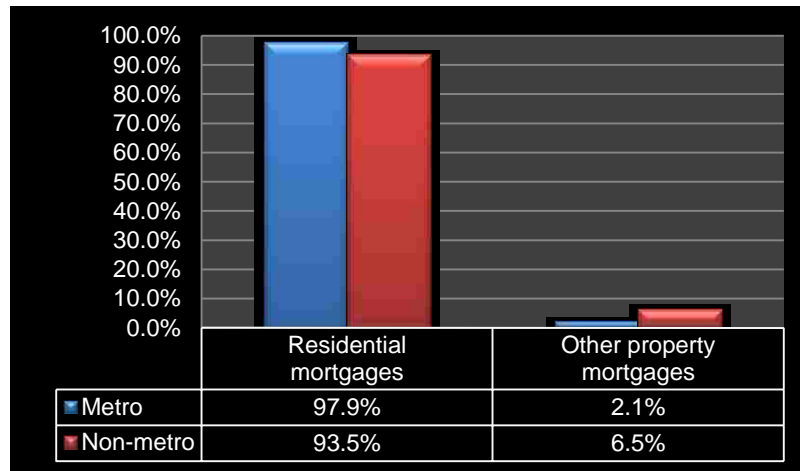
Figure 7.9**Percentage contribution of mortgage debt composition**

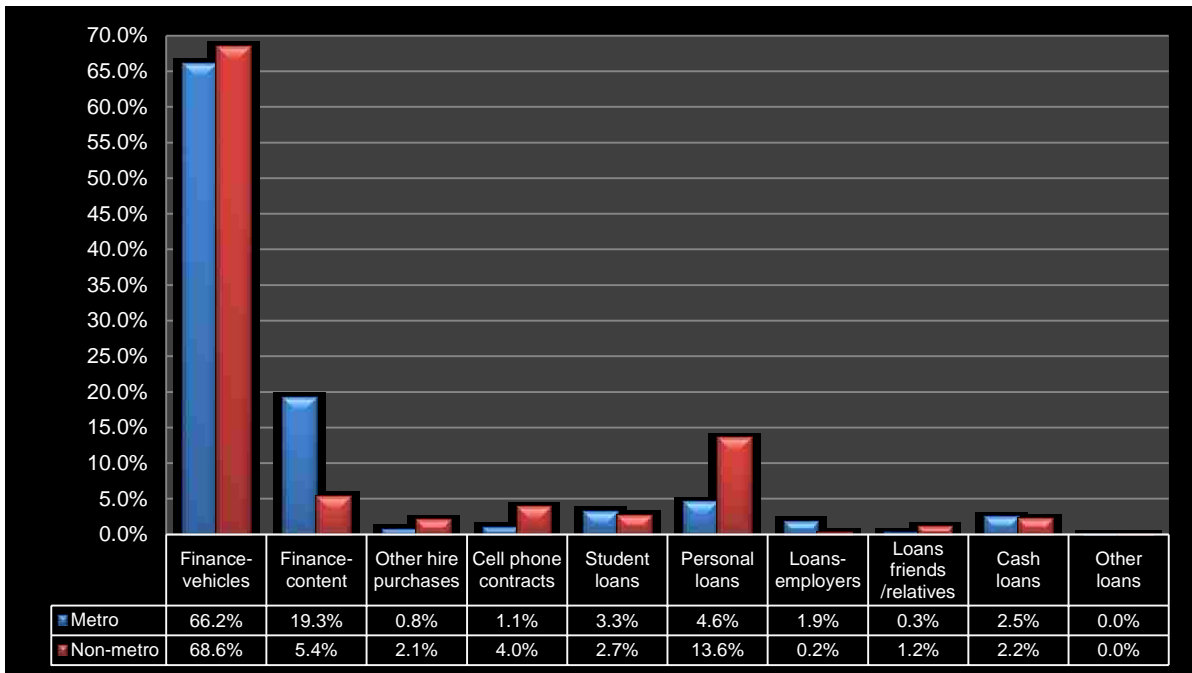
Figure 7.9 indicates that residential mortgages instead of other property mortgages were the contributing liability. Residential mortgages contributed 97.9% to total mortgage liabilities in the weighted metropolitan population and 93.5% to total mortgage liabilities in the weighted non-metropolitan population. This was expected, and is similar to the percentage contribution of residential property assets, which was also higher in the weighted metropolitan population than in the weighted non-metropolitan population (section 7.7.3.1). Other property mortgages contributed 2.1% and 6.5% to total mortgage liabilities in the weighted metropolitan and non-metropolitan populations respectively.

To summarise: The trend of the contribution of both the residential and other property mortgages in both the weighted metropolitan and non-metropolitan population was similar (97.9% and 2.1% versus 93.5% and 6.5% respectively).

7.7.3.7 Composition of financial liabilities

According to Table 7.7, financial liabilities contributed 35.9% to total liabilities in the weighted metropolitan population and 35.9% to total liabilities in the weighted non-metropolitan population. Figure 7.10 indicates the percentage contribution of the disaggregated liability classes that constituted financial liabilities.

Figure 7.10
Percentage contribution of financial liability composition



Overall, financial liabilities constituted a smaller proportion of total liabilities than mortgage loans. Financial liabilities have two sub-classifications, which contributed to the weighted populations, namely “finance” (vehicle finance, content finance, other hire-purchases and cell phone contracts) and “loans” (all other loan types). According to Figure 7.10, “finance” contributed 87.4% and 80.1% and “loans”, 12.6% and 19.9% to the weighted metropolitan and non-metropolitan populations respectively. When examining the percentage contribution of the disaggregated liability classes to financial liabilities, the following observations were made.

a) *Financing*

Vehicle finance contributed the most to financial liabilities in both weighted populations, namely 66.2% in the weighted metropolitan population and 68.6% in the weighted non-metropolitan population. The contribution of household content financing to financial liabilities was 19.3% in the weighted metropolitan population and 5.4% in the weighted non-metropolitan population, which is lower than expected because of the higher household content acquisition (section 7.7.3.2) in the weighted population. The reason for this anomaly was not clear, but a possible explanation is that, although the value of household content was higher in the weighted non-

metropolitan population, the respondents in the weighted non-metropolitan population did not require financing to obtain those assets (owing to possible asset transfers) or used other financing options such as personal loans. However, this can only be confirmed by further research on household financing decisions.

b) Loans

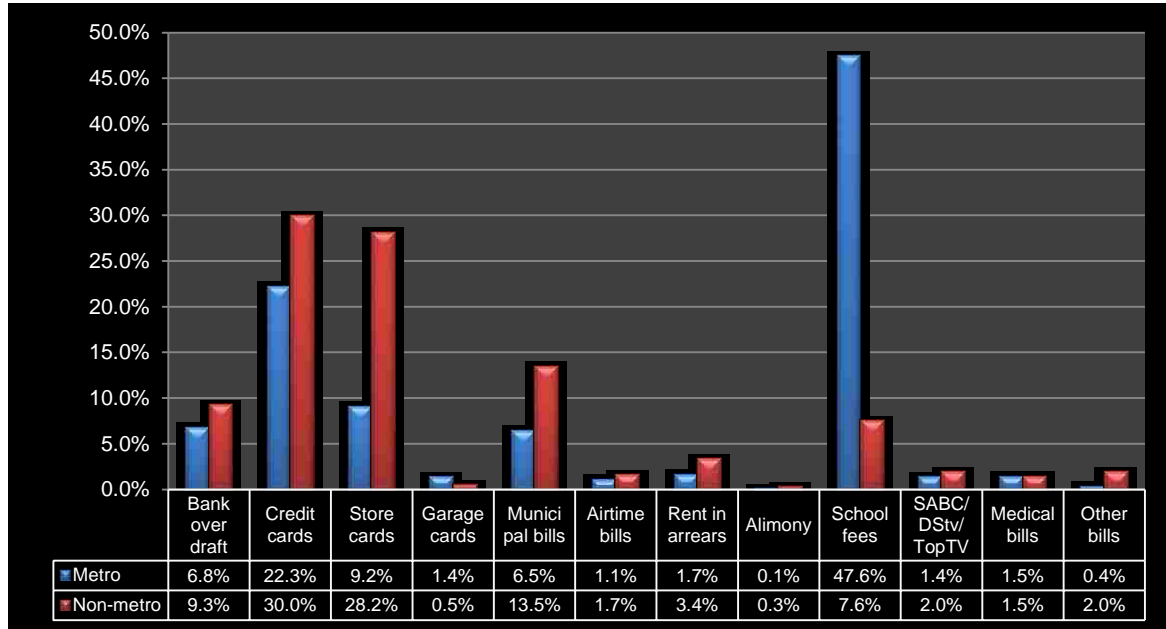
In both weighted populations, personal loans (4.6% and 13.6%) contributed the most to financial liabilities, followed by student loans (3.3% and 2.7%). Personal loans in the weighted non-metropolitan population, however, were much higher than personal loans in the weighted metropolitan population. It is possible that these loans instead of other financing options were preferred as financing options for acquiring household content. Another key difference in percentage contribution was that, in the weighted metropolitan population, employer loans (1.9%) contributed more to financial liabilities than loans from friends or relatives (0.3%), while in the case of the weighted non-metropolitan population, loans from friends or relatives (1.2%) contributed more to financial liabilities than employer loans (0.2%).

To summarise: Vehicle finance (66.2%), household content finance (19.3%) and personal loans (4.6%) were the highest contributing financial liability classes in the weighted metropolitan population, whereas vehicle finance (68.6%), personal loans (13.6%) and household content finance (5.4%) were the highest contributing financial liability classes in the non-metropolitan population.

7.7.3.8 Composition of current liabilities

Current liabilities were the third and final liability class. This class constituted 20.7% of total liabilities in the weighted metropolitan population and 10.6% of total liabilities in the weighted non-metropolitan population (Table 7.7). Figure 7.11 indicates the percentage contribution of the disaggregated liability classes that constitute current liabilities.

Figure 7.11
Percentage contribution of current liability composition



Current liabilities, like financial liabilities, have a sub-classification, namely “household bills” (municipal bills, airtime bills, rent in arrears, alimony, school fees, SABC/DStv/TopTV, medical and other bills), which contributed 60.3% and 32% to current liabilities in the weighted metropolitan and non-metropolitan population respectively. Household bills were the largest contributor to current liabilities in both weighted populations, followed by credit cards and store cards. In the weighted metropolitan population, credit cards contributed 22.3% and store cards 9.2% to current liabilities, and in the weighted non-metropolitan population, credit cards contributed 30% and store cards 28.2%. When examining the percentage contribution of the disaggregated liability classes to current liabilities, certain observations, as described below, were made.

a) *Household bills*

The key difference in percentage contribution to household bills was that, in the weighted metropolitan population, school fees (47.6%) contributed more to current liabilities than municipal bills (6.5%), while for the weighted non-metropolitan population, municipal bills contributed more to current liabilities (13.5%) than school fees (7.6%). The high percentage school fees owed by the weighted metropolitan

population could be explained by higher school fees in these areas and also the availability of more expensive schooling options such as private schools. The high percentage of unpaid school fees could also be an indication that households perhaps defaulted more easily on school fees in order to fund other liabilities or consumption.

To summarise: In the weighted metropolitan population, school fees (47.6%) contributed the most to current liabilities, followed by credit cards (22.3%) and store cards (9.2%), whereas in the weighted non-metropolitan population, credit cards (30.0%), store cards (28.2%) and municipal bills (13.5%) contributed the most to current liabilities.

7.7.4 Summary

This section dealt with the composition of assets and liabilities in the weighted metropolitan and non-metropolitan South African household population and the contribution of the main asset/liability classes to total assets and liabilities (section 7.7.1). This was followed by a description of the contribution of the disaggregated asset and liability classes to total assets and liabilities in section 7.7.2, and the percentage contribution of disaggregated assets and liabilities to the main asset and liability classes in section 7.7.3. The ranking tables (Tables 7.6 and 7.7) in this section indicated the difference in the contribution of the individual assets and liabilities, to enable the researcher to identify the most significant preferences of the two weighted South African household populations.

7.8 DESCRIPTIVE DATA ANALYSIS – DEMOGRAPHIC VARIABLES AND THE ACCUMULATION OF ASSETS AND LIABILITIES IN THE STATEMENT OF FINANCIAL POSITION

In section 1.2, the possible influence of area of residence was discussed and this resulted in the expectation that households situated in different areas would have different amounts of net wealth. This resulted in segmenting the data into metropolitan and non-metropolitan areas in order to review the household asset and liability accumulation in those areas. This was dealt with in the previous section. The metropolitan/non-metropolitan split was used to enable the researcher to present and analyse the statement of financial position for the two sectors. This was

necessary to answer the main research question formulated in section 1.3.4, namely whether the asset and liability base of South African households in metropolitan and non-metropolitan areas could be established, disaggregated and measured.

In Chapter 3, it was stated that household consumption is subject to decisions made in the past and future expectations. Past net wealth accumulation and present income enable households to provide themselves with the required goods and services. According to Engel's Law (1857 in Bannock et al., 2003), given certain preferences, the proportion of income spent on food (needs) diminishes as income increases. This affords households the opportunity to invest in assets (wants) and/or to save instead of only providing for their basic needs. This law was augmented by Keynes' (1936 in Miller, 1996) theory on income and consumption, which introduced the concept of saving, stating that the amount of income in excess of consumption can be saved. The permanent income hypothesis of Milton Friedman (1957 in Bryant & Zick, 2006) was discussed earlier in section 3.3.2. According to this hypothesis, household spending is not so much influenced by current income earned as by expected income levels, and households tend to maintain a fairly constant standard of living although their income levels may differ over time. As long as the decrease in income is viewed as temporary, it will not influence consumption and households will borrow or use past savings to sustain consumption. A fourth theory that also explains household consumption and saving behaviour is the life-cycle hypothesis of Modigliani and Ando (1963 in Bryant & Zick, 2006). In terms of this hypothesis, households plan their consumption according to an expected pattern of income earned during their lifetime. In order to sustain their current levels of consumption, young people borrow against an expectation of higher income in the future. People also accumulate as much as possible during their working lives to sustain themselves in retirement. According to the last two theories, households will engage in borrowing and lending activities to even out income and consumption streams over their expected life-cycle. This is referred to as the consumption-smoothing phenomenon (Fourie & Burger, 2011). As explained earlier, households' spending or consumption patterns occur within certain constraints, which compel households to make choices. On the basis of these theories, the researcher identified income and age as two of the main demographic variables that could explain the asset and liability accumulation of households.

International research identified two additional demographic variables, namely education and labour status, which directly affect households' ability to generate income (Bollen et al., 2007; Carasso & McKerman, 2007; Daffin, 2009).

As in a number of international studies (Bollen et al., 2007; Carasso & McKerman, 2007; Carter et al., 2009; Daffin, 2009; Nissan & Carter, 2005), one of the aims of the current study was to describe how assets and liabilities are distributed among South African households by using the identified demographic variables of age (section 7.8.1), income level (section 7.8.2), education level (section 7.8.3) and labour status (section 7.8.4). This would explain household financial behaviour and the impact of these demographic variables on asset and liability accumulation across the weighted South African household population.

The next section deals with the secondary research question identified in section 1.3.4, namely whether age group, income group, labour status, education level and area and/or all interactions, affect the accumulation of assets and liabilities. The effect of the demographic variables across the accumulation of asset and liability classes is thus determined and described in detail. Once the importance of the impact of these demographic variables on asset and liability accumulation is established, the impact of these variables and their interaction effects can be studied by way of multivariate analysis of variance (section 7.9).

Once again, it should be emphasised that in the next section, zero values indicate minute values because of rounding off rather than the actual of values.

7.8.1 Age

Economic and financial planning theories indicate that age has an impact on a person's financial situation, which is likely to improve with age as people accumulate more assets and repay their debt (PFRU, 2011:30). According to Carasso and McKerman (2007:7), age is one of the principal demographic variables because life-cycle patterns are evident in the accumulation of assets and liabilities. These authors (2007) posit that it would be unreasonable to expect meaningful accumulation of assets, such as the accumulation of property among young populations. However, in anticipation of retirement, households attempt to accumulate as much net wealth as possible over their working life. Age *per se*, however, is no indication of net wealth.

Aging is often associated with rising medical costs and inflationary increases, which deplete net wealth accumulation during retirement. Furthermore, to equalise their spending over their expected life cycle, households often incur debt to smooth out consumption, which is also associated with life-cycle patterns.

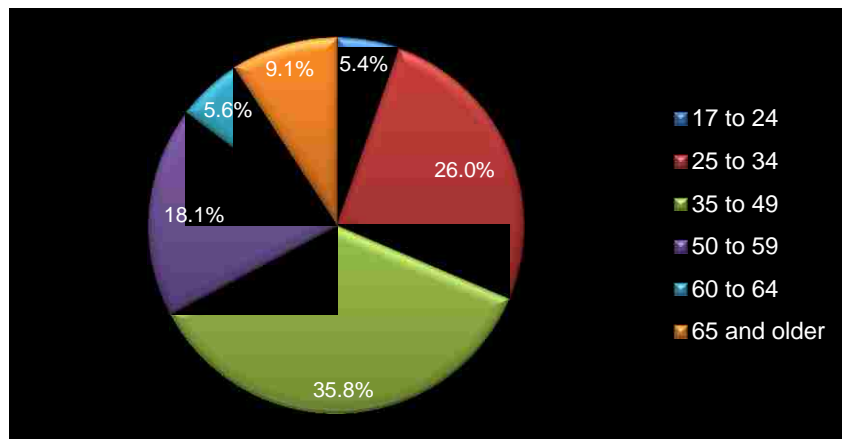
In this study, age (in years) was based on the age of the financially knowledgeable person in the household. This person was defined as someone who is most knowledgeable about financial matters relating to both the household as a whole and its individual members. He or she was invited to provide the information during the interview. Based on previous research (PFRU, 2011:30), the age variable for the purposes of this study was coded into the following six categories:

- 17 to 24 years of age;
- 25 to 34 years of age;
- 35 to 49 years of age;
- 50 to 59 years of age;
- 60 to 64 years of age; and
- 65 years and over.

7.8.1.1 Age profile of the weighted South African household population

Figure 7.12 depicts the six age groups in the weighted population and the percentage of the weighted population in each age group.

Figure 7.12
Age distribution in the weighted population



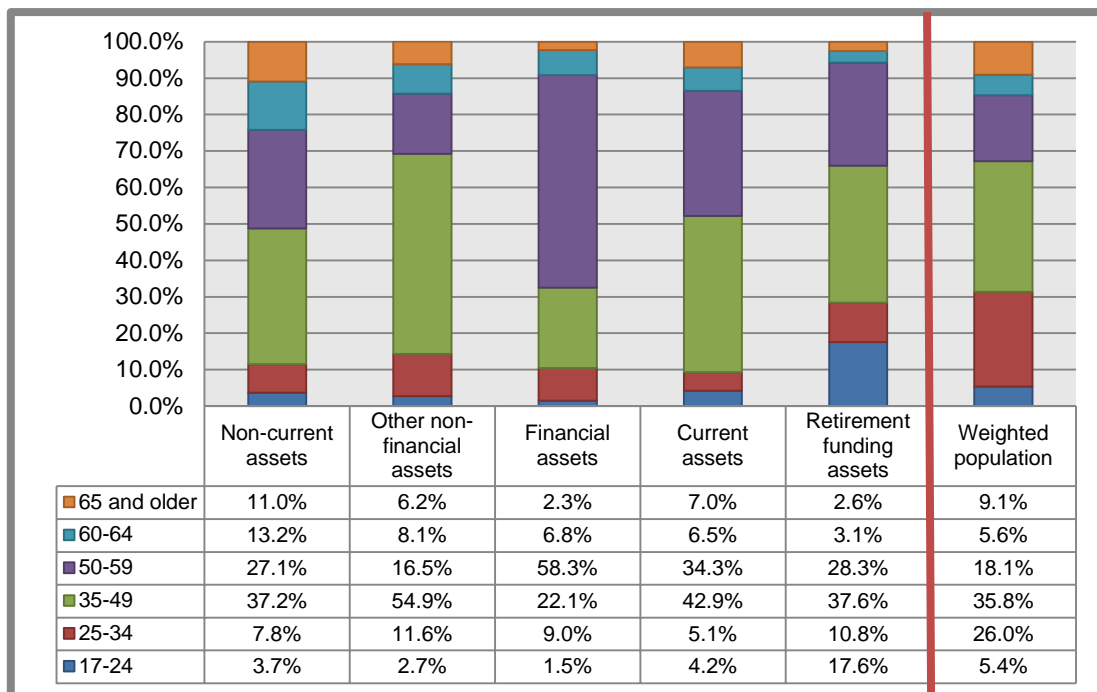
The majority (61.8%) of the weighted population were between the ages 25 and 49, with the 35 to 49 age group constituting the largest proportion (35.8%). The younger age group, 17 to 24, constituted 5.4% of the weighted population, while the pre-retirement age group, 50 to 59, constituted 18.1% and the 60 and older age groups constituted 14.7% of the weighted population.

7.8.1.2 Percentage holding in main asset classes by age groups in the weighted South African household population

Figure 7.13 indicates the asset-holding percentage by age groups for the five main asset classes as well as the age distribution of the weighted population.

Figure 7.13

Percentage holding by each age group in each of the five main asset classes

a) *Non-current assets*

Investment in property is often the greatest single investment made by households (Swart, 2002:182–183). In the current study, non-current assets consisted of residential property and other property assets (section 7.7.3.1). Figure 7.13 indicated the following: The 17 to 24 and 25 to 34 age groups represented 31.4% of the weighted population. However, they held only 11.5% of non-current assets. The 35 to 59 age groups held 64.3% of non-current assets and represented 53.9% of the weighted population. The 60 and older age groups held 24.2% of non-current assets and represented 14.7% of the weighted population. By acquiring property assets early in their working lives, the advantage of an increase in value over time enables most households to accumulate additional wealth to sustain them during retirement.

b) *Other non-financial assets*

In the current study, other non-financial assets included vehicles, household content, collectibles, business assets and trust assets (section 7.7.3.2). According to Figure 7.13, and similar to the holding of non-current assets, the 35 to 49 age group held more than half (54.9%) of other non-financial assets, followed by the 50 to 59

age group (16.5%), and the 17 to 34 age groups (14.3%). The two older age groups held 14.3% of other non-financial assets and represented 14.7% of the weighted population. According to Swart (2002:145–146), the position of 30 to 50 age group is referred to as “the family years” or “pre-retirement years”, where asset accumulation is a main priority. This is evident in Figure 7.13 because the highest investors in these types of assets were the 35 to 49 age group of the weighted population.

c) *Financial assets*

In the current study, financial assets were regarded as various insurance assets, offshore investments, unlisted investments, loan accounts, investment in retail savings bonds, employee share option schemes and investments in collective investment schemes (section 7.7.3.3). In contrast to the above two asset classes where the 35 to 49 age group held the most non-current and other non-financial assets, most of the financial assets (58.3%) were held by the 50 to 59 age group, which constituted 18.1% of the weighted population. A possible reason for the high investment could be that this age group is typically pre-retirement, their investments in property are close to being paid off or already paid off and they have the extra funds to invest in other types of assets, such as insurance, share investments and loan accounts. In total, 89.4% of financial assets were held by the 25 to 59 year age groups, and the 60 and older age groups held only 9.1% of financial assets.

d) *Current assets*

In the current study, current assets included debtors, “stokvel” assets, listed shares, fixed deposits, savings accounts, money market accounts, cheque accounts, “mzansi” accounts and cash at home (section 7.7.3.4). The 35 to 49 age group held the most current assets (42.9%) followed by the 50 to 59 age group holding 34.3%. The combined 35 to 59 age groups comprised 53.9% of the weighted population and they held the majority of current assets, namely 77.2%. According to Swart (2002), these age groups are typically the career and pre-retirement age groups who could also have extra funds available to invest in savings vehicles such as bank accounts, savings accounts, listed shares and informal investment vehicles such as “stokvels”. The two youngest age groups, which comprised 31.4% of the weighted population, held only 9.3%, whereas the two oldest age groups held 13.5% of these assets. The reason for the relatively low investment in these assets by the younger age groups

could be that they had only recently started to become economically active and thus qualified for limited access to saving products (Finmark Trust, 2010).

e) *Retirement funding assets*

The highest percentage of retirement funding assets (37.6%) was held by the 35 to 49 age group, which represented 35.8% of the weighted population. The 50 to 59 age group represented 18.1% of the weighted population and held 28.3% of retirement funding assets.

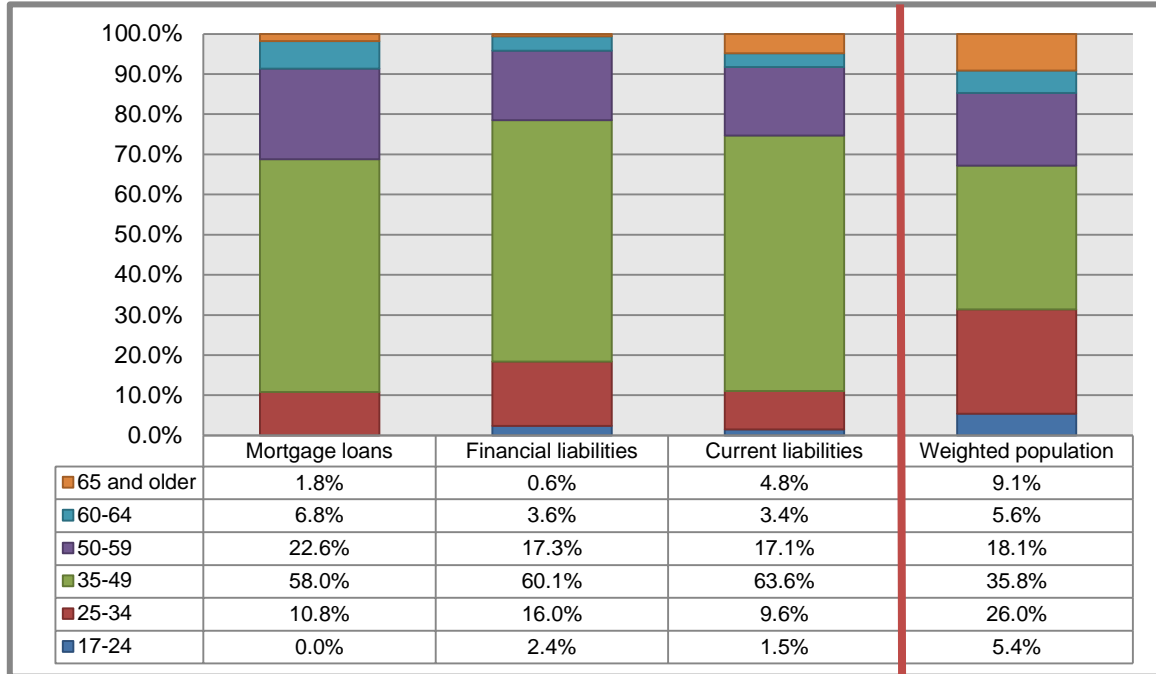
To summarise: In the current study, asset accumulation was in agreement with the life-cycle hypothesis. From the above discussion it is clear that asset accumulation increases as people age in preparation for retirement, with the 35 to 59 age groups having the most assets. During retirement, however, asset accumulation declines in order to fund excess expenditure associated with a diminished income throughout retirement.

7.8.1.3 *Percentage holding in main liability classes by age groups in the weighted South African household population*

Figure 7.14 indicates the liability-holding percentage by age groups for the three main liability classes as well as the age distribution of the weighted population.

Figure 7.14

Percentage holding by each age group in each of the three main liability classes



a) *Mortgage loans*

Mortgage loans consist of residential and other property borrowing (section 7.7.3.6). Similar to the non-current asset holding per age group (section 7.8.1.2.a), the overall picture of non-current liability holding supported the life-cycle hypothesis, where the most mortgage liabilities (91.4%) were held across the 25 to 59 age groups. The 35 to 49 age group held most (more than half [58%]) of the non-current liabilities or mortgage loans. This is in agreement with this stage in life when investment in non-current assets, such as residential and other property, is financed with mortgage bonds (Swart, 2002:221), which have to be repaid over the term of the bond, preferably before retirement. In the current study, the pre-retirement group (50 to 59 age group) held 22.6% of this liability class, which they would want to repay before retirement. The repayment of these liabilities before retirement was further evident in the 60 and older age groups who held only 8.6% of mortgages, even though they constituted 14.7% of the weighted population. What was also noticeable in the 17 to 24 age group was that, although they held only 3.7% of non-current assets (Figure 17.3), their mortgage holding was minimal (0% rounded), which could perhaps be

explained by inheritances received. However, this can only be confirmed by conducting further research on household financing decisions and availability.

b) Financial liabilities

In the current study, financial liabilities consisted of two sub-classes, namely asset finance (excluding mortgages) and loans (section 7.7.3.7). Across the age groups, most financial liabilities (93.4%) were owed by the 25 to 59 age groups in the weighted population. The 60 and older age group owed 4.2% of total financial liabilities, even though they constituted 14.7% of the weighted population. Similar to the investment in other non-financial assets (section 7.8.1.2.b) where the 35 to 49 age group held the most assets in that class (54.9%) (Figure 7.13), the 35 to 49 age group owed the most financial liabilities (60.1%), which one would expect since financing of these asset types (vehicles, content and cell phones) is often required. The 25 to 34 age group held 11.6% (Figure 7.13) of other non-financial assets and owed 16% of financial liabilities, while the 50 to 59 age group held 16.5% (Figure 7.13) and owed 17.3% of financial liabilities. Once again, this was expected because the pre-retirement group often attempt to reduce their liabilities because of their impending retirement.

c) Current liabilities

In the current study, current liabilities included a sub-class, namely household bills as well as bank overdrafts, credit, store and garage card facilities (section 7.7.3.8). The 35 to 49 age group in the weighted population owed the most current liabilities, namely 63.6%. In Figure 7.11, the high percentage of school fees payable by the weighted metropolitan population was indicated. This could be a contributory factor because one would expect this age group to have more school fee liabilities compared to the 25 to 34 age group who have just started a family (Swart, 2002:145). The 25 to 59 age groups, which constituted 79.9% of the weighted population, owed 90.3% of current liabilities. The 17 to 34 age groups who were at the beginning of their economically active life owed only 11.1%, while the 60 and older age groups owed 8.2% of current liabilities.

To summarise: Liability holding was also in agreement with the life-cycle hypothesis. From the above discussion it is clear that liability holding also increased as people

aged, which could be ascribed to higher income levels in this group. The 35 to 49 age group had the most liabilities. However, in anticipation of retirement, the liabilities were drastically reduced, which one would expect because of reduced income levels during the retirement years.

The next section discusses the income group demographic variable and its effect on asset and liability accumulation in the weighted South African household population.

7.8.2 Income

Income enables the household to afford consumption and to create net wealth by acquiring assets and incurring liabilities to fund the asset acquisition, if income alone is not sufficient. Income and its effect on net wealth accumulation were extensively argued in this study (sections 1.2 and 3.3). Income is associated not only with asset accumulation but also with the incurrence of debt to smooth consumption because these liabilities have to be serviced from available income.

Limitations of the data

The neural network analysis of the data resulted in the use of the expenditure variable as a proxy for the latent income variable (section 7.3.3). There were also a small number of responses in the higher-income groups (Figure 7.15).

Unisa's Bureau of Market Research conducts annual income and expenditure studies based on the latest Statistics South Africa Income and Expenditure Survey results, the Statistics South Africa Employment data and newly available All Media and Product Survey data (Masemola et al., 2011:15). The "Income and expenditure of households in South Africa, 2011" report (Masemola et al., 2011:17) classifies income groups into the following categories, which were also used for analysis purposes in this research:

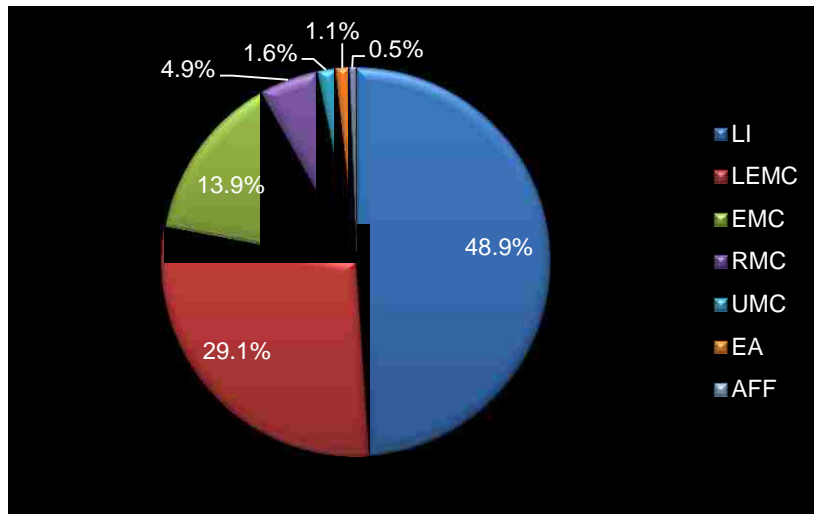
- low income (LI) (R1–R53 344 per annum);
- low emerging middle class (LEMC)(R53 345–R151 727 per annum);
- emerging middle class (EMC)(R151 728–R363 930 per annum);
- realised middle class (RMC)(R363 931–R631 120 per annum);
- upper middle class (UMC)(R631 121–R863 906 per annum);
- emerging affluent (EAF)(R863 907–R1 329 844 per annum); and

- affluent (AFF) (R1 329 845+ per annum).

7.8.2.1 *Income profile of the weighted South African household population*

Figure 7.15 indicates the seven income groups in the weighted population and the percentage of the weighted population in each income group.

Figure 7.15
Income distribution in the weighted population



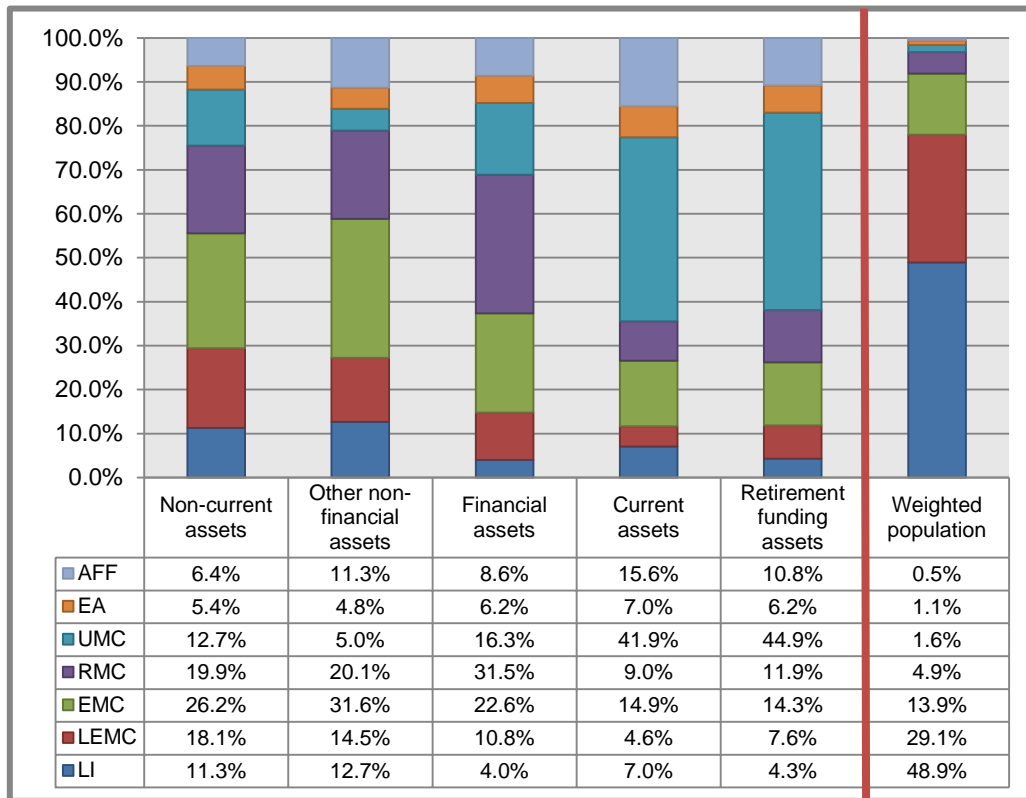
The significantly higher percentage inclusion of lower-income groups (low income (LI), low emerging middle class (LEMC), emerging middle class (EMC) and realised middle class (RMC) and only a few higher-income groups (upper middle class (UMC), emerging affluent (EA) and affluent (AFF)) in the weighted population is clear in Figure 7.15. The low income (LI), low emerging middle class (LEMC), the emerging middle class (EMC) and the realised middle class (RMC) comprised 96.8% of the weighted population, whereas the weighted population only included 3.2% of the higher-income groups. Only 0.5% of the weighted population consisted of affluent households. The effects of household income on asset accumulation (and the incurrence of liabilities) were indicated and discussed in sections 1.2 and 3.3.2. These patterns will be further illustrated in the graphs below.

7.8.2.2 Percentage holding in main asset classes by income groups in the weighted South African household population

Figure 7.16 indicates the asset holding percentage by income group for the five main asset classes as well as the income distribution of the weighted population.

Figure 7.16

Percentage holding by each income group in each of the five main asset classes



a) Non-current assets

The low income group (LI) represented 48.9% of the weighted population and held only 11.3% of non-current assets. The affluent group (AFF) represented 0.5% of the weighted population and held 6.4% of non-current assets.

The lower emerging middle class (LEMC) and emerging middle class (EMC) held 44.3% of non-current assets and constituted 43% of the weighted population. The realised middle class (RMC), the upper middle class (UMC) and the emerging affluent (EA) constituted 7.6% of the weighted population and held 38% of non-current assets. It is noteworthy that the emerging middle class (EMC) held the most

non-current assets (26.2%) in the weighted population although they only constituted 13.9% of the weighted population. Most non-current assets were held by the higher-income groups. This was expected because these groups have easier access to finance to acquire assets such as residential and other properties (Finmark Trust, 2010).

b) Other non-financial assets

The holding of other non-financial assets follows a similar distribution pattern as non-current assets across the weighted population with the emerging middle class (EMC) holding the most other non-financial assets (31.6%), followed by the realised middle class (RMC) (20.1%). The affluent group (AFF) held 11.3% of other non-financial assets and, as one would expect, this was high because they had more income available to acquire these assets as well as easier access to finance should they wish to obtain these assets through leverage (Swart, 2002:267). The three highest-income groups constituted only 3.2% (Figure 7.15) of the weighted population, but held 21.1% of other non-financial assets. The two lowest-income groups, which constituted 78% (Figure 7.15) of the weighted population, held only 27.2% of other non-financial assets. This was an indication that the lowest-income groups did not have the luxury of extra income to obtain these assets and possibly found access to finance more difficult than the higher-income groups.

c) Financial assets

The shift in the income group that held the highest percentage of these assets is clear in Figure 7.16. The realised middle class (RMC) held the most financial assets (31.5%), followed by the emerging middle class (EMC) holding 22.6%. These two income classes represented 4.9% and 13.9% (Figure 7.15) of the weighted population respectively. The three lowest income groups held 37.4% of financial assets and constituted 91.9% (Figure 7.15) of the weighted population, whereas the four higher income groups constituted 8.1% (Figure 7.15) of the weighted population, but held 62.6% of financial assets. Financial asset acquisition by the higher-income groups was prevalent and could be explained by these groups being the target of the marketing campaigns of insurance companies and similar investment opportunities (Finmark Trust, 2010).

d) *Current assets*

In the weighted population, a shift in the income group with the highest percentage current asset holding was again present. The upper middle class (UMC) income group held the highest percentage of current assets, namely 41.9%, and constituted only 1.6% (Figure 7.15) of the weighted population. Most current assets (73.5%) were held by the four higher-income groups with the affluent income group (AFF) holding 15.6%, the next highest percentage after the upper middle class (UMC). Figures 7.15 and 7.16 also indicate that, although the three lower income groups constituted 91.9% of the weighted population, they had a tiny percentage holding in current assets, namely 26.5%. A similar pattern was evident for financial assets. The four higher income groups constituting 8.1% (Figure 7.15) of the weighted population held 73.5% of the current assets. Once again, this could be explained by higher-income groups who had the money available to invest and who made use of formal banking opportunities. These income groups are typically also more often the target group for marketing these services (Finmark Trust, 2010). It is also evident that only the relatively poor used informal investments such as “stokvels”.

e) *Retirement funding assets*

Retirement funding assets in the weighted population followed a pattern similar to financial and current assets. The three higher income groups that constituted 3.2% (Figure 7.15) of the weighted population held 61.9% of retirement funding assets, with the upper middle class (UMC) holding the most (44.9%). The three lowest income groups, which constituted 91.9% (Figure 7.15) of the weighted population, held only 26.2% of retirement funding assets.

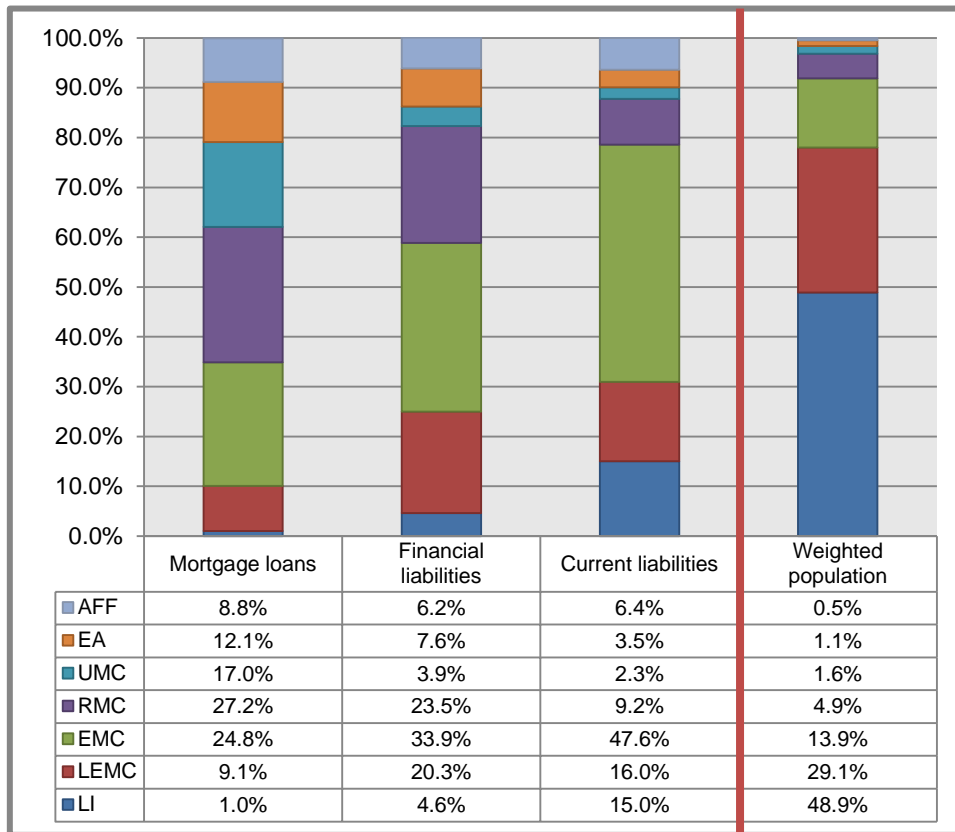
To summarise: It is clear from the above discussion that most assets were held by the five higher income groups. This is explained by Keynes' theory (1936 in Bryant & Zick, 2006) on income and consumption, which states that households can save and/or acquire assets when their income levels are above their consumption levels. The permanent income hypothesis (Bryant & Zick, 2006) adds to this understanding, and postulates that households smooth out their income over their expected life-cycle and accumulate assets with a view to retirement.

7.8.2.3 *Percentage holding in main liability classes by income groups in the weighted South African household population*

Figure 7.17 indicates the liability-holding percentage by income groups in the three main liability classes as well as the income distribution of the weighted population.

Figure 7.17

Percentage holding by each income group in each of the three main liability classes



a) *Mortgage loans*

The realised middle class (RMC) had the highest mortgage debt (27.2%) and constituted 4.9% of the weighted population, followed by the emerging middle class (EMC) who constituted 13.9% of the weighted population and owed 24.8% of mortgage debt. These two income groups constituted 18.8% of the weighted population, but owed 52% of mortgage loans. The three low income groups that constituted 91.9% of the weighted population only owed 34.9% of mortgage debt and this could be proof of more stringent borrowing requirements affecting their access to

formal finance. It is evident from Figure 7.17 that formally secured loans (mortgages) were more easily available to households with higher incomes.

b) Financial liabilities

In contrast to mortgage loans, the emerging middle class, which constituted 13.9% of the weighted population, had the most financial liabilities (33.9%), followed by the realised middle class (RMC) owing 23.5% of financial liabilities. It would appear from this observation that in the case of financial liabilities, access to this form of credit by lower-income groups in the weighted population was possibly easier than access to formal mortgage debt. This enabled households in the lower-income groups in the weighted population to equalise their income by obtaining credit. Even the two lowest income groups (constituting 78% of the weighted population) managed to accumulate 24.9% in financial liabilities compared to a 10.1% accumulation in mortgage debt.

c) Current liabilities

Across all income groups, except for the emerging middle class (EMC) income group, the percentage of current liabilities held was similar. The three lower income groups in the weighted population had the most current liabilities (78.6%), which is to be expected because current liabilities are probably the financing option most easily accessible to the lower-income market. The high percentage of current liabilities held by the emerging middle class in the weighted population (47.6%) was expected and was similar to financial liability holding, where access to this credit type by low-income households was possibly more readily available than access to formal mortgages.

To summarise: It was observed that the five higher-income groups held the most liabilities in the weighted population. This could be explained by the permanent income hypothesis (Bryant & Zick, 2006) whereby equalisation of income enables households (especially higher-income households) to borrow against future income to acquire assets and/or to save. Should these households be in the asset acquisition stage, their income would make access to finance, such as mortgage bonds and other formal finance options, easier.

The next section deals with the education group demographic variable and its effect on asset and liability accumulation in the weighted South African household population.

7.8.3 Education

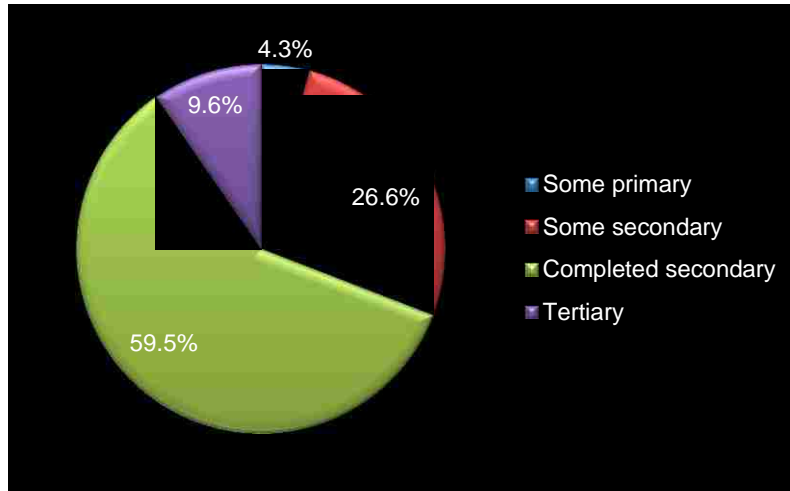
As indicated in section 3.3.2, the accumulation of assets and liabilities by households is directly influenced by the income generated by households as well as their consumption patterns. Education is one of the demographic variables identified in international research that directly influences income, together with being employed or unemployed. Education is a predictor of potential life-time income (Carasso & McKerman, 2007:7). It is also associated with higher income in the long run, and classifying households according to education status is one of the best proxies for long-term economic status (Carasso & McKerman, 2007:8). According to a study by the Personal Finance Research Unit (PFRU, 2011:15–16), the level of education of household members (using the individual in the household with the highest qualification as reference) has a pronounced effect on financial well-being, and for this reason, it is worthwhile to explore the effect of education on asset and liability accumulation. This study used a similar classification for education to that used in the “Momentum/Unisa South African Household Financial Wellness Index Results: 2011” report (PFRU & BMR, 2011:9). The level of education is classified as follows (based on the highest education level of all household members):

- some primary education;
- some secondary education;
- completed secondary education; and
- tertiary education.

7.8.3.1 *Education profile of the weighted South African household population*

Figure 7.18 indicates the four education groups in the weighted population and the percentage of the weighted population in each education group.

Figure 7.18
Education distribution of the weighted population

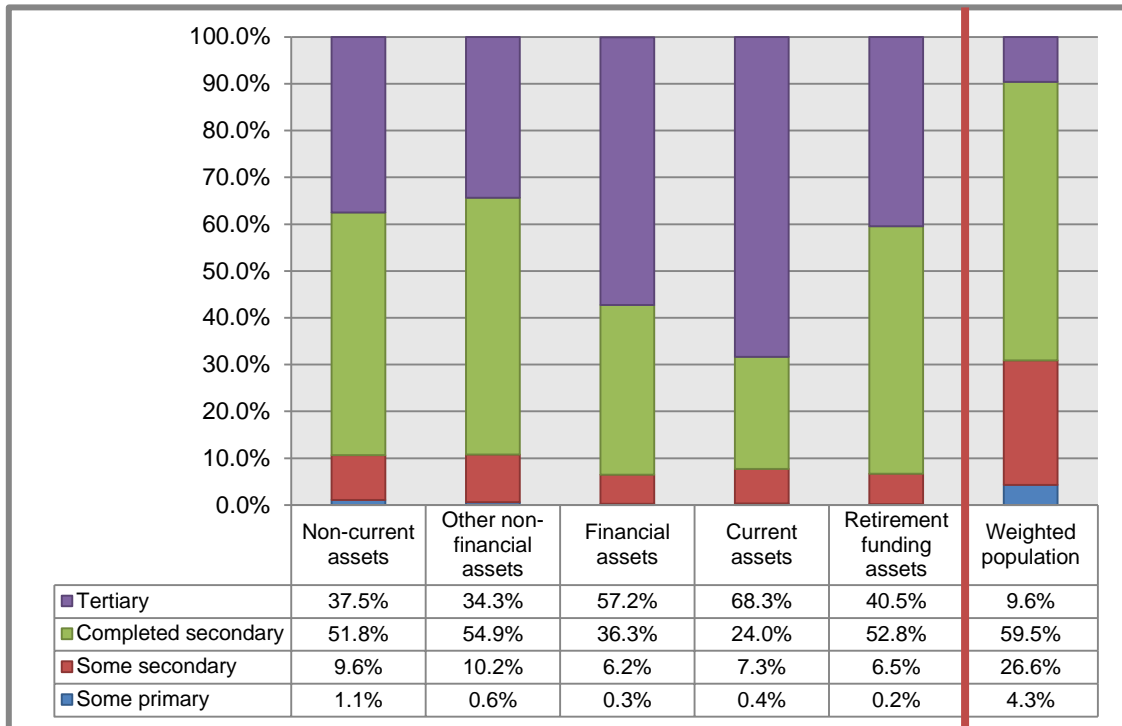


According to Figure 7.18, 86.1% of the weighted population had some secondary or completed secondary education, whereas only 9.6% had a tertiary education. As mentioned previously, the expectation was that education affects individuals' earning power, their ability to acquire assets and to make use of financing opportunities to equalise income. This expectation is discussed further in the next section.

7.8.3.2 The percentage holding in main asset classes by education groups in the weighted South African household population

Figure 7.19 indicates the asset-holding percentage by education groups in the five main asset classes as well as the education distribution of the weighted population.

Figure 7.19
Percentage holding by each education group in each of the five main asset classes



a) *Non-current assets*

Figure 7.19 clearly shows what was expected, namely that the most non-current assets were held by the more highly educated groups, namely those with completed secondary education (51.8%) and those with tertiary education (37.5%). Those with completed secondary and tertiary education constituted 69.1% of the weighted population and owned 89.3% of non-current assets, while those with some primary and some secondary education held only 10.7% of non-current assets and constituted 30.9% of the weighted population.

b) *Other non-financial assets*

The groups with completed secondary and tertiary education represented 69.1% of the weighted population, and these groups, like their non-current asset holding, held 89.2% of other non-financial assets. One would expect this because higher education levels increase employment possibilities (Swart, 2002:58–60), which in turn lead to an increase in income levels and afford access to financing opportunities to acquire non-financial assets. The two groups with the lowest education constituted

30.9% of the weighted population and held only 10.8% of other non-financial assets. This could be an indication of their inability to access credit to fund these non-financial assets as a result of insufficient income to service their debts. This is so despite the tabling of the National Credit Act 34 of 2005 (Republic of South Africa, 2005), one of whose objectives is the promotion of responsible credit granting to those members of the previously disadvantaged population who could not access formal credit in the past, and to ensure the prohibition of reckless credit granting.

c) *Financial assets*

Similar to the pattern evident thus far, households with completed secondary and tertiary education had the highest percentage of financial assets (93.5%). However, contrary to the pattern evident thus far, where the group with completed secondary education held the most non-current assets and the most other non-financial assets, the group with tertiary education held the most financial assets (57.2%). Although the groups with some primary and some secondary education constituted 30.9% of the weighted population, they held only 6.5% of financial assets. It is clear from this observation that education could play a role in the decision relating to which assets to invest in, although one would expect the groups with low education to also earn smaller incomes and that this would negatively affect their investment in financial asset types. Furthermore, it is also possible that, because of financial illiteracy, the less educated were not aware of the availability of these investment vehicles.

d) *Current assets*

Similar to the financial assets indicated in Figure 7.19, the two groups with the highest education also had the highest percentage holding in current assets (92.3%), while the group with tertiary education held the largest percentage (68.3%), that is, more than double that of the group reporting completed secondary education, who held 24% of current assets. Again, the high percentage holding could be due to better financial literacy, knowledge of the available products and direct targeting of the better educated market by banks and institutions. Similar to financial asset holding, households in the weighted population, where the highest educational qualification was “some primary education”, reported hardly any current assets (0.4%).

e) *Retirement funding assets*

Similar to the non-current and other non-financial assets indicated in Figure 7.19, the highest percentage of retirement funding assets was held by the group with completed secondary education (52.8%), followed by the group with tertiary education (40.5%). These two groups constituted 69.1% of the weighted population. It is clear that education ensures employment and income, which in turn grant access to pension plans, defined benefit plans, defined contribution plans and insurance products such as retirement annuity funds. Retirement asset holding in the group with the lowest education was noticeably limited at 0.2%.

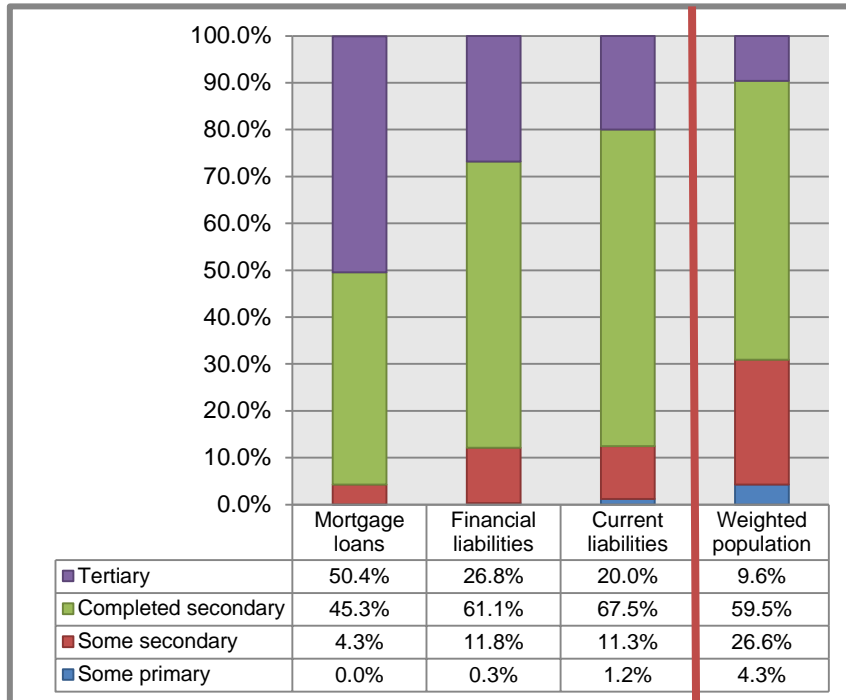
To summarise: The groups with the highest education held the most assets and this contributed to the general understanding that the level of education is associated with increased levels of net wealth.

7.8.3.3 *Percentage holding in main liability classes by education groups in the weighted South African household population*

Figure 7.20 indicates the liability-holding percentage by education groups in the three main liability classes as well as the education distribution of the weighted population.

Figure 7.20

Percentage holding by each education group in each of the three main liability classes



a) *Mortgage loans*

Similar to non-current asset holding (Figure 7.19), the two groups with the highest education, which constituted 69.1% of the weighted population, held almost all mortgage debt (95.7%). However, in contrast to non-current asset holding where the group reporting completed secondary education held the most non-current assets, the group with tertiary education had the most mortgage debt (50.4%). They only represented 9.6% of the weighted population, compared to the mortgage debt owed by the group with completed secondary education (45.3%), which represented 59.5% of the weighted population. Figure 7.20 clearly shows that formal lending facilities, like mortgages, are often only available to those groups with higher education who are also earning higher incomes. A case in point is the markedly low percentage of mortgages held by the groups with some primary and some secondary education (4.3%), although they constituted 30.9% of the weighted population.

b) *Financial liabilities*

Regarding access to borrowing, Figure 7.20 shows a different picture to that discussed for mortgage loans. The highest percentage of financial liabilities (61.1%) was owed by the group with completed secondary education. This could be an indication that easier access to credit was obtained by using financial liabilities, despite the fact that the income of the group reporting completed secondary was probably lower than the income of the group with tertiary education. The two low-income groups owed 12.1% of financial liabilities, indicating easier access to this form of credit than to mortgage loans (4.3%).

c) *Current liabilities*

The group with completed secondary education had the highest percentage of current liabilities (67.5%), followed by the group with tertiary education (20%). The two groups with low education levels owed 12.5% of current liabilities and constituted 30.9% of the weighted population. Figure 7.20 shows that the groups with low education had easier access to short-term financing options such as loans, finance agreements, bank overdrafts, creditors, store cards and various household bills. However, they had only limited access to longer-term financing options, such as mortgage loans, where asset back-up is required and interest rates are often more competitive and negotiable.

To summarise: The groups with the highest education held the most liabilities and contributed to the general understanding that better education often leads to higher income levels, which are associated with easier access to credit.

The final section discusses the labour status demographic variable and its effect on asset and liability accumulation in the weighted South African household population.

7.8.4 Employment status

Employment, like higher education levels, has a direct effect on income (De Clercq et al., 2012:39). Employment can either mean being self-employed or being in an employer–employee relationship. Employment as a classifier is important because it is closely associated with income generation. Although income can also stem from social grants, which are not associated with employment, it is meaningful to describe

how employment *per se* affects asset and liability accumulation. In this study, the following categories were used, which are similar to those used in the study for Momentum (PFRU, 2011:26):

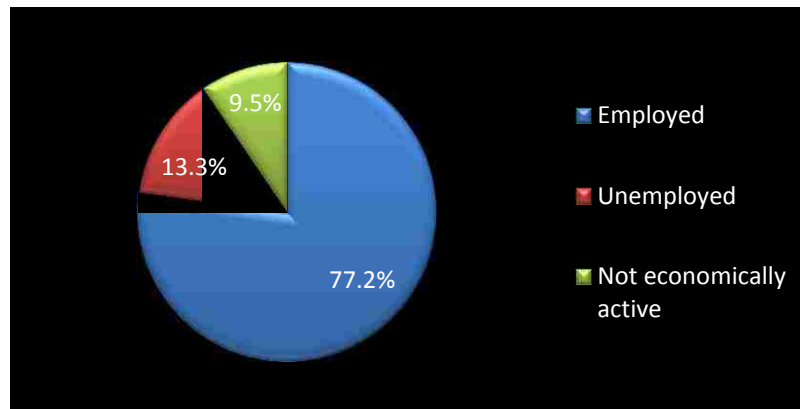
- employed;
- unemployed; and
- not economically active.

7.8.4.1 Labour status profile of the weighted South African household population

Figure 7.21 depicts the three labour status groups in the weighted population and the percentage of the weighted population in each labour status group.

Figure 7.21

Labour status distribution of the weighted population



The distribution across labour status in the weighted population indicated that the majority of the weighted household population (77.2%) was employed, 13.3% was unemployed and 9.5% was economically inactive.

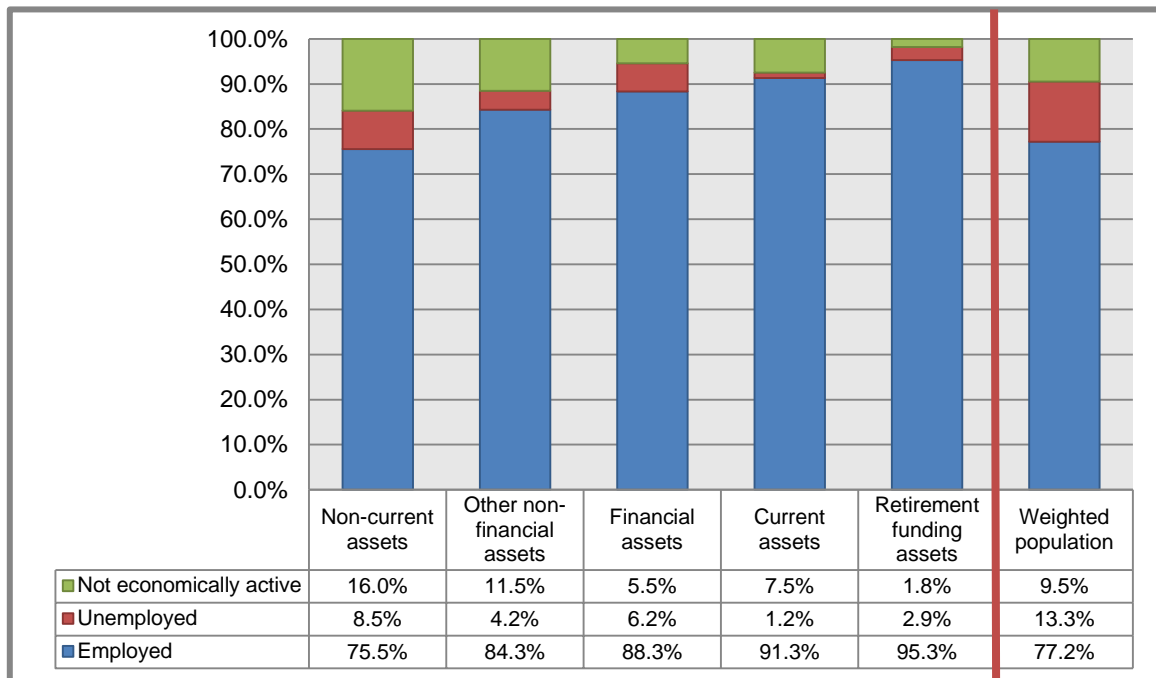
In this section, the effect of labour status on asset and liability accumulation is examined, since the expectation was that households with members in employment had an income and therefore more assets and liabilities than those households whose members were unemployed and/or economically inactive.

7.8.4.2 *The percentage holding in main asset classes by labour status groups in the weighted South African household population*

Figure 7.22 indicates the asset-holding percentage by labour status groups in the five main asset classes as well as the labour status distribution of the weighted population.

Figure 7.22

Percentage holding by each labour status group in each of the five main asset classes



a) *Non-current assets*

As expected, the employed group constituting 77.2% of the weighted population had the highest percentage of non-current assets (75.5%). The economically inactive group, which held 16% of non-current assets, included the retired members of the weighted population who had acquired residential and other property during their lifetime. The unemployed group held only 8.5% of non-current assets and constituted 13.3% of the weighted population. It is possible that most of the property assets belonging to the unemployed represented reconstruction and development programme (RDP) houses built by the government. This can only be confirmed with additional research on this matter.

b) *Other non-financial assets*

Similar to non-current asset holding, the employed group held the most other non-financial assets (84.3%), whereas the unemployed group held only 4.2% of other non-financial assets. The economically inactive group's holding of 11.5% of other non-financial assets was possibly because of the inclusion of the retired group in the weighted population who accumulated, vehicles, content and other non-financial assets before becoming economically inactive.

c) *Financial assets*

Not surprisingly, the employed group held the most financial assets (88.3%). It was noteworthy however, that the unemployed group (6.2%) held slightly more financial assets than the economically inactive group (5.5%), whereas the latter group had more non-current and other non-financial assets than the unemployed group. Financial assets included various insurance products, such as education and funeral policies, burial society policies, unlisted shares, loan accounts and long-term investment vehicles such as retail savings bonds and investments in collective investment schemes. Although employment seemed to be a prerequisite for acquiring these assets, funeral policies and burial society policies are relatively inexpensive products that the unemployed could possibly afford and use.

d) *Current assets*

The distribution pattern was again as expected, with the employed group holding the highest percentage of current assets (91.3%) among the weighted population. Few current assets were held by the economically inactive (7.5%) and the unemployed (1.2%). It is obvious from the observations, that current assets, such as bank accounts, as well as savings and investment accounts, are closely linked to employment. These asset types incur charges, which must be serviced from available income and could also be the reason why the employed and the economically inactive groups held more current assets than the unemployed group.

e) *Retirement funding assets*

The employed group (95.3%) held the highest percentage of retirement funding assets. Of interest was the fact that the unemployed group (2.9%) held more

retirement funding assets than the economically inactive group (1.8%). The latter observation could be explained by recent unemployment (retirement funding assets had been accumulated before unemployment) as well as by social grants paid by government.

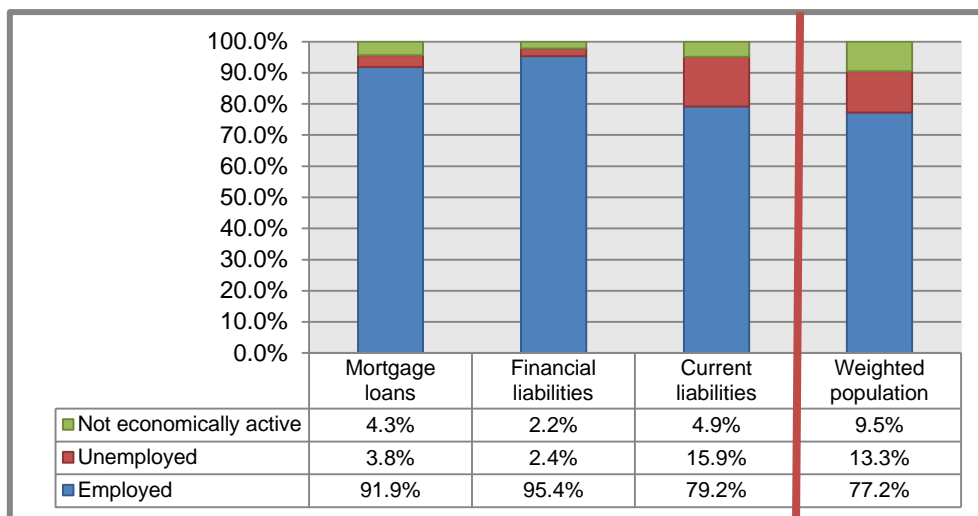
To summarise: As expected, the employed held the most assets. Employment is associated with income which improves the chances of net wealth accumulation.

7.8.4.3 *Percentage holding in main liability classes by labour status groups in the weighted South African household population*

Figure 7.23 indicates the liability-holding percentage by labour status groups in the three main liability classes as well as the labour status distribution of the weighted population.

Figure 7.23

Percentage holding by each labour status group in each of the three main liability classes



a) *Mortgage loans*

As expected, the employed group (91.9%) held the highest percentage of mortgage loans, which supported the general assumption that employment is a prerequisite for obtaining credit from the formal banking sector. The economically inactive and the unemployed, constituting 22.8% of the weighted population, owed only 8.1% of the total mortgage debt. Although mortgages are granted on the basis of employment as well as property values and other factors such as creditworthiness (Swart, 2002),

Figure 7.23 indicates the importance of employment. The economically inactive probably reduced their mortgage liabilities over their economic life-cycle in anticipation of retirement.

b) Financial liabilities

In the current study, financial liabilities consisted of formal borrowing in the form of finance and loans granted by financial institutions as well as informal borrowing in the form of loans granted by family and friends. The employed group (95.4%) held the most financial liabilities, followed by the unemployed (2.4%) and the economically inactive group, which owed 2.2% of financial liabilities.

c) Current liabilities

Figure 7.23 clearly indicates the accessibility of credit to the unemployed and economically inactive. The unemployed owed 15.9% of current liabilities and the economically inactive, 4.9%. This could be deduced from the observation that these two groups gain access to credit by making use of informal credit options, which often cost more than formal credit options and are often only granted for short periods.

To summarise: As expected, the employed also held the most liabilities, and once again, the need to have a stable income when granting longer-term financing was apparent.

7.8.5 Summary

Section 7.8 described the asset and liability accumulation across the weighted population by using four demographic variables, namely age, income, education and labour status. In the current study, it was found that age and income affected asset and liability accumulation. As explained in section 7.8.3, education and age were linked because one would expect an increase in education with an increase in age, although an increase in age did not necessarily result in higher education. Similarly, education and income were interrelated because one would expect income levels to increase with higher education, even though higher education did not necessarily result in better income. Employment (presented by labour status) was seen as a

necessary prerequisite for income to be available in order to affect asset and liability accumulation positively.

In the final section of this chapter multivariate analysis of variance (MANOVA) is used to explore the contribution by the five identified independent variables (age, income, education, labour status and area) and/or all possible interaction effects between them, in explaining the variance in the main asset and liability classes (independent variables). The results are then used to identify the main effects and interaction effects that impacted on the accumulation of assets and liabilities in the weighted population.

7.9 INFERENCE DATA ANALYSIS – MANOVA APPLICATION AND RESULTS

MANOVA was used to explore the contribution of the identified independent variables of age, education, labour status, income level and area of residence (metropolitan/non-metropolitan) as well as the interaction effects of these in explaining the variance in:

- the five asset classes (non-current assets, other non-financial assets, retirement funding assets, financial assets and current assets); and
- the three liability classes (mortgage loans, financial liabilities and current liabilities).

In section 7.9.1, the applicable MANOVA theory is explained. The use of MANOVA analysis requires satisfying certain assumptions, and in section 7.9.2, the assumptions are described as well as the way the MANOVA assumptions were tested. In section 7.9.3, the MANOVA results relating to the asset variables are discussed, and in 7.9.4, the MANOVA results relating to the liability variables.

7.9.1 Applicable MANOVA theory

MANOVA tests for the difference in two or more vectors of means (Stevens, 2009:178). It tests the difference between groups across several dependent variables simultaneously, whereas analysis of variance (ANOVA) can detect whether groups differ along a single dependent variable only (Field, 2005:572,606). The multivariate tests (Pillai's trace, Wilks' lambda, Hotelling's trace and Roy's largest

root) all tested the MANOVA null hypothesis, namely that the mean of the composite variable is the same across groups. The tests determined the equality of a composite of the means (optimised to yield the maximum possible F ratio) across groups (Stevens, 2009:177–179).

Wilks' lambda (λ) is the pooled ratio of error variance to effect variance plus error variance (Field, 2005:591; Tabachnick & Fidell, 2007:269). Wilks' lambda (λ) is a direct measure of the proportion of variance in the combination of dependent variables that is unaccounted for by the independent variable (the grouping variable or factor). If a large proportion of the variance is accounted for by the independent variable, then it suggests that there was an effect from the grouping variable and that the groups have different mean values. This provided an exact F statistic. According to Stevens (2009:180), Wilks' lambda (λ) is an inverse criterion: the smaller the value, the more evidence there is of treatment effects (between group associations). Hotelling's trace is the pooled ratio of effect variance to error variance (Tabachnick & Fidell, 2007:269). The Pillai-Bartlett criterion (Pillai's trace) is the pooled effect variances (Tabachnick & Fidell, 2007:269) and is deemed the most robust (Tabachnick & Fidell, 2007:269) and powerful test statistic because it provides the most conservative F statistic. Roy's largest root is the largest eigenvalue and gives an upper bound of the F statistic (Field, 2005:590–594; Stevens, 2009:207).

After obtaining a statistically significant result for a specific main effect or interaction, the univariate F test for each variable was examined in order to interpret the respective effect (Stevens, 2009:152–154). This enabled the researcher to identify the specific dependent demographic variables that contributed to the significant overall effect. One degree of freedom is lost for each dependent variable that is added (Field, 2005:321). The gain in power obtained from a decreased sum of squares (SS) error may be offset by the loss in these degrees of freedom. Furthermore, the dependent variables should be largely uncorrelated. If the dependent variables are highly correlated, there is almost no advantage in including more than one in the test, given the resultant loss in degrees of freedom (Field, 2005).

Because this study covered the total weighted population, it was critical to measure the size of the effects of each of the demographic variables. Partial eta-squared

statistics were calculated. Partial eta-squared can be defined as the ratio of variance accounted for by an effect and that effect plus its associated error variance in the MANOVA model (Brown, 2008:40; Tabachnick & Fidell, 2007:55). Partial eta-squared or $\eta_{partial}^2$ is defined as follows:

$$\eta_{partial}^2 = \frac{SS_{effect}}{SS_{effect} + SS_{error}}$$

where:

SS_{effect} = the sums of squares for the effect of interest

SS_{error} = the sums of squares for the error term associated with that effect

Critical to the validity of the results, was testing the assumptions for the MANOVA analysis to be performed. The required assumptions and the testing of the data are discussed in the next section.

7.9.2 Applicable MANOVA assumptions and compliance

MANOVA requires testing the following assumptions:

7.9.2.1 Normal distribution assumption

The dependent variables are multivariate normally distributed for each population, with the different populations being defined by the levels of the factor. This is commonly referred to as the assumption of multivariate normality (Field, 2005:592; Stevens, 2009:222; Tabachnick & Fidell, 2007:78–79). This assumption is rarely met. If population distributions are not multivariate normal and sample sizes are small, the p values may be invalid. Overall, the F test is robust to non-normality if the non-normality is caused by skewness instead of outliers (Stevens, 2009:236).

Testing

The weighted population comprised 13 868 983 (13.87 million) households. The dependent variables were all non-normal, but given the large population and the fact that the test was robust to violations of the multivariate normal distribution assumption if cells sizes were large ($n > 20$), it provided enough evidence to use the

dependent variables without transforming the data (descriptive statistics in Appendix E).

7.9.2.2 Homogeneity of variances assumption

Homogeneity of variances assumes that the dependent variables exhibit equal levels of variance across the range of predictor variables (Field, 2005:592; Stevens, 2009:227). The error variance (SS error) was computed by adding the sums of squares in each group. If the variances in the two groups were different from each other, then adding the two together was not appropriate, and it would not yield an estimate of the common within-group variance. Homoscedasticity can be examined graphically or by means of a number of statistical tests. In multivariate designs, with multiple dependent measures, the homogeneity of variances assumption described earlier also applies. However, since there were multiple dependent variables, it was also necessary for their inter-correlations (covariances) to be homogeneous across the cells of the design.

SPSS tested the assumption of homogeneity of the variance–covariance matrices with Box’s *M* statistic (Field, 2005:593,606). The *F* test from Box’s *M* statistics should be interpreted cautiously because a significant result may be due to violation of the multivariate normality assumption for the Box’s *M* test, and a non-significant result may be due to a lack of power (Stevens, 2009:230–236). It is advisable to use $p < .001$ as the criterion for testing significance (Field, 2005:599,606).

Testing

Box’s *M* tests were statistically significant ($p < 0.001$) in all the multivariate analyses of variance conducted, implying that the assumption had not been met. It is known, in terms of unequal sample sizes and disparities among the variance–covariance matrixes in different groups, that if larger samples have larger variances and covariances, the *p* values are likely to be too large, and if the smaller samples have larger variances and covariances, the *p* values are likely to be too small. For the set of asset and liability variables, both situations occurred. However, because all the independent variables as well as all their interaction effects were highly significant ($p = 0.000$) for all test statistics owing to the large population used, and because only the effect sizes were studied in conjunction with Wilks’ lambda to determine

explorative key effects on the set of asset and liability variables, the violation could be deemed to have had no significant impact on the result.

7.9.2.3 Unequal sample sizes assumption

Similar to analysis of variance (ANOVA), when cells in a factorial MANOVA have different sample sizes, the sum of squares for effect plus error does not equal the total sum of squares (Stevens, 2009:227–229). This results in tests of main effects and interactions being correlated.

Testing

Using the appropriate type of sum of squares, SPSS V20 was used to make an adjustment for unequal sample sizes in the MANOVA.

7.9.2.4 Outlier assumption

MANOVA is extremely sensitive to outliers (Stevens, 2009:10). Outliers may produce either a Type I or Type II error (Tabachnick & Fidell, 2007:72–78), and no indication is provided of which type of error is occurring in the analysis as a result of the outliers.

Testing

The non-normal and skewed nature of the asset and liability variables required a visual inspection by means of a box plot (Appendix E) of the data to identify possible outliers.

Each of the identified cases from the box plots was analysed in context with:

- (1) all related asset/liability variables; and
- (2) the identified independent variables (income, education, age and labour status) to determine whether or not the identified case was probable and whether it could indeed be regarded as an outlier.

On this basis, four cases were viewed as outliers and were excluded in the MANOVA.

7.9.2.5 Multi-collinearity assumption

Multi-collinearity exists when there is high correlation between dependent variables, which implies that one dependent variable is a near-linear combination of the other dependent variables (Stevens, 2009:236–237; Tabachnick & Fidell, 2007:88). In such circumstances, the dependent variables that are a near-linear combination of the other dependent variables would become statistically redundant and it would be suspect to include both combinations.

Testing

Table 7.8
Correlation matrix of asset variables

| Correlations | | | | | | |
|----------------------------|---------------------|--------------------|----------------------------|------------------|----------------|---------------------------|
| | | Non-current assets | Other non-financial assets | Financial assets | Current assets | Retirement funding assets |
| Non-current assets | Pearson correlation | 1 | .487** | .195** | .502** | .382** |
| Other non-financial assets | Pearson correlation | .487** | 1 | .044** | .340** | .240** |
| Financial assets | Pearson correlation | .195** | .044** | 1 | .094** | .225** |
| Current assets | Pearson correlation | .502** | .340** | .094** | 1 | .189** |
| Retirement funding assets | Pearson correlation | .382** | .240** | .225** | .189** | 1 |

** . Correlation is significant at the 0.01 level (2-tailed).

Table 7.9
Correlation matrix of liability variables

| Correlations | | | | |
|-----------------------|---------------------|----------------|-----------------------|---------------------|
| | | Mortgage loans | Financial liabilities | Current liabilities |
| Mortgage loans | Pearson correlation | 1 | .326** | .120** |
| Financial liabilities | Pearson correlation | .326** | 1 | .088** |
| Current liabilities | Pearson correlation | .120** | .088** | 1 |

** . Correlation is significant at the 0.01 level (2-tailed).

The correlation matrix (Tables 7.8 and 7.9) shows that no multi-collinearity existed because all correlation values ranged between 0.044 and 0.502 for the set of asset variables, and between 0.088 and 0.326 for the set of liability variables.

7.9.2.6 *Independence*

According to Field (2005:592), observations should be statistically independent and data should be sampled randomly from the population and at least be interval scaled. In this study, the respondent households were randomly sampled, and the score on a variable for any one household as independent of the scores of this variable for all other households. In other words, each household's scores were independent of every other household's scores. MANOVA should not be conducted if the independence assumption is violated (Stevens, 2009:234).

Overall, MANOVA is robust to violations of multivariate normality and to violations of homogeneity of variance-covariance matrices if groups are nearly equal in size (N of the largest group is no more than 1.5 times the N of the smallest group) (Stevens, 2009:227).

Testing

The assumption of independence was met as discussed in section 6.2.3.3.a, where it was indicated that the data was randomly selected from the population. The households were randomly sampled and any household's scores were independent of every other household's scores.

7.9.3 Results – dependent variables: assets

The contribution of the identified independent variables, age, education, labour status, area of residence and income group, as well as their possible interactions in explaining the variance in the five dependent asset variables (non-current assets, other non-financial assets, retirement funding, financial assets and current assets) were explored utilising the MANOVA procedure in SPSS V20.

The null hypothesis tested was: $H_0 = \mu_1 = \mu_2 = \mu_3 = \dots = \mu_k$ where k indicates the number of independent variables tested. Population mean vectors were equal (Stevens, 2009:178).

An iterative process was followed starting with the full factorial model for:

- a) The four independent variables, excluding the area variable (metropolitan/non-metropolitan). The decision for testing the model without the area variable is based on the opinion of Bollen et al. (2007), who suggest that area (metropolitan and non-metropolitan) can be a proxy for a number of demographic variables such as income, education and labour status. The results are discussed in section 7.9.3.1.
- b) All five independent variables, including the area variable. This model was tested after it had been established, from the descriptive analysis, that all the asset and liability variables for both metropolitan and non-metropolitan areas displayed similar skewness and kurtosis for the weighted population. This indicated that area could be included as an independent variable in the MANOVA. The results are discussed in section 7.9.3.2.
- c) Thereafter, the identified “effect” variables (main effects and/or interaction effects) from the analysis in a) and b) were considered separately in a custom model. The results are discussed in section 7.9.3.3.

7.9.3.1 Excluding the area variable

The use of the total weighted population as the dataset resulted in all main and interaction effects being statistically significant for all test statistics. The focus of the identification of meaningful effects was thus on using Wilks’ lambda (λ) in conjunction with the partial eta-squared value (Brown, 2008; Stevens, 2009:177). Although the Pillai-Bartlett criterion (Tabachnick & Fidell, 2007:269) was deemed the most robust and powerful test statistic, given that all the test statistics were statistically significant, Wilks’ lambda was used because it provided an indication of the variance not accounted for in the combined dependent variables, which fostered an explorative understanding of effects.

The multivariate hypothesis that the mean on the composite is the same across groups was rejected.

The analysis (Appendix E, 7.9.3.1, page 613) revealed the following meaningful multivariate interaction effects:

Table 7.10**Abstract from multivariate analysis– assets: excluding the area variable**

| Model | Interaction effect | MANOVA | | | |
|--|---------------------------|----------|---------|------------------|--------------------------|
| | | F value | P value | Wilks' λ | Partial eta ² |
| Assets: Full factorial model, excluding area | Income and age | 47 531.8 | .000 | 0.637 | 0.086 |
| | Education, income and age | 27 535.0 | .000 | 0.720 | 0.063 |

(1) Income and age and (2) Education, income and age were identified as meaningful interaction effects.

Given the statistical significance of the overall test, the univariate (Appendix E, page 615) test results were examined.

- (i) Meaningful univariate interaction effects for income and age were obtained for non-current assets: $F = 78\,730.7$, $p < .001$, partial eta-squared = 0.135, other non-financial assets: $F = 121\,758.0$, $p < .001$, partial eta-squared = 0.195, and current assets: $F = 45\,579.7$, $p < .001$, partial eta-squared = 0.083.
- (ii) Meaningful univariate interaction effects for education, income, and age were obtained for non-current assets: $F = 36\,347.6$, $p < .001$, partial eta-squared = 0.082, and financial assets: $F = 50\,435.7$, $p < .001$, partial eta-squared = 0.110.

7.9.3.2 Including the area variable

The multivariate hypothesis that the mean on the composite is the same across groups was rejected.

The analysis revealed the following meaningful multivariate interaction effects (Appendix E, 7.9.3.2, page 617):

Table 7.11**Abstract from multivariate analysis– assets: including the area variable**

| Model | Interaction effect | MANOVA | | | |
|--|--|-----------|---------|------------------|--------------------------|
| | | F value | P value | Wilks' λ | Partial eta ² |
| Assets: Full factorial model, including area | Age, income and area (metropolitan/non-metropolitan) | 315 817.1 | .000 | 0.171 | 0.298 |
| | Income and age | 80 462.7 | .000 | 0.477 | 0.138 |
| | Education, income and age | 46 707.5 | .000 | 0.610 | 0.094 |
| | Education and income | 77 845.5 | .000 | 0.661 | 0.080 |

(1) Age, income and area, (2) income and age, (3) education, income and age and (4) education and income were identified as meaningful interaction effects.

Given the statistical significance of the overall test, the univariate test results (Appendix E, page 621) were examined.

- (i) A meaningful univariate interaction effect for age, income and area was obtained for current assets: $F = 2\,383\,449.6$, $p < .001$, partial eta-squared = 0.763.
- (ii) Meaningful univariate interaction effects for income and age were obtained for current assets: $F = 278\,744.7$, $p < .001$, partial eta-squared = 0.356 and non-current assets: $F = 98\,748.5$, $p < .001$, partial eta-squared = 0.164.
- (iii) Meaningful univariate interaction effects for education, income and age were obtained for non-current assets: $F = 62\,759.1$, $p < .001$, partial eta-squared = 0.123 and current assets: $F = 92\,556.8$, $p < .001$, partial eta-squared = 0.171.
- (iv) A meaningful univariate interaction effect for education and income was obtained for current assets: $F = 275\,304.1$, $p < .001$, partial eta-squared = 0.234.

7.9.3.3 Custom model

The multivariate hypothesis that the mean on the composite is the same across groups was rejected.

The analysis revealed the following meaningful multivariate interaction effects (Appendix E 7.9.3.3, page 625):

Table 7.12
Abstract from multivariate analysis– assets: custom model

| Model | Interaction effect | MANOVA | | | |
|-------------------------|---|-----------|---------|------------------|--------------------------|
| | | F value | P value | Wilks' λ | Partial eta ² |
| Assets: Custom model | Age, income and area (metropolitan/non-metropolitan) | 211 926.3 | .000 | 0.123 | 0.342 |
| | Income and age | 60 748.3 | .000 | 0.498 | 0.130 |
| | Education, income and age | 27 002.0 | .000 | 0.613 | 0.093 |
| | Education and income | 68 347.6 | .000 | 0.644 | 0.084 |

(1) Age, income and area, (2) income and age, (3) education, income and age and (4) education and income were identified as meaningful interaction effects.

Given the statistical significance of the overall test, the univariate test results (Appendix E, page 625) were examined.

- (i) A meaningful univariate interaction effect for age, income and area was obtained for current assets: $F = 1\,383\,535.9$, $p < .001$, partial eta-squared = 0.773.
- (ii) Meaningful univariate interaction effects for income and age were obtained for current assets: $F = 235\,152.9$, $p < .001$, partial eta-squared = 0.367 and non-current assets: $F = 51\,105.1$, $p < .001$, partial eta-squared = 0.112.
- (iii) Meaningful univariate interaction effects for education, income and age were obtained for financial assets: $F = 31\,574.0$, $p < .001$, partial eta-squared = 0.107 and current assets: $F = 52\,205.0$, $p < .001$, partial eta-squared = 0.166.
- (iv) A meaningful univariate interaction effect for education and income was obtained for current assets: $F = 259\,406.4$, $p < .001$, partial eta-squared = 0.259.

7.9.3.4 Conclusion from the MANOVA results: assets

The MANOVA results indicated the following meaningful interaction effects for the five asset class variables:

- (1) Age, income and area;
- (2) Income and age;
- (3) Education, income and age; and
- (4) Education and income;

The age, income and area interaction effect explained the highest amount of the variance in the set of asset variables.

The results thus confirmed the contemporaneous effect of income, age, education and area of residence on asset accumulation. These results concur with the life-cycle hypothesis of Modigliani and Ando (1963 in Bryant & Zick, 2006) (section 3.3.2), which states that households plan their consumption on the basis of an expected pattern of income earned during their lifetime. Young households will typically borrow against an expectation of higher income in the future in order to sustain current levels of consumption. Similarly, households will also accumulate as much as possible during their working years to sustain them during retirement. Furthermore, according to Carasso and McKerman (2007:7), age is indicative of life-cycle patterns and is evident in the accumulation of assets where households tend to accumulate assets up to retirement and then use their asset base to sustain them during retirement. Carasso and McKerman (2007) state that it would be highly unlikely for younger households to already have a meaningful accumulation of expensive assets such as properties. However, age *per se* is no indication of asset wealth either, but increasing age is typically associated with rising income and an increased concern to provide for retirement. The contemporaneous movement of income and age thus plays a vital role in understanding increases/decreases in asset classes.

The MANOVA result (education and income interaction) is also in alignment with the finding of Carasso and McKerman (2007:7-8), who noted that education is a predictor of potential lifetime income and is associated with higher income in the long run. These authors (2007) also contend that classifying households according to education status is one of the best proxies for long-term economic status.

Finally, according to Bollen et al. (2007:20–23), the place of residence is a predictor of income. According to them (2007), residence is a probable determinant and

persons living in more developed areas potentially have higher incomes than those residing in less developed areas. Area was thus first viewed as a possible proxy for other demographic variables and excluded in the MANOVA. However, based on the descriptive analysis (Appendix E), area was subsequently included as an independent variable. Age, income and area have a contemporaneous effect on asset accumulation. According to Nissan and Carter (2005), higher incomes are generally earned in metropolitan areas in contrast to non-metropolitan areas.

Furthermore, the univariate tests revealed that differences exist between the mean values of current assets for the age, income and area group combination. The univariate results also confirmed the pattern that the mean values of current assets will differ for:

- 1) different income and age group combinations;
- 2) different education, income and age group combinations; and
- 3) different education and income group combinations.

The univariate tests also revealed that differences exist between the mean values of non-current assets for different income and age group combinations and between the mean values of financial assets for different education, income and age group combinations.

The most accessible and affordable form of asset accumulation for most households is current assets, such as cheque accounts, savings accounts, short-term investments or cash at home. The investment in other asset classes, such as property and vehicles, often requires higher income levels as a prerequisite before these asset classes can be accessed.

7.9.4 Results –dependent variables: liabilities

The effect of the identified independent variables, age, education, labour status, income and area of residence, as well as their possible interaction effects in explaining the variance in the three liability classes (non-current liabilities, financial liabilities and current liabilities) were explored utilising the MANOVA procedure in SPSS V20.

The null hypothesis tested was: $H_0 = \mu_1 = \mu_2 = \mu_3 = \dots = \mu_k$, where k indicates the number of independent variables tested. Population mean vectors were equal (Stevens, 2009:178).

An iterative process was followed, starting with the full factorial model for

- the four independent variables, excluding the area variable (metropolitan/non-metropolitan) – the results are provided in section 7.9.4.1;
- all five independent variables, including the area variable – the results are provided in section 7.9.4.2; and
- following this, the identified “effect” variables from the analysis in a) and b) were considered separately in a custom model –the results are provided in section 7.9.4.3.

7.9.4.1 Excluding the area variable

The use of the total weighted population as a dataset resulted in all main and interaction effects being statistically significant. The focus of the identification of meaningful effects was thus on using Wilks’ lambda in conjunction with the partial eta-squared value.

The multivariate hypothesis that the mean on the composite is the same across groups was rejected.

The analysis revealed the following meaningful multivariate interaction effect (Appendix E, 7.9.4.1, page 626):

Table 7.13

Abstract from multivariate analysis– liabilities: excluding the area variable

| Model | Interaction effect | MANOVA | | | |
|---|--------------------|----------|---------|------------------|------------------|
| | | F value | p value | Wilks’ λ | Partial η^2 |
| Liabilities: Full factorial model, excluding area | Income and age | 53 404.7 | .000 | 0.696 | 0.114 |

The only meaningful interaction effect identified was income and age.

Given the statistical significance of the overall test, the univariate test results (Appendix E, page 628) were examined.

- Meaningful univariate interaction effects for income and age were obtained for non-current liabilities: $F = 106\,985.8$, $p < .001$, partial eta-squared = 0.205 and current liabilities: $F = 42\,535.0$, $p < .001$, partial eta-squared = 0.093.

7.9.4.2 Including the area variable

The multivariate hypothesis that the mean on the composite is the same across groups was rejected.

The analysis revealed the following meaningful multivariate interaction effect (Appendix E, 7.9.4.2, page 630):

Table 7.14

Abstract from multivariate analysis– liabilities: including the area variable

| Model | Interaction effect | MANOVA | | | |
|---|--------------------|----------|---------|------------------|--------------------------|
| | | F value | p value | Wilks' λ | Partial eta ² |
| Liabilities: Full factorial model, including area | Income and age | 35 761.4 | .000 | 0.789 | 0.076 |

The only meaningful interaction effect identified was income and age.

Given the statistical significance of the overall test, the univariate test results (Appendix E, page 633) were examined.

- Meaningful univariate interaction effects for income and age were obtained for non-current liabilities: $F = 50\,338.1$, $p < .001$, partial eta-squared = 0.104 and financial liabilities: $F = 34\,215.1$, $p < .001$, partial eta-squared = 0.073.

7.9.4.3 Custom model

The multivariate hypothesis that the mean on the composite is the same across groups was rejected.

The analysis revealed the following meaningful multivariate interaction effect (Appendix E, 7.9.4.3, page 635):

Table 7.15

Abstract from multivariate analysis– liabilities: custom model

| Model | Interaction effect | MANOVA | | | |
|------------------------------|--------------------|-----------|---------|------------------|--------------------------|
| | | F value | p value | Wilks' λ | Partial eta ² |
| Liabilities: Custom model | Income and age | 141 747.0 | .000 | 0.287 | 0.341 |

The only meaningful interaction effect identified was income and age.

Given the statistical significance of the overall test, the univariate test results (Appendix E, page 636) were examined.

- Meaningful univariate interaction effects for income and age were obtained for non-current liabilities: $F = 220\,486.1$, $p < .001$, partial eta-squared = 0.446, financial liabilities: $F = 194\,853.9$, $p < .001$, partial eta-squared = 0.415 and current liabilities: $F = 173\,213.7$, $p < .001$, partial eta-squared = 0.387.

7.9.4.4 Conclusion from the MANOVA results: liabilities

The MANOVA results indicated that only one interaction effect, namely income and age, meaningfully affected the three liability class variables. Furthermore, the univariate test revealed that differences existed between the mean values of non-current liabilities, financial liabilities and current liabilities for the income and age group combinations.

The importance of earning an income in net wealth accumulation and the incurrence of debt were illustrated in sections 7.8.2 and 7.8.4.3. The income and age effect corresponds with the smoothing of consumption phenomenon, where households acquire debt to smooth out consumption when income is insufficient or to cover consumption or when households accumulate assets based on their expected future income. Furthermore, it was established that liabilities increase with age because households tend to borrow more in later life, which is associated with higher levels of

income. The accumulation of liabilities in the past puts a strain on income levels when the debt from the past has to be repaid.

7.10 CONCLUSION

Section 7.2 focused on the coding, editing and cleaning of the data. In section 7.3, the reliability, validity and structural integrity of the data were considered, and in section 7.4, the data was parameter verified with macro-estimated household data from the South African Reserve Bank. In section 7.5, the segmentation of the data and the classification of the main asset and liability categories were explained. Section 7.6 dealt with the metropolitan and non-metropolitan statements of financial position for South African households were presented in accordance with the principles applied in the Conceptual Framework (SAICA, 2010a). This was the main objective of the study.

Section 7.7 commenced with the descriptive data analysis of the data obtained, which was further statistically analysed. In subsection 7.7.1, the percentage contribution of the eight main asset and liability classes to total assets and liabilities for the weighted metropolitan and non-metropolitan South African household populations was depicted and described. In subsection 7.7.2, the percentage contribution of the disaggregated asset and liability classes to total assets and liabilities in the weighted metropolitan and non-metropolitan South African household populations was depicted and described. In subsection 7.7.3, the percentage contribution of the disaggregated asset and liability classes to their main asset/liability class in the weighted metropolitan and non-metropolitan South African household populations was depicted and described. This concluded the descriptive data analysis of the metropolitan and non-metropolitan statements of financial position. Differences in net wealth accumulation of households based on the area demographic variable were apparent from the discussions.

In section 7.8, the other demographic variables identified in Chapter 3 and in international research, namely age, income, education and labour status, were described. This was done to determine whether the demographic variables could have an effect on asset and liability accumulation. The main asset and liability classes were analysed according to the percentage holding across age groups,

income groups, education groups and labour status groups. The chapter concluded with the application of inferential statistics in section 7.9 to establish which demographic variables identified in international research and Chapter 3 and their associated interactions affected the asset and liability accumulation of households. For assets, four interaction effects, namely (1) age, income and area; (2) income and age; (3) education, income; and age and (4) education and income, were identified, and for liabilities, only one, namely income and age.

Chapter 8 concludes the study and provides important findings and recommendations. In this chapter, an overview of the study is presented to ensure that all the identified research questions were addressed and that the study achieved its main and secondary objectives. Policy implications are suggested and areas for future research identified.

CHAPTER 8

RECOMMENDATIONS AND CONCLUSION

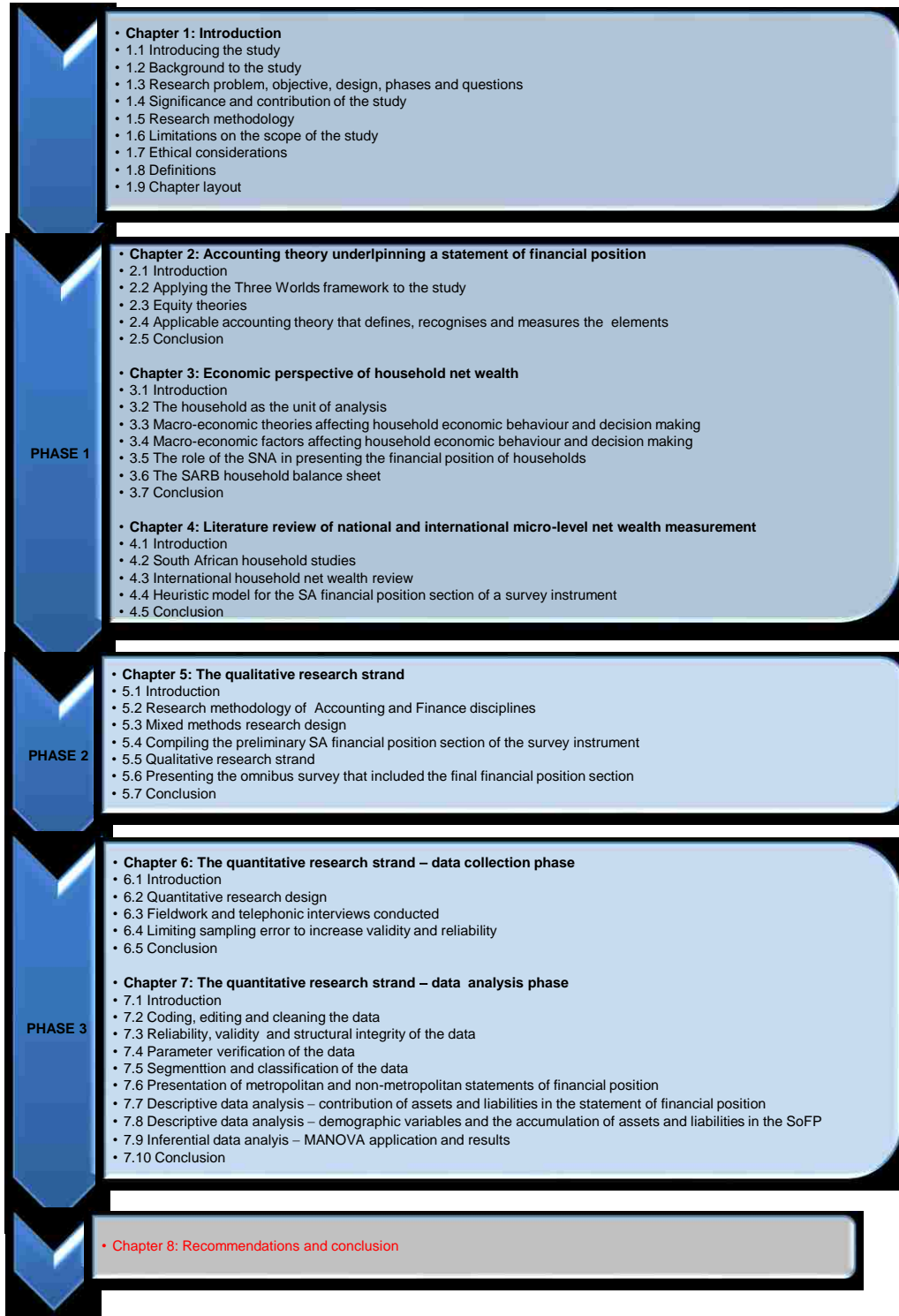
“One accurate measurement is worth a thousand expert opinions.” – Grace Murray Hopper
(Sharequote.com, 2013)

8.1 INTRODUCTION

In section 1.1, reference was made to the daunting task undertaken by William the Conqueror in 1086 when he commissioned a survey to determine the resources and taxable values of the boroughs and manors in England, which he had conquered at the time. Although the current study was more modest in that macro-economic household balance sheet data for South Africa already exists and is presented by the South African Reserve Bank, the results of this study contribute to critically important household micro-level information not previously available for the South African household sector. This was achieved as described in Chapter 7 by analysing the data collected from a representative sample (Table 6.13) of South African households and drawing inferences from the data. The data was collected via the financial position section of a survey instrument developed by the researcher for the purposes of the study (Appendix B, section III).

In this chapter, the researcher will establish whether all the objectives of the research were achieved. The chapter commences with an overview of the research conducted and presents the main research findings in section 8.2. In section 8.3, the limitations of the research are discussed. Based on the findings and limitations, recommendations for future research are made in section 8.4, after which policy implications flowing from the research are discussed in section 8.5. The layout of the study is represented in Figure 8.1 to place this chapter and its contents in the broad perspective of the study.

Figure 8.1
Presenting Chapter 8 in the layout of the study



Source: Researcher's own compilation

8.2 RESEARCH OVERVIEW AND MAIN FINDINGS

As stated in section 1.3.1, the main objective of the study was to disaggregate and measure the asset and liability base of South African households in metropolitan and non-metropolitan areas using micro-level data. The main objective included the presentation of the micro-level data in a statement of financial position for the two residential areas based on the classification, recognition and measurement principles of the Conceptual Framework (SAICA, 2010a). A secondary objective, as formulated in section 1.3.1, was to draw inferences from the data in the statement of financial position to determine whether age group, income group, education level, labour status and area of residence (metropolitan/non-metropolitan) and/or all their possible interactions affected the asset and liability accumulation of households.

The South African Reserve Bank is the only institution in South African that currently presents a household balance sheet based on macro-economic data estimates (section 3.6). The categories of assets and liabilities presented in the South African Reserve Bank balance sheet can, however, be disaggregated using micro-level data collected directly from households. This would provide the details of asset and liability accumulation by South African households that are not yet available. The disaggregated asset and liability base of households could assist policy makers in the management of household net wealth both at micro- and macro-economic level (section 1.4). According to Sierminska et al.(2006), micro net wealth measurement data (data on the assets and liabilities of households) is a prerequisite for a country's successful net wealth measurement and will make future assessment of household consumption and saving possible. Furthermore, the saving patterns of households, household debt levels and the asset base of households are significant factors in establishing the overall financial well-being of households. Should an increase in debt levels occur in the future, this can be compared with an associated increase in consumption and/or asset levels by conducting future waves similar to Wave 1. This study and future wave studies will assist with overall South African household net wealth management.

The study involved a three-phase approach. In the first phase, a heuristic model for the financial position section in a survey instrument was developed. This was achieved through a detailed literature review of the accounting concepts, principles

and theories that could assist with the recognition and measurement of household assets and liabilities. Furthermore, the underlying assumptions and postulates required to present a statement of financial position for households (section 2.2.2.3) were discussed. The proprietary theory was deemed to best describe the individuals for whom financial statements are prepared, namely the owners of the household (section 2.3). In section 2.4 the Conceptual Framework (SAICA, 2010a) was identified as the main normative accounting theory that could assist with the classification, recognition and measurement of the elements that constitute household net wealth, namely assets and liabilities. Use of the Conceptual Framework (SAICA, 2010a) helped the researcher to classify, recognise and measure the disaggregated assets and liabilities before the statements of financial position for the two identified areas could be prepared and presented.

In Chapter 3, the literature review continued with an explanation of why the household was chosen as unit of analysis (section 3.2) for this study, and discussed the macro-economic theories (section 3.3) and factors (section 3.4) that influence and explain household asset and liability accumulation. The preparation of the South African Reserve Bank balance sheet as a product of the System of National Accounts was explained (sections 3.5 and 3.6) to foster an understanding of the recognition and measurement of the macro-economic household asset and liability estimates and to determine to what extent these estimates can be used as parameters for the results obtained in this research.

The concluding chapter in the first phase (also called the literature review phase), Chapter 4, discussed the results of the national literature review (section 4.2). In this chapter, the researcher established that none of the current South African household studies presented sufficient information on disaggregated asset and liability classes to achieve the main objective of the research, namely to present disaggregated statements of financial position for metropolitan and non-metropolitan households (section 1.3.1). This resulted in the need to develop a household financial position section that could disaggregate and measure South African households' assets and liabilities at micro-level. To achieve this, an international net wealth measurement literature review was conducted (section 4.3) on countries that are recognised leaders in net wealth measurement, such as the United States of America, Australia and European countries (Great Britain, Spain and studies conducted by the

European Central Bank) as well as other countries that measured household net wealth with survey data, such as Canada, New Zealand, China, India, Indonesia, Moldova and Turkey. The asset and liability classes identified in these surveys were considered for inclusion in the South African financial position section. A prerequisite for inclusion was the ability to disaggregate the current South African Reserve Bank household balance sheet classes and the fact that the South African household sector should be able to identify the disaggregated asset and liability classes. Chapters 2, 3 and 4 concluded the first phase of the research project and resulted in the design of a heuristic model of the financial position section (section 4.4) and the further development of the South African financial position section (section 5.4) that could be included in an omnibus survey. The financial position section was based on the classification, recognition and measurement principles of the elements according to the Conceptual Framework (SAICA, 2010a).

To ensure that the preliminary financial position section would be able to disaggregate, recognise and measure all household assets and liabilities, the second phase of the study was conducted. This phase included the finalisation of the definition of a household for purposes of the study and the determination of the household member with whom to conduct the interview. The second phase commenced with the different ontological and epistemological issues that the research had to consider (section 5.2). The research comprised both mainstream accounting research (survey research) and interpretative research (focus group interviews), both of which fell within the positivistic and interpretative paradigms respectively. Furthermore, the epistemology of the research was both objective (classification, recognition and measurement of household assets and liabilities as identified variables in a survey) and subjective (individual sense making by experts in household finance, who expressed their opinions and views), resulting in the use of a mixed methods research methodology as explained in section 5.3. A mixed methods research methodology incorporates both qualitative and quantitative research methods to address the research question and sub-questions identified by the researcher (Creswell & Plano Clark, 2011). According to these authors, the current study was a mixed methods exploratory sequential design study. Only if the research questions (section 1.3.4) were properly addressed would the study be able to achieve its main objective, namely the presentation of a statement of financial

position for metropolitan and non-metropolitan households, which disaggregated the asset and liability classes currently used in the South African Reserve Bank household balance sheet. In section 5.5, the qualitative strand of the mixed methodology research was conducted in the form of face-to-face interviews and online focus group interviews with experts in the field of household finance. The objective of the qualitative phase of the research was to find answers to the following research sub-questions identified in section 1.3.4.1:

- Are all the possible assets and liabilities that households can utilise, identified and recognised in the preliminary prepared financial position section?
- Will the South African financial position section be able to classify and measure the recognised assets and liabilities?
- Who are the members of a typical South African household for purposes of the study and with whom should the interview be conducted?

As a result of the discussions with national and international experts, as reported in Chapter 5, the researcher ensured that all possible assets and liabilities that South African households could use had been identified and that the survey instrument was able to robustly classify, recognise and measure all disaggregated asset and liability classes in the financial position section. Furthermore, the discussions helped the researcher to formulate a final definition of a household for purposes of the study (section 5.5.2.4) and of the financially knowledgeable person with whom the interview would be conducted.

The third and final phase of the study involved the quantitative research strand of the mixed methods research, and was discussed in Chapters 6 and 7. Chapter 6 commenced with an explanation of the piloting of the omnibus survey (section 6.2.1). The omnibus survey was used to conduct the fieldwork in South African households. The data collection methods were discussed in section 6.2.2 and the sample plan design was described (section 6.2.3) to ensure that a representative sample (Table 6.13) of all households in South Africa would be selected for the face-to-face interviews and the computer-aided telephonic interviews. The sample consisted of 2 606 households of which 1 866 participated in face-to-face interviews and 740 households which were telephonically interviewed via the computer-aided telephonic interview system. An attempt was also made to include more of the high-income

groups in the results by developing and distributing an online survey to interested parties for completion. Chapter 6 concluded with a description of the fieldwork conducted (section 6.3) and explained the strategies employed in the study to reduce sampling and survey errors and increase the validity and reliability of the data (section 6.4).

The data analysis and the presentation of results from the quantitative research strand were reported on in Chapter 7. The chapter commenced with a description of the coding, editing, cleaning, weighting (section 7.2) and data validation process (section 7.3). The process resulted in a final dataset of 1 674 cases on which subsequent analyses were conducted. The data from the financial position section of the omnibus survey was parameter verified by comparing the data (section 7.4) with the South African Reserve Bank household balance sheet estimates as at 31 December 2011. Although the results were not that closely related, the reasons for accepting the parameters for the purposes of this study were provided, and the results were considered to be within a reasonable range of those of the South African Reserve Bank household balance sheet. The segmentation of the data into the two main residential areas of the country, namely metropolitan and non-metropolitan areas, was described in section 7.5. Of the weighted population, 43.9% resided in metropolitan areas, whereas the other 56.1% resided in non-metropolitan areas.

In section 7.6, the segmented data was presented as statements of financial position for the metropolitan and non-metropolitan areas of the country, based on the classification, recognition and measurement principles of the Conceptual Framework (SAICA, 2010a). This was the main objective (section 1.3.1) of the study and is indicated in Table 8.1.

Table 8.1

Household statement of financial position for the weighted metropolitan and non-metropolitan population at 31 December 2011

| HOUSEHOLD STATEMENT OF FINANCIAL POSITION AT 31 DECEMBER 2011 | | | |
|--|---------------------------|------------------------------------|--------------------------|
| | METROPOLITAN R | NON- METROPOLITAN R | TOTAL R |
| ASSETS | | | |
| Non-current assets | 1 397 627 489 116 | 1 556 340 154 665 | 2 953 967 643 781 |
| Residential property | 1 188 384 023 655 | 1 283 976 289 745 | 2 472 360 313 400 |
| Other property | 209 243 465 461 | 272 363 864 920 | 481 607 330 381 |
| Other non-financial assets | 391 713 772 103 | 760 045 217 235 | 1 151 758 989 338 |
| Vehicles | 234 517 853 637 | 239 991 224 628 | 474 509 078 265 |
| Boats | - | 593 277 175 | 593 277 175 |
| Household content | 113 466 573 758 | 298 312 935 711 | 411 779 509 469 |
| Household collectibles | 28 796 454 884 | 62 076 770 965 | 90 873 225 849 |
| Trust assets | 2 849 681 604 | 3 146 895 208 | 5 996 576 812 |
| Business assets | 12 083 208 220 | 155 924 113 548 | 168 007 321 768 |
| Retirement funding assets | 678 970 140 719 | 1 258 215 832 007 | 1 937 185 972 726 |
| Financial assets | 511 192 607 303 | 475 006 605 830 | 986 199 213 133 |
| Insurance | 459 424 626 520 | 387 525 321 156 | 846 949 947 676 |
| Funeral | 161 893 203 772 | 124 898 465 633 | 286 791 669 405 |
| Special needs | 268 857 979 078 | 216 300 505 318 | 485 158 484 396 |
| Education | 23 542 016 979 | 26 660 645 311 | 50 202 662 290 |
| Burial society | 5 131 426 691 | 19 665 704 894 | 24 797 131 585 |
| Offshore investments | 5 103 572 034 | 13 299 497 020 | 18 403 069 054 |
| Unlisted shares | 5 014 002 445 | 8 526 929 855 | 13 540 932 300 |
| Loan accounts | 2 971 521 657 | 1 366 041 394 | 4 337 563 051 |
| Retail savings bonds | - | 10 108 673 178 | 10 108 673 178 |
| Employee shares | 207 404 740 | 31 779 335 508 | 31 986 740 248 |
| Collective investments | 38 471 479 907 | 22 400 807 719 | 60 872 287 626 |
| Current assets | 154 813 769 004 | 227 195 560 471 | 382 009 329 475 |
| Debtors | 686 758 639 | 1 545 370 671 | 2 232 129 310 |
| "Stokvels" | 2 538 880 614 | 16 160 946 736 | 18 699 827 350 |
| Listed shares | 6 854 256 820 | 70 948 733 200 | 77 802 990 020 |
| Fixed deposits | 9 767 889 008 | 12 616 205 258 | 22 384 094 266 |
| Other | 68 048 731 142 | 3 382 062 264 | 71 430 793 406 |
| Savings accounts | 11 020 684 880 | 19 062 091 016 | 30 082 775 896 |
| Money market accounts | 35 397 210 817 | 24 398 717 822 | 59 795 928 639 |
| Cheque accounts | 18 136 613 203 | 75 180 830 910 | 93 317 444 113 |
| "Mzansi" accounts | 1 593 368 772 | 2 162 859 511 | 3 756 228 283 |
| Cash at home | 769 375 109 | 1 737 743 083 | 2 507 118 192 |
| TOTAL ASSETS | 3 134 317 778 245 | 4 276 803 370 208 | 7 411 121 148 453 |

| HOUSEHOLD STATEMENT OF FINANCIAL POSITION AT 31 DECEMBER 2011 | | | |
|--|---------------------------|------------------------------------|--------------------------|
| | METROPOLITAN R | NON- METROPOLITAN R | TOTAL R |
| LIABILITIES | | | |
| Non-current liabilities | | | |
| Mortgage loans | 109 663 914 875 | 175 668 202 922 | 285 332 117 797 |
| Mortgages on residential property | 107 359 243 302 | 164 330 855 950 | 271 690 099 252 |
| Mortgage on other property | 2 304 671 573 | 11 337 346 972 | 13 642 018 545 |
| Financial liabilities | 90 762 275 442 | 117 785 616 009 | 208 547 891 452 |
| Financing | 79 316 423 399 | 94 291 699 364 | 173 608 122 763 |
| Vehicle financing | 60 090 192 887 | 80 801 950 321 | 140 892 143 208 |
| Boat financing | – | – | – |
| Household content and collectibles financing | 17 527 408 153 | 6 372 570 302 | 23 899 978 455 |
| Hire purchase agreements | 724 157 434 | 2 440 624 353 | 3 164 781 787 |
| Cell phone contracts | 974 664 925 | 4 676 554 388 | 5 651 219 313 |
| Loans | 11 445 852 043 | 23 493 916 646 | 34 939 768 689 |
| Student loans | 2 978 769 283 | 3 234 847 234 | 6 213 616 517 |
| Personal loans | 4 223 204 341 | 15 948 782 100 | 20 171 986 441 |
| Loan from employers | 1 713 888 795 | 292 023 436 | 2 005 912 231 |
| Loan from friend, relative or private individual | 258 864 904 | 1 401 569 242 | 1 660 434 146 |
| Cash loans | 2 270 573 930 | 2 598 773 377 | 4 869 347 307 |
| Other loans | 550 790 | 17 921 257 | 18 472 047 |
| Current liabilities | 52 311 197 245 | 34 677 993 557 | 86 989 190 802 |
| Bank overdrafts | 3 581 647 386 | 3 221 588 293 | 6 803 235 679 |
| Credit cards | 11 621 596 402 | 10 425 487 825 | 22 047 084 227 |
| Store cards | 4 790 232 562 | 9 777 074 980 | 14 567 307 542 |
| Petrol/Garage cards | 756 362 461 | 183 013 879 | 939 376 340 |
| Household bills payable | 31 561 358 434 | 11 070 828 580 | 42 632 187 014 |
| Municipal accounts | 3 406 763 510 | 4 697 945 912 | 8 104 709 422 |
| Airtime accounts | 600 520 771 | 576 279 602 | 1 176 800 373 |
| Rent in arrear | 887 402 176 | 1 177 109 602 | 2 064 511 778 |
| Alimony | 60 310 904 | 110 324 655 | 170 635 559 |
| School fees | 24 880 574 640 | 2 619 573 799 | 27 500 148 439 |
| SABC/DStv/TopTV | 737 343 302 | 684 922 495 | 1 422 265 797 |
| Medical and other related bills | 778 366 791 | 515 386 566 | 1 293 753 357 |
| Other bills | 210 076 340 | 689 285 949 | 899 362 289 |
| TOTAL LIABILITIES | 252 737 387 562 | 328 131 812 489 | 580 869 200 051 |
| TOTAL NET WEALTH | 2 881 580 390 683 | 3 948 671 557 719 | 6 830 251 948 402 |

Source: Researcher's own compilation presented in section 7.6

From the South African Reserve Bank household balance sheet presented in Table 7.2 and the household statement of financial position presented in Table 8.1, it is clear that the study achieved not only its main objective, namely to classify, recognise and measure a representative sample of households' assets and liabilities

in South Africa according to the principles of the Conceptual Framework (SAICA, 2010a), but it was also able to disaggregate the known asset and liability categories.

The statements reflect the disaggregated asset and liability classes, compared to the existing asset categories of the South African Reserve Bank, namely non-financial assets (residential buildings and other non-financial assets) and financial assets (assets with monetary institutions, interest in pension funds and long-term insurance and other financial assets). The liability categories (mortgages and other debt) of the household balance sheet prepared by the South African Reserve Bank were also disaggregated, which resulted in details of the asset and liability accumulation of South African households not previously available.

The data presented in the household statement of financial position for the two main areas of residence in the country was analysed in section 7.7 to determine the percentage contribution and the ranking of each main asset and liability class to the total assets and liabilities in the weighted metropolitan and non-metropolitan population (section 7.7.1). The results were presented in Table 7.6. The ranking indicated that in the weighted metropolitan population, financial assets (16.3%) contributed more to total assets than other non-financial assets (12.5%), while for the weighted non-metropolitan population, other non-financial assets (17.8%) contributed more to total assets than financial assets (11.1%).

These differences were further explored, ranked and presented in Table 7.7 as an analysis of the contribution percentage of the disaggregated asset and liability classes to total assets and liabilities (section 7.7.2), as well as to the eight main asset and liability classes in the weighted metropolitan and non-metropolitan population (section 7.7.3).

From the data (Figure 7.5), it was clear that the contributions of residential property (85%) and other property assets (15%) to non-current assets in the weighted metropolitan population were similar to residential property (82.5%) and other property assets (17.5%) in the weighted non-metropolitan population.

Regarding other non-financial assets (Figure 7.6), the contribution percentages highlighted two key ranking differences, namely vehicles and household content as well as collectibles and business assets. In the weighted metropolitan population,

vehicles contributed 59.9% and household content 29%, whereas in the weighted non-metropolitan population, vehicles contributed 31.6% and household content 39.3% to other non-financial assets. In the weighted metropolitan population, collectibles contributed 7.3% and business assets 3.1%, whereas in the non-metropolitan population collectibles contributed 8.2% and business assets 20.5% to other non-financial assets.

Regarding financial assets (Figure 7.7), insurance products contributed the most in both weighted populations (89.9% in metropolitan and 81.6% in non-metropolitan). In the weighted metropolitan population, the second largest contributor to financial assets was investments in collective investment schemes (7.5%) and equal third contributors were offshore investments and listed shares (1% each). In the weighted non-metropolitan population, employee share schemes were the second largest contributor to financial assets at 6.7%, with the third largest investments in collective investment schemes at 4.7%. Employee share schemes contributed 0% (rounded) to financial assets in the weighted metropolitan population, compared to the 6.7% contribution in the weighted non-metropolitan population.

Other financial assets (44%) contributed the most in terms of current assets (Figure 7.8) in the weighted metropolitan population, followed by money market accounts (22.9%) and cheque accounts (11.7%), whereas in the non-metropolitan population, cheque accounts (33.1%) contributed the most to current assets, followed by listed investments (31.2%) and money market accounts (10.7%).

As far as mortgage loans (Figure 7.9) are concerned, residential (97.9%) and other property mortgages (2.1%) in the weighted metropolitan population were similar to residential mortgages (93.5%) and other property mortgages (6.5%) in the weighted non-metropolitan population.

Regarding financial liabilities (Figure 7.10), vehicle finance (66.2%), content finance (19.3%) and personal loans (4.6%) were the most preferred liability classes in the weighted metropolitan population, whereas vehicle finance (68.6%), personal loans (13.6%) and content finance (5.4%) were the preferred liability classes in the non-metropolitan population.

In closing, with regard to current liabilities (Figure 7.11), school fees (47.6%) contributed the most to current liabilities in the weighted metropolitan population, followed by credit cards (22.3%) and store cards (9.2%). In the weighted non-metropolitan population, credit cards (30%), store cards (28.2%) and municipal bills (13.5%) contributed the most to current liabilities.

The current study, like a number of international studies (Bollen et al., 2007; Carasso & McKerman, 2007; Carter et al., 2009; Daffin, 2009; Nissan & Carter, 2005), also explored the effect of demographic variables on the accumulation of assets and liabilities across the weighted household population as a secondary objective (section 1.3.1). The economic theories presented in section 3.3 helped the researcher to gain an understanding of the accumulation of assets and liabilities by households. Keynes' theory (1936, in Miller, 1996) on income, consumption and saving states that households acquire assets and/or save once their income exceeds their consumption. According to the permanent income hypothesis of Friedman (1957, in Bryant & Zick, 2006), households borrow funds against expected future income to even out income and consumption streams over their expected life-time (also referred to as the consumption-smoothing phenomenon). Furthermore, according to the life-cycle hypothesis of Modigliani and Ando (1963 in Bryant & Zick, 2006), households plan their consumption on the basis of an expected pattern of income earned over their life-time. These economic theories and the international studies enabled the researcher to identify five demographic variables, namely age, education levels, labour status, income and area of residence, which could possibly affect the investment in different asset classes and the incurrence of debt by South African households.

In section 7.8.1, the age profile (Figure 7.12) of the weighted South African household population was discussed. Across the weighted population, the asset- and liability-holding percentages by the different age groups in the eight main asset and liability classes were presented (Figures 7.13 and 7.14). It was concluded that the pattern of asset and liability accumulation was in agreement with the life-cycle hypothesis. The discussion indicated that across the weighted population, asset accumulation increased as people aged in preparation for retirement, with the 35 to 59 year age groups having the most assets (Figure 7.13). During retirement,

however, asset accumulation declines in order to fund excess expenditure associated with a diminished income throughout retirement. It was evident from the discussion that liability holding also increased as people aged, which could be ascribed to associated higher income levels. Across the weighted population, the 35 to 49 age group had the most liabilities (Figure 7.14). However, in anticipation of retirement, the liabilities were drastically reduced, which was expected because of reduced income levels during retirement.

In section 7.8.2, the income profile (Figure 7.15) of the weighted South African household population was discussed. Across the weighted population, the asset-holding percentage by the different income groups in the eight main asset and liability classes was presented (Figures 7.16 and 7.17). The discussion indicated that most assets are held by the five higher income groups (Figure 7.16). This is explained by Keynes' theory on income and consumption, which holds that households can save and/or acquire assets when their income levels are above their consumption levels. Similar to asset holding, the five higher income groups held the most liabilities in the weighted population (Figure 7.17). The permanent income hypothesis, which states that equalisation of income enables households (especially higher-income households) to borrow against future income to acquire assets and/or to save, was observed. Should these households be in their asset acquisition life stage, their income would make access to finance, such as mortgage bonds and other finance options, easier to obtain.

In section 7.8.3, the education profile (Figure 7.18) of the weighted South African household population was discussed. Across the weighted population, the asset-holding percentage by the different education level groups, in the eight main asset and liability classes, was presented (Figures 7.19 and 7.20). It was observed that the highest education groups held the most assets (Figure 7.19) and this contributed to the general understanding that increased levels of net wealth are associated with increased levels of education. The two highest education groups – as one would expect – also held the most liabilities (Figure 7.20), which contributes to the general understanding that higher education is associated with higher income levels and easier access to credit.

Finally, the labour status profile (Figure 7.21) of the weighted South African household population was described in section 7.8.4. Across the weighted population, the asset-holding percentage by the different labour status groups, in the eight main asset and liability classes, was presented (Figures 7.22 and 7.23). As anticipated, of all the groups, the employed group held the most assets (Figure 7.22). On the basis of the discussion, it was concluded that employment could be viewed as a prerequisite to obtaining income, which would improve the chances of net wealth accumulation. As anticipated, the employed also held more liabilities than the other groups (Figure 7.23) and the necessity of having a stable income in the granting of longer-term financing was apparent.

In closing, previous research also found age and income to be suitable classifiers or determinants of asset accumulation (Beverly, Sherraden, Zahn, William Shanks, Nam & Cramer, 2008; Carasso & McKerman, 2007; Lee, Lee & Mason, 2006). These studies also pointed out that education and age are related. An increase in educational level is often associated with higher age, although an increase in age does not necessarily result in an increase in education. Similarly, education and income are interrelated. Although income levels may increase with an increase in educational level, an increase in educational level does not necessarily result in an increase in income (Carasso & McKerman, 2007). Employment (presented as labour status) is viewed as a necessary prerequisite for income to be available to positively affect asset and liability accumulation (Bollen et al., 2007; Carasso & McKerman, 2007). The observation of these possible interaction effects on the accumulation of assets and liabilities in the weighted metropolitan and non-metropolitan population addressed the secondary research objective (section 1.3.1). The research question was formulated in section 1.3.4, namely do age group, income group, area of residence, labour status and education level and/or their interactions affect the asset and liability accumulation of households? However, to establish which of these interactions affected asset and liability accumulation meaningfully, the study made use of inferential statistical analysis to investigate the main hypothesis stated in section 1.3.4.2, namely:

- **H₀:** Age group, education level, labour status, income group and area (metropolitan/non-metropolitan) and all possible interactions between them

have no effect on the accumulation of assets and liabilities of South African households.

- **H₁:** Age group, education level, labour status, income group and area (metropolitan/non-metropolitan) and all possible interactions between them have an effect on the accumulation of assets and liabilities of South African households.

In section 7.9, the contribution of the five demographic variables (age group, income group, education group, labour status and area of residence [metropolitan versus non-metropolitan]) and all possible interaction effects between these demographic variables was explored by means of multivariate analysis of variance (MANOVA).

The contribution of the five independent variables (age group, income group, education group, labour status and area) and possible interactions in explaining the variance in the eight main asset and liability classes were explored by means of an iterative process. Table 8.2 provides a summary of the results of the process (Appendix E) and the univariate tests conducted.

Table 8.2
MANOVA and univariate test results

| Model | Interaction effect | MANOVA | | | Univariate | | |
|---|---------------------------|-----------|------------------|------------------|-------------|------------------|----------------------------|
| | | F value | Wilks' λ | Partial η^2 | F value | Partial η^2 | Asset/liability class |
| Assets: Full factorial model, excluding area | Income and age | 47 531.8 | 0.637 | 0.086 | 78 730.7 | 0.135 | Non-current assets |
| | | | | | 121 758.0 | 0.195 | Other non-financial assets |
| | | | | | 45 579.7 | 0.083 | Current assets |
| | Education, income and age | 27 535.0 | 0.720 | 0.063 | 36 347.6 | 0.082 | Non-current assets |
| | | | | 50 435.7 | 0.110 | Financial assets | |
| Assets: Full factorial model, including area | Income and age | 80 462.7 | 0.477 | 0.138 | 98 748.5 | 0.164 | Non-current assets |
| | | | | | 278 744.7 | 0.356 | Current assets |
| | Age, income and area | 315 817.1 | 0.171 | 0.298 | 2 383 449.6 | 0.763 | Current assets |
| | Education, income and age | 46 707.5 | 0.610 | 0.094 | 62 759.1 | 0.123 | Non-current assets |
| | | | | | 92 556.8 | 0.171 | Current assets |
| Education and income | 77 845.5 | 0.661 | 0.080 | 275 304.1 | 0.234 | Current assets | |

| Model | Interaction effect | MANOVA | | | Univariate | | |
|---|--|-----------|------------------|------------------|-------------|------------------|-------------------------|
| | | F value | Wilks' λ | Partial η^2 | F value | Partial η^2 | Asset/liability class |
| Assets: Custom model | Income and age | 60 748.3 | 0.498 | 0.130 | 51 105.1 | 0.112 | Non-current assets |
| | | 235 152.9 | | | | 0.367 | Current assets |
| | Age, income and area (metropolitan/non-metropolitan) | 211 926.3 | 0.123 | 0.342 | 1 383 535.9 | 0.773 | Current assets |
| | Education, income and age | 27 002.0 | 0.613 | 0.093 | 31 574.0 | 0.107 | Financial assets |
| 52 205.0 | | | | | 0.166 | Current assets | |
| Education and income | 68 347.6 | 0.644 | 0.084 | 259 406.4 | 0.259 | Current assets | |
| | | | | | | | |
| Liabilities: Full factorial model, excluding area | Income and age | 53 404.7 | 0.696 | 0.114 | 106 985.8 | 0.205 | Non-current liabilities |
| | | 42 535.0 | | | | 0.093 | Current liabilities |
| Liabilities: Full factorial model, including area | Income and age | 35 761.4 | 0.789 | 0.076 | 50 338.1 | 0.104 | Non-current liabilities |
| | | 34 215.1 | | | | 0.073 | Financial liabilities |
| Liabilities: Custom model | Income and age | 141 747.0 | 0.287 | 0.341 | 220 486.1 | 0.446 | Non-current liabilities |
| | | | | | 194 853.9 | 0.415 | Financial liabilities |
| | | | | | 173 213.7 | 0.387 | Current liabilities |

Source: Researcher's own compilation

The MANOVA results identified meaningful interaction effects that impacted on the accumulation of assets and liabilities across the weighted population. Regarding the five asset class variables, the research established that the null hypothesis could be rejected, and the following meaningful interaction effects were identified (Table 8.2 custom model):

- age, income and area (metropolitan/non-metropolitan);
- income and age;
- education, income and age; and
- education and income.

The MANOVA of the custom model indicated that the age, income and area interaction explained the highest variance in the set of asset variables (red in Table 8.2). The improvement in the Wilks' lambda value (0.123 for the income, age and

area interaction versus 0.498 for the income and age interaction) indicated that area did in fact have an effect and largely helped to explain the variance in the set of asset variables. The MANOVA results thus confirmed the contemporaneous effect of income, age, education and area of residence on asset accumulation. Furthermore, the univariate test revealed that differences existed between the mean values of current assets for all the identified interaction effects. Differences also existed between the mean values of non-current assets for the income and age group combinations and between the mean values of financial assets for the education, income and age group combinations.

As far as liability accumulation is concerned, the null hypothesis stated above could also be rejected, but only one interaction effect, namely that between income and age (red in Table 8.2), meaningfully influenced the three liability class variables. Furthermore, the univariate test revealed that differences existed between the mean values of non-current liabilities, financial liabilities and current liabilities for the income and age group combination. The results concluded the data analysis and phase 3 of the research project.

It is clear from the discussions in this section, that the research achieved all the research objectives (section 1.3.1). The next section deals with limiting factors that occurred during the research and their impact on the results.

8.3 LIMITATIONS OF THE RESEARCH

Section 1.6 explained the initial limitations on the scope of the study. The continued effect of these limitations on the data collected and the interpretation of the results necessitated their re-evaluation in this section as well. Other possible limitations which should be noted because of their influence on the overall usefulness of the results are also discussed here.

Only accounting standards applicable at the time of completion of the survey were included in the study. The Conceptual Framework (SAICA, 2010a) formed the foundational theory for the presentation of the results of the study. This was the accounting standard applicable on the date of the survey as well as at the time of completion of the study.

Only English international net wealth measurement instruments, which the researcher could access, were included in the international literature review of net wealth measurement surveys (section 4.3) from which the heuristic model for the South African financial position section of the survey instrument was developed, as described in section 4.4.

To enhance the usefulness of the collected data, appropriate measures were taken to ensure the reliability of the data (section 6.3). Examples were the use of trained fieldworkers to conduct the survey, the use of a fieldworker manual or interviewer guide (Appendix C) to explain the terminology, and proper supervision of the fieldworkers and data capturers. Despite the strategies employed to reduce the effect of errors on the results, as explained in section 6.4, interviewer bias is inherent in survey research and should be noted. Other errors that could influence the results are participant errors, non-response errors, coding and capturing errors and errors in explanation. These errors were discussed in detail in section 6.4.

Only natural persons over the age of 16 years were requested to participate in the omnibus survey. The participation of households relied on the willingness of household members to reveal sensitive data, and the data they provided was accepted as the household's best estimate of the current or market value of their assets and liabilities. Although alternative measuring possibilities were incorporated in the survey (section 5.4) to establish if the values presented by the respondents were reliable, the data obtained from household respondents concerning these alternative measures was lacking and could often not be used to determine the reliability of the estimates. However, where the detail provided could help to verify/establish the values, it was used for that purpose.

Furthermore, despite making use of a detailed scientific sampling plan, as discussed in section 6.2.3, and owing to the voluntary nature of the research, most of the respondents in the survey were from lower-income households (Figure 7.15). Hardly any high-income households participated, despite the researcher's concerted efforts (section 6.3) to include those households in the study.

The importance of the urban-rural divide in South Africa was discussed in section 1.2. However, the limited inclusion of actual rural households (15.1%) in the form of plot

owners and farmers was another limitation in terms of the usefulness of the results. The limited inclusion resulted in presenting a metropolitan–non-metropolitan view as opposed to an urban–rural view of South African household asset and liability accumulation.

In the light of the validity and structural integrity of the data, as discussed in section 7.3, the total expenditure variable in the survey was used as a proxy for the income variable. Furthermore, only 1 674 usable responses were obtained. Only the usable responses were weighted to represent the total weighted South African household population.

The data was also classified into eight main asset and liability categories, and a number of analyses were conducted on these eight main asset and liability classes, instead of on individual asset and liability variables. The effect of the classification was that variables were categorised in a specific asset or liability class based on the researcher's interpretation of the classification principles in the Conceptual Framework (SAICA, 2010a). A number of asset classes, such as listed investments and deposit accounts, were included under current assets but could have also been included under financial assets (similar to their treatment in the System of National Accounts), which would have resulted in different interpretations in the analysis of the data (section 7.7).

Finally, the uneven metropolitan–non-metropolitan distribution, as discussed in section 7.5.1, limited direct comparison of assets and liabilities of households between those areas. The skewed financial data (see the box plots in appendix E) and the effect of missing values limited the use of descriptive statistical values such as the mean and modus, and resulted in a discussion of percentage contribution and the ranking of the data (section 7.7) instead of a comparison of metropolitan and non-metropolitan households' financial values.

8.4 RECOMMENDATIONS FOR FUTURE RESEARCH

The statement of financial position section developed by the researcher from the international literature review could be used in any omnibus survey to collect data on the accumulation of South African household assets and liabilities. Conducting a net wealth measurement study on an annual basis for South Africa could lead to the

establishment of an updated asset and liability micro-level household database and thus form the basis of many household studies, as envisaged in section 1.4.

If household net wealth measurement could be conducted annually, it would be possible to conduct a longitudinal net wealth measurement study which would present information, such as trend analyses of the accumulation of the different household assets and liabilities, not yet available. This would lead to improved household net wealth data to support the overall management of household assets and liabilities.

Future studies could also attempt to include more high-income households or a similar study could be conducted among high-income households in order to establish whether patterns in their asset and liability accumulation differ significantly from the patterns observed in the current and previous international household net wealth studies.

Based on the results of this study, the participation of rural households could be extended to gain an urban versus rural view of household net wealth accumulation instead of a metropolitan versus a non-metropolitan view.

More in-depth statistical analysis of the various asset and liability classes could also be performed. The current research helped to identify meaningful interaction effects of household net wealth, and this knowledge could be made available to enable households to better manage their net wealth, specifically in relation to proper debt management.

More spatially sensitive net wealth analyses could be conducted, such as in terms of differences in income, age and education in the urban–rural or metropolitan–non-metropolitan divide.

An analysis of factors affecting household financial net wealth as well as overall financial well-being and their importance in ensuring a healthy environment for household net wealth to increase, would also be beneficial.

The transmission path of low-income households to becoming financially independent for retirement purposes would also provide valuable information and this would therefore be a worthwhile area to explore in the future.

The effect of using different household definitions on the results of net wealth measurement could also be studied.

Establishing a risk profile for households could be hugely beneficial in the management of net wealth, specifically in relation to debt and financial vulnerability to assist households with measures to avoid financial disaster.

Based on the results of this study, employment and education were deemed to have a meaningful impact on household net wealth accumulation. These concepts could be further explored and strategies could be developed to improve household net wealth through policy implementations focused on employment and education.

The life-cycle of household members could also be further investigated to establish patterns in asset and liability accumulation, for example, for different age or income groups. This would help to establish the transmission path for households to move from one income group to the next, and thus improve overall financial well-being.

Studies on the financial behaviour of households could provide further insights into household asset and liability accumulation. The way households make their financing decisions and the use of government policy to change household's financial behaviour might be a challenging but interesting contribution to overall South African household financial net wealth knowledge.

In conclusion, government, household net wealth experts and interested parties could use the data from this and future longitudinal research to track their reform goals and identify target groups based on research results and not merely on conjecture or political expediency.

8.5 CONCLUSION AND POLICY IMPLICATIONS

Despite the limitations referred to in section 8.3, the study makes a significant contribution to household data and knowledge not previously available in South Africa. The current study contributed to the accounting field by illustrating the usefulness of financial statement presentation, based on the Conceptual Framework, for the household sector. This framework is currently only prescribed for business entities.

The study also developed a South African household financial position section that can be included in any omnibus survey to classify, recognise and measure the asset and liability base of South African households using micro-level data. The financial position section made possible the presentation of disaggregated statements of financial position for the South African household sector. This is a major contribution towards South African net wealth measurement since previous South African household research (section 4.2) focused mainly on income, poverty and the impact of price increases on household cash flow and net wealth. According to the “Momentum/Unisa South African Household Wealth Index Q4 2012” report (Momentum/Unisa, 2012:1–4), previous research, which focuses on household income and expenditure only, provides a narrow view of household financial well-being. Viewing information on households’ statement of financial position together with income and expenditure, gives one a broad impression of household financial net wealth.

In section 1.4, the researcher mentioned the adverse influence of the 2008/2009 economic recession on household net wealth, which emanated from the European credit crisis. According to the Momentum/Unisa report (2012), the impact was so severe that it wiped out five years of household net wealth. This could result in households having to postpone retirement and/or increase their saving.

This concern for household net wealth and well-being is further reiterated in the National Development Plan 2030 (NPC, 2013), which government issued in February 2013. The 2013 National Budget was the first to be tabled within the framework of the National Development Plan (National Treasury, 2013). The purpose of developing the National Development Plan was to eliminate poverty and reduce inequality and unemployment by 2030, and to also improve education levels and broaden access to housing and amenities (NPC, 2013:14). This can only be accomplished by growing an inclusive economy, building capacities, enhancing the capability of the state and working together to solve complex problems. The following three priorities were raised in the National Development Plan (NPC, 2013:17):

- (1) raising employment through economic growth;
- (2) improving the quality of education, skills and innovation; and
- (3) building the capacity of the state to play a developmental and transformative role.

The current study also underscored the importance of employment and education (section 7.8). Employment was found to be a necessary prerequisite for the accumulation of household net wealth, while improved education levels corresponded with higher levels of asset accumulation. Underscored by the results of the present research, one may conclude that government's concern about employment and education is well founded. Education builds a country's human capital and equips the youth with the skills they need to become economically productive. Hence improving education is essential to combat poverty, unemployment and inequality (National Treasury, 2013:88). Furthermore, creating sufficient employment opportunities for South African households should remain pertinent and of primary importance to promote an increase in net wealth and overall financial well-being.

In South Africa, reducing the cost of living is essential for broadening economic participation and eliminating poverty. Government contributes to reducing the cost of living in the following three ways (National Treasury, 2013:81):

- (1) through its investment in the social wage, comprising education, health services, social development, public transport, housing and amenities;
- (2) by supporting vulnerable households through the old age grant, the child support grant and other social assistance grants; and
- (3) contributing towards social security through unemployment insurance, injury compensation, death and disability benefits.

However government funding cannot fully meet both social and development challenges and all the needs of households and communities. Hence economic growth, employment and increasing incomes are some of the main determinants of social progress and poverty reduction (National Treasury, 2013:94).

In the past, cities were regarded as the primary places for creating net wealth because they provide infrastructure and continue to attract people for that reason (UNDP, 1990:90). Rural–urban migration choices, however, are based not only on

potential income but also on prospective access to services (UNDP, 1990:193). In South Africa, the process of urbanisation (section 1.2) has created a host of new opportunities. However, this is linked to new and ill-understood problems such as over-crowding in cities and associated urban poverty owing to a lack of employment in cities. Government should introduce programmes not only to reduce urban poverty but also to slow down urbanisation. Rural areas should be developed to facilitate economic growth, and government should encourage industrial development in rural areas through tax incentives and other measures, such as improved service delivery in rural areas. This should discourage migration to cities and reduce the “pull-factor” of urban areas and the “push-factor” of rural areas for access to better services (UNDP, 1990:88). However, this report (UNDP, 1990:89) indicates that the setting of minimum rural wages to reduce wage differences between urban and rural areas has resulted in increased use of seasonal labour in rural areas instead of permanent labour, as well as increased mechanisation. Government should therefore implement plans and policies to strengthen towns and smaller cities through better urban management (UNDP, 1990:95). Policies to promote regional integration could potentially generate economies of scale and would improve employment opportunities (UNDP, 1990:101).

Expanding opportunities for work and improving earnings from productive economic activity are therefore essential. Household studies that monitor these factors are crucial in providing reliable measures to serve as a basis for policy decisions. The proposed research studies (section 8.4) and the results of this research and future waves of this research would provide useful information to monitor household net wealth, saving and debt accumulation. This is crucial in the development of a sustainable household financial future. As Grace Hopper (Sharequote.com, 2013) so aptly states, such research is truly worth more than a thousand expert opinions.

“Now this is not the **end**. It is not even the **beginning** of the **end**. But it is, perhaps, the **end** of the **beginning**.” – Winston Churchill (Brainyquote.com, 2013)

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APPENDIX A

PRELIMINARY HOUSEHOLD NET WEALTH SURVEY

PRELIMINARY HOUSEHOLD WEALTH SURVEY

We are currently conducting a nationwide research study on household wealth with the specific purpose of improving household wealth in general. We view all households as greatly affected by all economic decisions made on their behalf. This is your opportunity to participate and contribute to improve economic policies and decision-making by providing information on your household wealth.

The information obtained will be used:

- to communicate findings on the general wealth of the household sector in South Africa;
- to aid in strategic decision-making to the benefit of the household sector and economy as a whole; and
- to evaluate the saving and investment decisions of households and to direct future research towards establishing the drivers of such decisions.

The Personal Finance Research Unit (PFRU) was established in 2011 as a joint venture between the School of Accounting Sciences and the Bureau of Market Research (BMR) at Unisa. The PFRU aspires towards excellent and relevant research that would serve the community and relevant stakeholders. One of the PFRU's main research projects for the current year is to conduct a National Household Wealth Survey to address the need for micro-economic household sector data. In the past household data was obtained by conducting censuses, but since 2001 this has not been done. To serve the community and vested stakeholders, the need for current household data is essential.

Your input is of great value to ensure that decision-making is to the benefit of the household sector as a whole and not based mainly on the views of outside parties. Your participation is voluntary and the information that you share with us in this survey will be treated in the strictest confidence and will be used for research purposes only. As a token of our gratitude towards your time to complete the questionnaire, we offer to supply each household that participates, with either a Unisa T-shirt or cap, or should you indicate the need for such a statement, the researchers will award each participating household with a Balance sheet that not only will enable you to determine your household's financial soundness but could also assist you in future financial planning and decision-making based on your current financial position. Preparation of a Statement of Financial Position could be a great expense to a household if done professionally.

The questionnaire will take approximately to complete.

If you have any queries about this study, please contact:

Prof D Scheepers
scheed@unisa.ac.za
 083 0291 0980

Prof B de Clercq
Dclerb@unisa.ac.za
 083 442 4659

Prof JMP Venter
ventejmp@unisa.ac.za
 083 234 9343

Prof C van Aardt
Vaardcj@unisa.ac.za
 082 950 4325

We thank you for your time and cooperation.

| CATEGORY | | Page nr |
|---------------------|---|---------|
| SECTION I. | COMPOSITION OF HOUSEHOLD AT 31 DECEMBER 2010 / 28 FEBRUARY 2011 | |
| A | Household demographic section | |
| SECTION II. | HOUSEHOLD'S INCOME AND EXPENSES FOR THE PERIOD ENDING ON 31 DECEMBER 2010 / 28 FEBRUARY 2011 | |
| B | Household Income and Expenditure Section | |
| SECTION III. | HOUSEHOLD'S FINANCIAL POSITION (BALANCE SHEET) AS AT 31 DECEMBER 2010 / 28 FEBRUARY 2011 | |
| C | Main Residence | |
| D | Other property | |
| E | Vehicles | |
| F | Household Contents and Collectables | |
| G | Pensions | |
| H | Business interests | |
| I | Trusts | |
| J | Financial assets | |
| K | Children's assets | |
| L | Informal savings | |
| M | Inheritances and other sums received | |
| N | Other non-mortgage liabilities | |
| O | Short-term financial liabilities | |
| SECTION IV. | HOUSEHOLD'S FINANCIAL BEHAVIOUR | |

SECTION I. COMPOSITION OF HOUSEHOLD AT 31 DECEMBER 2010 / 28 FEBRUARY 2011

ALL HOUSEHOLD MEMBERS

I would first like to record the composition of the household. Please list all household members on 28 February 2011. ***(Include all persons normally living in the dwelling on 28 February 2011 who contributed at least part of their income to the household. Include any members temporarily absent – eg on vacation, away for study purposes, etc)***

A00 The household comprised persons, including children.

NCOMP | | Number of persons from 0 years of age upwards living in the household on 28 February 2011.

Record the personal data for each member of the household. If the household contains more than 6 members, please use 2 forms.

Use one column for each person, beginning with the HEAD OF HOUSEHOLD (H.H.), ie the person RESPONSIBLE FOR THE HOUSEHOLD BUDGET, followed one by one by the other household members. For each household member, record first name, gender, position in household, place of birth, date of birth, and so on until all the requested information has been given for each person.

N.B. Identify the effective head of household, ie the PERSON PRIMARILY RESPONSIBLE FOR THE HOUSEHOLD BUDGET. Record information on the head of household in column 1 and continue with the remaining household members. Keep to the same order in subsequent pages.

| Member number → | H.H. 1 | 2 | 3 | 4 | 5 | 6 |
|-------------------------|--------|---|---|---|---|---|
| NAME (write in full) | | | | | | |
| A01 Gender (select one) | 1 | 1 | 1 | 1 | 1 | 1 |

| | | | | | | |
|--|----|----|----|----|----|----|
| - male | 2 | 2 | 2 | 2 | 2 | 2 |
| - female | | | | | | |
| A02 Status in household (select one) | | | | | | |
| - head of household (H.H.) | | | | | | |
| - spouse/partner of H.H. | 1 | 1 | 1 | 1 | 1 | 1 |
| - parent of H.H. | 2 | 2 | 2 | 2 | 2 | 2 |
| - parent of H.H.'s spouse/partner | 3 | 3 | 3 | 3 | 3 | 3 |
| - child of H.H. and present spouse/partner | 4 | 4 | 4 | 4 | 4 | 4 |
| - child of H.H. or spouse/partner from previous relationship | 5 | 5 | 5 | 5 | 5 | 5 |
| - spouse/partner of child of H.H. or H.H.'s spouse/partner | 6 | 6 | 6 | 6 | 6 | 6 |
| - grandchild of H.H. or spouse/partner | 7 | 7 | 7 | 7 | 7 | 7 |
| - niece/nephew of H.H. or spouse/partner | 8 | 8 | 8 | 8 | 8 | 8 |
| - sibling of H.H. | 9 | 9 | 9 | 9 | 9 | 9 |
| - sibling of H.H.'s spouse/partner | 10 | 10 | 10 | 10 | 10 | 10 |
| - spouse/partner of sibling of H.H. or H.H.'s spouse/partner | 11 | 11 | 11 | 11 | 11 | 11 |
| - other relative of H.H. or spouse/partner | 12 | 12 | 12 | 12 | 12 | 12 |
| - other household member not related to H.H. | 13 | 13 | 13 | 13 | 13 | 13 |
| | 14 | 14 | 14 | 14 | 14 | 14 |
| A03 Year of birth | | | | | | |
| A04 MARITAL STATUS (select one) | | | | | | |
| - married | 1 | 1 | 1 | 1 | 1 | 1 |
| - single | 2 | 2 | 2 | 2 | 2 | 2 |
| - separated/divorced | 3 | 3 | 3 | 3 | 3 | 3 |
| - widowed | 4 | 4 | 4 | 4 | 4 | 4 |

| | | | | | | |
|--|----|----|----|----|----|----|
| A05 EDUCATIONAL QUALIFICATIONS (select one) (Give the highest qualification obtained) | | | | | | |
| - none | 1 | 1 | 1 | 1 | 1 | 1 |
| - primary school certificate | 2 | 2 | 2 | 2 | 2 | 2 |
| - lower secondary school certificate | 3 | 3 | 3 | 3 | 3 | 3 |
| - vocational secondary school diploma (3 years of study) | 4 | 4 | 4 | 4 | 4 | 4 |
| - upper secondary school diploma | 5 | 5 | 5 | 5 | 5 | 5 |
| - 3-year university degree/higher education diploma | 6 | 6 | 6 | 6 | 6 | 6 |
| - 5-year university degree | 7 | 7 | 7 | 7 | 7 | 7 |
| - postgraduate qualification | 8 | 8 | 8 | 8 | 8 | 8 |
| A06 5-YEAR DEGREE OR 3-YEAR DEGREE/H.E. DIPLOMA (select one) | | | | | | |
| - mathematics, physics, chemistry, biology, science, | 1 | 1 | 1 | 1 | 1 | 1 |
| - agriculture and veterinary sciences | 2 | 2 | 2 | 2 | 2 | 2 |
| - medicine and dentistry | 3 | 3 | 3 | 3 | 3 | 3 |
| - engineering | 4 | 4 | 4 | 4 | 4 | 4 |
| - architecture and town planning | 5 | 5 | 5 | 5 | 5 | 5 |
| - economics and statistics | 6 | 6 | 6 | 6 | 6 | 6 |
| - political science and sociology | 7 | 7 | 7 | 7 | 7 | 7 |
| - law | 8 | 8 | 8 | 8 | 8 | 8 |
| - arts, philosophy, languages, teacher training, psychology | 9 | 9 | 9 | 9 | 9 | 9 |
| - other | 10 | 10 | 10 | 10 | 10 | 10 |

| | |
|--|---|
| A07 PROVINCE (select one) <ul style="list-style-type: none"> - Eastern Cape - Free State - Gauteng - KwaZulu-Natal - Limpopo - Mpumalanga - Northern Cape - North West - Western Cape | 1 2 3 4 5 6 7 8 9 |
| A08 TYPE OF AREA (select one) <ul style="list-style-type: none"> - metropolitan area - city - town - rural | 1 2 3 4 |
| A09 NUMBER OF CHILDREN IN FOLLOWING AGE GROUPS (fill in the number) <ul style="list-style-type: none"> - younger than 13 years - between 13 and 18 years | 1 2 |
| A10 POPULATION GROUP (select one) <ul style="list-style-type: none"> - African/Black - Asian/Indian - Coloured - White - Other | 1 2 3 4 5 |
| A11 EMPLOYMENT STATUS (select one) <ul style="list-style-type: none"> - employed full-time - employed part-time - self employed full-time - self employed part-time - unemployed - not available for employment (housewife, student, retired) | 1 2 3 4 5 6 |

SECTION II. HOUSEHOLD INCOME AND EXPENDITURE FOR THE PERIOD ENDING 31 DECEMBER 2010 / 28 FEBRUARY 2011

B00: In the following section we require some information regarding EACH member of the household's income. Please indicate if you would prefer to supply your household income financial position as at:

1. 28 February 2011 or
2. 31 December 2010

| | | | | | | |
|---|---|---|---|---|---|---|
| - B01 salaries and wages | R | R | R | R | R | R |
| - B02 net profit from business or professional practice/activities or farming | R | R | R | R | R | R |
| - B03 net income from letting of fixed property | R | R | R | R | R | R |
| - B04 royalties | R | R | R | R | R | R |
| - B05 interest received and/or accrued on deposits, loans, savings certificates and dividends on building society shares | R | R | R | R | R | R |
| - B06 dividends on shares other than building society shares | R | R | R | R | R | R |
| - B07 regular (monthly, weekly, etc) receipts from pension and other annuity funds | R | R | R | R | R | R |
| - B08 regular (monthly, weekly, etc) receipts from social welfare and grants provided | | | | | | |
| - B09 alimony, maintenance and similar | R | R | R | R | R | R |
| - B10 regular allowances received from family members living elsewhere | R | R | R | R | R | R |
| - B11 income source not submitted | R | R | R | R | R | R |
| - B12 income in kind | R | R | R | R | R | R |
| - B13 transfers in cash or in kind | R | R | R | R | R | R |

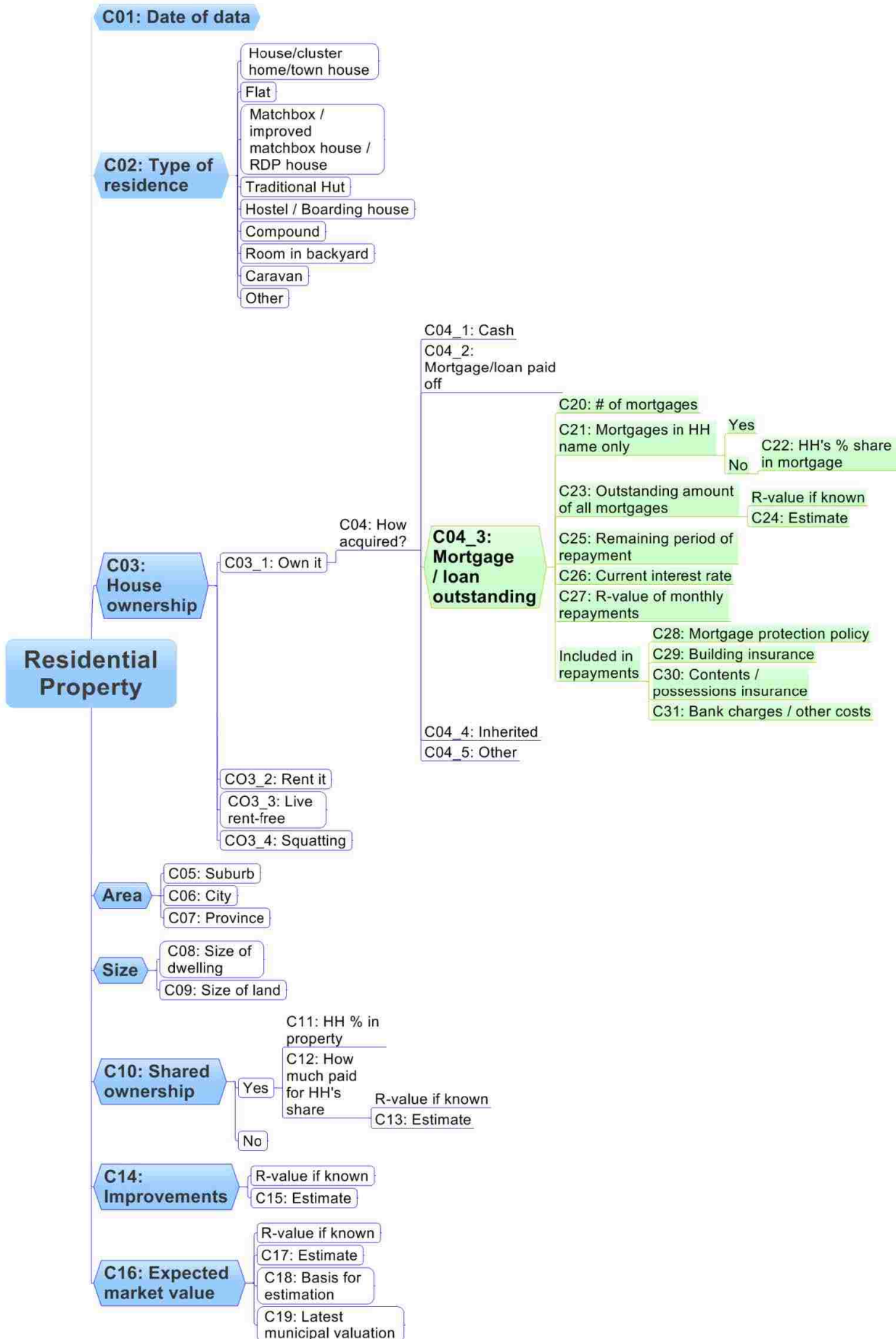
Inform the respondent that the information requested up to now was required for the individual members or household head. The remainder of the information is required for the household in total. Remind the respondent of the date of the data they are supplying.

| COMBINED TOTAL HOUSEHOLD EXPENSES (R-value for past 12 months) | |
|---|---|
| - B14 alcoholic beverages | R |
| - B15 income tax | R |
| - B16 cigarettes & tobacco | R |
| - B17 insurance & funds | R |
| - B18 clothing, footwear & accessories | R |
| - B19 medical & dental | R |
| - B20 communication | R |
| - B21 miscellaneous | R |
| - B22 domestic workers | R |
| - B23 personal care | R |
| - B24 education | R |
| - B25 reading matter & stationery | R |
| - B26 food | R |
| - B27 recreation, entertainment & sport | R |
| - B28 furniture & household equipment | R |
| - B29 savings | R |
| - B30 holiday/weekend (excl transport) | R |
| - B31 support of relatives | R |
| - B32 housing & electricity | R |
| - B33 transport | R |
| - B34 washing & cleaning materials, etc | R |
| - B35 debt servicing payments | R |

B36: Should your income, for whatever reason, not be sufficient to pay all your monthly responsibilities, please indicate from 1 to 5 the first 5 items that you will pay in order of payment, with 1 being the item you will pay first.

| | |
|---|--|
| Food | |
| Primary housing services (e.g. rates & taxes; levies etc) | |
| Health care (e.g. medicine, clinics, health insurance) | |
| Personal care (e.g. cosmetics, toiletries, clothing) | |
| Transportation (e.g. taxi, petrol, car payment) | |
| Recreational expenditure (e.g. movies) | |
| Education | |
| Insurance | |
| Communication (cell phone, internet) | |
| Saving (policies, cash – whatever they see as saving) | |
| Outstanding accounts (that is not included above) | |
| Other | |

SECTION III. FINANCIAL POSITION OF HOUSEHOLD (BALANCE SHEET) AS AT 31 DECEMBER 2010 / 28 FEBRUARY 2011



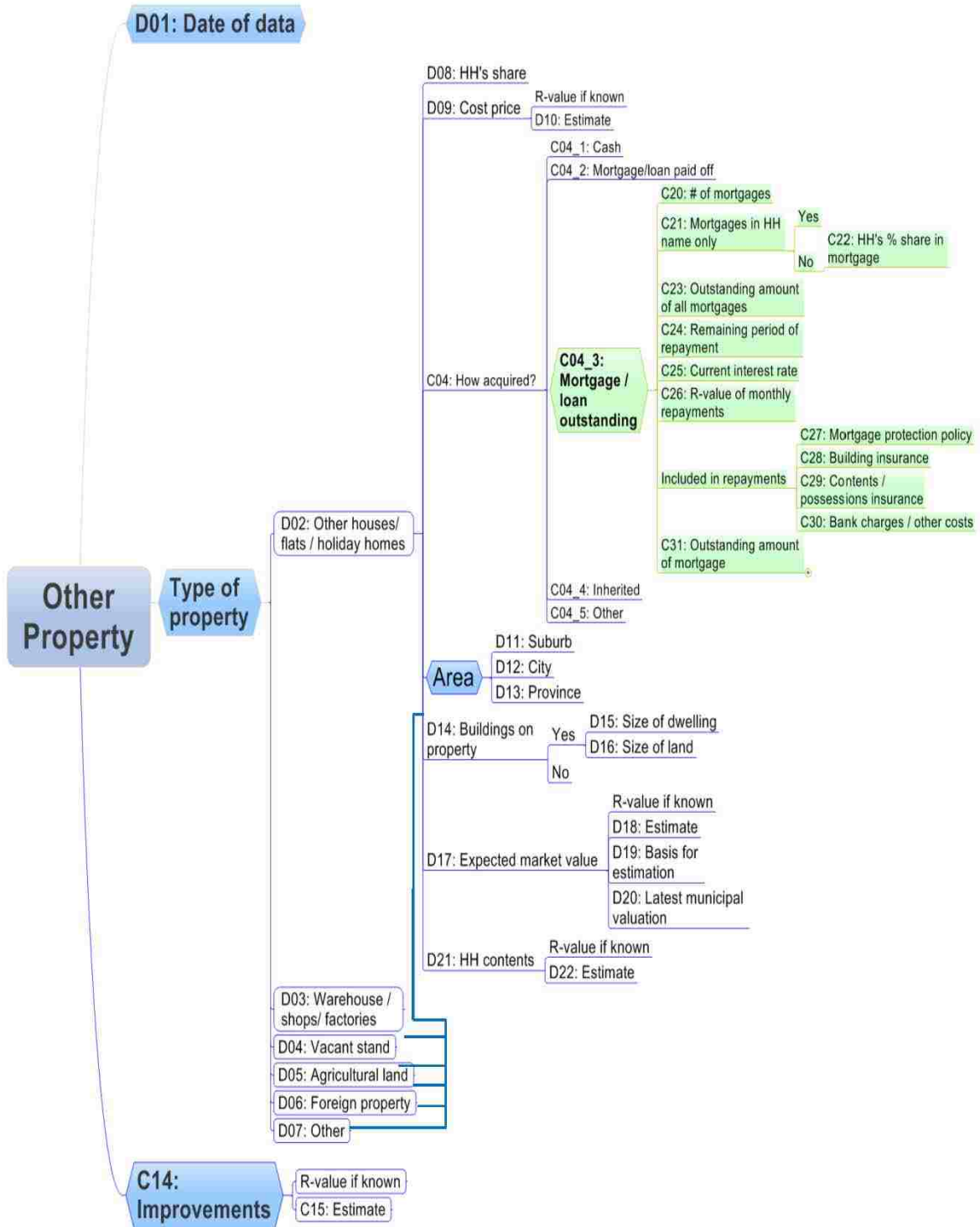
C. Main Residence (Refers to the brick and mortar structure of your house or dwelling as well as the land/stand it is situated on. Don't include household contents eg furniture, fittings, equipment, etc unless prompted to include)

| | |
|--|--|
| C01 | As financial wealth is established at a specific point in time, please indicate if you would prefer to supply your household financial position as at: 1. 28 February 2011 or 2. 31 December 2010 CHOOSE THE DATE MOST SUITABLE FOR THE INFORMATION TO BE AVAILABLE. TAX PAYERS NORMALLY HAVE UPDATED INFORMATION FOR THE TAX YEAR-END BEING 28 FEBRUARY. ONCE A DATE IS DECIDED ON, PLEASE ENSURE THAT YOU SUPPLY INFORMATION AS AT THAT DATE THROUGHOUT THE SURVEY. |
| C02 | Is your main residence a (select one) 1. House/Cluster home/Town House 2. Flat 3. Matchbox/ improved matchbox house/RDP house (Matchbox is a government built house normally in a township area) 4. Traditional Hut 5. Hostel 6. Hotel/ Boarding House 7. Compound 8. Room in backyard 9. Squatter hut 10. Caravan 11. Other ENTER DESCRIPTION OF OTHER |
| C03 | Indicate how you occupy this accommodation? (Select one) 1. Bought it (GO TO C04) 3. Rent it (GO TO SECTION D) 4. Live here rent-free (including rent-free in relative's/friend's property; excluding squatting) (GO TO SECTION D) 5. Squatting (GO TO SECTION D) |
| C04 | Which of the following best describes the way you acquired your main residence? 1. paid cash for it, 2. bought it with a mortgage or loan that has since been paid off, 3. bought it with a mortgage or loan that you are still paying off, 4. inherited it or been given all or a share of the property, 5. acquired it in some other way? ENTER WAY IN WHICH IT WAS ACQUIRED |
| In which AREA is the main residence situated? | |
| C05 | ENTER SUBURB |
| C06 | ENTER CITY/METRO/TOWN |
| C07 | ENTER PROVINCE |
| C08 | Do you know the size of your dwelling in square meters? 1. Yes (ENTER SIZE OF DWELLING) 2. Don't know |
| C09 | Do you know the size in square meters of the land/stand the dwelling is situated on? 1. Yes (ENTER SIZE OF LAND/STAND) 2. Don't know |
| C10 | Do you share ownership of the main residence with a member outside the household? 1. Yes (GO TO C11) 2. No (GO TO C12) |
| C11 | What is your household's percentage share in the main residence? ENTER PERCENTAGE |
| C12 | How much did your household pay for its share in the main residence? 1. ENTER AMOUNT IN R (IF AMOUNT IS KNOWN, GO TO C14) 2. Don't know (GO TO C13) |

| | | | | | | | | | | | | | | | |
|--|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|
| C13 | <p>If unknown/refusal Can you perhaps indicate the range which best estimates the amount you paid for the main residence? <i>Please supply us with at least 7 range values you think SA house values could be categorized into for the estimate.</i></p> <table border="1" data-bbox="316 327 764 566"> <tr><td>1</td><td></td></tr> <tr><td>2</td><td></td></tr> <tr><td>3</td><td></td></tr> <tr><td>4</td><td></td></tr> <tr><td>5</td><td></td></tr> <tr><td>6</td><td></td></tr> <tr><td>7</td><td></td></tr> </table> | 1 | | 2 | | 3 | | 4 | | 5 | | 6 | | 7 | |
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| C14 | <p>What amount was spent on improvements to the main residence since you bought/obtained it? (IMPROVEMENTS INCLUDES ADD-ONS THAT INCREASE THE VALUE OF THE RESIDENCE eg, pool, patio, renovations to kitchen, bathrooms etc) 1. ENTER AMOUNT IN R (IF AMOUNT IS KNOWN, GO TO C16) 2. Don't know (GO TO C15)</p> | | | | | | | | | | | | | | |
| C15 | <p>If unknown/refusal Can you perhaps indicate the range that best estimates the amount you spend on improvements? <i>Please supply us with at least 7 range values you think improvements to property could be categorized into for the estimate.</i></p> <table border="1" data-bbox="316 913 764 1155"> <tr><td>1</td><td></td></tr> <tr><td>2</td><td></td></tr> <tr><td>3</td><td></td></tr> <tr><td>4</td><td></td></tr> <tr><td>5</td><td></td></tr> <tr><td>6</td><td></td></tr> <tr><td>7</td><td></td></tr> </table> | 1 | | 2 | | 3 | | 4 | | 5 | | 6 | | 7 | |
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| C16 | <p>Can you give me an estimate of the amount that your household would get if you sell your main residence today (before paying off any outstanding mortgage or loan on the main residence)? 1. ENTER AMOUNT IN R (IF AMOUNT IS KNOWN, GO TO C18) 2. Don't know (GO TO C17)</p> | | | | | | | | | | | | | | |
| C17 | <p>If unknown/refusal Can you perhaps indicate the range that best estimates the amount you would get for your main residence if you sell it today?</p> <table border="1" data-bbox="316 1391 764 1626"> <tr><td>1</td><td></td></tr> <tr><td>2</td><td></td></tr> <tr><td>3</td><td></td></tr> <tr><td>4</td><td></td></tr> <tr><td>5</td><td></td></tr> <tr><td>6</td><td></td></tr> <tr><td>7</td><td></td></tr> </table> | 1 | | 2 | | 3 | | 4 | | 5 | | 6 | | 7 | |
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| C18 | <p>Can you tell me what your estimate is based on? (Select one) 1. Professional valuation - estate agent/ surveyor etc. 2. Price of neighbouring/similar property 3. Knowledge of local market 4. Calculation based on purchase price or earlier valuation 5. Guess</p> | | | | | | | | | | | | | | |
| C19 | <p>Can you please supply us with the latest municipality valuation of this main residence? REFER TO YOUR MUNICIPALITY BILL ON 28 FEBRUARY 2011 OR 31 DECEMBER 2010 (REFER C 01) (Select one) 1. ENTER THE AMOUNT IN R 2. Don't have bill</p> | | | | | | | | | | | | | | |
| <p>I'd now like to ask some questions about all the MORTGAGES that you may have on your main residence.</p> | | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | |
|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|
| C20 | How many mortgages or loans do you currently have outstanding on your household's main residence (including any extensions or 'top ups' you have taken out)? EXCLUDE MORTGAGES WHICH HAVE BEEN PAID OFF. UNSECURED LOANS SHOULD NOT BE INCLUDED HERE - THEY WILL BE COVERED LATER IN THE QUESTIONNAIRE ENTER NUMBER | | | | | | | | | | | | | | |
| | REPEAT C21 to C31 FOR EACH INDIVIDUAL MORTGAGE ON RESIDENTIAL PROPERTY | | | | | | | | | | | | | | |
| C21 | Regarding mortgage/loan number #: Is this mortgage/loan in the name of a member of the household only? 1. Yes (GO TO C23) 2. No (GO TO C22) | | | | | | | | | | | | | | |
| C22 | What is your household's share in this mortgage/loan on the main residence? ENTER THE PERCENTAGE | | | | | | | | | | | | | | |
| C23 | What is the total outstanding amount on this mortgage/loan? ENTER TOTAL AMOUNT R | | | | | | | | | | | | | | |
| C24 | If unknown/refusal Can you perhaps indicate the range that best estimates the amount outstanding on the mortgage/loan? <i>Please supply us with at least 7 range values you think mortgages could be categorized into for the estimate of the question.</i> | | | | | | | | | | | | | | |
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| C25 | How many months do you have left to run on this mortgage/loan? 1. ENTER NUMBER OF MONTHS 2. Don't know | | | | | | | | | | | | | | |
| C26 | Do you know the current interest rate on the outstanding mortgage/loan? 1. ENTER THE RATE 2. Don't know | | | | | | | | | | | | | | |
| C27 | How much is your total monthly repayment on this mortgages/loan? 1. ENTER AMOUNT IN R 2. Don't know | | | | | | | | | | | | | | |
| Does this repayment include any of the following: | | | | | | | | | | | | | | | |
| C28 | 1. A mortgage insurance policy payment? 1. Yes 2. No | | | | | | | | | | | | | | |
| C29 | 2. Buildings insurance? 1. Yes 2. No | | | | | | | | | | | | | | |
| C30 | 3. Contents or possessions insurance? 1. Yes 2. No | | | | | | | | | | | | | | |
| C31 | 4. Bank charges or other costs? 1. Yes 2. No | | | | | | | | | | | | | | |
| C32 | I JUST WANT TO ENSURE THAT WE NOW HAVE THE INFORMATION ON ALL THE MORTGAGES/LOANS ON YOUR HOUSEHOLD'S MAIN RESIDENCE? 1. Yes (GO TO SECTION D) 2. No (GO TO C21) | | | | | | | | | | | | | | |

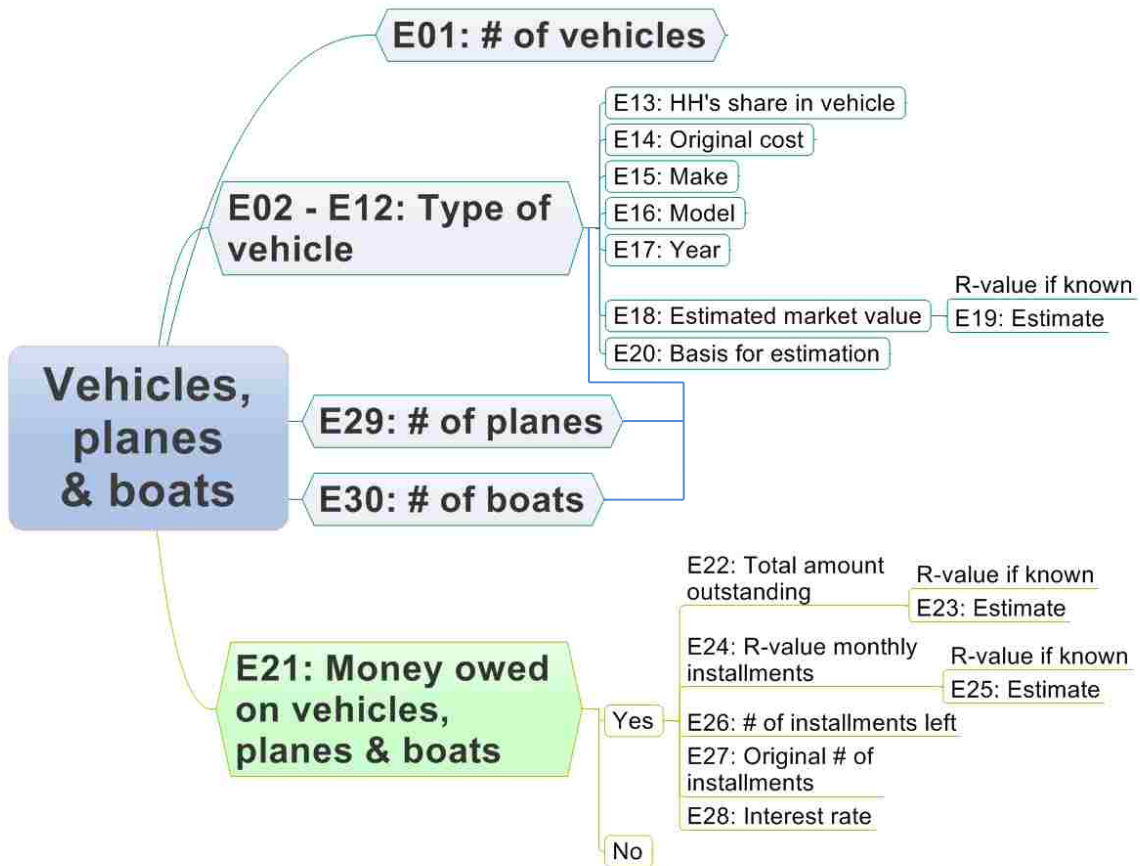
D. Other fixed estate property (excluding the residential property). (The brick and mortar structure as well as the stand or land it is situated on. Include content only when prompted to include)



| | (FOR EACH OF THE SELECTED PROPERTIES BELOW, QUESTIONS D7 TO D22 SHOULD BE ASKED) Do you own any | IF YES GO TO | IF NO GO TO | | | | | | | | | | | | | | |
|--|--|-----------------|----------------|---|--|---|--|---|--|---|--|---|--|---|--|---|--|
| D01 | Other houses/Townhouses/Flats/Holiday homes in SA | D07 | D02 | | | | | | | | | | | | | | |
| D02 | Commercial property in SA | D07 | D03 | | | | | | | | | | | | | | |
| D03 | Vacant stand in SA | D07 | D04 | | | | | | | | | | | | | | |
| D04 | Agricultural land or farms | D07 | D05 | | | | | | | | | | | | | | |
| D05 | Land or property overseas | D07 | D06 | | | | | | | | | | | | | | |
| D06 | Other real estate (PLEASE SPECIFY) | D07 | SECTION E | | | | | | | | | | | | | | |
| D07 | What is your household's percentage share in this property? ENTER PERCENTAGE | | | | | | | | | | | | | | | | |
| D08 | How much did your household pay for its share in this property? 1. ENTER AMOUNT IN R (IF AMOUNT IS KNOWN, GO TO SECTION D10) 2. Don't know (GO TO D09) | | | | | | | | | | | | | | | | |
| D09 | If unknown/refusal Can you perhaps indicate the range that best estimates the amount your household paid for its share in the property? <i>Please supply us with at least 7 range values you think other property could be categorized into for the estimate of the question.</i> <table border="1" style="margin-left: 20px;"> <tr><td>1</td><td></td></tr> <tr><td>2</td><td></td></tr> <tr><td>3</td><td></td></tr> <tr><td>4</td><td></td></tr> <tr><td>5</td><td></td></tr> <tr><td>6</td><td></td></tr> <tr><td>7</td><td></td></tr> </table> | | | 1 | | 2 | | 3 | | 4 | | 5 | | 6 | | 7 | |
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| In which AREA is the property situated? | | | | | | | | | | | | | | | | | |
| D10 | ENTER SUBURB | | | | | | | | | | | | | | | | |
| D11 | ENTER CITY/METRO/TOWN | | | | | | | | | | | | | | | | |
| D12 | ENTER PROVINCE | | | | | | | | | | | | | | | | |
| D13 | Are there any buildings on this property? 1. Yes (GO TO D14) 2. No (GO TO D15) | | | | | | | | | | | | | | | | |
| D14 | Do you know size in square meters of the buildings on the property? 1. ENTER SIZE OF BUILDING 2. Don't know | | | | | | | | | | | | | | | | |
| D15 | Do you know the size in square meters of the land/stand of this property? 1. ENTER SIZE OF LAND/STAND 2. Don't know | | | | | | | | | | | | | | | | |
| D16 | How much would you expect to get for your share in this property if you sold it today (before paying off any outstanding mortgage or loan on the property)? 1. ENTER AMOUNT IN R (IF AMOUNT IS KNOWN, GO TO SECTION D18) 2. Don't know (GO TO D17) | | | | | | | | | | | | | | | | |
| D17 | If unknown/refusal Can you perhaps indicate the range that best estimates the amount that you would get if you sold your share of this property today? <i>Please supply us with at least 7 range values you think the potential market value of these other properties could be categorized into for the estimate of the question.</i> <table border="1" style="margin-left: 20px;"> <tr><td>1</td><td></td></tr> <tr><td>2</td><td></td></tr> <tr><td>3</td><td></td></tr> <tr><td>4</td><td></td></tr> <tr><td>5</td><td></td></tr> <tr><td>6</td><td></td></tr> <tr><td>7</td><td></td></tr> </table> | | | 1 | | 2 | | 3 | | 4 | | 5 | | 6 | | 7 | |
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| D18 | Can you tell me what this estimate is based on? (Select one) | | | | | | | | | | | | | | | | |

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| | <ol style="list-style-type: none"> 1. Professional valuation - estate agent/surveyor etc. 2. Price of neighbouring/ similar property 3. Knowledge of local market 4. Calculation based on purchase price or earlier valuation 5. Guess | | | | | | | | | | | | | | |
| D19 | <p>Can you please supply is with the latest municipality valuation of this property? REFER TO YOUR MUNICIPALITY BILL ON 28 FEBRUARY 2011 OR 31 DECEMBER 2010 (REFER C 01) (Select one)</p> <ol style="list-style-type: none"> 1. ENTER THE AMOUNT IN R 2. Don't have bill | | | | | | | | | | | | | | |
| D20 | <p>Thinking about the other items on this property that the household owns, what is the approximate value of your share of the household contents? Please include all items, such as appliances and electronic equipment, furniture, clothing, vehicles and leisure items. THE VALUE IS THE APPROXIMATE AMOUNT THAT YOU WOULD GET IF YOU SELL THE ITEMS TODAY.</p> <ol style="list-style-type: none"> 1. ENTER AMOUNT R (IF AMOUNT IS KNOWN, GO TO SECTION D22) 2. Don't know (GO TO D21) | | | | | | | | | | | | | | |
| D21 | <p>If unknown /refusal Can you perhaps indicate the range that best estimates the value of the household contents? <i>Please supply us with at least 7 range values you think the contents of these other properties could be categorized into for the estimate of the question.</i></p> <table border="1" style="margin-left: 20px;"> <tr><td>1</td><td></td></tr> <tr><td>2</td><td></td></tr> <tr><td>3</td><td></td></tr> <tr><td>4</td><td></td></tr> <tr><td>5</td><td></td></tr> <tr><td>6</td><td></td></tr> <tr><td>7</td><td></td></tr> </table> | 1 | | 2 | | 3 | | 4 | | 5 | | 6 | | 7 | |
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| D22 | <p>Have you ever taken out any mortgages or have loans secured on this property?</p> <ol style="list-style-type: none"> 1. Yes (GO TO C21 TO C31 for each mortgage) 2. No (GO TO D23) | | | | | | | | | | | | | | |
| <p>After completion of series of questions regarding specific asset, return to next asset – e.g. household had D02 (other houses), answered all the questions, survey needs to return to D03 etc.</p> | | | | | | | | | | | | | | | |
| D23 | <p>Are there any other properties that your household owns (fully or partly) that we have not captured?</p> <ol style="list-style-type: none"> 1. Yes (GO TO D02) 2. No (GO TO D24) | | | | | | | | | | | | | | |
| D24 | <p>Have we captured all loans/mortgages on all the properties in section Dd?</p> <ol style="list-style-type: none"> 1. Yes (GO TO SECTION E) 2. No (GO TO C21-C31) | | | | | | | | | | | | | | |

E. Vehicles, boats & planes

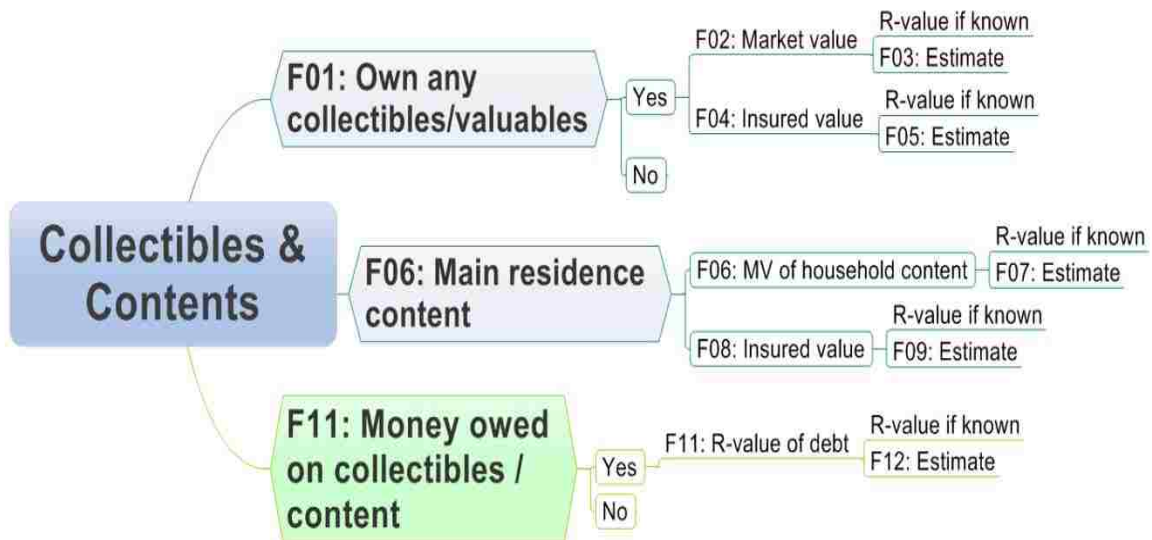


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| E01 | How many vehicles if any, does your household own? PLEASE EXCLUDE LEASE VEHICLES AND COMPANY VEHICLES. 1. ENTER NUMBER | | |
| | FOR EACH OF THE SELECTED VEHICLES BELOW, QUESTIONS E13 TO E28 SHOULD BE ASKED. Do you own a | IF YES GO TO | IF NO GO TO |
| E02 | Car/sedan | E13 | E03 |
| E03 | Hatchback | E13 | E04 |
| E04 | Station wagon | E13 | E05 |
| E05 | 2 seater coupe/Sports car | E13 | E06 |
| E06 | 2 wheel drive Bakkie/Panel van | E13 | E07 |
| E07 | 4 wheel drive vehicle | E13 | E08 |
| E08 | Minibus/Kombi | E13 | E09 |
| E09 | Beach buggy | E13 | E10 |
| E10 | Motorbike / scooter | E13 | E11 |
| E11 | Truck | E13 | E12 |
| E12 | Other type of vehicle (PLEASE SPECIFY) | E13 | E29 |
| E13 | What is your household's percentage share in this vehicle? RECORD PERCENTAGE | | |
| E14 | What was the original cost price your household paid for the vehicle? ENTER AMOUNT R | | |
| | Can you give me the make, model and year of the vehicle? | | |
| E15 | RECORD MAKE | | |
| E16 | RECORD MODEL | | |

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| E17 | RECORD YEAR | | | | | | | | | | | | | | |
| E18 | Can you estimate the amount your household could sell this vehicle for today? 1. ENTER AMOUNT IN R (IF AMOUNT IS KNOWN, GO TO SECTION E20) 2. Don't know (GO TO E19) | | | | | | | | | | | | | | |
| E19 | <p>If unknown /refusal Can you perhaps indicate the range that best estimates the amount that your household could sell this vehicle for today? <i>Please supply us with at least 7 range values you think the vehicles could be categorized into for the estimate of the question.</i></p> <table border="1"> <tr><td>1</td><td></td></tr> <tr><td>2</td><td></td></tr> <tr><td>3</td><td></td></tr> <tr><td>4</td><td></td></tr> <tr><td>5</td><td></td></tr> <tr><td>6</td><td></td></tr> <tr><td>7</td><td></td></tr> </table> | 1 | | 2 | | 3 | | 4 | | 5 | | 6 | | 7 | |
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| E20 | Can you tell me what this estimate is based on? 1. Professional valuation – from a motor dealer 2. Knowledge of local market 4. Calculation based on purchase price or earlier valuation 5. Guess 6. Other | | | | | | | | | | | | | | |
| E21 | Do you owe any money on this vehicle? 1. Yes (GO TO E22) 2. No (GO TO E29) | | | | | | | | | | | | | | |
| E22 | Although vehicles are normally paid off in instalments, what is the total outstanding amount on this vehicle finance agreement or loan? 1. ENTER AMOUNT R (IF AMOUNT IS KNOWN, GO TO SECTION E24) 2. Don't know (GO TO E23) | | | | | | | | | | | | | | |
| E23 | <p>If unknown/refusal Can you perhaps indicate the range that best estimates the amount that the household owes on this finance agreement? <i>Please supply us with at least 7 range values you think the outstanding amount could be categorized into for the estimate of the question.</i></p> <table border="1"> <tr><td>1</td><td></td></tr> <tr><td>2</td><td></td></tr> <tr><td>3</td><td></td></tr> <tr><td>4</td><td></td></tr> <tr><td>5</td><td></td></tr> <tr><td>6</td><td></td></tr> <tr><td>7</td><td></td></tr> </table> | 1 | | 2 | | 3 | | 4 | | 5 | | 6 | | 7 | |
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| E24 | How much is the household's monthly instalment on this vehicle finance agreement or loan? 1. ENTER AMOUNT R (IF AMOUNT IS KNOWN, GO TO SECTION E26) 2. Don't know (GO TO E25) | | | | | | | | | | | | | | |
| E25 | <p>If unknown/refusal Can you perhaps indicate the range that best estimates the monthly instalment? <i>Please supply us with at least 7 range values you think vehicle financing instalments could be categorized into for the estimate of this question</i></p> <table border="1"> <tr><td>1</td><td></td></tr> <tr><td>2</td><td></td></tr> <tr><td>3</td><td></td></tr> <tr><td>4</td><td></td></tr> <tr><td>5</td><td></td></tr> <tr><td>6</td><td></td></tr> <tr><td>7</td><td></td></tr> </table> | 1 | | 2 | | 3 | | 4 | | 5 | | 6 | | 7 | |
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| E26 | How many instalments does the household have left to pay on this vehicle finance agreement or loan? 1. ENTER THE NUMBER 2. Don't know |
| E27 | What was the original number of instalments on this finance agreement or loan? 1. ENTER ORIGINAL NUMBER OF INSTALLMENTS 2. Don't know |
| E28 | Do you know the interest rate of this vehicle finance agreement? 1. ENTER PERCENTAGE 2. Don't know |
| E29 | How many planes, if any, does your household own? ENTER NUMBER |
| FOR EVERY PLANE, QUESTIONS E13 TO E28 SHOULD BE ASKED, REPLACING REFERENCE TO VEHICLE WITH REFERENCE TO PLANE. | |
| E30 | How many boats, if any, does your household own? ENTER NUMBER |
| FOR EVERY BOAT, QUESTIONS E13 TO E28 SHOULD BE ASKED, REPLACING REFERENCE TO VEHICLE WITH REFERENCE TO BOAT. | |
| E31 | HAVE WE CAPTURED YOUR HOUSEHOLD'S OWNERSHIP OF ALL VEHICLES, PLANES AND BOATS IN SECTION E? 1. Yes (GO TO E32) 2. No (GO TO E02) |
| E32 | HAVE WE CAPTURED ALL VEHICLE FINANCE AGREEMENTS ON ALL THESE VEHICLES, PLANES AND BOATS IN SECTION E? 1. Yes (GO TO SECTION F) 2. No (GO TO E21-E28) |

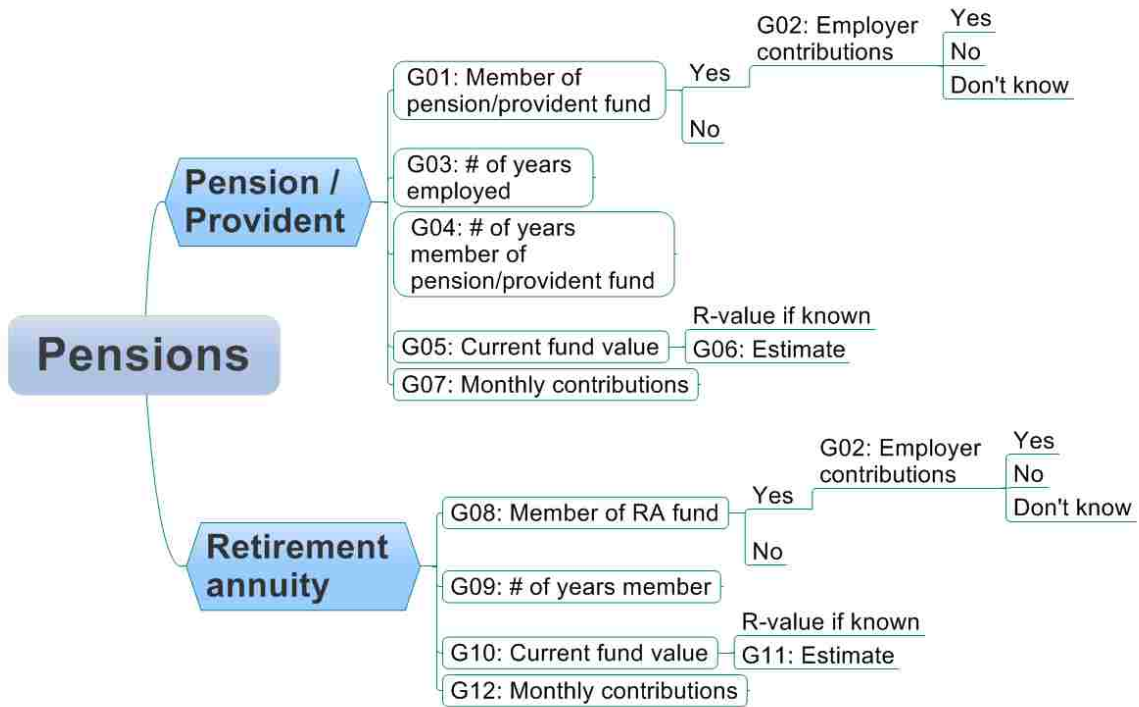
F. Household Contents and Collectibles (This section deals with the contents/collectibles at your **MAIN RESIDENCE and does not include the contents/collectibles of **OTHER PROPERTIES ALREADY SUPPLIED IN D20-D21)****



| In the following section we would like to build up a picture of your main residence's household content and collectibles | | | | | | | | | | | | | | | |
|--|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|
| F01 | <p>Does anyone in your household own any collectibles or valuables – such as antiques, artworks, stamps, jewellery etc - including items stored or kept elsewhere?</p> <p>1. Yes (GO TO F02) 2. No (GO TO F06)</p> | | | | | | | | | | | | | | |
| F02 | <p>What is your estimate of the current market value of these items, even if you do not intend selling them?</p> <p>THE MARKET VALUE IS THE APPROXIMATE AMOUNT THAT YOU EXPECT TO OBTAIN IF YOU SELL THESE ITEMS TODAY</p> <p>1. ENTER VALUE IN R (IF ESTIMATE CAN BE GIVEN, GO TO SECTION F04) 2. Don't know (GO TO F03)</p> | | | | | | | | | | | | | | |
| F03 | <p>If unknown/refusal</p> <p>Can you perhaps indicate the range that best estimates the market value of these items?</p> <p><i>Please supply us with at least 7 range values you think content and collectables could be categorized into for the estimate of the questions in this section</i></p> <table border="1"> <tbody> <tr><td>1</td><td></td></tr> <tr><td>2</td><td></td></tr> <tr><td>3</td><td></td></tr> <tr><td>4</td><td></td></tr> <tr><td>5</td><td></td></tr> <tr><td>6</td><td></td></tr> <tr><td>7</td><td></td></tr> </tbody> </table> | 1 | | 2 | | 3 | | 4 | | 5 | | 6 | | 7 | |
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| F04 | <p>If these items are separately insured, what is the insured value of these collectibles?</p> <p>1. ENTER AMOUNT R (IF AMOUNT IS KNOWN, GO TO SECTION F06) 2. Don't know (GO TO F05)</p> | | | | | | | | | | | | | | |
| F05 | <p>If unknown/refusal</p> <p>Can you perhaps indicate the range that best estimates the insured value of collectibles?</p> <p><i>Please supply us with at least 7 range values you think content and collectables could be categorized into for the estimate of the questions in this section</i></p> <table border="1"> <tbody> <tr><td>1</td><td></td></tr> <tr><td>2</td><td></td></tr> <tr><td>3</td><td></td></tr> <tr><td>4</td><td></td></tr> <tr><td>5</td><td></td></tr> <tr><td>6</td><td></td></tr> <tr><td>7</td><td></td></tr> </tbody> </table> | 1 | | 2 | | 3 | | 4 | | 5 | | 6 | | 7 | |
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| F06 | <p>Thinking about the household content at your main residence, what is the market value of the household contents should you sell these items today?</p> <p>PLEASE INCLUDE ALL ITEMS, SUCH AS APPLIANCES AND ELECTRONIC EQUIPMENT, FURNITURE, CLOTHING AND LEISURE ITEMS (BUT EXCLUDE ANY VEHICLES OR COLLECTIBLES AND VALUABLES THAT YOU HAVE ALREADY MENTIONED).</p> <p>THE MARKET VALUE IS THE AMOUNT THAT YOU EXPECT TO OBTAIN IF YOU SELL THESE ITEMS TODAY</p> <p>1. ENTER AMOUNT R (IF AMOUNT IS KNOWN, GO TO SECTION F08) 2. Don't know (GO TO F07)</p> | | | | | | | | | | | | | | |

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| F07 | <p>If unknown/refusal Can you perhaps indicate the range that best estimates the market value of your household contents? <i>Please supply us with at least 7 range values you think content and collectables could be categorized into for the estimate of the questions in this section</i></p> <table border="1" data-bbox="272 353 724 595"> <tr><td>1</td><td></td></tr> <tr><td>2</td><td></td></tr> <tr><td>3</td><td></td></tr> <tr><td>4</td><td></td></tr> <tr><td>5</td><td></td></tr> <tr><td>6</td><td></td></tr> <tr><td>7</td><td></td></tr> </table> | 1 | | 2 | | 3 | | 4 | | 5 | | 6 | | 7 | |
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| F08 | <p>If your household contents are separately insured what is their insured value? 1. ENTER AMOUNT R (IF AMOUNT IS KNOWN, GO TO SECTION F10) 2. Don't know (GO TO F09)</p> | | | | | | | | | | | | | | |
| F09 | <p>If unknown/refusal Can you perhaps indicate the range that best estimates the insured value of the household contents? <i>Please supply us with at least 7 range values you think content and collectables could be categorized into for the estimate of the questions in this section</i></p> <table border="1" data-bbox="272 882 724 1124"> <tr><td>1</td><td></td></tr> <tr><td>2</td><td></td></tr> <tr><td>3</td><td></td></tr> <tr><td>4</td><td></td></tr> <tr><td>5</td><td></td></tr> <tr><td>6</td><td></td></tr> <tr><td>7</td><td></td></tr> </table> | 1 | | 2 | | 3 | | 4 | | 5 | | 6 | | 7 | |
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| F10 | <p>Does the household owe any money on any of the household contents and/or collectibles? 1. Yes (GO TO F11) 2. No (GO TO SECTION G)</p> | | | | | | | | | | | | | | |
| F11 | <p>How much is the household's share of any outstanding finance agreement or loans or store accounts for household content and/or collectibles bought on credit? 1. ENTER AMOUNT IN R (IF AMOUNT IS KNOWN, GO TO F13) 2. Don't know (GO TO F12)</p> | | | | | | | | | | | | | | |
| F12 | <p>If unknown/refusal Can you perhaps indicate the range that best estimates the amount that the household owes on household content and/or collectibles? <i>Please supply us with at least 7 range values you think content and collectables could be categorized into for the estimate of the questions in this section</i></p> <table border="1" data-bbox="272 1500 724 1742"> <tr><td>1</td><td></td></tr> <tr><td>2</td><td></td></tr> <tr><td>3</td><td></td></tr> <tr><td>4</td><td></td></tr> <tr><td>5</td><td></td></tr> <tr><td>6</td><td></td></tr> <tr><td>7</td><td></td></tr> </table> | 1 | | 2 | | 3 | | 4 | | 5 | | 6 | | 7 | |
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| F13 | <p>HAVE WE CAPTURED YOUR HOUSEHOLD'S OWNERSHIP OF ALL CONTENT/COLLECTIBLES IN SECTION F? 1. Yes (GO TO F14) 2. No (GO TO F01)</p> | | | | | | | | | | | | | | |
| F14 | <p>HAVE WE CAPTURED ALL FINANCE AGREEMENTS/LOANS/STORE ACCOUNTS ON ALL CONTENT/COLLECTIBLES MENTIONED IN SECTION F? 1. Yes (GO TO SECTION G) 2. No (GO TO F10)</p> | | | | | | | | | | | | | | |

G. Pensions (This includes any pension, provident fund or retirement annuity the members of your household belongs to/owns)



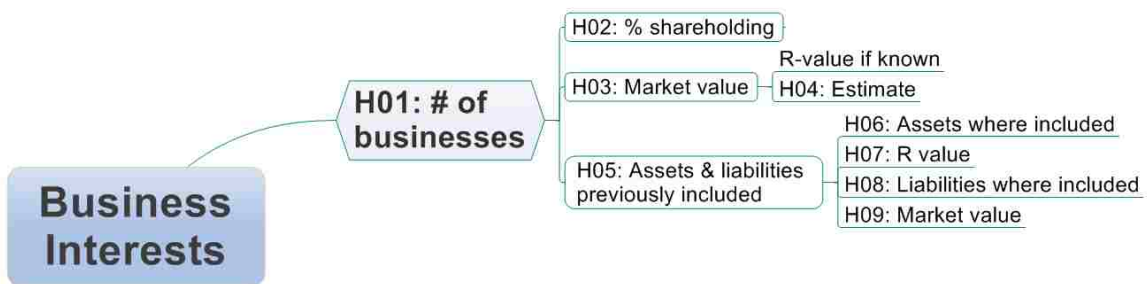
The following questions are about any pension, provident or retirement annuity (RA) funds that the members of your household may have.

| | |
|-----|--|
| G01 | Are you currently or have you ever been a member of a pension/provident scheme? 1. Yes (GO TO G02) 2. No (GO TO G09) |
| G02 | Did your employers make a financial contribution to your pension/provident scheme? 1. Yes 2. No 3. Don't know |
| G03 | How many years in total have you been employed? ENTER NUMBER OF WHOLE YEARS |
| G04 | How many years have you been a member of your pension/provident funds? Please include any years that have been transferred from another fund. ENTER WHOLE NUMBER OF YEARS |
| G05 | What is the current value of your pension/provident fund? CONSULT YOUR LATEST PENSION/PROVIDENT FUND STATEMENT (supply and record date of statement) 1. ENTER AMOUNT EXPECTED FROM THIS PENSION/PROVIDENT FUND IN R (IF AMOUNT IS KNOWN, GO TO G07) 2. Don't know (GO TO G06) |

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| G06 | <p>If unknown/refusal Can you perhaps indicate the range that best estimates the amount of your pension/provident fund that you expect to receive? <i>Please supply us with at least 7 range values you think could entail pension fund built up for the estimate of this question</i></p> <table border="1" data-bbox="284 320 732 562"> <tr><td>1</td><td></td></tr> <tr><td>2</td><td></td></tr> <tr><td>3</td><td></td></tr> <tr><td>4</td><td></td></tr> <tr><td>5</td><td></td></tr> <tr><td>6</td><td></td></tr> <tr><td>7</td><td></td></tr> </table> | 1 | | 2 | | 3 | | 4 | | 5 | | 6 | | 7 | |
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| G07 | <p>What is your current monthly contribution towards your pension/provident fund? 1. ENTER AMOUNT IN R (IF AMOUNT IS KNOWN, GO TO G09) 2. Don't know (GO TO G08)</p> | | | | | | | | | | | | | | |
| G08 | <p>If unknown/refusal Can you perhaps indicate the range that best estimates the amount of your monthly contribution to a pension/provident fund? <i>Please supply us with at least 7 range values you think monthly contributions could be categorized into for the estimate of this question</i></p> <table border="1" data-bbox="284 902 732 1144"> <tr><td>1</td><td></td></tr> <tr><td>2</td><td></td></tr> <tr><td>3</td><td></td></tr> <tr><td>4</td><td></td></tr> <tr><td>5</td><td></td></tr> <tr><td>6</td><td></td></tr> <tr><td>7</td><td></td></tr> </table> | 1 | | 2 | | 3 | | 4 | | 5 | | 6 | | 7 | |
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| G09 | <p>Do you currently own any Retirement Annuities (RAs) 1. Yes (GO TO G10) 2. No (GO TO SECTION H)</p> | | | | | | | | | | | | | | |
| G10 | <p>How many years have you been a member of the retirement annuity funds? Please include any years that have been transferred from another fund. ENTER WHOLE NUMBER OF YEARS</p> | | | | | | | | | | | | | | |
| G11 | <p>What is the current value of your RAs? CONSULT YOUR LATEST RA STATEMENT (Supply and record date of statement) 1. ENTER AMOUNT EXPECTED FROM RA'S IN R (IF AMOUNT IS KNOWN, GO TO H) 2. Don't know (GO TO G12)</p> | | | | | | | | | | | | | | |
| G12 | <p>If unknown/refusal Can you perhaps indicate the range that best estimates the amount of your RA's that you expect to receive? <i>Please supply us with at least 7 range values you think could entail RA fund built up for the estimate of this question</i></p> <table border="1" data-bbox="284 1666 732 1908"> <tr><td>1</td><td></td></tr> <tr><td>2</td><td></td></tr> <tr><td>3</td><td></td></tr> <tr><td>4</td><td></td></tr> <tr><td>5</td><td></td></tr> <tr><td>6</td><td></td></tr> <tr><td>7</td><td></td></tr> </table> | 1 | | 2 | | 3 | | 4 | | 5 | | 6 | | 7 | |
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| G13 | <p>What is your current monthly contribution towards retirement annuity funds?</p> <p>1. ENTER AMOUNT IN R (IF AMOUNT IS KNOWN, GO TO SECTION H)</p> <p>2. Don't know (GO TO G14)</p> | | | | | | | | | | | | | | |
| G14 | <p>If unknown/refusal</p> <p>Can you perhaps indicate the range that best estimates the amount of your monthly contribution to RA's?</p> <p><i>Please supply us with at least 7 range values you think monthly contributions could be categorized into for the estimate of this question</i></p> <table border="1" style="margin-left: 20px;"> <tr><td>1</td><td></td></tr> <tr><td>2</td><td></td></tr> <tr><td>3</td><td></td></tr> <tr><td>4</td><td></td></tr> <tr><td>5</td><td></td></tr> <tr><td>6</td><td></td></tr> <tr><td>7</td><td></td></tr> </table> | 1 | | 2 | | 3 | | 4 | | 5 | | 6 | | 7 | |
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H. Business interests (Includes only formal business structures e.g. Close Corporations, Companies and Business Trusts)

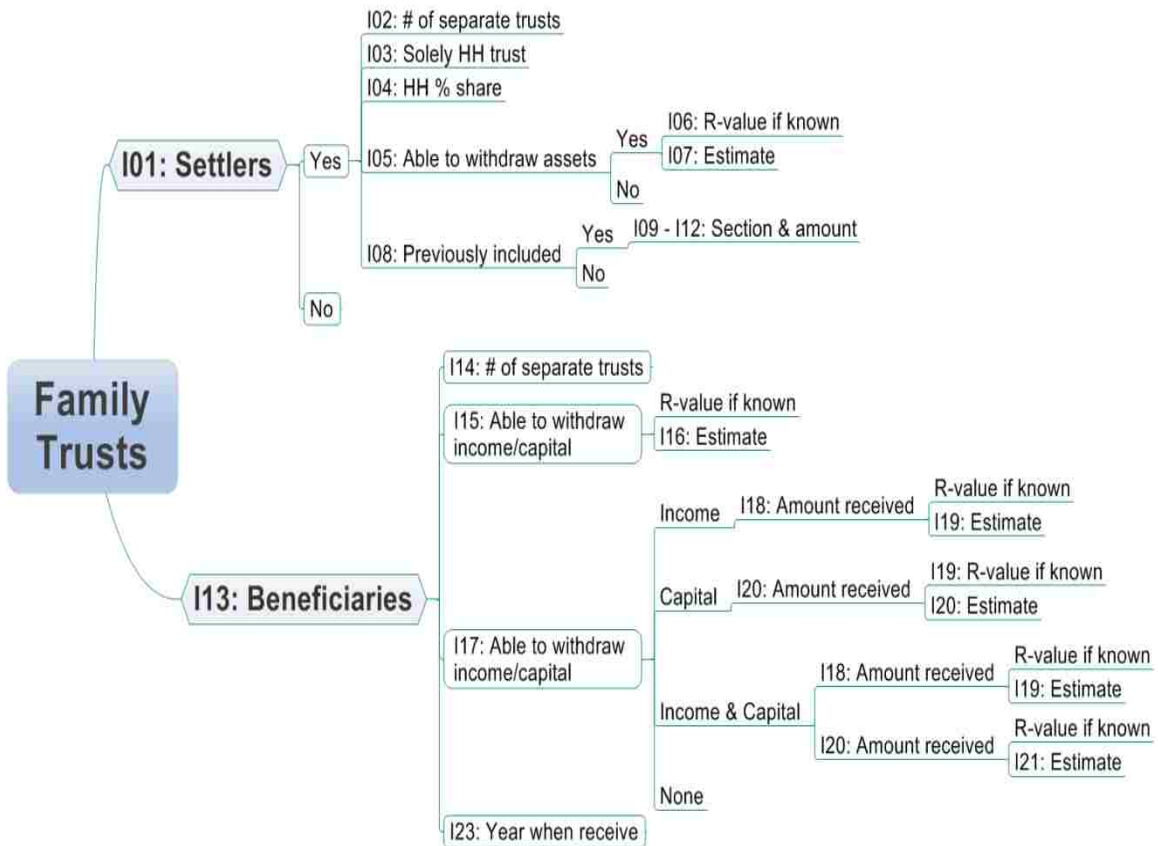


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| H01 | <p>How many businesses e.g. close corporation, company or business trust do you own fully or in part?</p> <p>ENTER NUMBER</p> <p><i>(If 0, go to Section I otherwise continue with section H).</i></p> | | | | | | | | | | |
| FOR EVERY BUSINESS, QUESTIONS H02 TO H09 SHOULD BE ASKED. | | | | | | | | | | | |
| H02 | <p>What percentage of the business do you own?</p> <p>ENTER PERCENTAGE</p> | | | | | | | | | | |
| The following questions are about the value of your share in the business. | | | | | | | | | | | |
| H03 | <p>If you sold this business/your share in the business today, what is it worth?</p> <p>1. ENTER AMOUNT IN R (IF AMOUNT IS KNOWN, GO TO H05)</p> <p>2. Don't know (GO TO H04)</p> | | | | | | | | | | |
| H04 | <p>If unknown/refusal</p> <p>Can you perhaps indicate the range that best estimates the amount you would get for your share of the business?</p> <p><i>Please supply us with at least 5 range values you think could entail business assets/liabilities for the estimate of the following questions</i></p> <table border="1" style="margin-left: 20px;"> <tr><td>1</td><td></td></tr> <tr><td>2</td><td></td></tr> <tr><td>3</td><td></td></tr> <tr><td>4</td><td></td></tr> <tr><td>5</td><td></td></tr> </table> | 1 | | 2 | | 3 | | 4 | | 5 | |
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| H05 | <p>Have you already included any of the business assets and/or liabilities in a previous category?</p> <p>1. Yes (GO TO H06)</p> <p>2. No (GO TO H10)</p> | | | | | | | | | | |

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| H06 | ENTER SECTION WHERE THE ASSETS WERE PREVIOUSLY REPORTED |
| H07 | ENTER AMOUNT IN R OF ASSETS PREVIOUSLY REPORTED |
| H08 | ENTER SECTION WHERE LIABILITIES WERE PREVIOUSLY REPORTED |
| H09 | ENTER AMOUNT OF LIABILITIES PREVIOUSLY REPORTED |
| H10 | HAVE WE CAPTURED YOUR HOUSEHOLD’S OWNERSHIP IN ALL FORMAL BUSINESSES IN SECTION H? 1. Yes (GO TO SECTION I) 2. No (GO TO H02?) |

I. Trusts

Questions for settlers (Households who have put (some or all) of their own assets in a family trust. Only family trusts should be included in this section)



I would now like to ask some questions about a family trust which is set up by a specific arrangement, such as a deed of Trust.

In a trust of this kind, assets such as money, investments or property are put in the care of Trustees. The Trust specifies how these assets can be managed or given away, on behalf of beneficiaries who can be named individuals or sometimes charities.

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| I01 | Have any of your household’s own assets been put into a family trust? EXCLUDE: TRUSTS SET UP ON BEHALF OF SOMEONE ELSE IF THE RESPONDENT’S OWN ASSETS WERE NOT PUT INTO THE TRUST AT ANY STAGE. EXCLUDE: SITUATIONS WHERE THE RESPONDENT WILL BECOME THE OWNER OF THE ASSETS AT A LATER DATE (I.E. AS A BENFICIARY) AND FOR THIS REASON CONSIDERS THE ASSETS AS 'THEIRS', BUT WHERE IN FACT THOSE ASSETS HAVE NEVER ACTUALLY BEEN OWNED BY THE RESPONDENT. 1. Yes (GO TO I02) 2. No (GO TO SECTION I13) |
| I02 | How many separate family trusts does your household currently have assets in? ENTER NUMBER |

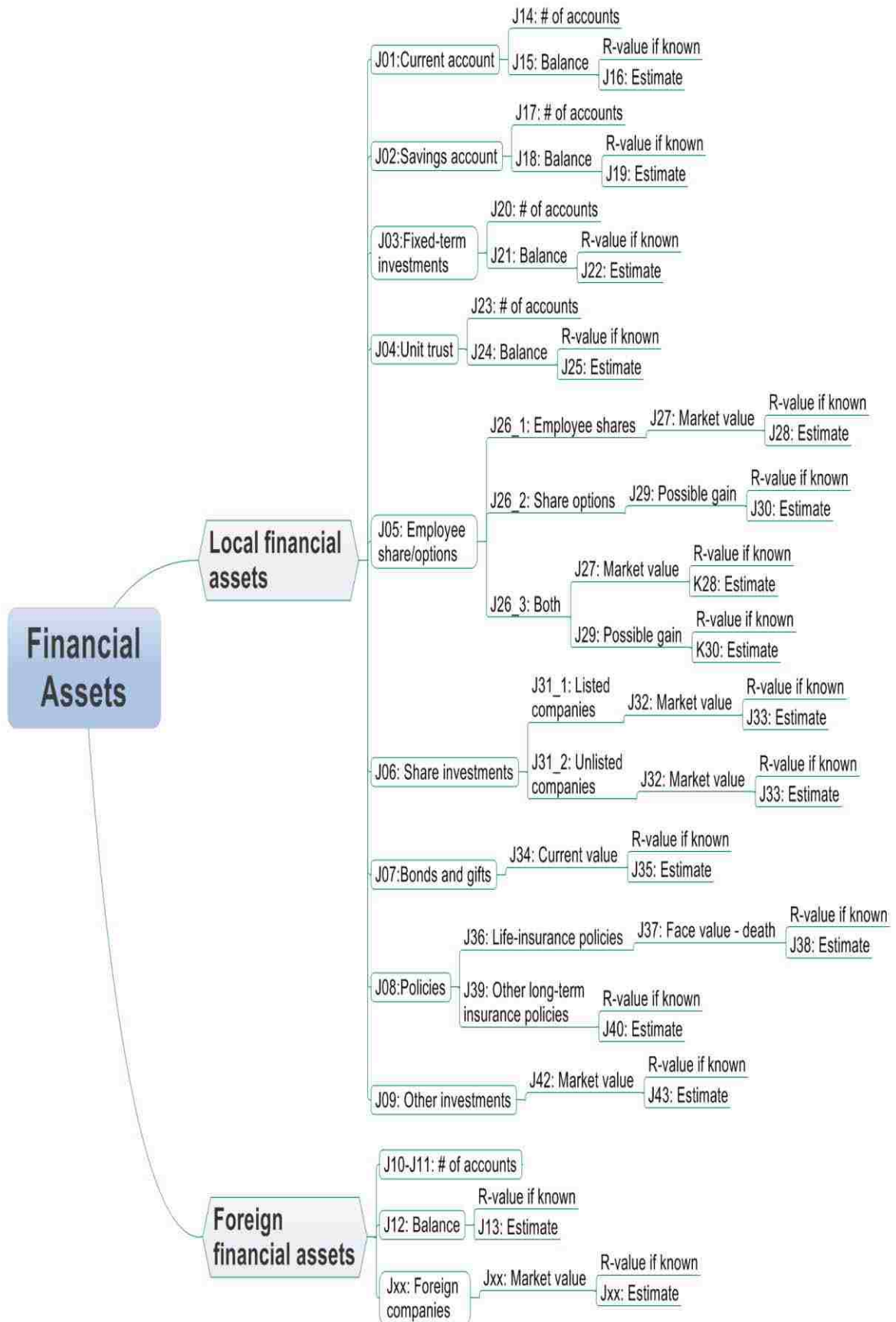
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| I03 | Does the trust(s) contain only the household's own assets or was it set up jointly with another person outside this household? CODE ALL THAT APPLY 1. Solely by household 2. Jointly with someone outside the household | | | | | | | | | | |
| I04 | What is the household's percentage share in (all) the family trust(s)? ENTER THE PERCENTAGE | | | | | | | | | | |
| I05 | Would you be able to withdraw these assets for your household's use in the future if you wanted to? 1. Yes (GO TO I06) 2. No (GO TO SECTION I13) | | | | | | | | | | |
| I06 | What is the current value of your share of the assets in the family trust after paying off any debts? 1. ENTER AMOUNT IN R (IF AMOUNT IS KNOWN, GO TO I08) 2. Don't know (GO TO I07) | | | | | | | | | | |
| I07 | If unknown/refusal Can you perhaps indicate the range that best estimates the current value of your share of the assets after paying off any debts? <i>Please supply us with at least 5 range values you think could entail trust assets/liabilities for the estimate of the question</i> <table border="1" style="margin-left: 20px;"> <tr><td>1</td><td></td></tr> <tr><td>2</td><td></td></tr> <tr><td>3</td><td></td></tr> <tr><td>4</td><td></td></tr> <tr><td>5</td><td></td></tr> </table> | 1 | | 2 | | 3 | | 4 | | 5 | |
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| I08 | Have you included any of the assets/liabilities in this family trust in any previous section during this interview? 1. Yes (GO TO I09) 2. No (GO TO I13) | | | | | | | | | | |
| I09 | ENTER SECTION WHERE ASSETS HAVE ALREADY BEEN REPORTED | | | | | | | | | | |
| I10 | ENTER AMOUNT IN R OF ASSETS ALREADY REPORTED | | | | | | | | | | |
| I11 | ENTER SECTION WHERE LIABILITIES HAVE ALREADY BEEN REPORTED | | | | | | | | | | |
| I12 | ENTER AMOUNT IN R OF LIABILITIES ALREADY REPORTED | | | | | | | | | | |

Questions for beneficiaries of family trusts (Households who benefit from a family trust fund set up by someone outside the household)

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| I13 | Is your household the beneficiary of a family trust? That is, do you currently receive money from a trust, or will you receive money or capital from a family trust in the future? EXCLUDE TRUSTS WHERE RESPONDENT IS ALSO THE SETTLOR (COVERED IN THE PREVIOUS SECTION) 1. Yes (GO TO I14) 2. No (GO TO SECTION J) | | | | | | | | | | |
| I14 | How many separate family trusts are your household the beneficiary of? ENTER NUMBER | | | | | | | | | | |
| I15 | What is the amount of the household's share of the assets in the family trust? 1. ENTER AMOUNT R (IF AMOUNT IS KNOWN, GO TO I17) 2. Don't know (GO TO I16) | | | | | | | | | | |
| I16 | If unknown/refusal Can you perhaps indicate the range that best estimates the value of the household's share of the assets in the family trust? <i>Please supply us with at least 5 range values you think could entail trust assets for the estimate of the question</i> <table border="1" style="margin-left: 20px;"> <tr><td>1</td><td></td></tr> <tr><td>2</td><td></td></tr> <tr><td>3</td><td></td></tr> <tr><td>4</td><td></td></tr> <tr><td>5</td><td></td></tr> </table> | 1 | | 2 | | 3 | | 4 | | 5 | |
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| I17 | <p>At present, is the household able to draw any income or capital from the family trust, whether you have to apply for permission or not? (Select one)</p> <ol style="list-style-type: none"> 1. Income only (GO TO I18) 2. Capital only (GO TO I20) 3. Both income and capital (GO TO I18) 4. Neither (GO TO SECTION J) | | | | | | | | | | |
| I18 | <p>In the last 12 months, how much income has the household received in total from the family trust, after tax and any deductions?</p> <ol style="list-style-type: none"> 1. ENTER AMOUNT IN R (IF AMOUNT IS KNOWN, GO TO I20) 2. Don't know (GO TO I19) | | | | | | | | | | |
| I19 | <p>If unknown/refusal</p> <p>Can you perhaps indicate the range that best estimates the amount of income your household received from the family trust in the last 12 months, after tax and deductions?</p> <p><i>Please supply us with at least 5 range values you think could entail trust income for the estimate of the question</i></p> <table border="1" data-bbox="282 651 759 824"> <tr><td>1</td><td></td></tr> <tr><td>2</td><td></td></tr> <tr><td>3</td><td></td></tr> <tr><td>4</td><td></td></tr> <tr><td>5</td><td></td></tr> </table> | 1 | | 2 | | 3 | | 4 | | 5 | |
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| I20 | <p>How much capital has the household received in total from the family trust?</p> <ol style="list-style-type: none"> 1. ENTER AMOUNT IN R (IF AMOUNT IS KNOWN, GO TO I22) 2. Don't know (GO TO I21) | | | | | | | | | | |
| I21 | <p>If unknown/refusal</p> <p>Can you perhaps indicate the range that best estimates the amount of capital your household has received from the family trust?</p> <p><i>Please supply us with at least 5 range values you think could entail trust income for the estimate of the question</i></p> <table border="1" data-bbox="282 1180 759 1352"> <tr><td>1</td><td></td></tr> <tr><td>2</td><td></td></tr> <tr><td>3</td><td></td></tr> <tr><td>4</td><td></td></tr> <tr><td>5</td><td></td></tr> </table> | 1 | | 2 | | 3 | | 4 | | 5 | |
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| I22 | <p>At some time in the future, will the household receive all, or its share of, the assets held in the family trust?</p> <ol style="list-style-type: none"> 1. Yes (GO TO I23) 2. No (GO TO SECTION J) | | | | | | | | | | |
| I23 | <p>In which year does the household expect to have access to the assets in the trust?</p> <p>ENTER YEAR</p> | | | | | | | | | | |

J. Financial assets



| The following questions are about savings accounts and investments the household may have. Please could you tell me which of these types of accounts and investments your household currently has? EXCLUDE PROPERTY – THIS IS COVERED IN SECTIONS C AND D IN THE QUESTIONNAIRE. | | IF YES GO TO | IF NO GO TO | | | | | | | | | | | | | | |
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| After completion of the relevant questions regarding a specific instrument, the following instrument must be selected, e.g. after completion of section J14-J16, the survey must return to J02 etc. | | | | | | | | | | | | | | | | | |
| J01 | Current account (including Basic Bank Account and Post Office Account) | J14-J16 | J02 | | | | | | | | | | | | | | |
| J02 | Savings or deposit account | J17-J19 | J03 | | | | | | | | | | | | | | |
| J03 | Fixed-term investments (at a bank.) (e.g. 32-day Call accounts and other fixed term deposits) | J20-J22 | J04 | | | | | | | | | | | | | | |
| J04 | Collective investment schemes (e.g. Unit or investment trusts) | J23-J25 | J05 | | | | | | | | | | | | | | |
| J05 | Employee share or options schemes | J26-J30 | J06 | | | | | | | | | | | | | | |
| J06 | Share investments (e.g. Shares on a listed stock exchange or unlisted shareholding) | J31-J33 | J07 | | | | | | | | | | | | | | |
| J07 | Bonds and gilts (e.g. RSA Bonds) | J34-J35 | J08 | | | | | | | | | | | | | | |
| J08 | Policies | J36-J40 | J09 | | | | | | | | | | | | | | |
| J09 | Other financial assets (PLEASE SPECIFY) (e.g. Loan accounts in businesses etc.) | J41-J42 | J10 | | | | | | | | | | | | | | |
| J10 | Does your household have any overseas savings and/or investments? 1. Yes (GO TO J11) 2. No (GO TO SECTION K) | | | | | | | | | | | | | | | | |
| J11 | How many overseas savings and investments do you have? ENTER NUMBER | | | | | | | | | | | | | | | | |
| J12 | What is the total value of your overseas savings and/or investments? CHECK THAT ALL ACCOUNTS OF THIS TYPE HAVE BEEN COVERED BEFORE ENTERING THE TOTAL IN THE VALUE FIELD. 1. ENTER AMOUNT IN R (IF AMOUNT IS KNOWN, GO TO J43) 2. Don't know (GO TO J13) | | | | | | | | | | | | | | | | |
| J13 | <p>If unknown/refusal Can you perhaps indicate the range that best estimates the value of your overseas savings and/or investments? <i>Please supply us with at least 7 range values you think could entail financial assets here and overseas for the estimate of the following questions</i></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tbody> <tr><td style="width: 20px; text-align: center;">1</td><td></td></tr> <tr><td style="text-align: center;">2</td><td></td></tr> <tr><td style="text-align: center;">3</td><td></td></tr> <tr><td style="text-align: center;">4</td><td></td></tr> <tr><td style="text-align: center;">5</td><td></td></tr> <tr><td style="text-align: center;">6</td><td></td></tr> <tr><td style="text-align: center;">7</td><td></td></tr> </tbody> </table> | | | 1 | | 2 | | 3 | | 4 | | 5 | | 6 | | 7 | |
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| J14 | How many current accounts do your household have in SA? ENTER NUMBER | | | | | | | | | | | | | | | | |
| J15 | Not taking into account overdrawn account(s), how much do you currently have in total in current accounts in SA? CHECK THAT ALL ACCOUNTS OF THIS TYPE HAVE BEEN COVERED BEFORE ENTERING THE TOTAL IN VALUE FIELD. 1. ENTER AMOUNT IN R (IF AMOUNT IS KNOWN, GO TO J02) 2. Don't know (GO TO J16) | | | | | | | | | | | | | | | | |

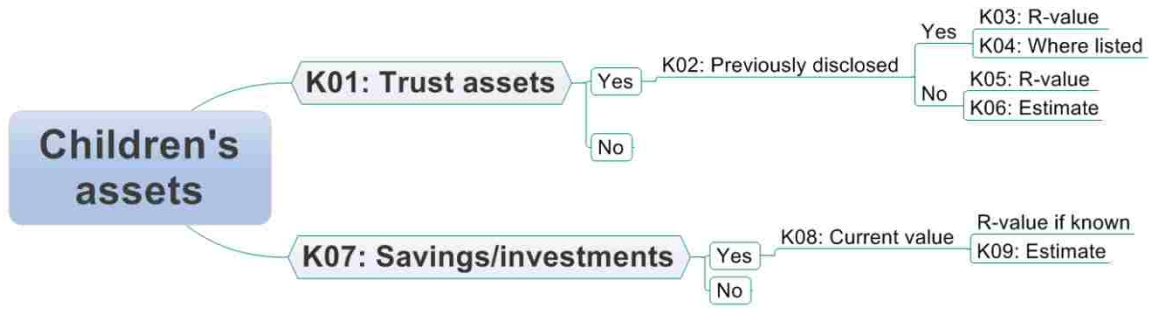
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| J16 | <p>If unknown/refusal Can you perhaps indicate the range that best estimates the amount in current accounts in SA? <i>Please supply us with at least 7 range values you think could entail financial assets here for the estimate of the following questions</i></p> <table border="1" data-bbox="284 286 732 528"> <tr><td>1</td><td></td></tr> <tr><td>2</td><td></td></tr> <tr><td>3</td><td></td></tr> <tr><td>4</td><td></td></tr> <tr><td>5</td><td></td></tr> <tr><td>6</td><td></td></tr> <tr><td>7</td><td></td></tr> </table> | 1 | | 2 | | 3 | | 4 | | 5 | | 6 | | 7 | |
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| J17 | <p>How many savings or deposit accounts do your household have in SA? ENTER NUMBER</p> | | | | | | | | | | | | | | |
| J18 | <p>What is the total amount your household currently has in savings and deposit account(s) in SA? CHECK THAT ALL ACCOUNTS OF THIS TYPE HAVE BEEN COVERED BEFORE ENTERING THE TOTAL IN VALUE FIELD. 1. ENTER AMOUNT IN R (IF AMOUNT IS KNOWN, GO TO J03) 2. Don't know (GO TO J19)</p> | | | | | | | | | | | | | | |
| J19 | <p>If unknown/refusal Can you perhaps indicate the range that best estimates the amount your household has in savings or deposit account(s) in SA? <i>Please supply us with at least 7 range values you think could entail financial assets here for the estimate of the following questions</i></p> <table border="1" data-bbox="284 992 732 1234"> <tr><td>1</td><td></td></tr> <tr><td>2</td><td></td></tr> <tr><td>3</td><td></td></tr> <tr><td>4</td><td></td></tr> <tr><td>5</td><td></td></tr> <tr><td>6</td><td></td></tr> <tr><td>7</td><td></td></tr> </table> | 1 | | 2 | | 3 | | 4 | | 5 | | 6 | | 7 | |
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| J20 | <p>How many South African fixed term investments does your household have? ENTER NUMBER</p> | | | | | | | | | | | | | | |
| J21 | <p>What is the current value of all of your household's fixed term investments in SA? CHECK THAT ALL INVESTMENTS OF THIS TYPE HAVE BEEN COVERED BEFORE ENTERING TOTAL IN ANSWER FIELD. 1. ENTER AMOUNT IN R (IF AMOUNT IS KNOWN, GO TO J04) 2. Don't know (GO TO J22)</p> | | | | | | | | | | | | | | |
| J22 | <p>If unknown/refusal Can you perhaps indicate the range that best estimates the value of your household's fixed term investments in SA? <i>Please supply us with at least 7 range values you think could entail financial assets here for the estimate of the following questions</i></p> <table border="1" data-bbox="284 1682 732 1924"> <tr><td>1</td><td></td></tr> <tr><td>2</td><td></td></tr> <tr><td>3</td><td></td></tr> <tr><td>4</td><td></td></tr> <tr><td>5</td><td></td></tr> <tr><td>6</td><td></td></tr> <tr><td>7</td><td></td></tr> </table> | 1 | | 2 | | 3 | | 4 | | 5 | | 6 | | 7 | |
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| J23 | <p>Turning now to investments in Collective Investment Schemes e.g. Unit and Investment trusts, how many Unit and Investment trusts do you have in SA? ENTER NUMBER</p> | | | | | | | | | | | | | | |
| J24 | <p>What is the current value of all of your Unit and Investment Trusts in SA? 1. ENTER AMOUNT IN R (IF AMOUNT IS KNOWN, GO TO J05)</p> | | | | | | | | | | | | | | |

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| | 2. Don't know (GO TO J25) | | | | | | | | | | | | | | |
| J25 | <p>If unknown/refusal Can you perhaps indicate the range that best estimates the value of your Unit and Investment Trusts in SA?</p> <p><i>Please supply us with at least 7 range values you think could entail financial assets here for the estimate of the following questions</i></p> <table border="1"> <tr><td>1</td><td></td></tr> <tr><td>2</td><td></td></tr> <tr><td>3</td><td></td></tr> <tr><td>4</td><td></td></tr> <tr><td>5</td><td></td></tr> <tr><td>6</td><td></td></tr> <tr><td>7</td><td></td></tr> </table> | 1 | | 2 | | 3 | | 4 | | 5 | | 6 | | 7 | |
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| J26 | <p>Does your household hold some shares or options through an employee share scheme or both? (Select appropriate)</p> <p>1. Employee shares (GO TO J27) 2. Share options (GO TO J29) 3. Both (GO TO J27) CODE ALL THAT APPLY</p> | | | | | | | | | | | | | | |
| J27 | <p>If you chose to sell your household's employee shares, approximately how much would they be worth?</p> <p>CHECK THAT ALL RELEVANT SHARE HOLDINGS HAVE BEEN COVERED BEFORE ENTERING TOTAL IN ANSWER FIELD</p> <p>1. ENTER AMOUNT IN R (IF AMOUNT IS KNOWN, GO TO J29) 2. Don't know (GO TO J28)</p> | | | | | | | | | | | | | | |
| J28 | <p>If unknown/refusal Can you perhaps indicate the range that best estimates the value of your employee shares?</p> <p><i>Please supply us with at least 7 range values you think could entail financial assets here for the estimate of the following questions</i></p> <table border="1"> <tr><td>1</td><td></td></tr> <tr><td>2</td><td></td></tr> <tr><td>3</td><td></td></tr> <tr><td>4</td><td></td></tr> <tr><td>5</td><td></td></tr> <tr><td>6</td><td></td></tr> <tr><td>7</td><td></td></tr> </table> | 1 | | 2 | | 3 | | 4 | | 5 | | 6 | | 7 | |
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| J29 | <p>If you chose to exercise your household's employee share options, what is your estimate of the value of your gain - this is the difference between the option price and the market price times the number of shares involved?</p> <p>CHECK THAT ALL RELEVANT SHARE HOLDINGS HAVE BEEN COVERED BEFORE ENTERING TOTAL IN ANSWER FIELD</p> <p>1. ENTER AMOUNT IN R (IF AMOUNT IS KNOWN, GO TO J06) 2. Don't know (GO TO J30)</p> | | | | | | | | | | | | | | |
| J30 | <p>If unknown/refusal Can you perhaps indicate the range that best estimates the gain from exercising your employee share options?</p> <p><i>Please supply us with at least 7 range values you think could entail financial assets here for the estimate of the following questions</i></p> <table border="1"> <tr><td>1</td><td></td></tr> <tr><td>2</td><td></td></tr> <tr><td>3</td><td></td></tr> <tr><td>4</td><td></td></tr> <tr><td>5</td><td></td></tr> <tr><td>6</td><td></td></tr> <tr><td>7</td><td></td></tr> </table> | 1 | | 2 | | 3 | | 4 | | 5 | | 6 | | 7 | |
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| J31 | <p>Which of the following types of shares does your household have? EXCLUDE SHARES IN OWN BUSINESSES AND SHARES ALREADY COVERED IN THE SECTION ON BUSINESS ASSETS</p> <p>1. Shares in SA listed companies 2. Shares in SA unlisted companies CODE ALL THAT APPLY</p> | | | | | | | | | | | | | | |
| J32 | <p>If you chose to sell all your household's shares in listed and/or unlisted SA companies about how much would they be worth? CHECK THAT ALL RELEVANT SHARE HOLDINGS HAVE BEEN COVERED BEFORE ENTERING TOTAL IN ANSWER FIELD</p> <p>1. ENTER AMOUNT IN R (IF AMOUNT IS KNOWN, GO TO J07) 2. Don't know (GO TO J33)</p> | | | | | | | | | | | | | | |
| J33 | <p>If unknown/refusal Can you perhaps indicate the range that best estimates the value of your shares in listed and/or unlisted SA companies? <i>Please supply us with at least 7 range values you think could entail financial assets here for the estimate of the following questions</i></p> <table border="1"> <tr><td>1</td><td></td></tr> <tr><td>2</td><td></td></tr> <tr><td>3</td><td></td></tr> <tr><td>4</td><td></td></tr> <tr><td>5</td><td></td></tr> <tr><td>6</td><td></td></tr> <tr><td>7</td><td></td></tr> </table> | 1 | | 2 | | 3 | | 4 | | 5 | | 6 | | 7 | |
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| J34 | <p>What is the current value of your household's investment in SA bonds/gilts? CHECK THAT ALL RELEVANT HOLDINGS HAVE BEEN COVERED BEFORE ENTERING TOTAL IN ANSWER FIELD</p> <p>1. ENTER AMOUNT R (IF AMOUNT IS KNOWN, GO TO J08) 2. Don't know (GO TO J35)</p> | | | | | | | | | | | | | | |
| J35 | <p>If unknown/refusal Can you perhaps indicate the range that best estimates the value of your household's SA bonds/gilts? <i>Please supply us with at least 7 range values you think could entail financial assets here for the estimate of the following questions</i></p> <table border="1"> <tr><td>1</td><td></td></tr> <tr><td>2</td><td></td></tr> <tr><td>3</td><td></td></tr> <tr><td>4</td><td></td></tr> <tr><td>5</td><td></td></tr> <tr><td>6</td><td></td></tr> <tr><td>7</td><td></td></tr> </table> | 1 | | 2 | | 3 | | 4 | | 5 | | 6 | | 7 | |
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| J36 | <p>Does your household have any life insurance policies that have no value unless the policyholder dies? These are usually known as term insurance policies?</p> <p>1. Yes (GO TO J37) 2. No (GO TO J39)</p> | | | | | | | | | | | | | | |
| J37 | <p>What is the face value of these policies in the event of death? CHECK THAT ALL POLICIES OF THIS TYPE HAVE BEEN COVERED BEFORE ENTERING TOTAL IN ANSWER FIELD</p> <p>1. ENTER AMOUNT R (IF AMOUNT IS KNOWN, GO TO J39) 2. Don't know (GO TO J38)</p> | | | | | | | | | | | | | | |
| J38 | <p>If unknown/refusal Can you perhaps indicate the range that best estimates the face value of those policies in the event of death? <i>Please supply us with at least 7 range values you think could entail financial assets here for the estimate of the following questions</i></p> <table border="1"> <tr><td>1</td><td></td></tr> </table> | 1 | | | | | | | | | | | | | |
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| J39 | <p>What is the current value of your household's other long-term insurance policy(ies)? CHECK THAT ALL ITEMS OF THIS TYPE HAVE BEEN COVERED BEFORE ENTERING TOTAL IN ANSWER FIELD</p> <p>1. IF NO CURRENT VALUE ENTER 0 2. ENTER AMOUNT IN R (IF AMOUNT IS KNOWN, GO TO J09) 3. Don't know (GO TO J40)</p> | | | | | | | | | | | | | | |
| J40 | <p>If unknown/refusal Can you perhaps indicate the range that best estimates the value of your household's insurance policy(ies)? <i>Please supply us with at least 7 range values you think could entail financial assets here for the estimate of the following questions</i></p> <table border="1"> <tr><td>1</td><td></td></tr> <tr><td>2</td><td></td></tr> <tr><td>3</td><td></td></tr> <tr><td>4</td><td></td></tr> <tr><td>5</td><td></td></tr> <tr><td>6</td><td></td></tr> <tr><td>7</td><td></td></tr> </table> | 1 | | 2 | | 3 | | 4 | | 5 | | 6 | | 7 | |
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| J41 | <p>Regarding other investments your household may have, e.g. loan accounts to businesses or trusts, what is the current value of these investments? CHECK THAT ALL RELEVANT HOLDINGS HAVE BEEN COVERED BEFORE ENTERING TOTAL IN ANSWER FIELD</p> <p>1. ENTER AMOUNT IN R (IF AMOUNT IS KNOWN, GO TO J10) 2. Don't know (GO TO J42)</p> | | | | | | | | | | | | | | |
| J42 | <p>If unknown/refusal Can you perhaps indicate the range that best estimates the current value of your household's other investments? <i>Please supply us with at least 7 range values you think could entail financial assets here for the estimate of the following questions</i></p> <table border="1"> <tr><td>1</td><td></td></tr> <tr><td>2</td><td></td></tr> <tr><td>3</td><td></td></tr> <tr><td>4</td><td></td></tr> <tr><td>5</td><td></td></tr> <tr><td>6</td><td></td></tr> <tr><td>7</td><td></td></tr> </table> | 1 | | 2 | | 3 | | 4 | | 5 | | 6 | | 7 | |
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| J43 | <p>HAVE WE CAPTURED YOUR HOUSEHOLD'S OWNERSHIP IN TOTAL INVESTMENTS?</p> <p>1. Yes (GO TO SECTION K) 2. No (GO TO J01)</p> | | | | | | | | | | | | | | |

K. Children's assets (This section covers assets that are in your children's name)



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| K01 | Do your children have a Trust Fund? 1. Yes (GO TO K02) 2. No (GO TO K07) | | | | | | | | | | | | | | |
| K02 | Are any of the items you previously mentioned part of this Trust Fund? 1. Yes (GO TO K03) 2. No (GO TO K05) | | | | | | | | | | | | | | |
| K03 | STATE THE AMOUNT OF THE ITEMS ALREADY RECORDED | | | | | | | | | | | | | | |
| K04 | STATE THE SECTION OF INCLUSION | | | | | | | | | | | | | | |
| K05 | What is the value of your children’s trust fund? 1. ENTER AMOUNT IN R (IF AMOUNT IS KNOWN, GO TO K07) 2. Don’t know (GO TO K06) | | | | | | | | | | | | | | |
| K06 | If unknown/refusal Can you perhaps indicate the range that best estimates the value of your children’s trust fund? <i>Please supply us with at least 7 range values you think could entail financial assets here for the estimate of the following questions</i> <table border="1" style="margin-left: 20px;"> <tr><td>1</td><td></td></tr> <tr><td>2</td><td></td></tr> <tr><td>3</td><td></td></tr> <tr><td>4</td><td></td></tr> <tr><td>5</td><td></td></tr> <tr><td>6</td><td></td></tr> <tr><td>7</td><td></td></tr> </table> | 1 | | 2 | | 3 | | 4 | | 5 | | 6 | | 7 | |
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| K07 | Aside from the Trust Fund, do your children have any savings in a bank or any other savings or investments not already included in any of the previous sections? 1. Yes (GO TO K08) 2. No (GO TO SECTION L) | | | | | | | | | | | | | | |
| K08 | Aside from the Trust Fund, what would you say is the value of the total savings and investments held by each child? RECORD ALL SAVINGS EXCLUDING CHILD TRUST FUND 1. ENTER AMOUNT IN R (IF AMOUNT IS KNOWN, GO TO SECTION L) 2. Don’t know (GO TO K09) | | | | | | | | | | | | | | |
| K09 | If unknown/refusal Can you perhaps indicate the range that best estimates the value of the savings and investments held by each child (excluding their Child Trust Fund)? <i>Please supply us with at least 5 range values you think could entail children savings for the estimate of this question</i> <table border="1" style="margin-left: 20px;"> <tr><td>1</td><td></td></tr> <tr><td>2</td><td></td></tr> <tr><td>3</td><td></td></tr> <tr><td>4</td><td></td></tr> <tr><td>5</td><td></td></tr> <tr><td>6</td><td></td></tr> <tr><td>7</td><td></td></tr> </table> | 1 | | 2 | | 3 | | 4 | | 5 | | 6 | | 7 | |
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L. Informal savings

| [Apart from any money in savings accounts that you have already told me about] does your household currently have money saved in any of the following ways? (Select appropriate) | | IF YES GO TO | IF NO GO TO | | | | | | | | | | | | | | |
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| L01 | Money given to someone else to look after or save for your household. | L06 | L02 | | | | | | | | | | | | | | |
| L02 | Money loaned to someone that will be repaid at some time. | L06 | L03 | | | | | | | | | | | | | | |
| L03 | Money saved in cash at home or elsewhere. | L06 | L04 | | | | | | | | | | | | | | |
| L04 | Money paid into a savings and/or loans club. | L06 | L05 | | | | | | | | | | | | | | |
| L05 | None of these (GO TO SECTION M) | | | | | | | | | | | | | | | | |
| L06 | How much in total has your household saved/loaned in this way? 1. ENTER AMOUNT IN R (IF AMOUNT IS KNOWN, GO TO L02/L03/L04/L05) 2. Don't know (GO TO L07) | | | | | | | | | | | | | | | | |
| L07 | If unknown/refusal Can you perhaps indicate the range that best estimates the total amount you have saved this way? <i>Please supply us with at least 7 range values you think could entail informal savings for the estimate of the following question</i> <table border="1" style="margin-top: 10px;"> <tbody> <tr><td>1</td><td></td></tr> <tr><td>2</td><td></td></tr> <tr><td>3</td><td></td></tr> <tr><td>4</td><td></td></tr> <tr><td>5</td><td></td></tr> <tr><td>6</td><td></td></tr> <tr><td>7</td><td></td></tr> </tbody> </table> | | | 1 | | 2 | | 3 | | 4 | | 5 | | 6 | | 7 | |
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M. Inheritances and other sums received

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| M01 | In the past five years, that is since (date), have you personally received an inheritance or other sums valued at R10 000 or more, whether in cash, property, or goods of any kind, pension payouts, lottery winnings etc. INCLUDE ANY INHERITANCE OR OTHER SUM FROM A SPOUSE OR PARTNER 1. Yes (GO TO M02) 2. No (GO TO SECTION N) | | |
| M02 | What did you inherit? (Select appropriate) CODE ALL THAT APPLY 1. House/flat/land or share in property 2. Money or savings 3. Personal items (such as car, jewellery or ornaments) 4. Stocks, shares, trusts, policies or other investments 5. A business 6. Pension payout 7. Redundancy payout 8. Gambling or lottery payout 9. Other (SPECIFY) | | |
| M03 | What was the total value, at that time, of everything your household inherited or other sums you received, after tax and other deductions? 1. ENTER AMOUNT IN R (IF AMOUNT IS KNOWN, GO TO M05) 2. Don't know (GO TO M04) | | |

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| M04 | <p>If unknown/refusal Can you perhaps indicate the range that best estimates the value of the inheritance or other sums received at that time (after tax and other deductions)?</p> <p><i>Please supply us with at least 7 range values you think could entail inheritances for the estimate of the question</i></p> <table border="1"> <tr><td>1</td><td></td></tr> <tr><td>2</td><td></td></tr> <tr><td>3</td><td></td></tr> <tr><td>4</td><td></td></tr> <tr><td>5</td><td></td></tr> <tr><td>6</td><td></td></tr> <tr><td>7</td><td></td></tr> </table> | 1 | | 2 | | 3 | | 4 | | 5 | | 6 | | 7 | |
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| M05 | <p>Are any of these inheritances already included in any of the previously captured sections?</p> <p>1. Yes (GO TO M06) 2. No (GO TO SECTION N)</p> | | | | | | | | | | | | | | |
| M06 | <p>What is the value of the items already included in any of the previous sections?</p> <p>ENTER AMOUNT IN R</p> | | | | | | | | | | | | | | |
| M07 | ENTER SECTION | | | | | | | | | | | | | | |

N. Other non-mortgage liabilities

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| <p>Mortgage loans excluded, I'd now like to ask you a few questions about any other credit commitments your household might have which have not been included in previous sections.</p> | | | | | | | | | | | | | | | |
| N01 | <p>Does your household have any credit cards? (Please include cards held by others but that your household is responsible for)</p> <p>INCLUDE: ANY CREDIT CARDS, AMEX CARDS AND DINERS CLUB CARDS. INCLUDE: ANY OUTSTANDING AMOUNT ON A LOST/STOLEN/INACTIVE CARD. EXCLUDE: COMPANY OR BUSINESS CREDIT CARDS, RETAIL STORE CARDS</p> <p>1. Yes(GO TO N02) 2. No (GO TO N05)</p> | | | | | | | | | | | | | | |
| N02 | <p>How many credit cards does your household have?</p> <p>STATE ACTUAL NUMBER HERE, BUT ADD TOGETHER ALL BALANCES ON CARDS WHEN PROVIDING RESPONSES TO QUESTIONS ABOUT AMOUNTS.</p> <p>ENTER NUMBER</p> | | | | | | | | | | | | | | |
| N03 | <p>How much in total is the outstanding balance on all credit cards?</p> <p>INCLUDE THE BUDGET FACILITY ON THE CARDS</p> <p>1. ENTER AMOUNT IN R (IF AMOUNT IS KNOWN, GO TO N05) 2. Don't know (GO TO N04)</p> | | | | | | | | | | | | | | |
| N04 | <p>If unknown/refusal Can you perhaps indicate the range that best estimates the total outstanding amount on all credit cards in the household?</p> <p><i>Please supply us with at least 7 range values you think could entail credit card debt for the estimate of the questions in this section</i></p> <table border="1"> <tr><td>1</td><td></td></tr> <tr><td>2</td><td></td></tr> <tr><td>3</td><td></td></tr> <tr><td>4</td><td></td></tr> <tr><td>5</td><td></td></tr> <tr><td>6</td><td></td></tr> <tr><td>7</td><td></td></tr> </table> | 1 | | 2 | | 3 | | 4 | | 5 | | 6 | | 7 | |
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| N05 | <p>Does the household have any store accounts which enables the household to buy what it needs and spread the costs? (INCLUDE ALL ACCOUNTS THAT YOUR HOUSEHOLD IS RESPONSIBLE FOR eg. CLOTHING ACCOUNTS, FURNITURE ACCOUNTS, BUY-AID ACCOUNTS)</p> <p>1. Yes (GO TO N06) 2. No (GO TO N09)</p> | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | |
|-----|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|
| N06 | How many accounts do you have? (INCLUDE THOSE WHERE THE CARD IS NOT IN USE, BUT WHICH HAS AN OUTSTANDING BALANCE. STATE ACTUAL NUMBER HERE, BUT ADD TOGETHER ALL ACCOUNTS WHEN PROVIDING RESPONSES TO QUESTIONS ABOUT AMOUNTS. ENTER NUMBER | | | | | | | | | | | | | | |
| N07 | How much is the current outstanding balance on all these accounts? 1. ENTER AMOUNT IN R (IF AMOUNT IS KNOWN, GO TO N09) 2. Don't know (GO TO N08) | | | | | | | | | | | | | | |
| N08 | If unknown/refusal Can you perhaps indicate the range that best estimates the amount currently outstanding on all these accounts? <i>Please supply us with at least 7 range values you think could entail credit card debt for the estimate of the questions in this section</i> <table border="1"> <tr><td>1</td><td></td></tr> <tr><td>2</td><td></td></tr> <tr><td>3</td><td></td></tr> <tr><td>4</td><td></td></tr> <tr><td>5</td><td></td></tr> <tr><td>6</td><td></td></tr> <tr><td>7</td><td></td></tr> </table> | 1 | | 2 | | 3 | | 4 | | 5 | | 6 | | 7 | |
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| N09 | Are the members of the household currently repaying any other loans e.g. personal loans and/or student loans etc.? EXCLUDE MORTGAGES OR LOANS OUTSTANDING ON ANY PROPERTIES/VEHICLES THAT WERE RECORDED IN EARLIER SECTIONS. 1. Yes (GO TO N10) 2. No (GO TO N17) | | | | | | | | | | | | | | |
| N10 | In total, how many of these loans do you have? STATE THE NUMBER HERE, BUT ADD TOGETHER ALL LOANS WHEN PROVIDING RESPONSES TO QUESTIONS ABOUT AMOUNTS ENTER THE NUMBER | | | | | | | | | | | | | | |
| N11 | What type of loan is it? (Select appropriate) 1. A personal loan, e.g. with bank, finance house 2. A Cash loan e.g. 3. A Loan from an employer 4. A Loan from a friend, relative, or other private individual 5. A student loan 6. Another type of loan (PLEASE SPECIFY) CODE ALL THAT APPLY | | | | | | | | | | | | | | |
| N12 | What is the total outstanding amount on all loans? 1. ENTER AMOUNT IN R (IF AMOUNT IS KNOWN, GO TO N14) 2. Don't know (GO TO N13) | | | | | | | | | | | | | | |
| N13 | If unknown/refusal Can you perhaps indicate the range that best estimates the total amount outstanding on all loans? <i>Please supply us with at least 7 range values you think could entail credit card debt for the estimate of the questions in this section</i> <table border="1"> <tr><td>1</td><td></td></tr> <tr><td>2</td><td></td></tr> <tr><td>3</td><td></td></tr> <tr><td>4</td><td></td></tr> <tr><td>5</td><td></td></tr> <tr><td>6</td><td></td></tr> <tr><td>7</td><td></td></tr> </table> | 1 | | 2 | | 3 | | 4 | | 5 | | 6 | | 7 | |
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| N14 | How much are your total instalments on all loans? 1. ENTER AMOUNT IN R (IF AMOUNT IS KNOWN, GO TO N16) 2. Don't know (GO TO N15) | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | |
|-----|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|
| N15 | <p>If unknown/refusal Can you perhaps indicate the range that best estimates the total amount of all instalments on loans? <i>Please supply us with at least 7 range values you think could entail loan instalments for the estimate of this question</i></p> <table border="1" data-bbox="316 293 1078 533"> <tr><td>1</td><td></td></tr> <tr><td>2</td><td></td></tr> <tr><td>3</td><td></td></tr> <tr><td>4</td><td></td></tr> <tr><td>5</td><td></td></tr> <tr><td>6</td><td></td></tr> <tr><td>7</td><td></td></tr> </table> | 1 | | 2 | | 3 | | 4 | | 5 | | 6 | | 7 | |
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| N16 | <p>How many instalments does your household still have to pay on all loans? ENTER THE NUMBER</p> | | | | | | | | | | | | | | |
| N17 | <p>Does your household have any cell phone agreements? 1. Yes (GO TO N18) 2. No (GO TO SECTION O)</p> | | | | | | | | | | | | | | |
| N18 | <p>How many cell phone contracts does the household have (exclude PAY-AS-YOU-GO)? ENTER NUMBER</p> | | | | | | | | | | | | | | |
| N19 | <p>What are the total monthly payments on all contracts? 1. ENTER THE AMOUNT IN R (IF AMOUNT IS KNOWN GO TO N21) 2. Don't know (GO TO N20)</p> | | | | | | | | | | | | | | |
| N20 | <p>If unknown/refusal Can you perhaps indicate the range that best estimates the total monthly payments on all cell phone contracts of the household? <i>Please supply us with at least 5 range values you think could entail cell phone payments for the estimate of this question</i></p> <table border="1" data-bbox="316 1077 786 1317"> <tr><td>1</td><td></td></tr> <tr><td>2</td><td></td></tr> <tr><td>3</td><td></td></tr> <tr><td>4</td><td></td></tr> <tr><td>5</td><td></td></tr> <tr><td>6</td><td></td></tr> <tr><td>7</td><td></td></tr> </table> | 1 | | 2 | | 3 | | 4 | | 5 | | 6 | | 7 | |
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| N21 | <p>How many of these monthly payments remain on all contracts that the household is obliged to pay? ENTER NUMBER</p> | | | | | | | | | | | | | | |

O. Short-term financial liabilities

| | | water and electricity | telephone bill | rent (if you are in arrears) | child maintenance | income tax | school fees | other bills (please supply details) | | | | | | | | | | | | | | |
|-----|--|-----------------------|----------------|------------------------------|-------------------|------------|-------------|-------------------------------------|--|---|--|---|--|---|--|--|--|--|--|--|--|--|
| O01 | <p>Every household has short term debts in the form of bills that are only payable the following month. CODE ALL THAT APPLY</p> <p>Could you tell me how much in total you owe on bills?</p> <p>1. ENTER AMOUNT IN R (IF AMOUNT IS KNOWN GO TO O03)</p> <p>2. Don't know (GO TO O02)</p> <p>3. None of these (GO TO O03)</p> | | | | | | | | | | | | | | | | | | | | | |
| O02 | <p>If unknown/refusal</p> <p>Can you perhaps indicate the range that best estimates the outstanding amount your household is liable for?</p> <p><i>Please supply us with at least 7 range values you think could entail bills payable for the estimate of the questions in this section</i></p> <table border="1" data-bbox="322 943 790 1182"> <tbody> <tr><td>1</td><td></td></tr> <tr><td>2</td><td></td></tr> <tr><td>3</td><td></td></tr> <tr><td>4</td><td></td></tr> <tr><td>5</td><td></td></tr> <tr><td>6</td><td></td></tr> <tr><td>7</td><td></td></tr> </tbody> </table> | 1 | | 2 | | 3 | | 4 | | 5 | | 6 | | 7 | | | | | | | | |
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| O03 | <p>Are you currently overdrawn on [any of] your current account[s]?</p> <p>1. Yes (GO TO O04)</p> <p>2. No (END)</p> | | | | | | | | | | | | | | | | | | | | | |

| | | |
|-----|--|--|
| O04 | How many of your current accounts with financial institutions e.g. cheque accounts are overdrawn? ENTER THE NUMBER | |
| O05 | What is the total amount (s) due on overdraft(s)? 1. ENTER AMOUNT IN R (IF AMOUNT IS KNOWN = END) 2. Don't know (GO TO O06) | |
| O06 | If unknown/refusal Can you perhaps indicate the range that best estimates the total amount of all your overdrafts? <i>Please supply us with at least 7 range values you think could entail overdrafts for the estimate of this questions</i> | |
| | END | |

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SECTION IV. HOUSEHOLDS' FINANCIAL BEHAVIOUR

To assist us in better understanding households' decisions regarding their finances, we would appreciate your input in the following questions.

| | |
|-----|---|
| P01 | <p>Planning your household's saving and spending, which of the following time periods are most important to you?</p> <ol style="list-style-type: none"> 1. Following few months 2. Following year 3. Following few years 4. Following 5-10 years 5. More than 10 years |
| P02 | Regarding the members of your household mentioned at the start of the interview, who would you say is foremost in your mind when making big financial decisions? Why? |
| P03 | If you were to run into financial difficulties, who would you be able to call on for assistance and to what extent would they be able or willing to help you? |
| P04 | You have won/inherited a lot of money, have paid off all your debt, been on the holiday of a lifetime, bought yourself a new house and car and have enough money left to invest to ensure you a financially secured future. What would you do with the money and why? |
| P05 | How do you feel about what you earn: do you feel it is your income or do you regard it as belonging to the household? |
| P06 | What about the earnings of others in the household (if there are any): do you regard it as belonging to them personally or to the household? |
| P07 | To what extent does the household pool their money? |
| P08 | Do you make decisions about what happens with the income of other household members? |
| P09 | Does anyone make decisions about what happens with your income? |
| P10 | Who has overall control of financial arrangements and big financial decisions? |
| P11 | Who takes responsibility for managing the household's day-to-day finances? |
| P12 | Regarding your household in terms of the people we mentioned at the start of this survey, do you feel everything that we have discussed up to now –income, expenses, assets and liabilities – belongs to the entire household or just some of you? Why? |
| P13 | Is there anyone not mentioned at the start of this survey that you would include as part of your household? Why? |
| P14 | Are there any other ways in which you consider yourself to be saving that has not been mentioned In section L? |
| P15 | We all have different reasons for saving. Can you please tell me what your most important reasons for saving are? |
| P16 | <p>Would you be willing to participate in any follow-up or related research that UNISA will be doing? (the research might for instance entail taking part in focus group discussions or personal interviews. Even if you say yes now you can still refuse to take part when approached at a later date)</p> <ol style="list-style-type: none"> 1. Yes 2. No |

APPENDIX B

FINAL PFRU HOUSEHOLD FINANCIAL WELL-BEING SURVEY

PERSONAL FINANCE RESEARCH UNIT

HOUSEHOLDS' FINANCIAL WELL-BEING

SURVEY

AUGUST 2011

INFORMED CONSENT

| | |
|---|------|
| I agree that the information collected can be used as discussed. | |
| Signature | Date |

SECTION I. HOUSEHOLD DEMOGRAPHICS

I would first like to record the composition of the household. **B0** The household comprise of adults and children

**The following questions refer to each individual member of the household 16 YEARS OF AGE AND OLDER
(use ADDITIONAL pages if required)**

| Member number → | FKP | Adult 2 | Adult 3 | Adult 4 | Adult 5 | Adult 6 |
|---|-----|---------|---------|---------|---------|---------|
| B1 FIRST NAME | | | | | | |
| B2 STATUS IN HOUSEHOLD ? | | | | | | |
| B3 AGE What is (your/X's) age? | | | | | | |
| B4 GENDER I am required to ask: What is (your / X's) gender? | | | | | | |
| B5 MARITAL STATUS What is (your / X's) marital status? | | | | | | |
| B6 EDUCATIONAL QUALIFICATIONS What is the highest level of education (you/he/she) (have/has) completed? | | | | | | |
| B7 FIELD OF QUALIFICATION For those members of the household that has/have | | | | | | |

| | | | | | | |
|---|--|--|--|--|--|--|
| completed a university degree or higher education diploma, what was the field of study? | | | | | | |
|---|--|--|--|--|--|--|

| Member number → | FKP | Adult 2 | Adult 3 | Adult 4 | Adult 5 | Adult 6 |
|--|-----|---------|---------|---------|---------|---------|
| B8 EMPLOYMENT STATUS What is (your / X's) current employment status? | | | | | | |

| | | | | | | |
|---|--|--|--|--|--|--|
| B9 OCCUPATION CLASSIFICATION What would (your / X's) occupation/job be classified as? | | | | | | |
|---|--|--|--|--|--|--|

| | | | | | | |
|--|--|--|--|--|--|--|
| B10 EMPLOYMENT SECTOR/INDUSTRY In what economic sector/industry do (you / X) work? | | | | | | |
|--|--|--|--|--|--|--|

THE FOLLOWING QUESTIONS REFER TO EACH INDIVIDUAL MEMBER (CHILD) OF THE HOUSEHOLD YOUNGER THAN 16 YEARS OF AGE

| Child number → | Child 1 | Child 2 | Child 3 | Child 4 | Child 5 | Child 6 |
|--|---------|---------|---------|---------|---------|---------|
| B11 CHILD'S FIRST NAME | | | | | | |
| B12 STATUS IN HOUSEHOLD? | | | | | | |
| B13 AGE What is the child's age? | | | | | | |
| B14 SOCIAL GRANT Does the household receive a social grant with regards to this child? | | | | | | |

THE FOLLOWING QUESTIONS REFER TO THE HOUSEHOLD IN TOTAL

| | |
|---|--|
| B15 PROVINCE What province does your household stay in? | |
| B16 TYPE OF AREA What type of area would you say your household stay in? | |
| B17 POPULATION GROUP | |

SECTION II. HOUSEHOLDS' FINANCIAL BEHAVIOUR

| | | | | | | | | |
|--|---|--|---|---|---|---|---|---|
| To assist us in better understanding households' decisions regarding their finances, we would appreciate your input in the following questions. | | | | | | | | |
| C1 | Planning your household's finances, which of the following time periods are most important to you? 1. A few hours 2. A few days 3. A few weeks 4. A few months 5. A year 6. A few years | (SELECT ONE) <table border="1"> <tr><td>1</td></tr> <tr><td>2</td></tr> <tr><td>3</td></tr> <tr><td>4</td></tr> <tr><td>5</td></tr> <tr><td>6</td></tr> </table> | 1 | 2 | 3 | 4 | 5 | 6 |
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| 5 | | | | | | | | |
| 6 | | | | | | | | |
| C2 | If you were to run into financial difficulties, who would you be able to call on for assistance and to what extent would they be able or willing to help you? <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> | | | | | | | |

| | | | | |
|----|---|---|---|---|
| C3 | <p>You have won/inherited a lot of money, have paid off all your debt, been on the holiday of a lifetime, bought yourself a new house and car and have enough money left to invest to ensure you a financially secured future. What would you do with the rest of the money and why?</p> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> | | | |
| C4 | <p>How would you describe your risk tolerance regarding investments and savings? (SELECT ONE)</p> <p>1. Low levels of risk tolerance 2. Average levels of risk tolerance 3. High levels of risk tolerance</p> <table border="1" data-bbox="1278 887 1374 999"> <tr><td>1</td></tr> <tr><td>2</td></tr> <tr><td>3</td></tr> </table> | 1 | 2 | 3 |
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| C5 | <p>We all have different reasons for saving even though we may not be able to save all the time. Are there any other ways in which you consider yourself to be saving that has not been mentioned up to now?</p> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> | | | |

How often do you feel:

| | | Almost never | Seldom | Sometimes | Often | Almost always |
|-----|---|--------------|--------|-----------|-------|---------------|
| C6 | There is really no way I can solve some of my problems | 1 | 2 | 3 | 4 | 5 |
| C7 | I am being pushed around in life | 1 | 2 | 3 | 4 | 5 |
| C8 | There is little I can do to change important things in life | 1 | 2 | 3 | 4 | 5 |
| C9 | I can do anything I set my mind to | 1 | 2 | 3 | 4 | 5 |
| C10 | I am responsible for my future | 1 | 2 | 3 | 4 | 5 |
| C11 | Helpless in dealing with problems of life | 1 | 2 | 3 | 4 | 5 |
| C12 | I have control over things that might | 1 | 2 | 3 | 4 | 5 |

| | | | | | | |
|-----|--|--|--|--|--|--|
| | happen to me | | | | | |
| C13 | Should your income, for whatever reason, not be sufficient to pay all your monthly responsibilities, please indicate from 1 to 5 the FIRST 5 items that you will pay, with 1 being the item you will pay FIRST. | | | | | |
| | 1. | | | | | |
| | 2. | | | | | |
| | 3. | | | | | |
| | 4. | | | | | |
| | 5. | | | | | |

| | | | | | |
|-----|--|---|---|---|---|
| C14 | With regards to the income you will be reporting on in the Section on income, is this income unusually high or low compared to what you would expect in a “normal” year, or is it “normal”? | (SELECT ONE) | | | |
| | 1. High 2. Low 3. Normal | <table border="1"> <tr><td>1</td></tr> <tr><td>2</td></tr> <tr><td>3</td></tr> </table> | 1 | 2 | 3 |
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| C15 | Over the next year, do you expect your total household income to go up more than inflation, less than inflation or about the same as inflation? | (SELECT ONE) | | | |
| | 1. More than inflation 2. Less than inflation 3. About the same as inflation | <table border="1"> <tr><td>1</td></tr> <tr><td>2</td></tr> <tr><td>3</td></tr> </table> | 1 | 2 | 3 |
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SECTION III. FINANCIAL POSITION OF HOUSEHOLD (BALANCE SHEET)

| | | | | | | |
|----|---|--|---|---|---|---|
| D0 | <p>We want to ask you about your assets and debts on a particular date, would you prefer:</p> <ol style="list-style-type: none"> 1. 31 December 2010, 2. 28 February 2011, 3. Date of interview, or 4. Other (please specify date): _____ | <p>(SELECT ONE)</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr><td style="text-align: center;">1</td></tr> <tr><td style="text-align: center;">2</td></tr> <tr><td style="text-align: center;">3</td></tr> <tr><td style="text-align: center;">4</td></tr> </table> | 1 | 2 | 3 | 4 |
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Section D₁. Vehicles

| | | | |
|----|---|--|--|
| D1 | <p>How many vehicles, if any, does your household own?</p> <p>ENTER NUMBER (IF NONE GO TO D15 BOATS AND PLANES)</p> | <table border="1" style="width: 100%; height: 20px;"> <tr><td style="text-align: center;"> </td></tr> </table> | |
| | | | |

| | | | Vehicle 1 | Vehicle 2 | Vehicle 3 | Rest | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|--|---|--------------------------------|--------------------------------|----------------------|---|----------------------|----------------------|---|----------------------|----------------------|---|--|-------|------|---|----------------------|----------------------|---|----------------------|----------------------|---|--|-------|------|---|----------------------|----------------------|---|----------------------|----------------------|---|--|-------|------|---|----------------------|----------------------|---|----------------------|----------------------|
| LOOP 1: Vehicle 1 - 3 | D2 | <p>For vehicle {number}, do you own a:</p> <p>1. Car/sedan 2. Hatchback 3. Station wagon 4. 2 seater coupe/Sports car 5. 2 wheel drive Bakkie/Panel van 6. wheel drive vehicle 7. Minibus/Kombi 8. Beach buggy</p> <p>9. Motorbike/scooter/Quad bikes 10. Truck 11. Other type of vehicle: (ENTER TYPE)</p> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | D3 | <p>When did the household buy/obtain this vehicle?</p> <p>1. if known: ENTER MONTH AND YEAR 2. if don't know (ENTER 0)</p> | <table border="1"> <thead> <tr> <th></th> <th>Month</th> <th>Year</th> </tr> </thead> <tbody> <tr> <td>1</td> <td><input type="text"/></td> <td><input type="text"/></td> </tr> <tr> <td>2</td> <td><input type="text"/></td> <td><input type="text"/></td> </tr> </tbody> </table> | | Month | Year | 1 | <input type="text"/> | <input type="text"/> | 2 | <input type="text"/> | <input type="text"/> | <table border="1"> <thead> <tr> <th></th> <th>Month</th> <th>Year</th> </tr> </thead> <tbody> <tr> <td>1</td> <td><input type="text"/></td> <td><input type="text"/></td> </tr> <tr> <td>2</td> <td><input type="text"/></td> <td><input type="text"/></td> </tr> </tbody> </table> | | Month | Year | 1 | <input type="text"/> | <input type="text"/> | 2 | <input type="text"/> | <input type="text"/> | <table border="1"> <thead> <tr> <th></th> <th>Month</th> <th>Year</th> </tr> </thead> <tbody> <tr> <td>1</td> <td><input type="text"/></td> <td><input type="text"/></td> </tr> <tr> <td>2</td> <td><input type="text"/></td> <td><input type="text"/></td> </tr> </tbody> </table> | | Month | Year | 1 | <input type="text"/> | <input type="text"/> | 2 | <input type="text"/> | <input type="text"/> | <table border="1"> <thead> <tr> <th></th> <th>Month</th> <th>Year</th> </tr> </thead> <tbody> <tr> <td>1</td> <td><input type="text"/></td> <td><input type="text"/></td> </tr> <tr> <td>2</td> <td><input type="text"/></td> <td><input type="text"/></td> </tr> </tbody> </table> | | Month | Year | 1 | <input type="text"/> | <input type="text"/> | 2 | <input type="text"/> | <input type="text"/> |
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| | 1 | <input type="text"/> | <input type="text"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 2 | <input type="text"/> | <input type="text"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Month | Year | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | <input type="text"/> | <input type="text"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | <input type="text"/> | <input type="text"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Month | Year | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | <input type="text"/> | <input type="text"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | <input type="text"/> | <input type="text"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| D4 | <p>What was the original cost price your household paid for the vehicle?</p> <p>1. if amount is known: ENTER AMOUNT 2. if don't know: SELECT FROM RANGE 3. if value is none (ENTER 0)</p> | <input type="text" value="R"/> | <input type="text" value="R"/> | <input type="text" value="R"/> | <input type="text" value="R"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>Can you give me the make, model and year of the vehicle:</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| D5 | Make: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| D6 | Model: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| D7 | Year: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| D8 | <p>Can you estimate the amount your household could sell this vehicle for now i.e. the market value?</p> | <input type="text" value="R"/> | <input type="text" value="R"/> | <input type="text" value="R"/> | <input type="text" value="R"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| | | | | | |
|----|---|---|---|---|---|
| | 1. if amount is known: ENTER AMOUNT 2. if don't know: SELECT FROM RANGE 3. if value is none (ENTER 0) | | | | |
| D9 | If your household used financing to buy the vehicle, how much is the outstanding amount of any finance agreement /loan/credit line? 1. if amount is known: ENTER AMOUNT 2. if don't know: SELECT FROM RANGE 3. Did not use any financing (GO TO NEXT VEHICLE (D2 START LOOP 1) OR IF ALL DONE GO TO D15) | R | R | R | R |

| | | | | | | |
|--------|-----|--|---|---|---|---|
| LOOP 2 | D10 | What was the initial amount borrowed at the time of the finance agreement? 1. if amount is known: ENTER AMOUNT 2. if don't know: SELECT FROM A RANGE | R | R | R | R |
| | D11 | At the time the finance agreement was obtained, how many months were agreed for repayment? 1. if known: ENTER NUMBER OF MONTHS 2. if don't know (ENTER 0) | | | | |
| | D12 | What is the current rate of interest charged on the finance agreement? 1. if known: ENTER RATE 2. if don't know (ENTER 0) | % | % | % | % |
| | D13 | How much is your total monthly repayment on this financing agreement? 1. if known: ENTER AMOUNT 2. if don't know: SELECT FROM A RANGE | R | R | R | R |
| | D14 | How many months are you behind on your monthly repayment? ENTER NUMBER OF MONTHS | | | | |

D₂ Boats and Planes

| | | | | |
|-----|---|---|---|---|
| D15 | Does anyone in your household own a boat(s)/trailer(s)? 1 Yes (GO TO D16) 2 No (GO TO D18) | <table border="1"> <tr><td>1</td></tr> <tr><td>2</td></tr> </table> | 1 | 2 |
| 1 | | | | |
| 2 | | | | |
| D16 | Can you estimate the total amount your household could sell this boat(s)/trailer(s) for now i.e. the market value? 1. if amount is known: ENTER AMOUNT 2. if don't know: SELECT FROM RANGE 3. if value is none (ENTER 0) | R <input type="text"/> | | |
| D17 | If your household used financing to buy this/(ese) boat(s)/trailer(s), how much is the total outstanding amount of all finance agreement(s)/loan(s)? 1. if amount is known: ENTER AMOUNT 2. if don't know: SELECT FROM RANGE 3. Did not use financing (ENTER 0) | R <input type="text"/> | | |
| D18 | Does anyone in your household own a plane(s)? 1 Yes (GO TO D19) 2 No (GO TO SECTION E) | <table border="1"> <tr><td>1</td></tr> <tr><td>2</td></tr> </table> | 1 | 2 |
| 1 | | | | |
| 2 | | | | |
| D19 | Can you estimate the total amount your household could sell this plane(s) for now i.e. the market value? 1. if amount is known: ENTER AMOUNT 2. if don't know: SELECT FROM RANGE 3. if value is none (ENTER 0) | R <input type="text"/> | | |
| D20 | If your household used financing to buy this/(these) plane(s), how much is the total outstanding amount of all finance agreement(s)/loan(s)? 1. if amount is known: ENTER AMOUNT 2. if don't know: SELECT FROM RANGE 3. Did not use any financing (ENTER 0) | R <input type="text"/> | | |

Section E MAIN RESIDENCE

| | | | | | | | | | | | |
|----|--|--|---|---|---|---|---|---|---|---|---|
| E1 | Is your main residence a: 1. House/Cluster home/Town House 2. Flat 3. Matchbox/ improved matchbox house/RDP house (Matchbox is a small government built house normally in a township area) 4. Traditional Hut 5. Hostel/Compound (e.g. mining compound) 6. Hotel/ Boarding House 7. Room in backyard 8. Squatter hut 9. Caravan 10. Farm | (SELECT ONE) <table border="1"> <tr><td>1</td></tr> <tr><td>2</td></tr> <tr><td>3</td></tr> <tr><td>4</td></tr> <tr><td>5</td></tr> <tr><td>6</td></tr> <tr><td>7</td></tr> <tr><td>8</td></tr> <tr><td>9</td></tr> </table> | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 1 | | | | | | | | | | | |
| 2 | | | | | | | | | | | |
| 3 | | | | | | | | | | | |
| 4 | | | | | | | | | | | |
| 5 | | | | | | | | | | | |
| 6 | | | | | | | | | | | |
| 7 | | | | | | | | | | | |
| 8 | | | | | | | | | | | |
| 9 | | | | | | | | | | | |

| | | | | | | |
|-----|--|--|----|----|---|---|
| | 11. Other (Enter description): _____ | <table border="1"> <tr><td>10</td></tr> <tr><td>11</td></tr> </table> | 10 | 11 | | |
| 10 | | | | | | |
| 11 | | | | | | |
| E2 | Indicate type of ownership 1. Bought/Acquired it (GO TO E3) 2. Rent it (GO TO SECTION F) 3. Live here rent-free (GO TO SECTION F) 4. Informal occupation (GO TO SECTION F) | (SELECT ONE) <table border="1"> <tr><td>1</td></tr> <tr><td>2</td></tr> <tr><td>3</td></tr> <tr><td>4</td></tr> </table> | 1 | 2 | 3 | 4 |
| 1 | | | | | | |
| 2 | | | | | | |
| 3 | | | | | | |
| 4 | | | | | | |
| E3 | Do you share ownership of the main residence with a person not included in your household? 1. No (ENTER 100) 2. If Yes – What percentage does your household own? (ENTER PERCENTAGE OWNED) | <input type="text"/> % | | | | |
| E4 | Estimate the amount the household would get if it sells the main residence now (before paying off any outstanding mortgage or loan on the main residence)? 1. if amount is known: ENTER AMOUNT 2. if don't know: SELECT FROM RANGE | <input type="text"/> R | | | | |
| E5 | What was the cost price of the residence at the time your household acquired it? 1. if amount is known: ENTER AMOUNT 2. if don't know: SELECT FROM RANGE 3. if none (ENTER 0) | <input type="text"/> R | | | | |
| E6 | In what year did the household acquire the residence? 1. if known (ENTER YEAR) 2. if don't know (ENTER 0) | <input type="text"/> | | | | |
| E7 | In total, how much have the household spent on improvements to the main residence since it was acquired? 1. if amount is known: ENTER AMOUNT 2. if don't know: SELECT FROM RANGE 3. No improvements (ENTER 0) | <input type="text"/> R | | | | |
| E8 | In which year were most of these improvements done? 1. if known (ENTER YEAR) 2. if don't know (ENTER 0) | <input type="text"/> | | | | |
| E9 | Does your household still have any mortgages on the main residence? (Including any extensions or 'top ups' you have taken out) or any refinancing agreement (see glossary) entered into? 1. Yes (GO TO E10) 2. No (GO TO SECTION F) | <table border="1"> <tr><td>1</td></tr> <tr><td>2</td></tr> </table> | 1 | 2 | | |
| 1 | | | | | | |
| 2 | | | | | | |
| E10 | How many mortgages/loans/refinancing agreements do your household currently have outstanding on the household's main residence? (GO TO NEXT MORTGAGE (LOOP 3 – E11 TO E16) FOR EACH MORTGAGE) | Enter number <input type="text"/> | | | | |

| | | Mortgage 1 | Mortgage 2 | Mortgage 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------|--|--|---|------------|-------|------|---|--|--|---|--|--|---|--|-------|------|---|--|--|---|--|--|---|--|-------|------|---|--|--|---|--|--|
| LOOP 3 | E11 | What is the total outstanding balance on this mortgage/loan/refinancing agreement? 1. if amount is known: ENTER AMOUNT 2. if don't know: SELECT FROM RANGE | R | R | R | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | E12 | When did your household first take out this mortgage/loan or when was the loan most recently refinanced? 1. if known: ENTER MONTH AND YEAR 2. if don't know (ENTER 0) | <table border="1"> <thead> <tr> <th></th> <th>Month</th> <th>Year</th> </tr> </thead> <tbody> <tr> <td>1</td> <td></td> <td></td> </tr> <tr> <td>2</td> <td></td> <td></td> </tr> </tbody> </table> | | Month | Year | 1 | | | 2 | | | <table border="1"> <thead> <tr> <th></th> <th>Month</th> <th>Year</th> </tr> </thead> <tbody> <tr> <td>1</td> <td></td> <td></td> </tr> <tr> <td>2</td> <td></td> <td></td> </tr> </tbody> </table> | | Month | Year | 1 | | | 2 | | | <table border="1"> <thead> <tr> <th></th> <th>Month</th> <th>Year</th> </tr> </thead> <tbody> <tr> <td>1</td> <td></td> <td></td> </tr> <tr> <td>2</td> <td></td> <td></td> </tr> </tbody> </table> | | Month | Year | 1 | | | 2 | | |
| | | Month | Year | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Month | Year | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Month | Year | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| E13 | What was the initial amount borrowed at the time the mortgage/loan was granted or refinanced? 1. if amount is known: ENTER AMOUNT 2. if don't know: SELECT FROM RANGE | R | R | R | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| E14 | At the time the mortgage/loan was granted/refinanced, how many years were agreed for the length of the mortgage/loan/refinancing agreement? 1. if known: ENTER NUMBER OF YEARS 2. if don't know (ENTER 0) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| E15 | What is the current rate of interest charged on the mortgage/loan/ refinancing agreement? 1. if known: ENTER RATE 2. if don't know (ENTER 0) | % | % | % | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| E16 | How much is your total monthly repayment on this mortgage/loan? 1. if known: ENTER AMOUNT 2. if don't know: SELECT FROM A RANGE | R | R | R | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Section F. Collectibles and Household Contents

| | | | | |
|----|--|---|---|---|
| F1 | <p>Does your household own any collectibles or valuables – such as antiques, artworks, stamps, jewellery, gold coins etc. - including items stored or kept elsewhere?</p> <p>1. Yes (GO TO F2)</p> <p>2. No (GO TO F3)</p> | <table border="1"> <tr><td>1</td></tr> <tr><td>2</td></tr> </table> | 1 | 2 |
| 1 | | | | |
| 2 | | | | |
| F2 | <p>What is your estimate of the market value of these items, even if you do not intend selling them?</p> <p>1. if amount is known: ENTER AMOUNT</p> <p>2. if don't know: SELECT FROM RANGE</p> <p>3. if value is none (ENTER 0)</p> | <input type="text" value="R"/> | | |
| F3 | <p>Thinking about the household content at your main residence, what is the estimated market value of the household contents should you sell these items now?</p> <p>1. if amount is known: ENTER AMOUNT</p> <p>2. if don't know: SELECT FROM RANGE</p> <p>3. if value is none (ENTER 0)</p> | <input type="text" value="R"/> | | |
| F4 | <p>Does the household owe any money on any of the household contents and/or collectibles?</p> <p>1. Yes (GO TO F5)</p> <p>2. No (GO TO SECTION G)</p> | <table border="1"> <tr><td>1</td></tr> <tr><td>2</td></tr> </table> | 1 | 2 |
| 1 | | | | |
| 2 | | | | |
| F5 | <p>If your household used financing to buy any household goods and/or collectibles, how much is the outstanding amount of any finance agreement used for household content and/or collectibles bought on credit?</p> <p>1. if amount is known: ENTER AMOUNT</p> <p>2. if don't know: SELECT FROM RANGE</p> | <input type="text" value="R"/> | | |

Section G. Properties other than the main residence (refers to the brick and mortar structure of the property as well as the land/stand it is situated on).

| | | | | |
|---------------|---|---|--|--|
| G1 | How many other properties (i.e. excluding your main residence) if any, does your household own? [REPEAT LOOP 4 FOR EVERY PROPERTY] | ENTER NUMBER <input type="text"/> | | |
| LOOP 4 | | G2 How will you describe the property? 1. Other houses/Townhouses/Flats/Holiday homes in SA 2. Commercial property in SA 3. Vacant stand in SA 4. Agricultural land or farms in SA 5. Land and/or property overseas 6. Other real estate in SA (ENTER DESCRIPTION) | Property 1 (SELECT ONE) <input type="text" value="1"/> <input type="text" value="2"/> <input type="text" value="3"/> <input type="text" value="4"/> <input type="text" value="5"/> <input type="text" value="6"/> | Property 2 (SELECT ONE) <input type="text" value="1"/> <input type="text" value="2"/> <input type="text" value="3"/> <input type="text" value="4"/> <input type="text" value="5"/> <input type="text" value="6"/> |
| | | G3 Where is the property situated? ENTER NAME OF CITY/TOWN (and suburb if applicable) WHERE PROPERTY IS SITUATED | <input type="text"/> | <input type="text"/> |
| | | G4 Do you share ownership of the property with a person not included in your household? 1. No (ENTER 100) 2. If Yes, what percentage does your household own?(ENTER PERCENTAGE) | <input type="text"/> % | <input type="text"/> % |
| | | G5 Estimate the amount the household would get if it sells the property now (before paying off any outstanding mortgage or loan on the property)? 1. if amount is known: ENTER AMOUNT 2. if don't know: SELECT FROM RANGE | <input type="text" value="R"/> | <input type="text" value="R"/> |
| | | G6 What was the cost price of the property at the time the household acquired it? 1. if amount is known: ENTER AMOUNT 2. if don't know: SELECT FROM RANGE 3. if value is none (ENTER 0) | <input type="text" value="R"/> | <input type="text" value="R"/> |

| | | | | | | | | |
|---------------|---|--|--|------------------------|---|--|---|---|
| LOOP 4 (cont) | G7 | In what year did your household acquired the property? 1. if known: ENTER YEAR 2. if don't know (ENTER 0) | <input type="text"/> | <input type="text"/> | | | | |
| | G8 | How much has the household spent on improvements to the property since it acquired the property? 1. if amount is known: ENTER AMOUNT 2. if don't know: SELECT FROM A RANGE 3. No improvements (ENTER 0) | R <input type="text"/> | R <input type="text"/> | | | | |
| | G9 | Thinking about the content on this property that the household owns, what is the estimated market value of the household contents should you sell these items now? 1. if amount is known: ENTER AMOUNT 2. if don't know: SELECT FROM RANGE 3. if value is none (ENTER 0) | R <input type="text"/> | R <input type="text"/> | | | | |
| | G10 | Does your household have any mortgage/loan on this property? (Including any extensions or 'top ups' you have taken out) or any refinancing agreement (see glossary) entered into? 1. Yes (GO TO G11) 2. No (GO TO NEXT PROPERTY (G2) OR SECTION H IF DONE) | <table border="1"><tr><td>1</td></tr><tr><td>2</td></tr></table> | 1 | 2 | <table border="1"><tr><td>1</td></tr><tr><td>2</td></tr></table> | 1 | 2 |
| | 1 | | | | | | | |
| 2 | | | | | | | | |
| 1 | | | | | | | | |
| 2 | | | | | | | | |
| G11 | How many mortgages/loans do your household currently have outstanding on this property? Exclude mortgages/loans already captured in previous sections. ENTER NUMBER COMPLETE LOOP 5 FOR EACH MORTGAGE. IF NO MORTGAGES GO TO NEXT PROPERTY(G2) OR IF DONE SECTION H | ENTER NUMBER <input type="text"/> | ENTER NUMBER <input type="text"/> | | | | | |

| | | Loan 1 | Loan 2 | | | | | | | | | | | | | | | | | | | |
|--------|--|--|---|--------------------------------|-------|------|---|----------------------|----------------------|---|----------------------|----------------------|---|--|-------|------|---|----------------------|----------------------|---|----------------------|----------------------|
| LOOP 5 | G12 | What is the total outstanding balance on this mortgage/loan/refinancing agreement? 1. if amount is known: ENTER AMOUNT 2. if don't know: SELECT FROM A RANGE | <input type="text" value="R"/> | <input type="text" value="R"/> | | | | | | | | | | | | | | | | | | |
| | G13 | When did your household first take out this mortgage/loan or when was the loan most recently refinanced? 1. if known: ENTER MONTH AND YEAR 2. if don't know (ENTER 0) | <table border="1"> <thead> <tr> <th></th> <th>Month</th> <th>Year</th> </tr> </thead> <tbody> <tr> <td>1</td> <td><input type="text"/></td> <td><input type="text"/></td> </tr> <tr> <td>2</td> <td><input type="text"/></td> <td><input type="text"/></td> </tr> </tbody> </table> | | Month | Year | 1 | <input type="text"/> | <input type="text"/> | 2 | <input type="text"/> | <input type="text"/> | <table border="1"> <thead> <tr> <th></th> <th>Month</th> <th>Year</th> </tr> </thead> <tbody> <tr> <td>1</td> <td><input type="text"/></td> <td><input type="text"/></td> </tr> <tr> <td>2</td> <td><input type="text"/></td> <td><input type="text"/></td> </tr> </tbody> </table> | | Month | Year | 1 | <input type="text"/> | <input type="text"/> | 2 | <input type="text"/> | <input type="text"/> |
| | | Month | Year | | | | | | | | | | | | | | | | | | | |
| | 1 | <input type="text"/> | <input type="text"/> | | | | | | | | | | | | | | | | | | | |
| | 2 | <input type="text"/> | <input type="text"/> | | | | | | | | | | | | | | | | | | | |
| | | Month | Year | | | | | | | | | | | | | | | | | | | |
| | 1 | <input type="text"/> | <input type="text"/> | | | | | | | | | | | | | | | | | | | |
| 2 | <input type="text"/> | <input type="text"/> | | | | | | | | | | | | | | | | | | | | |
| G14 | What was the initial amount borrowed at the time the mortgage/loan was granted or refinanced? 1. if amount is known: ENTER AMOUNT R 2. if don't know: SELECT FROM RANGE (Enter selection) | <input type="text" value="R"/> | <input type="text" value="R"/> | | | | | | | | | | | | | | | | | | | |
| G15 | At the time the mortgage/loan was granted/refinanced, how many years were agreed for the length of the mortgage/loan/refinancing agreement? 1. if known: ENTER NUMBER OF YEARS 2. if don't know (ENTER 0) | <input type="text"/> | <input type="text"/> | | | | | | | | | | | | | | | | | | | |
| G16 | What is the current rate of interest charged on the mortgage/loan/refinancing agreement? 1. if known: ENTER RATE 2. if don't know (ENTER 0) | <input type="text" value=""/> % | <input type="text" value=""/> % | | | | | | | | | | | | | | | | | | | |
| G17 | How much is your total monthly repayment on this mortgage/loan? 1. if known: ENTER AMOUNT 2. if don't know: SELECT FROM A RANGE | <input type="text" value="R"/> | <input type="text" value="R"/> | | | | | | | | | | | | | | | | | | | |

Section H. Financial assets

Following is a list of different financial assets – which of these financial assets do your household have or make use of?

| Financial assets | Yes | No | Refuse to answer (R – from range chart) | If yes, what is the value of the household's investment in these financial assets? 1. if amount is known: ENTER AMOUNT 2. if don't know: SELECT FROM RANGE |
|--|-------------------------|------------------|--|--|
| H1 Cheque account (see glossary) (EXCLUDING OVERDRAFTS COVERED IN NEXT SECTION) | 1 | 2 | R | R |
| H2 Mzansi account (see glossary) | 1 | 2 | R | R |
| H3 Savings account (see glossary) | 1 | 2 | R | R |
| H4 Money market account / investment (see glossary) | 1 | 2 | R | R |
| H5 Fixed deposit (see glossary) | 1 | 2 | R | R |
| H6 RSA Retail savings bonds/Government bonds (see glossary) | 1 | 2 | R | R |
| H7 Collective investment (unit trust)(see glossary) | 1 | 2 | R | R |
| H8 Does the household own any shares? | Complete H9-H11 | Go to H12 | R | R |
| H9 Own shares in SA listed companies (see glossary) | 1 | 2 | R | R |
| H10 Own shares in SA unlisted companies (see glossary) | 1 | 2 | R | R |
| H11 Hold shares / options through an employee share scheme | 1 | 2 | R | R |
| H12 Does the household own any insurance policies | Complete H13-H15 | Go to H16 | R | R |
| H13 Funeral policy | 1 | 2 | R | R |
| H14 Specific need policy (see glossary) | 1 | 2 | R | R |
| H15 Education policy | 1 | 2 | R | R |
| H16 Offshore (overseas) investments (e.g. bank accounts) | 1 | 2 | R | R |
| H17 Stokvel/Society or loans club | 1 | 2 | R | R |
| H18 Burial society (see glossary) | 1 | 2 | R | R |
| H19 Loans accounts to businesses / trusts | 1 | 2 | R | R |
| H20 Unbanked cash | 1 | 2 | R | R |
| H21 Amounts owed in cash/goods to members of the household by persons outside the household (Debtors) | 1 | 2 | R | R |
| H22 Other (please specify) | 1 | 2 | R | R |

Section I. Loans

Following is a list of different loans/liabilities – which of these loans/liabilities do your household have or make use of?

| Other loans/liabilities | Section 1 | Yes | No | R e f u s e | Section 2 | If yes, what is the total amount your household currently owe on this liability? 1. if amount is known: ENTER AMOUNT 2. if don't know: SELECT FROM RANGE | Section 3 | (If amount in Section 2) How much is the monthly instalment on the liability? 1. if amount is known: ENTER AMOUNT 2. if don't know: SELECT FROM RANGE | (If amount in Section 2) How many instalments do your household still have to pay to settle the liability? 1. if known: ENTER NUMBER 2. if don't know: ENTER 0 |
|--|-----------|-----|----|----------------------------|-----------|--|-----------|--|---|
| | | 1 | 2 | R | | | | R | R |
| I1 Bank overdraft (see glossary) | Section 1 | 1 | 2 | R | Section 2 | R | Section 3 | R | |
| I2 Credit card (see glossary) (excluding store cards or business credit cards) | | 1 | 2 | R | | R | | R | |
| I3 Store cards / accounts (see glossary) | | 1 | 2 | R | | R | | R | |
| I4 Petrol / garage card | | 1 | 2 | R | | R | | R | |
| I5 Student loans (see glossary instalment loans) | | 1 | 2 | R | | R | | R | |
| I6 Personal loans (see glossary) | | 1 | 2 | R | | R | | R | |
| I7 Cash loan | | 1 | 2 | R | | R | | R | |
| I8 Loan from an employer | | 1 | 2 | R | | R | | R | |
| I9 Loan from a friend, relative or other private individual | | 1 | 2 | R | | R | | R | |
| I10 Hire purchase agreement (see glossary) | | 1 | 2 | R | | R | | R | |
| I11 Cell phone contract (for cell phone instrument) | | 1 | 2 | R | | R | | R | |
| I12 Other (please specify) | | 1 | 2 | R | | R | | R | |

Section J. Household bills

Every household has bills that are payable in the following month. Does your household owe any money on the following?

| Household bills | Section 1 | Yes | No | Refuse | Section 2 | If yes, what is the approximate amount your household currently owe? 1. if amount is known: ENTER AMOUNT 2. If don't know: SELECT FROM RANGE | | |
|---|-----------|-----|----|--------|-----------|---|--|--|
| J1 Municipal accounts | | | 1 | 2 | | R | | |
| J2 Telephone, cell phone, internet (airtime and usage only) | | | 1 | 2 | | R | | |
| J3 Rent (only if you are in arrears) | | | 1 | 2 | | R | | |
| J4 Child maintenance / alimony | | | 1 | 2 | | R | | |
| J5 School fees | | | 1 | 2 | | R | | |
| J6 SABC / DSTV / TOPTV | | | 1 | 2 | | R | | |
| J7 Medical and other health related bills | | | 1 | 2 | | R | | |
| J8 Other (please specify). | | | 1 | 2 | | R | | |

Section K Business interests (Includes only formal business structures e.g. Close Corporations, Companies and Business Trusts)

| | | |
|----|--|--|
| K1 | <p>How many businesses (e.g. close corporation, company or business trust) or farm(s) does your household own fully or in part?</p> <p>ENTER NUMBER</p> <p>IF NONE, GO TO SECTION L (REPEAT LOOP 6 FOR EACH BUSINESS)</p> | <p>ENTER NUMBER</p> <input type="text"/> |
|----|--|--|

| | | | |
|---------------|----|---|-------------------------------|
| LOOP 6 | K2 | <p>If your household sold this business now, what is the net worth of the business?</p> <p>1. if amount is known: ENTER AMOUNT</p> <p>2. if don't know: SELECT FROM RANGE</p> | <p>R</p> <input type="text"/> |
| | K3 | <p>Do you share ownership of the business with a person not included in your household?</p> <p>1. Yes (ENTER PERCENTAGE OWNED)</p> <p>2. No (ENTER 100)</p> | <input type="text"/> % |
| | K4 | <p>Have you already included any of the business assets and/or liabilities in a previous category?</p> <p>1. Yes (COMPLETE K5 TO K8)</p> <p>2. No (ENTER "0" AND GO TO SECTION L)</p> | <input type="text"/> |

| | | |
|----|--|------------------------|
| K5 | Enter SECTION where assets were previously reported | <input type="text"/> |
| K6 | Enter AMOUNT of assets previously reported | R <input type="text"/> |
| K7 | Enter SECTION where liabilities were previously reported | <input type="text"/> |
| K8 | Enter AMOUNT of liabilities previously reported | R <input type="text"/> |

Section L**Trusts (see glossary)**

(Households who have put (some or all) of their own assets in a family trust.)

| | | | | |
|----|---|---|---|---|
| L1 | Have any of your household's assets been put into a family trust? 1. Yes (GO TO L2) 2. No (ENTER "0" AND GO TO SECTION M) | <table border="1"> <tr><td>1</td></tr> <tr><td>2</td></tr> </table> | 1 | 2 |
| 1 | | | | |
| 2 | | | | |
| L2 | What is the current value of your household's share of the assets in the family trust after paying off any debts in the trust? 1. if amount is known: ENTER AMOUNT 2. if don't know: SELECT FROM RANGE | R <input type="text"/> | | |
| L3 | Have you already included any of the trust assets and/or liabilities in a previous category? 1. Yes (COMPLETE L4 TO L7) 2. No (ENTER "0" AND GO TO SECTION M) | <table border="1"> <tr><td>1</td></tr> <tr><td>2</td></tr> </table> | 1 | 2 |
| 1 | | | | |
| 2 | | | | |
| L4 | Enter SECTION where assets were previously reported | <input type="text"/> | | |
| L5 | Enter AMOUNT of assets previously reported | R <input type="text"/> | | |
| L6 | Enter SECTION where liabilities were previously reported | <input type="text"/> | | |
| L7 | Enter AMOUNT of liabilities previously reported | R <input type="text"/> | | |

Section M . Inheritances and other sums received

| | | | | |
|----|---|---|---|---|
| M1 | Has your household received an inheritance, substantial gift or other sums (e.g. lottery winnings) from someone outside the household, whether in cash, property, or goods of any kind, pension payouts etc. 1. Yes (GO TO M2) 2. No (ENTER "0" AND GO TO SECTION N) | <table border="1"> <tr><td>1</td></tr> <tr><td>2</td></tr> </table> | 1 | 2 |
| 1 | | | | |
| 2 | | | | |
| M2 | What was the total value of the inheritance, gift or other sums, at the time your household received it, after tax and other deductions? 1. if amount is known: ENTER AMOUNT 2. if don't know: SELECT FROM RANGE | R <input type="text"/> | | |

SECTION IV. HOUSEHOLD INCOME AND EXPENDITURE

Section N₁. Expenditure (spending) of the household

THE FOLLOWING QUESTIONS REFER TO THE EXPENDITURE AND SPENDING OF THE HOUSEHOLD IN TOTAL (R-value per month) (E.g. R1 200 once a year = R1 200 / 12 = R100 monthly)

| EXPENDITURE / SPENDING ITEM | | R |
|-----------------------------|---|---|
| N1 | Furniture, household appliances, etc (e.g. dining room -; kitchen -; lounge furniture; washing machines) | R |
| N2 | Computers and related equipment (e.g. computers; laptops; net books; printers; scanners) | R |
| N3 | Recreational and entertainment goods (e.g. TV, DVD/Blue Ray player; cameras) | R |
| N4 | Other durables (e.g. jewelry; watches; hearing aids; glasses; prosthetics) | R |
| N5 | Clothing, & footwear (e.g. men's & women clothing; underwear; hats) | R |
| N6 | Household textiles, furnishings, glassware etc (e.g. blankets; travelling rugs; | R |
| N7 | Motorcar tyres, parts & accessories | R |
| N8 | Recreational & entertainment goods (e.g. reading material and stationary; camping equipment; swimming pool equipment; hobbies; books; games and toys including children's extra mural activities) | R |
| N9 | Miscellaneous goods (e.g. personal goods; writing and drawing equipment and supplies) | R |
| N10 | Food, beverages & tobacco | R |
| N11 | Household fuel, power & water (e.g. paraffin; electricity; water; candles; gas; firewood) | R |
| N12 | Household consumer products (e.g. polish; washing powder; toilet paper; wood oil) | R |
| N13 | Medical & pharmaceutical products (e.g. deodorant; soap; medicine; ointments; disinfections; bandages) | R |
| N14 | Petroleum products (e.g. petrol; diesel; oil; brake and transmission fluids; coolants and additives) | R |
| N15 | Recreational and entertainment goods (e.g. newspapers; magazines; stationery; recording media) | R |
| N16 | Rent paid | R |
| N17 | Household services, including domestic servants (e.g. electrician; plumber; domestic servant) | R |
| N18 | Medical & dental services (e.g. psychologist; physiotherapist; sangoma; doctor; dentist; hospital services, care by non-specialist staff; ambulance transport) | R |
| N19 | Transport services (e.g. taxi fare; bus fare; train fare; parking garage fees; toll gate fees; driving lessons, tests and licenses) | R |
| N20 | Communication services (e.g. cell phone usage; internet usage; telephone usage; postal services) | R |
| N21 | Recreation & entertainment services (e.g. cinemas; park; museum and theater entrance fees; subscription to DSTV; licenses and hiring of equipment) Pets and related products and veterinary services | R |
| N22 | Educational services (e.g. school fees; boarding fees) | R |
| N23 | Miscellaneous services | R |
| N24 | Security services | R |

| MONTHLY CONTRIBUTIONS | | |
|------------------------------|---|---|
| N25 | Support payments to relatives | R |
| N26 | Own monthly medical aid contributions | R |
| N27 | Employer's monthly medical aid contributions | R |
| N28 | Own monthly contribution to pension fund / provident fund | R |
| N29 | Employers' monthly contribution to pension fund / provident fund | R |
| N30 | Own monthly contribution to retirement annuity fund | R |
| N31 | Maintenance / alimony payments | R |
| N32 | Donations and religious contributions (including tithes and offerings) | R |

Section N₂. Income of adult household members (adults: 1 to 3)**THE FOLLOWING QUESTIONS REFER TO EACH INDIVIDUAL MEMBER OF THE HOUSEHOLD 16 YEARS OF AGE AND OLDER**

| HOUSEHOLD MEMBER MONTHLY | FKP | 2 | 3 |
|---|----------------------|----------------------|----------------------|
| N33 SOURCE OF INCOME What would you describe your household's main source of income to be? | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| N34 MONTHLY employee income before tax (e.g. salaries and/or wages) | R | R | R |
| N35 MONTHLY net income from self-employment before tax (e.g. profits/losses from own business activities, royalties) | R | R | R |
| N36 MONTHLY net income from rentals received before tax (e.g. fixed property (excluding vacant land); boats, planes etc). | R | R | R |
| N37 MONTHLY net income from rental received before tax from vacant land | R | R | R |
| N38 MONTHLY interest received (e.g. interest from investments, syndication etc.) | R | R | R |
| N39 MONTHLY dividends received (e.g. dividends received from share holdings) | R | R | R |
| N40 MONTHLY current and social transfers received (e.g. social grants; unemployment fund; regular inter-household cash transfers received; non-profit organisations; alimony; child support) | R | R | R |
| N41 MONTHLY social insurance benefits (e.g. from retirement funds – pension, provident or retirement annuities) | R | R | R |
| N42 MONTHLY social transfers in kind received (e.g. cash value of food, clothing, gifts, etc) | R | R | R |
| N43 income MONTHLY source not submitted | R | R | R |

| HOUSEHOLD MEMBER ONCE OFF / IRREGULAR ACCOUNTS RECEIVED | FKP | 2 | 3 |
|---|-----|---|---|
| N44 What other once off amounts did you receive during the last year (e.g. profit on selling of house etc) | R | R | R |
| N45 Please specify | | | |

Section N₃. Retirement provision of adult members of the household (adults: 1 to 3)**THE FOLLOWING QUESTIONS REFER TO EACH INDIVIDUAL MEMBER OF THE HOUSEHOLD 16 YEARS OF AGE AND OLDER REGARDING RETIREMENT PROVISION**

Retirement funds (This includes any pension, provident fund or retirement annuity the members of your household belongs to/owns)

| HOUSEHOLD MEMBER | FKP | 2 | 3 |
|---|-----|---|---|
| N46 At what age do/(es) you/X plan to retire? | | | |
| N47 In total, what percentage of your / X's current gross earnings from your current income goes toward retirement fund contribution (EXCLUDE COMPANY CONTRIBUTIONS)? | | | |
| N48 In total, for how many years did you/X contributed to this retirement fund? | | | |
| N49 What do you think is the current value of your / X's retirement fund's? | R | R | R |
| N50 Some people have formal retirement plans they set up on their own, such as voluntary pension schemes or whole life insurance contracts. Do you / X have any such plans? 1. Yes 2. No | | | |
| N51 Considering all these plans together, how much are they worth at the moment? | R | R | R |
| N52 How much are your/X's monthly contributions to all these plans? | R | R | R |

Section N₂. Income of adult household members (adults: 4 to 6)**THE FOLLOWING QUESTIONS REFER TO EACH INDIVIDUAL MEMBER OF THE HOUSEHOLD 16 YEARS OF AGE AND OLDER**

| HOUSEHOLD MEMBER MONTHLY | 4 | 5 | 6 |
|---|----------------------|----------------------|----------------------|
| N33 SOURCE OF INCOME What would you describe your household's main source of income to be? | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| N34 MONTHLY employee income before tax (e.g. salaries and/or wages) | R | R | R |
| N35 MONTHLY net income from self-employment before tax (e.g. profits/losses from own business activities, royalties) | R | R | R |
| N36 MONTHLY net income from rentals received before tax (e.g. fixed property (excluding vacant land); boats, planes etc). | R | R | R |
| N37 MONTHLY net income from rental received before tax from vacant land | R | R | R |
| N38 MONTHLY interest received (e.g. interest from investments, syndication etc.) | R | R | R |
| N39 MONTHLY dividends received (e.g. dividends received from share holdings) | R | R | R |
| N40 MONTHLY current and social transfers received (e.g. social grants; unemployment fund; regular inter-household cash transfers received; non-profit organisations; alimony; child support) | R | R | R |
| N41 MONTHLY social insurance benefits (e.g. from retirement funds – pension, provident or retirement annuities) | R | R | R |
| N42 MONTHLY social transfers in kind received (e.g. cash value of food, clothing, gifts, etc) | R | R | R |
| N43 income MONTHLY source not submitted | R | R | R |

| HOUSEHOLD MEMBER | 4 | 5 | 6 |
|---|---|---|---|
| Once off / irregular accounts received | | | |
| N44 What other once off amounts did you receive during the last year (e.g. profit on selling of house etc) | R | R | R |
| N45 Please specify | | | |

Section N₃. Retirement provision of adult members of the household (adults: 4 to 6)

THE FOLLOWING QUESTIONS REFER TO EACH INDIVIDUAL MEMBER OF THE HOUSEHOLD 16 YEARS OF AGE AND OLDER REGARDING RETIREMENT PROVISION

Retirement funds (This includes any pension, provident fund or retirement annuity the members of your household belongs to/owns)

| HOUSEHOLD MEMBER | 4 | 5 | 6 |
|---|---|---|---|
| N46 At what age do/(es) you/X plan to retire? | | | |
| N47 In total, what percentage of your / X's current gross earnings from your current income goes toward retirement fund contribution (EXCLUDE COMPANY CONTRIBUTIONS)? | | | |
| N48 In total, for how many years did you/X contributed to this retirement fund? | | | |
| N49 What do you think is the current value of your / X's retirement fund's? | R | R | R |
| N50 Some people have formal retirement plans they set up on their own, such as voluntary pension schemes or whole life insurance contracts. Do you / X have any such plans? 1. Yes 2. No | | | |
| N51 Considering all these plans together, how much are they worth at the moment? | R | R | R |
| N52 How much are your/X's monthly contributions to all these plans? | R | R | R |

Section N₄. Income of the children of the household (children: 1 to 3)**THE FOLLOWING QUESTIONS REFER TO EACH INDIVIDUAL MEMBER (CHILD) OF THE HOUSEHOLD YOUNGER THAN 16 YEARS OF AGE**

| HOUSEHOLD MEMBER MONTHLY | Child 1 | Child 2 | Child 3 |
|---|---------|---------|---------|
| N53 MONTHLY employee income before tax (e.g. salaries and/or wages) | R | R | R |
| N54 MONTHLY net income from self-employment before tax (e.g. profits/losses from own business activities, royalties) | R | R | R |
| N55 MONTHLY net income from rentals received before tax (e.g. fixed property (excluding vacant land); boats, planes etc). | R | R | R |
| N56 MONTHLY net income from rental received before tax from vacant land | R | R | R |
| N57 MONTHLY interest received (e.g. interest from investments, syndication etc.) | R | R | R |
| N58 MONTHLY dividends received (e.g. dividends received from share holdings) | R | R | R |
| N59 MONTHLY current and social transfers received (e.g. social grants; unemployment fund; regular inter-household cash transfers received; non-profit organisations; alimony; child support) | R | R | R |
| N60 MONTHLY social insurance benefits (e.g. from retirement funds – pension, provident or retirement annuities) | R | R | R |
| N61 MONTHLY social transfers in kind received (e.g. cash value of food, clothing, gifts, etc) | R | R | R |
| N62 income MONTHLY source not submitted | R | R | R |

| HOUSEHOLD MEMBER Once off / irregular amount received | Child 1 | Child 2 | Child 3 |
|---|---------|---------|---------|
| N63 What other once off amounts did you receive during the last year (e.g. profit on selling of house etc) | R | R | R |
| N64 Please specify | | | |

Section N₄. Income of the children of the household (children: 4 to 6)**THE FOLLOWING QUESTIONS REFER TO EACH INDIVIDUAL MEMBER (CHILD) OF THE HOUSEHOLD YOUNGER THAN 16 YEARS OF AGE**

| HOUSEHOLD MEMBER MONTHLY | Child 4 | Child 5 | Child 6 |
|---|---------|---------|---------|
| N53 MONTHLY employee income before tax (e.g. salaries and/or wages) | R | R | R |
| N54 MONTHLY net income from self-employment before tax (e.g. profits/losses from own business activities, royalties) | R | R | R |
| N55 MONTHLY net income from rentals received before tax (e.g. fixed property (excluding vacant land); boats, planes etc). | R | R | R |
| N56 MONTHLY net income from rental received before tax from vacant land | R | R | R |
| N57 MONTHLY interest received (e.g. interest from investments, syndication etc.) | R | R | R |
| N58 MONTHLY dividends received (e.g. dividends received from share holdings) | R | R | R |
| N59 MONTHLY current and social transfers received (e.g. social grants; unemployment fund; regular inter-household cash transfers received; non-profit organisations; alimony; child support) | R | R | R |
| N60 MONTHLY social insurance benefits (e.g. from retirement funds – pension, provident or retirement annuities) | R | R | R |
| N61 MONTHLY social transfers in kind received (e.g. cash value of food, clothing, gifts, etc) | R | R | R |
| N62 income MONTHLY source not submitted | R | R | R |
| HOUSEHOLD MEMBER Once off / irregular amount received | Child 4 | Child 5 | Child 6 |
| N63 What other once off amounts did you receive during the last year (e.g. profit on selling of house etc) | R | R | R |
| N64 Please specify | | | |

| | | | |
|--|---|---|---|
| <p>N65. Would your household be interested in receiving a balance sheet drafted from the information supplied during the interview?</p> <p>1. Yes 2. No</p> | <table border="1"> <tr><td>1</td></tr> <tr><td>2</td></tr> </table> | 1 | 2 |
| 1 | | | |
| 2 | | | |
| <p>IF YES: PLEASE SUPPLY A POSTAL ADDRESS OR E-MAIL ADDRESS</p> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> | | | |

| | | | |
|--|---|---|---|
| <p>N66. I received the t-shirt.</p> <p>1. Yes 2. No</p> | <table border="1"> <tr><td>1</td></tr> <tr><td>2</td></tr> </table> | 1 | 2 |
| 1 | | | |
| 2 | | | |

| | | | |
|--|---|---|---|
| <p>N67. Would your household be willing to participate in any follow-up research that UNISA will conduct? (Even if you say yes now you can still refuse to take part when approached at a later date)</p> <p>1. Yes 2. No</p> | <table border="1"> <tr><td>1</td></tr> <tr><td>2</td></tr> </table> | 1 | 2 |
| 1 | | | |
| 2 | | | |
| <p>IF YES: PLEASE SUPPLY A CONTACT NUMBER</p> <hr/> | | | |

| |
|--|
| <p>Interviewer Name and Surname</p> |
| <p>Interviewer signature</p> |

THANK YOU VERY MUCH FOR YOUR TIME.

APPENDIX C

PFRU INTERVIEWER'S GUIDE

PERSONAL FINANCE RESEARCH UNIT

INTERVIEWER'S GUIDE

HOUSEHOLDS' FINANCIAL WELL-BEING SURVEY

AUGUST 2011



PART A

Motivation & Screening

MOTIVATION AND PURPOSE OF THE HOUSEHOLDS' FINANCIAL WELL-BEING SURVEY

PERSONAL FINANCE RESEARCH UNIT STUDY ON HOUSE HOLD FINANCIAL WELL-BEING

Introductions and consent

- Good morning/afternoon/evening my name is
- I work for the Personal Finance Research Unit at the University of South Africa (Unisa)
- We are doing research on the finances of South African households.
- Could I please speak to the person who would know the most about your house's finances?

If the person is not available then take down the name of the person and ask when would be the best time to call back.

Once speaking to the (possible) FKP:

- I would like to ask you some questions about the finances of those people who usually live with you and who share their expenses – both adults and children – but not people who work for you or people who just rent a room from you. Would you be the right person to talk to?
- We are conducting a nationwide survey on household financial well-being. The purpose is to improve household wellbeing by giving advice to government and financial institutions about policy and decision-making. Your input is therefore very important to use to create an accurate impression of the financial lives of households in the country. To be able to do this we need to ask you some questions about your household's finances. This will include information about your income, expenses, assets and liabilities (debts). Please note that under no circumstances will we ask you for account numbers or personal id numbers. The information that you give will be totally confidential and reported on anonymously.
- The questionnaire will take about 1 hour but you will be able to terminate the interview at any stage or continue at a later time. After the interview is completed your name and address will never be connected again with the financial information provided in this interview. Your name is only needed for purposes of administering the study. My supervisor may contact you after the interview but this would only be to verify that I was here and that I conducted the interview in a proper and professional manner.
- You should also be aware that by agreeing to participate you have not waived any legal or human right to contact the researchers at Unisa and once again remember that you will be able to withdraw at any time.
- Would you be willing to continue with the questionnaire now or at another time?

[If person does not agree to continue: Thank you very much for your time.]

If person agrees to continue:

- Before we carry on I just need to emphasise that we are not affiliated with any financial institution or government body other than Unisa. We don't provide any financial advice but as a token of our gratitude for your time we will give you a Unisa T-shirt and, if you want

one, a household balance sheet that can help you with future financial planning. Do you have any questions before we continue?

- To help you answer the questions and speed up the process you might want to consult some financial records such as salary slips, pension statements, account balances, etc.
- To get an idea of who is in your household, I'd firstly need to ask you some questions about the people who live here and anyone else who don't usually live here but who are still financially dependent or on whom you are financially dependent.

[As the interviewer then talks through the people mentioned, he/she should ask specific questions to make sure everyone complies with our definition of a household. e.g. is this person financially dependent on you? If this person is an adult and gets an income, do you pool your money and buy things together from this money? The main screening of the household members should therefore take place here.]

If you have any queries about this study, please contact:

Prof D Scheepers
scheed@unisa.ac.za
083 291 0980

Prof B de Clercq
dclerb@unisa.ac.za
083 442 4659

Prof JMP Venter
ventejmp@unisa.ac.za
083 234 9343

Prof C van Aardt
vaardcj@unisa.ac.za
082 950 4325

INFORMED CONSENT



THE SECTION BELOW MUST BE COMPLETED AND SIGNED BY THE RESPONDENT!

I agree that the information collected can be used as discussed.

Signature

Date

PART B

Household Financial Well-being survey

SECTION I. HOUSEHOLD DEMOGRAPHICS



- IT IS VERY IMPORTANT TO ENSURE THE ANSWERS FOR THE ADULTS OF THE HOUSEHOLDS ARE REPORTED SEPERATELY FROM THOSE OF THE CHILD UNDER 16 YEARS OF AGE.
- QUESTION B0 IS TO DETERMINE HOW MANY PEOPLE ARE MEMBERS OF THE HOUSEHOLD.
- ENSURE THAT YOU COMPLETE QUESTIONS B1 TO B10 FOR EACH INDIVIDUAL ADULT (I.E. 16 YEARS AND OLDER) MEMBER OF THE HOUSEHOLD AND QUESTIONS B11 TO B14 FOR EACH CHILD (I.E. YOUNGER THAN 16 YEARS).
- QUESTIONS B15 TO B17 REFERS TO INFORMATION REGARDING THE HOUSEHOLD IN TOTAL AND NOT INDIVIDUAL PERSONS.

ALL HOUSEHOLD MEMBERS

I would first like to record the composition of the household. Please list all household members. See glossary.

B0 The household comprise of adults and children.



THE FOLLOWING QUESTIONS REFER TO EACH INDIVIDUAL MEMBER OF THE HOUSEHOLD 16 YEARS OF AGE AND OLDER

| DEMOGRAPHICS | PERSONAL NOTES |
|--|----------------|
| B1 FIRST NAME | |
| B2 STATUS IN HOUSEHOLD ? (select one) <ol style="list-style-type: none"> 1. head of household (H.H.) 2. spouse/partner of H.H. 3. parent of H.H. 4. parent of H.H.'s spouse/partner 5. spouse/partner of child of H.H. or H.H.'s spouse/partner 6. grandchild of H.H. or spouse/partner 7. niece/nephew of H.H. or spouse/partner 8. sibling of H.H. 9. sibling of H.H.'s spouse/partner 10. spouse/partner of sibling of H.H. or H.H.'s spouse/partner 11. other relative of H.H. or spouse/partner 12. other household member not related to H.H. | |
| B3 AGE What is (your/X's) age? | |
| B4 GENDER I am required to ask: What is (your / X's) gender? <ol style="list-style-type: none"> 1. male 2. female | |
| B5 MARITAL STATUS (select one) <ol style="list-style-type: none"> 1. never married (single) 2. married / living together as partners 3. widowed 4. separated/divorced | |

| DEMOGRAPHICS | PERSONAL NOTES |
|---|----------------|
| <p>B6 EDUCATIONAL QUALIFICATIONS (select one) Which is the highest level of education (you/he/she) (have/has) completed?</p> <ol style="list-style-type: none"> 1. No schooling 2. Grade 0 3. Sub A/Grade 1 4. Sub B/Grade 2 5. Grade 3/Standard 1 6. Grade 4/Standard 2 7. Grade 5/Standard 3 8. Grade 6/Standard 4 9. Grade 7/Standard 5 10. Grade 8/Standard 6/Form 1 11. Grade 9/Standard 7/Form 2 12. Grade 10/Standard 8/Form 3 13. Grade 11/Standard 9/Form 4 14. Grade 12/Standard 10/Form 5/Matric 15. NTC I 16. NTC II 17. NTC III 18. Diploma/certificate with less than Grade 12/Std 10 19. Diploma/certificate with Grade 12/Std 10 20. Degree 21. Postgraduate degree or diploma 22. Don't know 23. Other, please specify | |
| <p>B7 FIELD OF QUALIFICATION For those members of the household that has/have completed a university degree or higher education diploma, what was the field of study? (select one)</p> <ol style="list-style-type: none"> 1. Education 2. Arts 3. Humanities 4. Social and behaviour sciences 5. Journalism and information 6. Business, finance and administration 7. Law 8. Life sciences 9. Physical sciences 10. Mathematics and statistics 11. Computing 12. Engineering and engineering trades 13. Manufacturing and processing 14. Architecture and building 15. Agriculture, forestry and fishery 16. Veterinary 17. Health 18. Social services 19. Personal services 20. Transport services 21. Environmental protection 22. Security services 23. Other, please specify | |

| DEMOGRAPHICS | PERSONAL NOTES |
|---|----------------|
| 24. Don't know | |
| B8 EMPLOYMENT STATUS What is (your / X's) current employment status? (select one) <ol style="list-style-type: none"> employed full-time employed part-time self employed full-time self employed part-time unemployed not available for employment: housewife not available for employment: student not available for employment: retired not available for employment: disabled / ill unpaid family worker | |
| B9 OCCUPATION CLASSIFICATION What would (your / X's) occupation/job be classified as? | |
| B10 EMPLOYMENT SECTOR/INDUSTRY In what economic sector/industry do (you / X) work? (select one) <ol style="list-style-type: none"> Agriculture, Hunting, Forestry and Fishing Mining and Quarrying Manufacturing Electricity, Gas and Water Supply Construction Wholesale and Retail Trade Transport, Storage and Communication Financial Intermediation, Insurance, Real Estate Community, Social and Personal Services Private Households, Extraterritorial Organisations, Representatives of Foreign Governments and other activities not adequately defined. Other / unsure: Please specify | |



THE FOLLOWING QUESTIONS REFER TO EACH INDIVIDUAL MEMBER (CHILD) OF THE HOUSEHOLD YOUNGER THAN 16 YEARS OF AGE

| DETAILS OF CHILDREN IN HOUSEHOLD | PERSONAL NOTES |
|---|----------------|
| B11 CHILD'S FIRST NAME | |
| B12 STATUS IN HOUSEHOLD (select one) <ol style="list-style-type: none"> child of H.H. and present spouse/partner child of H.H. or spouse/partner from previous relationship grandchild of H.H. or spouse/partner niece/nephew of H.H. or spouse/partner sibling of H.H. sibling of H.H.'s spouse/partner other relative of H.H. or spouse/partner other household member not related to H.H. | |
| B13 YEAR OF BIRTH /AGE What is the child's age? | |
| B14 SOCIAL GRANT Does the household receive a social grant with regards to this child? <ol style="list-style-type: none"> Yes No | |



THE FOLLOWING QUESTIONS REFER TO THE HOUSEHOLD IN TOTAL

| DETAILS OF THE HOUSEHOLD IN TOTAL | | PERSONAL NOTES |
|---|---|----------------|
| B15 PROVINCE | | |
| What province does your household stay in? (select one) | | |
| 1. Eastern Cape | 1 | |
| 2. Free State | 2 | |
| 3. Gauteng | 3 | |
| 4. KwaZulu-Natal | 4 | |
| 5. Limpopo | 5 | |
| 6. Mpumalanga | 6 | |
| 7. Northern Cape | 7 | |
| 8. North West | 8 | |
| 9. Western Cape | 9 | |
| B16 TYPE OF AREA | | |
| What type of area would you say your household stay in? (select one) | | |
| 1. Metropolitan area | 1 | |
| 2. Non-metro area (city or town) | 2 | |
| 3. Rural | 3 | |
| B17 POPULATION GROUP (select one) | | |
| 1. African (Black) | 1 | |
| 2. Asian (Indian) | 2 | |
| 3. Coloured | 3 | |
| 4. White | 4 | |
| 5. Other | 5 | |

SECTION II. HOUSEHOLDS' FINANCIAL BEHAVIOUR

C2 – C5 ANSWERS MUST BE WRITTEN DOWN IN DETAIL.

To assist us in better understanding households' decisions regarding their finances, we would appreciate your input in the following questions.

| | |
|-----------|--|
| C1 | Planning your household's finances, which of the following time periods are most important to you? 1. A few hours 2. A few days 3. A few weeks 4. A few months 5. A year 6. A few years |
| C2 | If you were to run into financial difficulties, who would you be able to call on for assistance and to what extent would they be able or willing to help you? |
| C3 | You have won/inherited a lot of money, have paid off all your debt, been on the holiday of a lifetime, bought yourself a new house and car and have enough money left to invest to ensure you a financially secured future. What would you do with the rest of the money and why? |
| C4 | How would you describe your risk tolerance regarding investments and savings? 1. Low levels of risk tolerance 2. Average levels of risk tolerance 3. High levels of risk tolerance |
| C5 | We all have different reasons for saving even though we may not be able to save all the time. Are there any other ways in which you consider yourself to be saving that has not been mentioned up to now? |


C6 – C12 SELECT ONLY ONE ANSWER PER LINE.
How often do you feel:

| | Almost never | Seldom | Sometimes | Often | Almost always |
|---|---------------------|---------------|------------------|--------------|----------------------|
| C6 There is really no way I can solve some of my problems | 1 | 2 | 3 | 4 | 5 |
| C7 I am being pushed around in life | 1 | 2 | 3 | 4 | 5 |
| C8 There is little I can do to change important things in life | 1 | 2 | 3 | 4 | 5 |
| C9 I can do anything I set my mind to | 1 | 2 | 3 | 4 | 5 |
| C10 I am responsible for my future | 1 | 2 | 3 | 4 | 5 |
| C11 Helpless in dealing with problems of life | 1 | 2 | 3 | 4 | 5 |
| C12 I have control over things that might happen to me | 1 | 2 | 3 | 4 | 5 |


C13 ANSWERS MUST BE WRITTEN DOWN IN DETAIL.

C13: Should your income, for whatever reason, not be sufficient to pay all your monthly responsibilities, please indicate from 1 to 5 the FIRST 5 items that you will pay, with 1 being the item you will pay FIRST.

| OPEN ENDED QUESTION WITH 5 ANSWERS | |
|------------------------------------|--|
| 1. | |
| 2. | |
| 3. | |
| 4. | |
| 5. | |

| | | |
|------------|---|--|
| C14 | <p>With regards to the income you will be reporting on in the Section on income, is this income unusually high or low compared to what you would expect in a "normal" year, or is it "normal"?</p> <p>1. High 2. Low 3. Normal</p> | |
|------------|---|--|

| | | |
|------------|---|--|
| C15 | <p>Over the next year, do you expect your total household income to go up more than inflation /(living costs), less than inflation or about the same as inflation?</p> <p>1. More than inflation 2. Less than inflation 3. About the same as inflation</p> | |
|------------|---|--|

Inflation is currently around 4-5%

SECTION III. FINANCIAL POSITION OF HOUSEHOLD (BALANCE SHEET)


- NOT EVERY SECTION WILL BE ANSWERED BY ALL THE HOUSEHOLDS, IT DEPENDS WHETHER THE HOUSEHOLD OWNS THE SPECIFIC ASSETS ITEMS OR HAVE THE SPECIFIC DEBT ITEMS!
- IT IS VERY IMPORTANT TO DETERMINE FOR WHICH DATE THE FINANCIAL INFORMATION WILL BE PROVIDED AS SOME HOUSEHOLD MIGHT HAVE THE INFORMATION AVAILABLE FOR FEBRUARY AND OTHERS FOR DECEMBER, THUS MAKE VERY SURE WHAT DATE IS REPORTED IN QUESTION D0.
- TO DETERMINE THE HOUSEHOLD'S BALANCE SHEET, THE SURVEY IS STRUCTURED AS FOLLOW:
 - D₁: VEHICLES
 - D₂: BOATS AND PLANES
 - E: MAIN RESIDENCE
 - F: HOUSEHOLD CONTENTS AND COLLECTIBLES
 - G: PROPERTIES OTHER THAN THE MAIN RESIDENCE
 - H: FINANCIAL ASSETS
 - I: LOANS
 - J: HOUSEHOLD BILLS/DEBTS
 - K: BUSINESS INTERESTS
 - L: TRUSTS
 - M: INHERITANCE AND OTHER SUMS RECEIVED
- IT MAY SEEMS THAT CERTAIN LIABILITIES IS NOT REFLECTED HERE, BUT WHERE APPLICABLE, THE QUESTIONS REGARDING BOTH THE ASSET AND LIABILITY IS DONE UNDER THE SAME SECTION, E.G. MAIN RESIDENCE.
- MOST HOUSEHOLDS WILL PROBABLY ONLY COMPLETE QUESTIONS FOR D₁, E, F, H, I, AND J.

The questions in this section of the interview are mainly financial in nature. Some of the questions will need an answer given as an amount in Rand. The ideal response would always be a specific amount. But if you do not know the exact answer or do not want to tell me, I can record an answer given as a range instead. Of course, if there is a question you are not able to answer at all or do not want to answer, we can move on at that point. Please remember to include assets and debt belonging to children of the household as well.

| | |
|----|---|
| D0 | <p>We want to ask you about your assets and debts on a particular date, would you prefer:</p> <ol style="list-style-type: none"> 1. 31 December 2010, 2. 28 February 2011, 3. Date of interview, or 4. Other (please specify date): _____ |
|----|---|

D₁. Vehicles

IF THE HOUSEHOLD ANSWERED “0” TO D1 SKIP D2 – D14 AND CONTINUE WITH D15, OTHERWISE CONTINUE WITH D2.

D1

How many vehicles, if any, does your household own?

PLEASE EXCLUDE COMPANY VEHICLES OR LEASED (see glossary) VEHICLES.

ENTER NUMBER (Instructors note: if none = 0 and GO TO D15)

[Repeat loop 1 for up to 3 vehicles and a final loop for all other vehicles combined]



D2 – D9 MUST BE REPEATED FOR EVERY VEHICLE OWED BY THE HOUSEHOLD

D2

For vehicle {number}, do you own a:

1. Car/sedan
2. Hatchback
3. Station wagon
4. 2 seater coupe/Sports car
5. 2 wheel drive Bakkie/Panel van
6. 4 wheel drive vehicle
7. Minibus/Kombi
8. Beach buggy
9. Motorbike/scooter/Quad bikes
10. Truck
11. Other type of vehicle (ENTER TYPE)

D3

When did the household buy/obtain this vehicle?

1. if known: ENTER MONTH AND YEAR (Instructor’s note: Prompt for at least a year)
2. if don’t know (ENTER 0)

D4

What was the original cost price your household paid for the vehicle?

1. if amount is known: ENTER AMOUNT IN R
2. if don’t know: SELECT FROM RANGE (ENTER SELECTION FROM SHEET)
3. if value is none (ENTER 0)

D5

Can you give me the make, model and year of the vehicle:

RECORD MAKE

D6

RECORD MODEL

D7

RECORD YEAR

D8

Can you estimate the amount your household could sell this vehicle for now i.e. the market value? THE MARKET VALUE IS THE AMOUNT THAT YOU EXPECT TO OBTAIN IF YOU SELL THE VEHICLE NOW.

1. if amount is known: ENTER AMOUNT R
2. if don’t know: SELECT FROM RANGE (ENTER SELECTION FROM SHEET)
3. if value is none (ENTER 0)

D9

If your household used financing to buy the vehicle, how much is the outstanding amount of any finance agreement /loan/credit line (see glossary)?

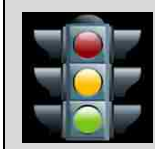
INSTRUCTORS NOTE: FINANCE AGREEMENTS INCLUDE HIRE PURCHASE AGREEMENTS (see glossary), INSTALMENT AGREEMENTS (see glossary) etc.

LOANS INCLUDE PERSONAL LOANS (see glossary), MICRO LOANS (see glossary) ETC. (EXCLUDE CREDIT CARD DEBT)

1. if amount is known: ENTER AMOUNT IN R (CONTINUE WITH D10)
2. if don’t know: SELECT FROM RANGE (ENTER SELECTION FROM SHEET)
3. Did not use any financing (GO TO NEXT VEHICLE (D2) or IF ALL DONE, GO TO D15)

[Complete loop 2 for finance agreement]

Loop 1



IF THE HOUSEHOLD ANSWERED “1” OR “2” IN D9 CONTINUE WITH D10 – D14. REPEAT D2 IF HOUSEHOLD OWNS ANOTHER VEHICLE OR IF THERE IS NO OTHER VEHICLES, CONTINUE WITH D15. IF ANSWERED “3” IN D9 AND THERE IS NO OTHER VEHICLES, CONTINUE WITH D15.

| | | |
|-----|--------|--|
| D10 | Loop 2 | What was the initial amount borrowed at the time of the finance agreement? 1. if amount is known: ENTER AMOUNT R 2. if don't know: SELECT FROM A RANGE (ENTER SELECTION FROM SHEET) |
| D11 | | At the time the finance agreement was obtained, how many months were agreed for repayment? 1. if known: ENTER NUMBER OF MONTHS 2. if don't know (ENTER 0) |
| D12 | | What is the current rate of interest charged on the finance agreement? 1. if known: ENTER RATE 2. if don't know (ENTER 0) |
| D13 | | How much is your total monthly repayment on this financing agreement? 1. if known: ENTER AMOUNT IN R 2. if don't know: SELECT FROM A RANGE (ENTER SELECTION FROM SHEET) |
| D14 | | How many months are you behind on your monthly repayment? ENTER NUMBER OF MONTHS |

D₂. Boats and Planes



ONLY IF THE HOUSEHOLD ANSWERED “YES” TO D15 (OPTION 1) CONTINUE WITH D16–D17. IF ANSWERED “NO” (OPTION 2), SKIP D16 – D17 AND CONTINUE WITH D18.

| | |
|-----|--|
| D15 | Does anyone in your household own a boat(s)/trailer(s)? 1 Yes (GO TO D16) 2 No (GO TO SECTION D18) |
| D16 | Can you estimate the total amount your household could sell this boat(s)/trailer(s) for now i.e. the market value? THE MARKET VALUE IS THE AMOUNT THAT YOU EXPECT TO OBTAIN IF YOU SELL THE/(ESE) BOAT(S) NOW. 1. if amount is known: ENTER AMOUNT IN R 2. if don't know: SELECT FROM RANGE (ENTER SELECTION FROM SHEET) 3. if value is none (ENTER 0) |
| D17 | If your household used financing to buy this/(ese) boat(s)/trailer(s), how much is the total outstanding amount of all finance agreement(s)/loan(s)? INSTRUCTORS NOTE: FINANCE AGREEMENTS INCLUDE HIRE PURCHASE AGREEMENTS (see glossary), INSTALMENT AGREEMENTS (see glossary) etc. LOANS INCLUDE PERSONAL LOANS (see glossary), MICRO LOANS (see glossary) ETC. (EXCLUDE CREDIT CARD DEBT) 1. if amount is known: ENTER AMOUNT IN R 2. if don't know: SELECT FROM RANGE (ENTER SELECTION FROM SHEET) 3. Did not use any financing (ENTER 0) |



ONLY IF THE HOUSEHOLD ANSWERED “YES” TO D18 (OPTION 1) CONTINUE WITH D19–D20. IF ANSWERED “NO” (OPTION 2), SKIP D19 – D20 AND CONTINUE WITH E.

| | |
|-----|---|
| D18 | <p>Does anyone in your household own a plane(s)? PLEASE INCLUDE HELICOPTERS; MICROLIGHTS, ETC. EXCLUDE MODEL VERSIONS WHICH MUST BE INCLUDED WITH THE SECTION ON HOUSEHOLD CONTENT.</p> <p>1 Yes (GO TO D19) 2 No (GO TO SECTION E)</p> |
| D19 | <p>Can you estimate the total amount your household could sell this plane(s) for now i.e. the market value? THE MARKET VALUE IS THE AMOUNT THAT YOU EXPECT TO OBTAIN IF YOU SELL THE PLANE(S) NOW.</p> <p>1. if amount is known: ENTER AMOUNT IN R 2. if don't know: SELECT FROM RANGE (ENTER SELECTION FROM SHEET) 3. if value is none (ENTER 0)</p> |
| D20 | <p>If your household used financing to buy this/(ese) plane(s), how much is the total outstanding amount of all finance agreement(s)/loan(s)? INSTRUCTORS NOTE: FINANCE AGREEMENTS INCLUDE HIRE PURCHASE AGREEMENTS (see glossary), INSTALMENT AGREEMENTS (see glossary) etc. LOANS INCLUDE PERSONAL LOANS (see glossary), MICRO LOANS (see glossary) ETC. (EXCLUDE CREDIT CARD DEBT)</p> <p>1. if amount is known: ENTER AMOUNT IN R 2. if don't know: SELECT FROM RANGE (ENTER SELECTION FROM SHEET) 3. Did not use any financing (ENTER 0)</p> |

E. Main Residence (see glossary)



E1 AND E2 MUST BE ANSWERED BY ALL HOUSEHOLDS

| | |
|----|--|
| E1 | <p>Is your main residence a: (SELECT ONE)</p> <ol style="list-style-type: none"> 1. House/Cluster home/Town House 2. Flat 3. Matchbox/ improved matchbox house/RDP house (MATCHBOX IS A SMALL GOVERNMENT BUILT HOUSE NORMALLY IN A TOWNSHIP AREA) 4. Traditional Hut 5. Hostel/Compound (EG. MINING COMPOUND) 6. Hotel/ Boarding House 7. Room in backyard 8. Squatter hut 9. Caravan 10. Farm 11. Other <p>ENTER DESCRIPTION OF OTHER</p> |
| E2 | <p>Indicate type of ownership (SELECT ONE)</p> <ol style="list-style-type: none"> 1. Bought/Acquired it (GO TO E3) 2. Rent it (GO TO SECTION F) 3. Live here rent-free (INCLUDING RENT-FREE IN RELATIVE'S/FRIEND'S PROPERTY; EXCLUDING SQUATTING) (GO TO SECTION F) 4. Informal occupation (EG.SQUATTING) (GO TO SECTION F) |



- **ONLY IF THE HOUSEHOLD BOUGHT THE HOUSE (OPTION 1 IN E2) CONTINUE WITH THE REST OF E. FOR ANY OTHER ANSWER (OPTION 2/3/4 IN E2) SKIP THE REST OF E AND CONTINUE WITH SECTION F.**
- **E3: FOR THOSE HOUSEHOLDS THAT BOUGHT THE HOUSE, IT IS IMPORTANT TO DETERMINE IF THE HOUSEHOLD OWNS THE HOUSEHOLDS 100% OR DO THEY OWN THE HOUSE WITH SOMEONE ELSE.**

| | |
|----|---|
| E3 | <p>Do you share ownership of the main residence with a person not included in your household?</p> <ol style="list-style-type: none"> 1. No (ENTER 100) 2. If Yes – What percentage does your household own? (ENTER PERCENTAGE OWNED) |
| E4 | <p>Instructor's note: If less than 100%: Read the following statement: FOR THE FOLLOWING QUESTION: PLEASE CONSIDER THE PRICE OF THE ENTIRE RESIDENCE AND NOT JUST THE HOUSEHOLD'S SHARE.</p> <p>Estimate the amount the household would get if it sells the main residence now (before paying off any outstanding mortgage or loan on the main residence)?</p> <p>Instructors note: (If main residence is a farm, include only the value of the land and buildings. Exclude livestock, implements, crops etc.- will be included under businesses)</p> <ol style="list-style-type: none"> 1. if amount is known: ENTER AMOUNT IN R 2. if don't know: SELECT FROM RANGE (ENTER SELECTION FROM SHEET) |
| E5 | <p>What was the cost price of the residence at the time your household acquired it? (COST PRICE MEANS THE AMOUNT THE HOUSEHOLD PAID WHEN IT ACQUIRED THE RESIDENCE). PLEASE CONSIDER THE PRICE OF THE ENTIRE RESIDENCE AND NOT JUST THE HOUSEHOLD'S SHARE EVEN IF THE HOUSEHOLD'S SHARE IS LESS THAN 100%.</p> <ol style="list-style-type: none"> 1. if amount is known: ENTER AMOUNT R 2. if don't know: SELECT FROM RANGE (ENTER SELECTION FROM SHEET) 3. if none (ENTER 0) |

| | |
|----|---|
| E6 | <p>In what year did the household acquire the residence? IF THE RESIDENCE WAS ACQUIRED IN MULTIPLE STEPS, PLEASE TELL ME THE YEAR IN WHICH THE HOUSEHOLD FIRST ACQUIRED OWNERSHIP OF THE PROPERTY?</p> <p>1. if known (ENTER YEAR) 2. if don't know (ENTER 0)</p> |
| E7 | <p>In total, how much have the household spent on improvements to the main residence since it was acquired? (IMPROVEMENTS INCLUDES ADD-ONS THAT INCREASE THE VALUE OF THE RESIDENCE EG, POOL, PATIO, RENOVATIONS TO KITCHEN, BATHROOMS, DRIVEWAYS, SECURITY SYSTEMS)</p> <p>1. if amount is known: ENTER AMOUNT R 2. if don't know: SELECT FROM A RANGE (ENTER SELECTION FROM SHEET) 3. No improvements (ENTER 0)</p> |
| E8 | <p>In which year were most of these improvements done?</p> <p>1. if known (ENTER YEAR) 2. if don't know (ENTER 0)</p> |
| E9 | <p>Does your household have any mortgage/loan (see glossary) on the main residence? (Including any extensions or 'top ups' you have taken out) or any refinancing agreement (see glossary) entered into? EXCLUDE MORTGAGES WHICH HAVE BEEN PAID OFF. UNSECURED LOANS SHOULD NOT BE INCLUDED HERE - THEY WILL BE COVERED LATER IN THE QUESTIONNAIRE.</p> <p>1. Yes (GO TO E10) 2. No (GO TO SECTION F)</p> |



- **E10 – E16 IS ONLY APPLICABLE IF THE HOUSEHOLD MADE USE OF A MORTGAGE TO BUY THE HOUSE, THUS IF E9'S ANSWER IS "2", SKIP E10 TO E16 AND CONTINUE WITH F.**
- **IF THE HOUSEHOLD HAS MORE THAN ONE MORTGAGE FOR THE MAIN RESIDENCE, E11 – E16 MUST BE REPEATED FOR EACH MORTGAGE**

| | | |
|-----|--------|---|
| E10 | | <p>How many mortgages/loans/refinancing agreements do your household currently have outstanding on the household's main residence? ENTER NUMBER <i>(repeat loop 3 for each mortgage/loan)</i></p> |
| E11 | Loop 3 | <p>What is the total outstanding balance on this mortgage/loan/refinancing agreement? 1. if amount is known: ENTER AMOUNT R 2. if don't know: SELECT FROM A RANGE (ENTER SELECTION FROM SHEET)</p> |
| E12 | | <p>When did your household first take out this mortgage/loan or when was the loan most recently refinanced? 1. if known: ENTER MONTH AND YEAR (Instructor's note: Prompt for at least a year) 2. if don't know (ENTER 0)</p> |
| E13 | | <p>What was the initial amount borrowed at the time the mortgage/loan was granted or refinanced? 1. if amount is known: ENTER AMOUNT R 2. if don't know: SELECT FROM A RANGE (ENTER SELECTION FROM SHEET)</p> |
| E14 | | <p>At the time the mortgage/loan was granted/refinanced, how many years were agreed for the length of the mortgage/loan/refinancing agreement? 1. if known: ENTER NUMBER OF YEARS 2. if don't know (ENTER 0)</p> |
| E15 | | <p>What is the current rate of interest charged on the mortgage/loan/refinancing agreement? 1. if known: ENTER RATE 2. if don't know (ENTER 0)</p> |
| E16 | | <p>How much is your total monthly repayment on this mortgage/loan/refinancing agreement? 1. if known: ENTER AMOUNT IN R 2. if don't know: SELECT FROM A RANGE (ENTER SELECTION FROM SHEET)</p> |

F. Collectibles and Household Contents



ONLY IF THE HOUSEHOLD ANSWERED “YES” TO F1 (OPTION 1) CONTINUE WITH THE F2. IF ANSWERED “NO” (OPTION 2), SKIP F2 AND CONTINUE WITH F3.


| | |
|----|--|
| F1 | <p>Does your household own any collectibles or valuables – such as antiques, artworks, stamps, jewellery, gold coins etc. - including items stored or kept elsewhere?</p> <p>1. Yes (GO TO F2) 2. No (GO TO F3)</p> |
| F2 | <p>What is your estimate of the market value of these items, even if you do not intend selling them?</p> <p>THE ESTIMATED MARKET VALUE IS THE AMOUNT THAT YOU EXPECT TO OBTAIN IF YOU SELL THESE ITEMS NOW.</p> <p>1. if amount is known: ENTER AMOUNT IN R 2. if don't know: SELECT FROM RANGE (ENTER SELECTION FROM SHEET) 3. if value is none (ENTER 0)</p> |



- CONTINUE WITH F3 AND F4.
- ONLY IF THE HOUSEHOLD ANSWERED “YES” TO F4 (OPTION 1) CONTINUE WITH F5. IF ANSWERED “NO” (OPTION 2), SKIP F5 AND CONTINUE WITH G.

| | |
|----|---|
| F3 | <p>Thinking about the household content at your main residence, what is the estimated market value of the household contents should you sell these items now?</p> <p>PLEASE INCLUDE ALL ITEMS, SUCH AS APPLIANCES AND ELECTRONIC EQUIPMENT, FURNITURE, CLOTHING AND LEISURE</p> <p>1. if amount is known: ENTER AMOUNT IN R 2. if don't know: SELECT FROM RANGE (ENTER SELECTION FROM SHEET) 3. if value is none (ENTER 0)</p> |
| F4 | <p>Does the household owe any money on any of the household contents and/or collectibles?</p> <p>1. Yes (GO TO F5) 2. No (GO TO SECTION G)</p> |
| F5 | <p>If your household used financing to buy any household goods and/or collectibles, how much is the outstanding amount of any finance agreement used for household content and/or collectibles bought on credit?</p> <p>FINANCE AGREEMENTS INCLUDE LAY-BUYS, HIRE PURCHASE AGREEMENTS, PERSONAL LOAN, FINANCING THROUGH STORES E.G. ELLERIENS, LUBNERS, JOSUA DOORE ETC. EXCLUDE CREDIT CARD DEBT COVERED LATER)</p> <p>1. if amount is known: ENTER AMOUNT IN R 2. if don't know: SELECT FROM RANGE (ENTER SELECTION FROM SHEET)</p> |

G. Properties other than the main residence (refers to the brick and mortar structure of the property as well as the land/stand it is situated on).

| | |
|---|---|
|  | IF THE HOUSEHOLD ANSWERED "0" TO G1 SKIP G2 – G17 AND CONTINUE WITH H. |
|---|---|

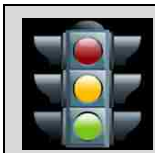
| | |
|----|---|
| G1 | <p>How many other properties (i.e. excluding your main residence) if any, does your household own?</p> <p>OTHER PROPERTY INCLUDE FOR EXAMPLE HOUSES,HOLIDAY HOMES, TOWNHOUSES, FLATS, VACANT STANDS, COMMERCIAL PROPERTIES, AGRICULTURAL LAND OR FARMS, OTHER REAL ESTATE AND OVERSEAS PROPERTIES</p> <p>ENTER NUMBER (Instructors note: none = 0 and GO TO SECTION H)</p> <p>[Repeat loop 4 for every property]</p> |
|----|---|

| | |
|---|---|
|  | FOR THE NUMBER OF PROPERTIES REPORTED IN G1, G2 – G10 MUST BE REPEATED |
|---|---|

| | |
|----|---|
| G2 | How will you describe the property? |
| | <ol style="list-style-type: none"> 1. Other houses/Townhouses/Flats/Holiday homes in SA 2. Commercial property in SA (INCLUDING BUILDINGS/OFFICES/FLATS/HOTELS ETC). 3. Vacant stand in SA 4. Agricultural land or farms in SA 5. Land and/or property overseas 6. Other real estate in SA (ENTER DESCRIPTION) |
| G3 | <p>Where is the property situated?</p> <p>ENTER NAME OF CITY/TOWN (and suburb where applicable) WHERE PROPERTY IS SITUATED</p> |
| G4 | <p>Do you share ownership of the property with a person not included in your household?</p> <ol style="list-style-type: none"> 1. No (ENTER 100) 2. If Yes, what percentage does your household own? (ENTER PERCENTAGE) |
| G5 | <p>Instructor's note: If less than 100%: Read the following statement: PLEASE CONSIDER THE PRICE OF THE ENTIRE PROPERTY AND NOT JUST THE HOUSEHOLD'S SHARE.</p> <p>Estimate the amount the household would get if it sells the property now (before paying off any outstanding mortgage or loan on the property)?</p> <p>Instructors note: (If property is a farm, include only the value of the land and buildings. Exclude livestock, implements, crops etc.-will be included under businesses)</p> <ol style="list-style-type: none"> 1. if amount is known: ENTER AMOUNT IN R 2. if don't know: SELECT FROM RANGE (ENTER SELECTION FROM SHEET) |
| G6 | <p>What was the cost price of the property at the time the household acquired it? (COST PRICE MEANS THE AMOUNT THE HOUSEHOLD PAID WHEN IT ACQUIRED THE PROPERTY) PLEASE CONSIDER THE PRICE OF THE ENTIRE PROPERTY AND NOT JUST THE HOUSEHOLD'S SHARE EVEN IF THE HOUSEHOLD'S SHARE IS LESS THAN 100%.</p> <ol style="list-style-type: none"> 1. if amount is known: ENTER AMOUNT R 2. if don't know: SELECT FROM RANGE (ENTER SELECTION FROM SHEET) 3. if value is none (ENTER 0) |
| G7 | <p>In what year did your household acquired the property?</p> <p>IF THE PROPERTY WAS ACQUIRED IN MULTIPLE STEPS, PLEASE TELL ME THE YEAR IN WHICH THE HOUSEHOLD FIRST ACQUIRED OWERNERSHIP OF THE PROPERTY.</p> <ol style="list-style-type: none"> 1. if known: ENTER YEAR 2. if don't know (ENTER 0) |
| G8 | <p>How much has the household spent on improvements to the property since it acquired the property?</p> <p>(IMPROVEMENTS INCLUDE ADD-ONS THAT INCREASE THE VALUE OF THE PROPERTY EG, POOL,</p> |

Loop 4

| | | |
|-----|--|---|
| | | PATIO, RENOVATIONS TO KITCHEN, BATHROOMS, DRIVEWAYS, SECURITY SYSTEMS, ETC.) 1. if amount is known: ENTER AMOUNT R 2. if don't know: SELECT FROM A RANGE (ENTER SELECTION FROM SHEET) 3. No improvements (ENTER 0) |
| G9 | | Thinking about the content on this property that the household owns, what is the estimated market value of the household contents should you sell these items now? PLEASE INCLUDE ALL ITEMS, SUCH AS APPLIANCES AND ELECTRONIC EQUIPMENT, FURNITURE, CLOTHING, AND LEISURE ITEMS e.g. Sport equipment) ONLY INCLUDE ITEMS ON THIS PROPERTY, NOT ITEMS INCLUDED WITH THE MAIN RESIDENCE. 1. if amount is known: ENTER AMOUNT IN R 2. if don't know: SELECT FROM RANGE (ENTER SELECTION FROM SHEET) 3. if value is none (ENTER 0) |
| G10 | | Does your household have any mortgage/loan (see glossary) on this property? (Including any extensions or 'top ups' you have taken out) or any refinancing agreement (see glossary) entered into? EXCLUDE MORTGAGES WHICH HAVE BEEN PAID OFF. UNSECURED LOANS SHOULD NOT BE INCLUDED HERE - THEY WILL BE COVERED LATER IN THE QUESTIONNAIRE. 1. Yes (GO TO G11) 2. No (GO TO NEXT PROPERTY (G2) OR SECTION H) |



IF THE HOUSEHOLD ANSWERED "YES" (OPTION 1) IN G10 CONTINUE WITH G11 – G17. IF ANSWERED "NO" (OPTION 2) IN G10, REPEAT G2 – G10 IF HOUSEHOLD OWNS ANOTHER PROPERTY OR IF THERE IS NO OTHER PROPERTIES, CONTINUE WITH H.

| | | |
|-----|--------|--|
| G11 | | How many mortgages/loans/refinancing agreements do your household currently have outstanding on this property? EXCLUDE MORTGAGES/LOANS ALREADY CAPTURED IN PREVIOUS SECTIONS. ENTER NUMBER (repeat loop 5 for each mortgage/loan) |
| G12 | Loop 4 | What is the total outstanding balance on this mortgage/loan/refinancing agreement? 1. if amount is known: ENTER AMOUNT R 2. if don't know: SELECT FROM A RANGE (ENTER SELECTION FROM SHEET) |
| G13 | | When did your household first take out this mortgage/loan or when was the loan most recently refinanced? 1. if known: ENTER MONTH AND YEAR (Instructor's note: Prompt for at least a year) 2. if don't know (ENTER 0) |
| G14 | | What was the initial amount borrowed at the time the mortgage/loan was granted or refinanced? 1. if amount is known: ENTER AMOUNT R 2. if don't know: SELECT FROM A RANGE (ENTER SELECTION FROM SHEET) |
| G15 | | At the time the mortgage/loan was granted/refinanced, how many years were agreed for the length of the mortgage/loan/refinancing agreement? 1. if known: ENTER NUMBER OF YEARS 2. if don't know (ENTER 0) |
| G16 | | What is the current rate of interest charged on the mortgage/loan/refinancing agreement? 1. if known: ENTER RATE 2. if don't know (ENTER 0) |
| G17 | | How much is your total monthly repayment on this mortgages/loan/refinancing agreement? 1. if amount is known: ENTER AMOUNT R 2. if don't know: SELECT FROM A RANGE (ENTER SELECTION FROM SHEET) |

H. Financial assets



SHOULD THE ANSWER TO ANY OF H1 –H7 BE ‘YES’ (OPTION 1), FILL IN THE AMOUNT IN SECTION 2
 IF THE ANSWER IN H8 IS “YES” (OPTION 1) COMPLETE H9-H11, FILL IN THE AMOUNT IN SECTION 2. IF “NO” (OPTION 2) GO TO H12
 IF THE ANSWER IN H12 IS “YES” (OPTION 1) COMPLETE H13-H15, FILL IN THE AMOUNT IN SECTION 2. IF “NO” (OPTION 2) GO TO H16
 SHOULD THE ANSWER TO ANY OF H16 –H22 BE ‘YES’ (OPTION 1), FILL IN THE AMOUNT IN SECTION 2

Following is a list of different financial assets – which of these financial assets do your household have or make use of?

| Financial assets | Section 1 | Yes | No | Refuse to answer (R-from range chart) | Section 2 | If yes, what is the value of the household's investment in these financial assets? 1. if amount is known: ENTER AMOUNT IN R 2. if don't know: SELECT FROM RANGE (ENTER SELECTION FROM SHEET) |
|---|-----------|------------------|-----------|---------------------------------------|-----------|--|
| H1 Cheque account (see glossary) (EXCLUDING OVERDRAFTS COVERED IN NEXT SECTION) | | 1 | 2 | R | | |
| H2 Mzansi account (see glossary) | | 1 | 2 | R | | |
| H3 Savings account (see glossary) | | 1 | 2 | R | | |
| H4 Money market account / investment (see glossary) | | 1 | 2 | R | | |
| H5 Fixed deposit (see glossary) | | 1 | 2 | R | | |
| H6 RSA Retail savings bonds/Government bonds (see glossary) | | 1 | 2 | R | | |
| H7 Collective investment (unit trust)(see glossary) | | 1 | 2 | R | | |
| H8 Does the household own any shares? | | Complete H9-H11 | Go to H12 | R | | |
| H9 Own shares in SA listed companies (see glossary) | | 1 | 2 | R | | |
| H10 Own shares in SA unlisted companies (see glossary) | | 1 | 2 | R | | |
| H11 Hold shares / options through an employee share scheme (see glossary) | | 1 | 2 | R | | |
| H12 Does the household own any insurance policies (see glossary)? | | Complete H13-H15 | Go to H16 | R | | |
| H13 Funeral policy | | 1 | 2 | R | | |
| H14 Specific need policy (see glossary) | | 1 | 2 | R | | |
| H15 Education policy | 1 | 2 | R | | | |
| H16 Offshore (overseas) investments (e.g. bank accounts) | 1 | 2 | R | | | |
| H17 Stokvel/Society or loans club | 1 | 2 | R | | | |
| H18 Burial society (see glossary) | 1 | 2 | R | | | |

| | | | | | |
|--|--|---|---|---|--|
| H19 Loans accounts to businesses / trusts | | 1 | 2 | R | |
| H20 Unbanked cash | | 1 | 2 | R | |
| H21 Amounts owed in cash/goods to members of the household by persons outside the household (Debtors) | | 1 | 2 | R | |
| H22 Other (please specify) | | 1 | 2 | R | |

I. Loans/Liabilities



- SHOULD THE ANSWER TO ANY OF I1 –I12 BE ‘YES’ (OPTION 1), FILL IN THE AMOUNT IN SECTION 2
- IF A VALUE IS RECORDED IN SECTION 2, ENTER THE MONTHLY INSTALMENT AND NUMBER OF REMAINING INSTALMENTS IN SECTION 3

Following is a list of different loans/liabilities – which of these loans/liabilities do your household have or make use of?

| Other loans/ liabilities | Section 1 | | | Refuse to answer (R- from range chart) | Section 2 | Section 3 | (If amount in Section 2) How much is the monthly instalment on the liability? 1. if amount is known: ENTER AMOUNT IN R 2. if don't know: SELECT FROM RANGE (ENTER SELECTION FROM SHEET) | (If amount in Section 2) How many instalments do your household still have to pay to settle the liability? 1. if known: ENTER NUMBER 2. if don't know: ENTER 0 |
|---|-----------|----|---|--|-----------|-----------|--|---|
| | Yes | No | | | | | | |
| I1 Bank overdraft (see glossary) | 1 | 2 | R | | | | | |
| I2 Credit card (see glossary) (excluding store cards or business credit cards) E.G VISA, MASTERCARD, AMEX, DINERSCLUB | 1 | 2 | R | | | | | |
| I3 Store cards / accounts (see glossary) E.G. CLOTHING, FURNITURE OR BUY-AID ACCOUNTS | 1 | 2 | R | | | | | |
| I4 Petrol / garage card | 1 | 2 | R | | | | | |
| I5 Student loans (see glossary instalment loans) | 1 | 2 | R | | | | | |
| I6 Personal loans (see glossary) E.G. WITH BANKS OR FINANCE HOUSES (EXCLUDE MORTGAGES AND LOANS OUTSTANDING ON ANY PROPERTIES/CONTENT OR VEHICLES RECORDED IN EARLIER SECTIONS) | 1 | 2 | R | | | | | |
| I7 Cash loan E.G. STOKVEL, MASHONISA / MICRO LENDER / LOAN SHARK | 1 | 2 | R | | | | | |
| I8 Loan from an employer | 1 | 2 | R | | | | | |
| I9 Loan from a friend, relative or other private individual | 1 | 2 | R | | | | | |

| | | | | | | | |
|---|--|---|---|---|--|--|--|
| I10 Hire purchase agreement (see glossary) (EXCLUDE FINANCE AGREEMENTS ALREADY CAPTURED ELSEWHERE) | | 1 | 2 | R | | | |
| I11 Cell phone contract (for cell phone instrument) | | 1 | 2 | R | | | |
| I12 Other (please specify) | | 1 | 2 | R | | | |

J Household bills /debts




SHOULD THE ANSWER TO ANY OF J1 – J8 BE ‘YES’ (OPTION 1), FILL IN THE AMOUNT IN SECTION 2


Every household has bills that are payable in the following month. Does your household owe any money on the following?

| Household bills | Section 1 | Yes | No | Refuse to answer (R-from range chart) | Section 2 | If yes, what is the approximate amount your household currently owe? 1. if amount is known: ENTER AMOUNT IN R 2. if don't know: SELECT FROM RANGE (ENTER SELECTION FROM SHEET) |
|---|-----------|-----|----|---------------------------------------|-----------|--|
| J1 Municipal accounts | Section 1 | 1 | 2 | R | Section 2 | |
| J2 Telephone, cell phone, internet (airtime and usage only) | | 1 | 2 | R | | |
| J3 Rent (only if you are in arrears) | | 1 | 2 | R | | |
| J4 Child maintenance / alimony | | 1 | 2 | R | | |
| J5 School fees | | 1 | 2 | R | | |
| J6 SABC / DSTV / TOPTV | | 1 | 2 | R | | |
| J7 Medical and other health related bills | | 1 | 2 | R | | |
| J8 Other (please specify) eg. Clothing accounts etc. | | 1 | 2 | R | | |

K. Business interests (Includes only formal business structures e.g. Close Corporations, Companies and Business Trusts)

| | |
|---|---|
|  | <ul style="list-style-type: none"> • IF THE HOUSEHOLD ANSWERED “0” TO K1 SKIP K2 – K8 AND CONTINUE WITH L. • COMPLETE K2 – K4 FOR THE NUMBER OF BUSINESSES REPORTED IN K1 |
|---|---|

| | |
|----|--|
| K1 | <p>How many businesses (e.g. close corporation, company or business trust) or farm(s) does your household own fully or in part? ENTER NUMBER (none = 0 AND GO TO SECTION L) (repeat loop 6 for each business)</p> |
| K2 | <p>If your household sold this business now, what is the net worth of the business? NET WORTH IS THE VALUE OF THE ASSETS MINUS THE LIABILITIES. IF THE BUSINESS IS A FARM, PLEASE INCLUDE THE VALUE OF IMPLEMENTS, CROP AND LIVESTOCK. IN ALL INSTANCES GIVE THE TOTAL NET WORTH OF THE BUSINESS, NOT ONLY YOUR HOUSEHOLD'S SHARE. 1. if amount is known: ENTER AMOUNT IN R 2. if don't know: SELECT FROM RANGE (ENTER SELECTION FROM SHEET)</p> |
| K3 | <p>Do you share ownership of the business with a person not included in your household? 1. Yes (ENTER PERCENTAGE OWNED) 2. No (ENTER 100)</p> |
| K4 | <p>Have you already included any of the business assets and/or liabilities in a previous category? 1. Yes (GO TO K5-K8) 2. No (ENTER 0 AND GO TO SECTION L)</p> |

| | |
|---|--|
|  | <p>IF THE HOUSEHOLD ANSWERED “YES” (OPTION 1) TO K4 CONTINUE WITH K5 – K8, IF ANSWERED “NO” (OPTION 2), SKIP K5 – K8 AND CONTINUE WITH L.</p> |
|---|--|

| | |
|----|--|
| K5 | ENTER SECTION WHERE ASSETS WERE PREVIOUSLY REPORTED |
| K6 | ENTER AMOUNT IN R OF ASSETS PREVIOUSLY REPORTED |
| K7 | ENTER SECTION WHERE LIABILITIES WERE PREVIOUSLY REPORTED |
| K8 | ENTER AMOUNT IN R OF LIABILITIES PREVIOUSLY REPORTED |

L. Trusts (see glossary)**(Households who have put (some or all) of their own assets in a family trust.)**

ONLY IF THE HOUSEHOLD ANSWERED “YES” TO L1 (OPTION 1) CONTINUE WITH L2 – L3. IF ANSWERED “NO” (OPTION 2), SKIP L2 – L6 AND CONTINUE WITH M.

I would now like to ask some questions about a family trust which is set up by a specific arrangement, such as a deed of Trust. In a trust of this kind, assets such as money, investments or property are put in the care of Trustees. The Trust specifies how these assets can be managed or given away, on behalf of beneficiaries who can be named individuals or sometimes charities.

| | |
|----|---|
| L1 | <p>Have any of your household’s assets been put into a family trust?</p> <p>EXCLUDE: TRUSTS SET UP ON BEHALF OF SOMEONE ELSE IF THE HOUSEHOLD’S OWN ASSETS WERE NOT PUT INTO THE TRUST AT ANY STAGE.</p> <p>EXCLUDE: SITUATIONS WHERE A HOUSEHOLD MEMBER WILL BECOME THE OWNER OF THE ASSETS AT A LATER DATE (I.E. AS A BENEFICIARY) AND FOR THIS REASON CONSIDERS THE ASSETS AS ‘THEIRS’, BUT WHERE IN FACT THOSE ASSETS HAVE NEVER ACTUALLY BEEN OWNED BY THE HOUSEHOLD.</p> <p>1. Yes (GO TO L2) 2. No (ENTER 0)(GO TO SECTION M)</p> |
| L2 | <p>What is the current value of your household’s share of the assets in the family trust after paying off any debts in the trust?</p> <p>1. if amount is known: ENTER AMOUNT IN R 2. if don’t know: SELECT FROM RANGE (ENTER SELECTION FROM SHEET)</p> |
| L3 | <p>Have you already included any of the trusts assets and/or liabilities in a previous category?</p> <p>1. Yes (GO TO L4-L7) 2. No (ENTER 0) (GO TO SECTION M)</p> |



IF THE HOUSEHOLD ANSWERED “YES” (OPTION 1) TO L3 CONTINUE WITH L4 – L7, IF ANSWERED “NO” (OPTION 2), SKIP L4 – L6 AND CONTINUE WITH M.

| | |
|----|--|
| L4 | ENTER SECTION WHERE ASSETS WERE PREVIOUSLY REPORTED |
| L5 | ENTER AMOUNT IN R OF ASSETS PREVIOUSLY REPORTED |
| L6 | ENTER SECTION WHERE LIABILITIES WERE PREVIOUSLY REPORTED |
| L7 | ENTER AMOUNT IN R OF LIABILITIES PREVIOUSLY REPORTED |

M. Inheritances and other sums received



IF THE HOUSEHOLD ANSWERED “YES” (OPTION 1) TO M1 CONTINUE WITH M2, IF ANSWERED “NO” (OPTION 2), SKIP M2 AND CONTINUE WITH N.

| | |
|----|--|
| M1 | <p>Has your household received an inheritance, substantial gift or other sums (e.g. lottery winnings) from someone outside the household, whether in cash, property, or goods of any kind, pension payouts etc.</p> <p>INCLUDE ANY INHERITANCE OR OTHER SUM FROM A SPOUSE OR PARTNER</p> <p>1. Yes (GO TO M2) 2. No (ENTER 0) (GO TO SECTION N)</p> |
| M2 | <p>What was the total value of the inheritance, gift or other sums, at the time your household received it, after tax and other deductions?</p> <p>1. if amount is known: ENTER AMOUNT IN R 2. if don't know: SELECT FROM RANGE (ENTER SELECTION FROM SHEET)</p> |

SECTION IV. HOUSEHOLD INCOME AND EXPENDITURE
N₁. Expenditure (spending) of the household


N1 – N24 REFER TO COMBINED MONTHLY EXPENDITURE AND SPENDING OF THE HOUSEHOLD.

THE FOLLOWING QUESTIONS REFER TO THE EXPENDITURE AND SPENDING OF THE HOUSEHOLD IN TOTAL (R-value per month) (E.g. R1 200 once a year = R1 200 / 12 = R100 monthly)

| EXPENDITURE / SPENDING ITEM | | PERSONAL NOTES |
|-----------------------------|--|----------------|
| N1 | Furniture, household appliances, etc (e.g. dining room -; kitchen -; lounge furniture; washing machines) | |
| N2 | Computers and related equipment (e.g. computers; laptops; net books; printers; scanners) | |
| N3 | Recreational and entertainment goods (e.g. TV, DVD/Blue Ray player; cameras) | |
| N4 | Other durables (e.g. jewelry; watches; hearing aids; glasses; prosthetics) | |
| N5 | Clothing, & footwear (e.g. men's & women clothing; underwear; hats) | |
| N6 | Household textiles, furnishings, glassware etc (e.g. blankets; travelling rugs; | |
| N7 | Motorcar tyres, parts & accessories | |
| N8 | Recreational & entertainment goods (e.g. reading material and stationary; camping equipment; swimming pool equipment; hobbies; books; games and toys including children's extra mural activities) | |
| N9 | Miscellaneous goods (e.g. personal goods; writing and drawing equipment and supplies) | |
| N10 | Food, beverages & tobacco | |
| N11 | Household fuel, power & water (e.g. paraffin; electricity; water; candles; gas; firewood) | |
| N12 | Household consumer products (e.g. polish; washing powder; toilet paper; wood oil) | |
| N13 | Medical & pharmaceutical products (e.g. deodorant; soap; medicine; ointments; disinfections; bandages) | |
| N14 | Petroleum products (e.g. petrol; diesel; oil; brake and transmission fluids; coolants and additives) | |
| N15 | Recreational and entertainment goods (e.g. newspapers; magazines; stationery; recording media) | |
| N16 | Rent paid | |
| N17 | Household services, including domestic servants (e.g. electrician; plumber; domestic servant) | |
| N18 | Medical & dental services (e.g. psychologist; physiotherapist; sangoma; doctor; dentist; hospital services, care by non-specialist staff; ambulance transport) | |
| N19 | Transport services (e.g. taxi fare; bus fare; train fare; parking garage fees; toll gate fees; driving lessons, tests and licenses) | |
| N20 | Communication services (e.g. cell phone usage; internet usage; telephone usage; postal services) | |
| N21 | Recreation & entertainment services (e.g. cinemas; park; museum and theater entrance fees; subscription to DSTV; licenses and hiring of | |

| | | |
|------------|---|--|
| | equipment) Pets and related products and veterinary services | |
| N22 | Educational services (e.g. school fees; boarding fees) | |
| N23 | Miscellaneous services | |
| N24 | Security services | |



N25 – N32 REFER TO COMBINED MONTHLY CONTRIBUTIONS OF THE HOUSEHOLD.

| MONTHLY CONTRIBUTIONS | | PERSONAL NOTES |
|-----------------------|--|----------------|
| N25 | Support payments to relatives | |
| N26 | Own monthly medical aid contributions | |
| N27 | Employer's monthly medical aid contributions | |
| N28 | Own monthly contribution to pension fund / provident fund | |
| N29 | Employers' monthly contribution to pension fund / provident fund | |
| N30 | Own monthly contribution to retirement annuity fund | |
| N31 | Maintenance / alimony payments | |
| N32 | Donations and religious contributions (including tithes and offerings) | |

N₂. Income of adult household members



N33– N43 REFER TO EACH ADULT MEMBER OF THE HOUSEHOLD'S (16 YEARS OF AGE AND OLDER) SOURCE AND MONTHLY INCOME.

| DETAILS OF THE HOUSEHOLD IN TOTAL | | (select one) |
|---|----|--------------|
| N33 SOURCE OF INCOME What would you describe your household's main source of income to be? | | |
| 1. Employee income in cash/kind | 1 | |
| 2. Self-employment income | 2 | |
| 3. Pension | 3 | |
| 4. Unemployment benefits (e.g. UIF) | 4 | |
| 5. Income from public transfers, e.g social grants | 5 | |
| 6. Income from regular private transfers, e.g. from other family members | 6 | |
| 7. Income from real estate property (i.e. rental income) | 7 | |
| 8. Income from financial investments (i.e. interest / dividends received) | 8 | |
| 9. Income from private business other than self-employment (example working for the family business) | 9 | |
| 10. Income from other income sources | 10 | |
| N34 MONTHLY employee income before tax (e.g. salaries and/or wages) | | |
| N35 MONTHLY net income from self-employment before tax (e.g. profits/losses from own business activities, royalties) | | |
| N36 MONTHLY net income from rentals received before tax (e.g. fixed property (excluding vacant land); boats, planes etc). | | |
| N37 MONTHLY net income from rental received before tax from vacant land | | |
| N38 MONTHLY interest received (e.g. interest from investments, syndication etc.) | | |
| N39 MONTHLY dividends received (e.g. dividends received from share holdings) | | |
| N40 MONTHLY current and social transfers received (e.g. social grants; unemployment fund; regular inter-household cash transfers received; non-profit organisations; alimony; child support) | | |
| N41 MONTHLY social insurance benefits (e.g. from retirement funds – pension, provident or retirement annuities) | | |
| N42 MONTHLY social transfers in kind received (e.g. cash value of food, clothing, gifts, etc) | | |
| N43 income MONTHLY source not submitted | | |



N44 – N45 REFER TO EACH ADULT MEMBER OF THE HOUSEHOLD'S (16 YEARS OF AGE AND OLDER) ONCE OFF / IRREGULAR INCOME.

| HOUSEHOLD MEMBER | PERSONAL NOTES |
|---|----------------|
| N44 What other once off amounts did you receive during the last year (e.g. profit on selling of house etc) | |
| N45 Please specify | |

N₃. Retirement provision of adult members of the household



N46 – N52 REFER TO EACH ADULT MEMBER OF THE HOUSEHOLD'S (16 YEARS OF AGE AND OLDER) RETIREMENT PROVISION.

THE FOLLOWING QUESTIONS REFER TO EACH INDIVIDUAL MEMBER OF THE HOUSEHOLD 16 YEARS OF AGE AND OLDER REGARDING RETIREMENT PROVISION

Retirement funds (This includes any pension, provident fund or retirement annuity the members of your household belongs to/owns)

| HOUSEHOLD MEMBER | PERSONAL NOTES |
|---|----------------|
| N46 At what age do/(es) you/X plan to retire? | |
| N47 In total, what percentage of your / X's current gross earnings from your current income goes toward retirement fund contribution (<u>EXCLUDE COMPANY CONTRIBUTIONS</u>)? | |
| N48 In total, for how many years did you/X contributed to this retirement fund? | |
| N49 What do you think is the current value of your / X's retirement fund's? | |
| N50 Some people have formal retirement plans they set up on their own, such as voluntary pension schemes or whole life insurance contracts. Do you / X have any such plans? 1. Yes 2. No | |
| N51 Considering all these plans together, how much are they worth at the moment? | |
| N52 How much are your/X's monthly contributions to all these plans? | |

N₄. Income of the children of the household



N53 – N62 REFER TO EVERY CHILD OF THE HOUSEHOLD'S (YOUNGER THAN 16 YEARS) MONTHLY INCOME.

THE FOLLOWING QUESTIONS REFER TO EACH INDIVIDUAL MEMBER (CHILD) OF THE HOUSEHOLD YOUNGER THAN 16 YEARS OF AGE

| HOUSEHOLD MEMBER | PERSONAL NOTES |
|---|----------------|
| N53 MONTHLY employee income before tax (e.g. salaries and/or wages) | |
| N54 MONTHLY net income from self-employment before tax (e.g. profits/losses from own business activities, royalties) | |
| N55 MONTHLY net income from rentals received before tax (e.g. fixed property (excluding vacant land); boats, planes etc). | |
| N56 MONTHLY net income from rental received before tax from vacant land | |
| N57 MONTHLY interest received (e.g. interest from investments, syndication etc.) | |
| N58 MONTHLY dividends received (e.g. dividends received from share holdings) | |
| N59 MONTHLY current and social transfers received (e.g. social grants; unemployment fund; regular inter-household cash transfers received; non-profit organisations; alimony; child support) | |
| N60 MONTHLY social insurance benefits (e.g. from retirement funds – pension, provident or retirement annuities) | |
| N61 MONTHLY social transfers in kind received (e.g. cash value of food, clothing, gifts, etc) | |
| N62 income MONTHLY source not submitted | |



N63 – N64 REFER TO EVERY CHILD OF THE HOUSEHOLD'S (YOUNGER THAN 16 YEARS) ONCE OFF / IRREGULAR INCOME.

| HOUSEHOLD MEMBER | PERSONAL NOTES |
|---|----------------|
| N63 What other once off amounts did you receive during the last year (e.g. profit on selling of house etc) | |
| N64 Please specify | |



REMEMBER TO ASK IF THE HOUSEHOLD WANTS A BALANCE SHEET. GIVE THE T-SHIRT AND ASK IF THE HOUSEHOLD WILL BE WILLING TO PARTAKE IN FUTURE RESEARCH.

| | | | |
|---|---|---|---|
| <p>N65. Would your household be interested in receiving a balance sheet drafted from the information supplied during the interview? 1. Yes 2. No</p> | <table border="1"> <tr><td>1</td></tr> <tr><td>2</td></tr> </table> | 1 | 2 |
| 1 | | | |
| 2 | | | |
| <p>IF YES: SUPPLY A POSTAL ADDRESS OR E-MAIL ADDRESS</p> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> | | | |

| | | | |
|---|---|---|---|
| <p>N66. I received the t-shirt. 1. Yes 2. No</p> | <table border="1"> <tr><td>1</td></tr> <tr><td>2</td></tr> </table> | 1 | 2 |
| 1 | | | |
| 2 | | | |

| | | | |
|---|---|---|---|
| <p>N.67 Would your household be willing to participate in any follow-up research that UNISA will conduct? (Even if you say yes now you can still refuse to take part when approached at a later date) 1. Yes 2. No</p> | <table border="1"> <tr><td>1</td></tr> <tr><td>2</td></tr> </table> | 1 | 2 |
| 1 | | | |
| 2 | | | |
| <p>IF YES: PLEASE SUPPLY A CONTACT NUMBER</p> <hr/> <hr/> | | | |

INTERVIEWER PLEASE SIGN THE SURVEY

SECTION V. GLOSSARY OF TERMS



ENSURE YOU UNDERSTAND WHAT EACH OF THE TERMS BELOW MEANS

The glossary of terms is in part an extract (permission granted) from the European Central Banking (Euro system) Household Finance and Consumption Survey's Core output variables (European Central Bank, 2009)

Bank overdraft

A bank overdraft is when the household is maintaining a negative balance (you owe money to the bank) on one of its bank accounts. Interest is charged on the amount owed.

Burial society

Is a form of friendly society constituted for the purpose of providing by voluntary subscriptions, for insuring money to be paid on the death of a member, or for the funeral expenses of the husband, wife or child of a member, or of the widow of a deceased member. A **friendly society** is a mutual association for insurance, pensions or savings and loan-like purposes, or cooperative banking. It is a mutual organization or benefit society composed of a body of people who join together for a common financial or social purpose.

Credit cards

Credit cards (Visa, Amex, Master Card, Diners, etc.) provide a specific credit facility: money is lent to people between the time they purchase goods and the time of full repayment of the amount; interest is to be paid on any balance that is not cleared at the end of the month. There are monthly statements for the money spent specifying the minimum amount to be paid.

Credit line

A credit line/line of credit is a type of credit that a bank undertakes to provide credit to a client during a predefined period. The client may either withdraw the credit amount all at once, or make a certain number of withdrawals during the specified period.

Collective household

Collective households refers to a non-institutional collective dwelling such as a boarding house, dormitory in an educational establishment or other living quarters shared by more than five persons without sharing household expenses. Also included are persons living as lodgers in households with more than five lodgers.

Collective Investment

Collective investment schemes (eg. unit and investment trusts) pool money from many investors and invest their money in stocks, bonds, short-term money-market instruments, and/or other securities.

Cheque accounts

Cheque accounts are current accounts usually at a bank, against which the account holder is permitted to make daily withdrawals (from the bank counter or ATM machines) and make transfers for the purpose of making payments to third persons or others, or transfers to other accounts.

Deposit account – see savings account

Employee share option scheme

A plan devised to encourage employees to purchase shares in their company usually at a price below the market price. The company benefits from increased cash flow, tax savings, and a more motivated workforce. The employees benefit from the ability to share in the company's success while saving in a tax-efficient way.

Finance agreement

A contract outlining the terms of credit between a lender and a borrower and include any loan agreement, hire purchase agreement, instalment sale, etc.

Financially knowledgeable person (FKP)

Financially knowledgeable person (FKP) is defined as the person who is most knowledgeable on financial matters regarding both the household as a whole and its individual members. He/she will be invited to provide a large part of the information requested during the interview.

Fixed term investments/deposits

Money deposit usually at a bank, savings bank, credit institutions, mutual bank that cannot be withdrawn for a certain "term" or period of time and on which interest is earned. When the term is over it can be withdrawn or it can be held for another term.

Government bonds /RSA retail savings bonds

Eg. RSA retail savings bonds. Instruments included in this category can be characterised as providing the holder with the right to income in the form of coupon payments (interest) and/or a stated fixed sum on a specified date.

Hire purchase

Durable goods are sold to a purchaser in return for agreed future payments. The buyer takes possession of the good immediately, though in law it remains the property of the seller or financier as guarantee until all agreed payments have been made.

Household

Household is defined as an economic unit consisting of a person living alone or a group of people who live together in the same private dwelling and share expenditures (see glossary), including the joint provision of the essentials of living. Employees of other residents (i.e. live-in domestic servants, au-pairs, etc.) and roommates without other family or partnership attachments to household members (e.g. resident boarders, lodgers, tenants, visitors, etc.) are considered as separate households.

Subject to the further and specific conditions shown below, the following persons must, if they share household expenses, be regarded as household members:

- (1) persons usually resident, but temporarily absent from dwelling (for reasons of holiday travel, work, education or similar)
- (2) children of household being educated away from home
- (3) persons absent for long periods, but having household ties: persons working away from home
- (4) persons temporarily absent but having household ties: persons in hospital, nursing home, boarding school or other institution.

The target reference population for national surveys is all private households and their current members residing in the national territory at the time of data collection. Persons living in collective households and in institutions (see glossary) are generally excluded from the target population

Instalment loans/Personal loans

You borrow a fixed amount of money and usually have to repay it in fixed instalments over a set period (the term). The interest you pay might be fixed or variable and rates. You will be charged interest on what you borrow, usually monthly. The interest rate varies depending on the type of loan. Repayments are usually by standing order or direct debit from your bank account.

Includes:

- Other loans from a bank or credit institutions;
- Loans from credit unions;
- Loans from other money lenders;
- Student loans from a bank and student loans from government;
- Informal loans from relatives and friends.

Institution

Institution refers to old persons' home, health care institutions, religious institutions (convents, monasteries), correctional and penal institutions. Basically, institutions are distinguished from collective households, in that in the former, the resident persons have no individual responsibility for their housekeeping. In some cases, old persons' home can be considered as collective households on the basis of this last rule.

Leases

Leasing is defined for survey purposes as financial leasing when the leasing period covers all or most of the economic lifetime of the durable goods. At the end of the leasing period, the lessee often has the option to buy the good at a nominal price.

Life insurance policy

Is a contract between the policy holder and the insurer, where the insurer promises to pay the insured a sum of money (the "benefits") upon the death of the insured person. Depending on the contract, other events such as terminal illness or critical illness may also trigger payment. In return, the policy holder agrees to pay a stipulated amount (the "premium") at regular intervals or in lump sums.

Listed shares

A share is one of a finite number of equal portions in the capital of a company, usually evidenced by a piece of paper (also called share certificate) entitling the owner to a proportion of the profits known as dividends and to a portion of the value of the company in case of liquidation. Listed shares are shares that are publicly traded on a registered securities exchange i.e. they can be bought and sold.

Loan

A debt instrument used to finance amounts owed by the household. You borrow a fixed amount of money from an institution or privately and usually have to repay it in fixed instalments over a set period (the term). You will be charged interest on what you borrow, usually monthly. The interest rate varies depending on the type of loan.

Main residence

The place the household lives for most of the year and refers to the brick and mortar structure of the house or dwelling as well as the land/stand it is situated on.

Micro loans

Financing received from micro-lenders.

Money market fund

Money market fund is a mutual fund. In a mutual fund the fund manager trades the fund's underlying securities, realizing capital gains or losses, and collects the dividend or interest income. The investment proceeds are then passed along to the individual investors.

Mortgage loan

Mortgage loans are a very common type of debt instrument used by many individuals to borrow money to purchase property. The financial institution is given security until the mortgage is paid off in full. Under a mortgage loan, the lender has the possibility to sell the property under certain circumstances (principally, non-payment of the mortgage loan) and to apply the amount received to reduce the original debt.

Mzansi Account

Is a low income transactional banking account.

Personal loans – see Instalment loans**Receivables**

E.g. Loan(s) to friends or relatives, other private loans to persons outside the household, rent deposits, municipal deposits. Receivables are money owed to members of the household that are expected to be repaid to them at some point in the future.

Refinancing agreement

To refinance a loan (or refinancing agreement) means paying off an existing loan with the proceeds from a new loan, usually of the same size (but could also be larger, if the borrower needs more money). Replacing a loan usually allows the borrower to benefit from better terms, possibly in terms of a lower interest rate and/or a longer pay-off period.

RSA Retail savings bonds-see government bonds**Saving accounts**

Include all money deposits usually at a bank, savings bank, credit institutions, mutual bank, etc. against which the account holder is permitted to make daily withdrawals (from the bank counter or ATM machines) but not to make transfers for the purpose of making payments to third persons or others.

Share in household expenses

Share in household expenses include benefiting from expenses (e.g. children, persons with no income) as well as contributing to expenses. If expenses are not shared, then the person constitutes a separate household at the same address.

Specific need policy (including short-term insurance)

The insurance contract is a contract whereby the insurer will pay the insured (the person whom benefits would be paid to, or on the behalf of), if certain defined events occur. The uncertainty can be either as to when the event will happen (i.e. in a life insurance policy, the time of the insured's death is uncertain) or as to if it will happen at all (i.e. in a fire insurance policy, whether or not a fire will occur at all). Types of specific need policies include:

| | |
|--------|--|
| Health | <ul style="list-style-type: none"> • Accidental death and dismemberment insurance • Dental insurance · Disability insurance • Total permanent disability insurance • Income protection insurance |
|--------|--|

| | |
|-------------|---|
| | <ul style="list-style-type: none"> • Long term care insurance • Vision insurance |
| Life | <ul style="list-style-type: none"> • Permanent life insurance • Term life insurance • Universal life insurance • Variable universal life insurance • Whole life insurance |
| Business | <ul style="list-style-type: none"> • Bond insurance • Directors and officers liability insurance • Errors and omissions insurance • Fidelity bond • Professional indemnity insurance • Professional liability insurance • Protection and indemnity insurance • Trade credit insurance |
| Residential | <ul style="list-style-type: none"> • Contents insurance • Earthquake insurance • Flood insurance • Home insurance • Landlords insurance • Mortgage insurance • Property insurance |
| Other | <ul style="list-style-type: none"> • Crime insurance • Crop insurance • Group insurance • Liability insurance • Marine insurance • Pet insurance • Phone insurance • Reinsurance • Terrorism insurance • Travel insurance • Vehicle insurance • Wage insurance • Weather insurance |

Store cards/accounts

Store cards are credit cards issued by a single company/store and can only be used for payments to that company/store. Store accounts are debtor accounts in the name of household members and indicate amounts owed to stores for purchases on credit.

Trust

A legal arrangement that empowers one or more people (the trustees) to safeguard and administer the assets such as property and money of another person or persons (the beneficiaries).

Unlisted shares

See listed shares for a definition of a share. Unlisted shares are shares that are not publicly traded on a registered securities exchange.

APPENDIX D

PFRU PAMPHLET

APPENDIX E

DESCRIPTIVE STATISTICS

ASSET CLASS VARIABLES PER LABOUR MARKET STATUS GROUP

| Descriptives | | | | | | | |
|----------------------------|----------------------------------|----------------------------------|----------------------------------|---------------------|-------------|-------------|-------------|
| | Labour_Market_Status | | Statistic | Std. Error | | | |
| Non-current assets | Employed | | Mean | 215098.5620 | 184.02440 | | |
| | | 95% Confidence Interval for Mean | Lower Bound | 214737.8809 | | | |
| | | | Upper Bound | 215459.2432 | | | |
| | | | 5% Trimmed Mean | 117444.8487 | | | |
| | | | Median | .0000 | | | |
| | | | Variance | 3.479E11 | | | |
| | | | Std. Deviation | 5.89826E5 | | | |
| | | | Minimum | .00 | | | |
| | | | Maximum | 7200000.00 | | | |
| | | | Range | 7200000.00 | | | |
| | | | Interquartile Range | 125000.00 | | | |
| | | | Skewness | 5.891 | | .001 | |
| | | | Kurtosis | 47.817 | | .002 | |
| | | Unemployed | 95% Confidence Interval for Mean | | | Mean | 140884.5857 |
| | Lower Bound | | | 140253.0055 | | | |
| | Upper Bound | | | 141516.1658 | | | |
| | | | | 5% Trimmed Mean | 68245.7494 | | |
| | | | | Median | .0000 | | |
| | | | | Variance | 1.845E11 | | |
| | | | | Std. Deviation | 4.29593E5 | | |
| | | | | Minimum | .00 | | |
| | | | | Maximum | 4670000.00 | | |
| | | | | Range | 4670000.00 | | |
| | | | | Interquartile Range | 60000.00 | | |
| | | | | Skewness | 6.311 | .002 | |
| | | | | Kurtosis | 55.107 | .004 | |
| | Not economically active | | | | Mean | 370703.2679 | 557.07641 |
| | | | 95% Confidence Interval for Mean | Lower Bound | 369611.4175 | | |
| | | | | Upper Bound | 371795.1183 | | |
| | | | | 5% Trimmed Mean | 298530.4631 | | |
| | | | Median | 60000.0000 | | | |
| | | | Variance | 3.926E11 | | | |
| | | | Std. Deviation | 6.26608E5 | | | |
| | | | Minimum | .00 | | | |
| | | | Maximum | 3814025.00 | | | |
| | | | Range | 3814025.00 | | | |
| | | | Interquartile Range | 400000.00 | | | |
| | | | Skewness | 2.235 | .002 | | |
| | | | Kurtosis | 5.862 | .004 | | |
| Other non-financial assets | | | Employed | | Mean | 93209.9313 | |
| | 95% Confidence Interval for Mean | | | Lower Bound | 92995.2313 | | |
| | | Upper Bound | | 93424.6313 | | | |
| | | 5% Trimmed Mean | | 45885.4665 | | | |
| | | Median | | 16000.0000 | | | |
| | | Variance | | 1.233E11 | | | |

| | | | | | | |
|------------------|----------------------------------|----------------------------------|----------------------------------|-----------------|-------------|--|
| Financial assets | Unemployed | | Std. Deviation | 3.51102E5 | | |
| | | | Minimum | .00 | | |
| | | | Maximum | 8100000.00 | | |
| | | | Range | 8100000.00 | | |
| | | | Interquartile Range | 67500.00 | | |
| | | | Skewness | 12.492 | .001 | |
| | | | Kurtosis | 204.393 | .002 | |
| | | | Mean | 26978.6584 | 43.70111 | |
| | | | 95% Confidence Interval for Mean | Lower Bound | 26893.0058 | |
| | | | | Upper Bound | 27064.3110 | |
| | | | | 5% Trimmed Mean | 17724.9374 | |
| | | | | Median | 8500.0000 | |
| | | | | Variance | 3.394E9 | |
| | | | | Std. Deviation | 58259.81082 | |
| | | Minimum | | .00 | | |
| | | Maximum | | 500000.00 | | |
| | | Range | | 500000.00 | | |
| | | Interquartile Range | | 26000.00 | | |
| | | Skewness | 4.894 | .002 | | |
| | | Kurtosis | 30.671 | .004 | | |
| | | Not economically active | Mean | 104052.0160 | 235.19958 | |
| | | | 95% Confidence Interval for Mean | Lower Bound | 103591.0330 | |
| | | | | Upper Bound | 104512.9990 | |
| | | | | 5% Trimmed Mean | 68803.2525 | |
| | | | | Median | 22500.0000 | |
| | | | | Variance | 6.999E10 | |
| | | | | Std. Deviation | 2.64556E5 | |
| | Minimum | | | .00 | | |
| | Maximum | | | 4690000.00 | | |
| | Range | | | 4690000.00 | | |
| | Interquartile Range | | | 100000.00 | | |
| | Skewness | | 10.320 | .002 | | |
| | Kurtosis | | 157.719 | .004 | | |
| | Mean | 84656.0401 | 242.47945 | | | |
| | Employed | 95% Confidence Interval for Mean | Lower Bound | 84180.7892 | | |
| | | | Upper Bound | 85131.2910 | | |
| | | | 5% Trimmed Mean | 13489.1860 | | |
| | | | Median | 300.0000 | | |
| | | | Variance | 6.040E11 | | |
| | | | Std. Deviation | 7.77184E5 | | |
| | | | Minimum | .00 | | |
| | | | Maximum | 25035000.00 | | |
| | | | Range | 25035000.00 | | |
| | | | Interquartile Range | 14000.00 | | |
| | | Skewness | 26.409 | .001 | | |
| | | Kurtosis | 817.499 | .002 | | |
| | | Mean | 34555.7377 | 143.70039 | | |
| | 95% Confidence Interval for Mean | Lower Bound | 34274.0900 | | | |
| | | Upper Bound | 34837.3854 | | | |
| | Unemployed | | 5% Trimmed Mean | 3693.1698 | | |
| | | | Median | 70.0000 | | |
| | | | Variance | 3.670E10 | | |
| | | | Std. Deviation | 1.91573E5 | | |

| | | | | | | |
|-------------------------|----------------------------------|----------------------------------|----------------------------------|---------------------|------------|------------|
| Current assets | Not economically active | | Minimum | .00 | | |
| | | | Maximum | 2082000.00 | | |
| | | | Range | 2082000.00 | | |
| | | | Interquartile Range | 2500.00 | | |
| | | | Skewness | 7.648 | .002 | |
| | | | Kurtosis | 65.858 | .004 | |
| | Employed | 95% Confidence Interval for Mean | | Mean | 42455.1099 | 104.20783 |
| | | | | Lower Bound | 42250.8662 | |
| | | | | Upper Bound | 42659.3536 | |
| | | | | 5% Trimmed Mean | 24118.4276 | |
| | | | | Median | 184.0000 | |
| | | | | Variance | 1.374E10 | |
| | | | | Std. Deviation | 1.17215E5 | |
| | | | | Minimum | .00 | |
| | | | | Maximum | 816250.00 | |
| | | | | Range | 816250.00 | |
| | | | | Interquartile Range | 10000.00 | |
| | | Unemployed | 95% Confidence Interval for Mean | | Mean | 33863.5831 |
| | | | | Lower Bound | 33706.5629 | |
| | | | | Upper Bound | 34020.6032 | |
| | | | | 5% Trimmed Mean | 4297.0204 | |
| | | | | Median | 500.0000 | |
| | | | | Variance | 6.593E10 | |
| | | | | Std. Deviation | 2.56777E5 | |
| | | | | Minimum | .00 | |
| | | | | Maximum | 3855000.00 | |
| | | | | Range | 3855000.00 | |
| | | | Interquartile Range | 5000.00 | | |
| Not economically active | 95% Confidence Interval for Mean | | | Mean | 2621.2579 | 9.16962 |
| | | | Lower Bound | 2603.2857 | | |
| | | | Upper Bound | 2639.2300 | | |
| | | | 5% Trimmed Mean | 574.0542 | | |
| | | | Median | .0000 | | |
| | | | Variance | 1.494E8 | | |
| | | | Std. Deviation | 12224.41588 | | |
| | | | Minimum | .00 | | |
| | | | Maximum | 150000.00 | | |
| | | | Range | 150000.00 | | |
| | | | Interquartile Range | 400.00 | | |
| | | | Skewness | 7.839 | .002 | |
| | | Kurtosis | 73.099 | .004 | | |
| Not economically active | 95% Confidence Interval for Mean | | Mean | 22574.9515 | 83.72041 | |
| | | | Lower Bound | 22410.8624 | | |
| | | | Upper Bound | 22739.0406 | | |
| | | | 5% Trimmed Mean | 9716.4489 | | |
| | | | Median | 50.0000 | | |
| | | | Variance | 8.868E9 | | |
| | | Std. Deviation | 94169.99456 | | | |
| | | Minimum | .00 | | | |

| | | | | | |
|----------------------------------|----------------------------------|----------------------------------|---------------------|------------|----------|
| | | | Maximum | 1075000.00 | |
| | | | Range | 1075000.00 | |
| | | | Interquartile Range | 3750.00 | |
| | | | Skewness | 8.635 | .002 |
| | | | Kurtosis | 85.965 | .004 |
| Retirement funding | Employed | | Mean | 145086.03 | 270.207 |
| | | 95% Confidence Interval for Mean | Lower Bound | 144556.44 | |
| | | | Upper Bound | 145615.63 | |
| | | | 5% Trimmed Mean | 26929.77 | |
| | | | Median | .00 | |
| | | | Variance | 7.500E11 | |
| | | | Std. Deviation | 866053.384 | |
| | | | Minimum | 0 | |
| | | | Maximum | 19500000 | |
| | | | Range | 19500000 | |
| | | | Interquartile Range | 1800 | |
| | | | Skewness | 14.576 | .001 |
| | | | Kurtosis | 275.162 | .002 |
| | | | Unemployed | Mean | 31988.61 |
| | 95% Confidence Interval for Mean | Lower Bound | | 31564.48 | |
| | | Upper Bound | | 32412.74 | |
| | | 5% Trimmed Mean | | 17.51 | |
| | | Median | | .00 | |
| | | Variance | | 8.322E10 | |
| | | Std. Deviation | | 288487.099 | |
| | | Minimum | | 0 | |
| | | Maximum | | 3600000 | |
| | | Range | | 3600000 | |
| | | Interquartile Range | | 0 | |
| | | Skewness | | 10.767 | .002 |
| | | Kurtosis | | 120.319 | .004 |
| | | Not economically active | Mean | 27194.30 | 148.354 |
| 95% Confidence Interval for Mean | Lower Bound | | 26903.54 | | |
| | Upper Bound | | 27485.07 | | |
| | 5% Trimmed Mean | | 10.14 | | |
| | Median | | .00 | | |
| | Variance | | 2.785E10 | | |
| | Std. Deviation | | 166870.401 | | |
| | Minimum | | 0 | | |
| | Maximum | | 2000000 | | |
| | Range | | 2000000 | | |
| | Interquartile Range | | 0 | | |
| | Skewness | | 7.470 | .002 | |
| | Kurtosis | | 62.744 | .004 | |

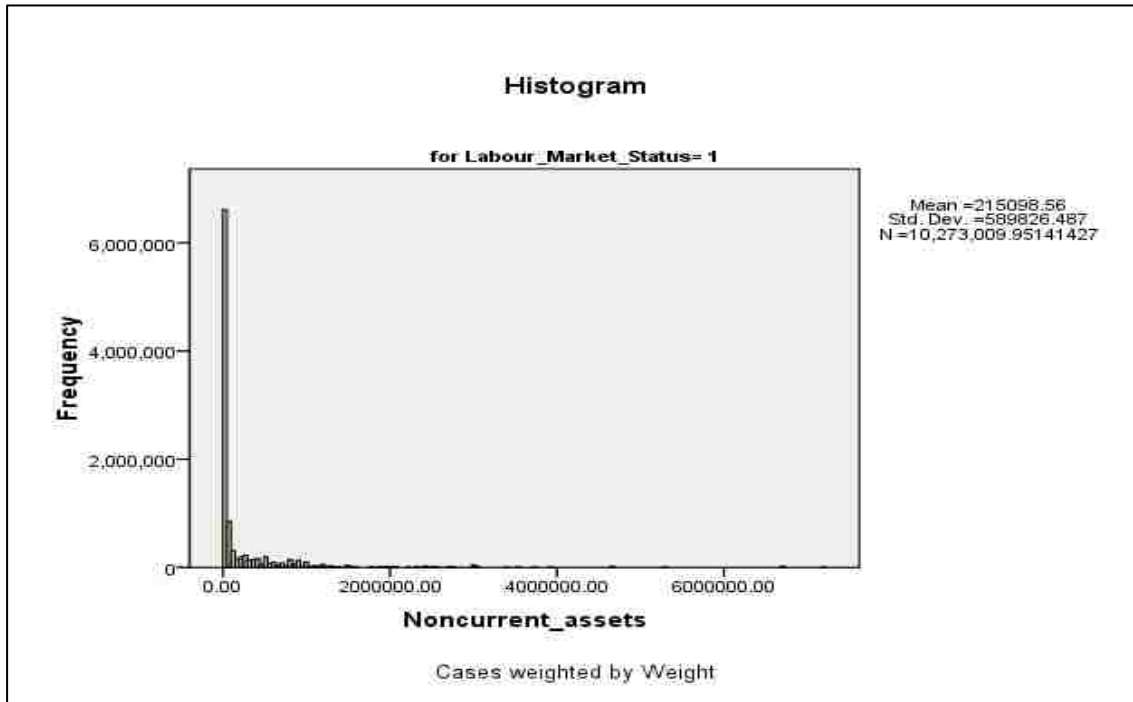
HISTOGRAMS AND BOXPLOTS: ASSET CLASS VARIABLES PER LABOUR MARKET STATUS GROUP

Note:

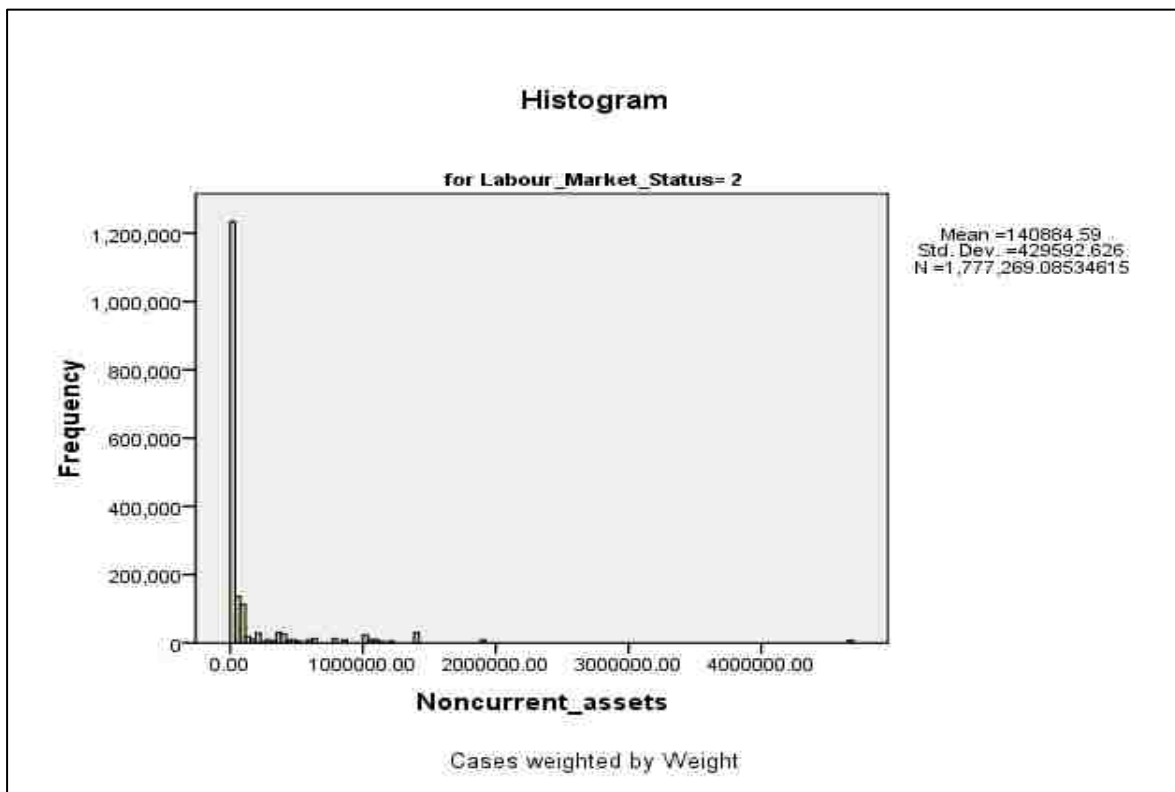
| | |
|------------------------|---------------------------|
| Labour market status 1 | = Employed |
| Labour market status 2 | = Unemployed |
| Labour market status 3 | = Not economically active |

NON-CURRENT ASSETS

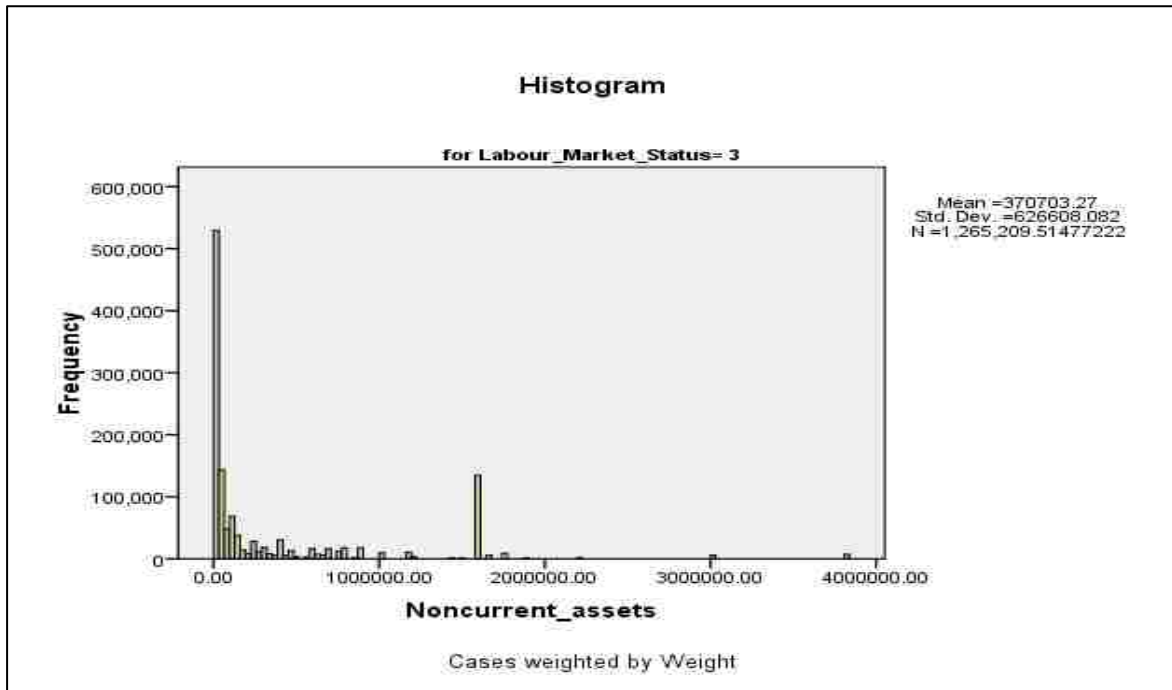
Histogram: Non-current assets: Employed



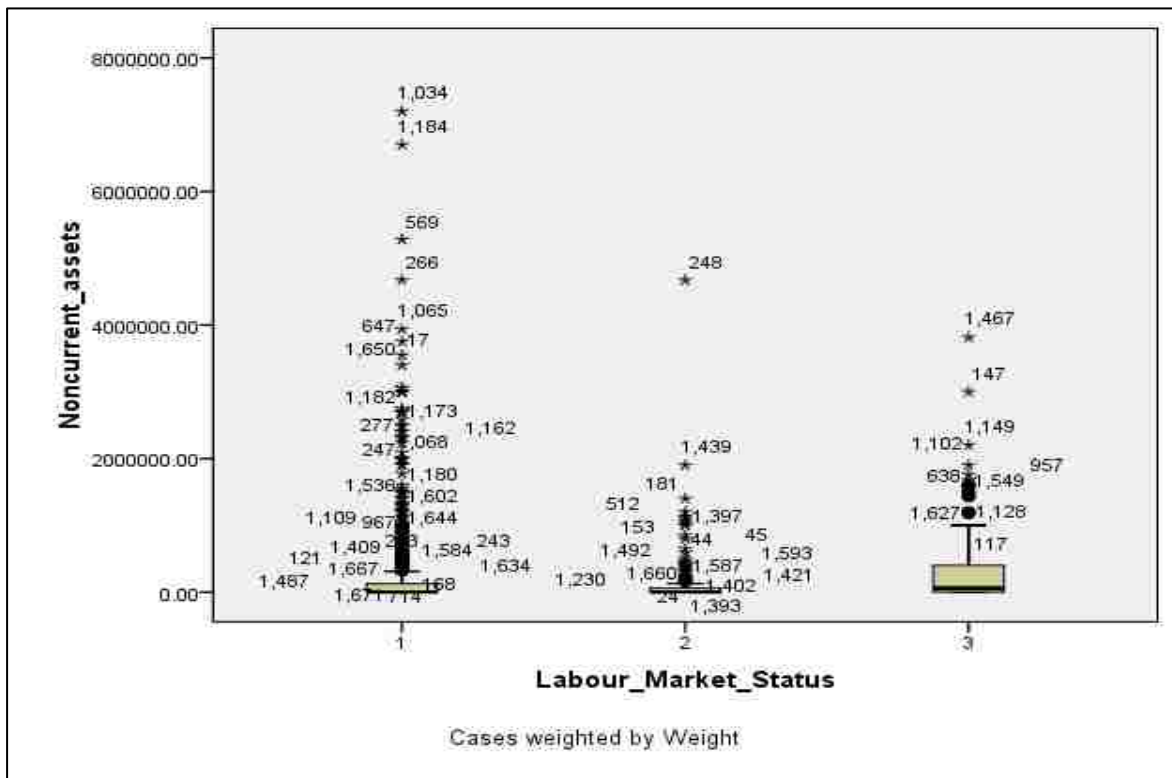
Histogram: Non-current assets: Unemployed



Histogram: Non-current assets: Not economically active

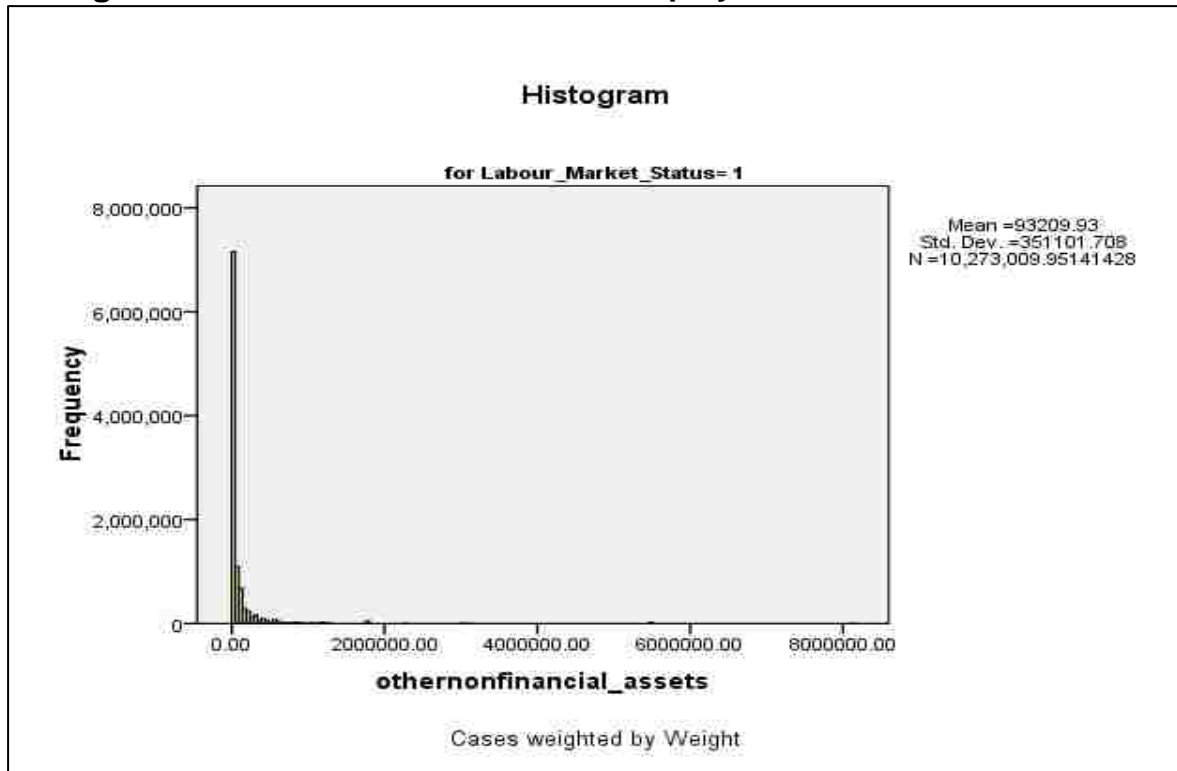


Boxplots: Non-current assets: Labour market status

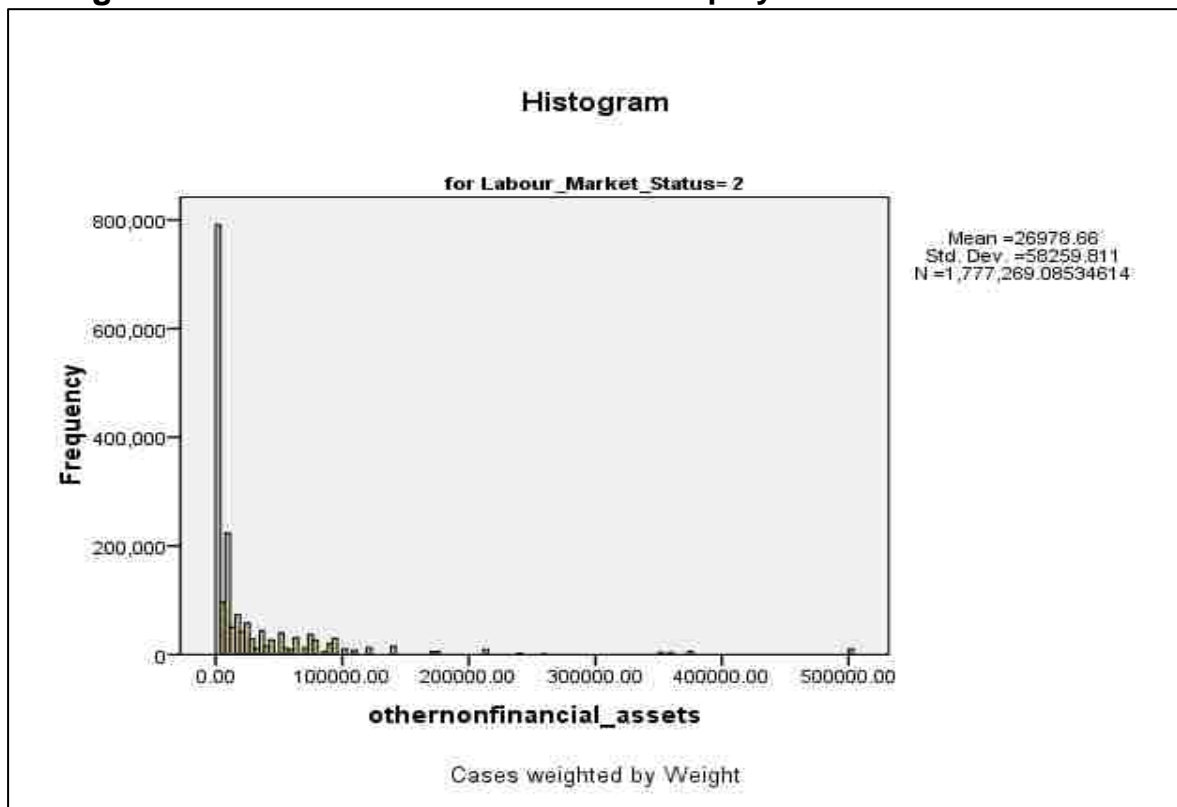


OTHER NON-FINANCIAL ASSETS

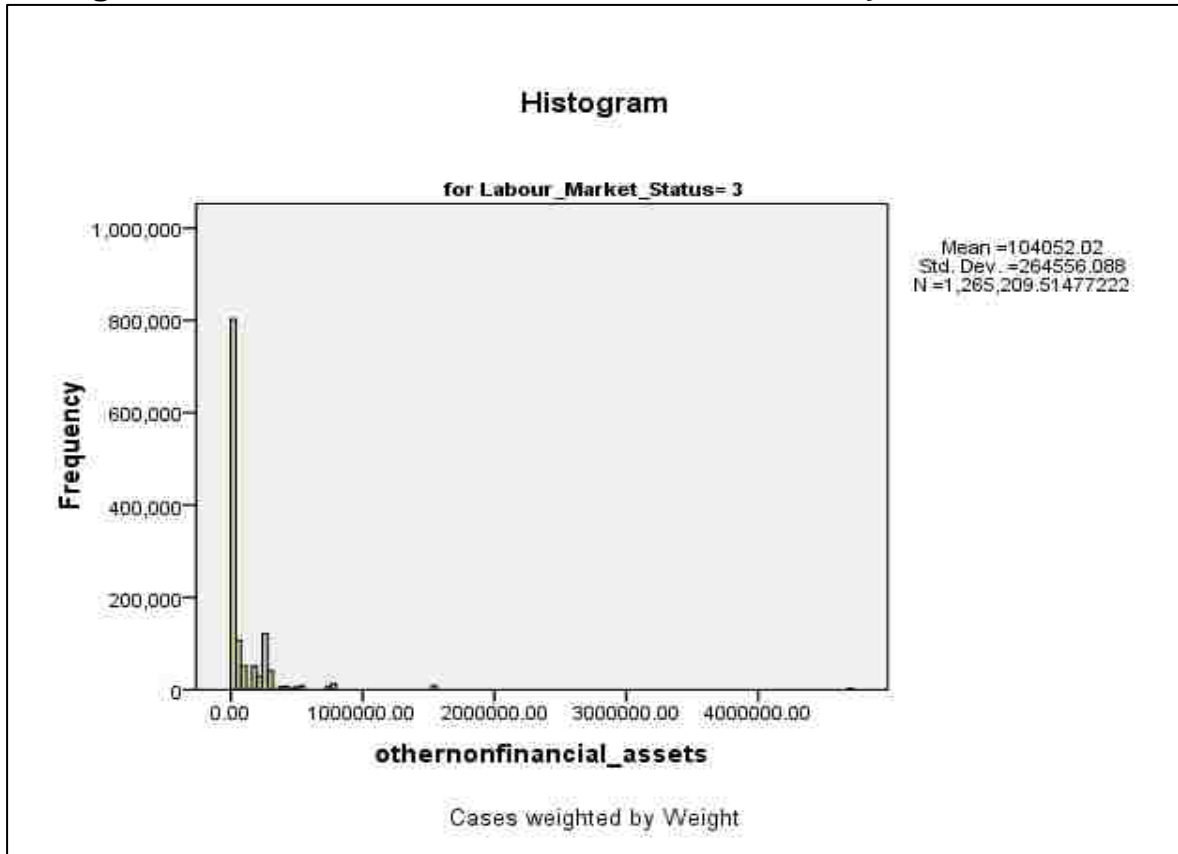
Histogram: Other non-financial assets: Employed



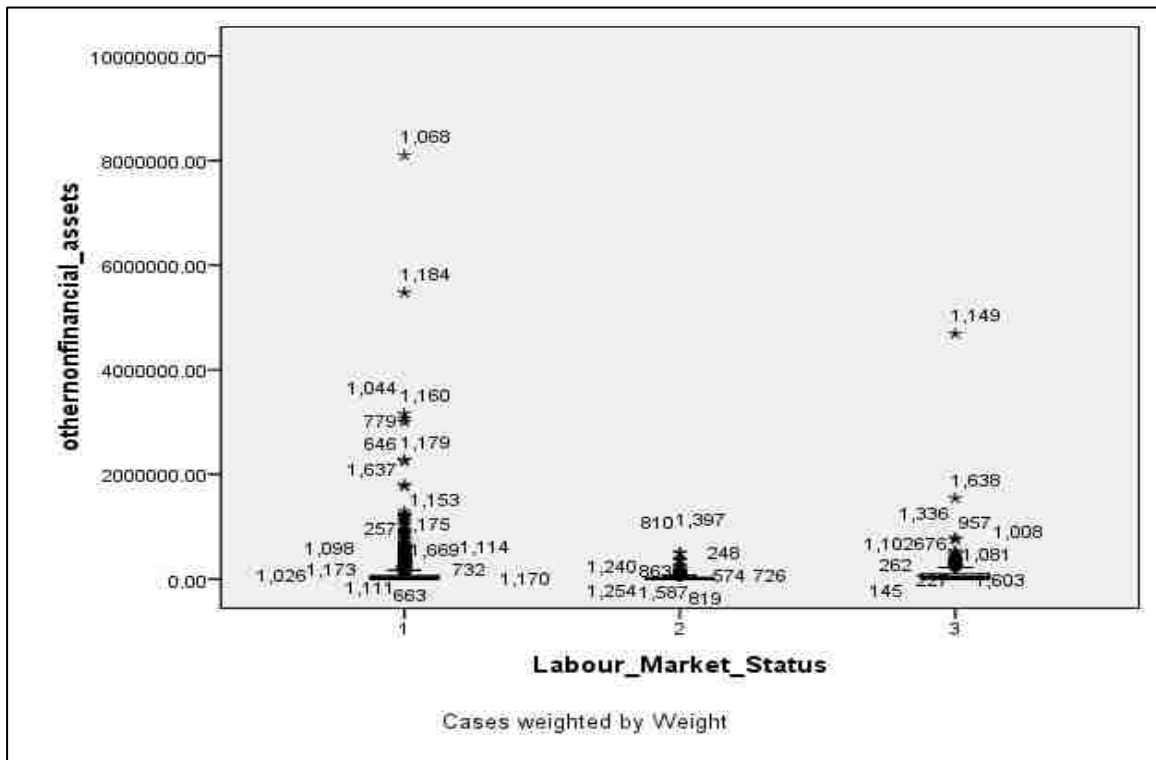
Histogram: Other non-financial assets: Unemployed



Histogram: Other non-financial assets: Not economically active

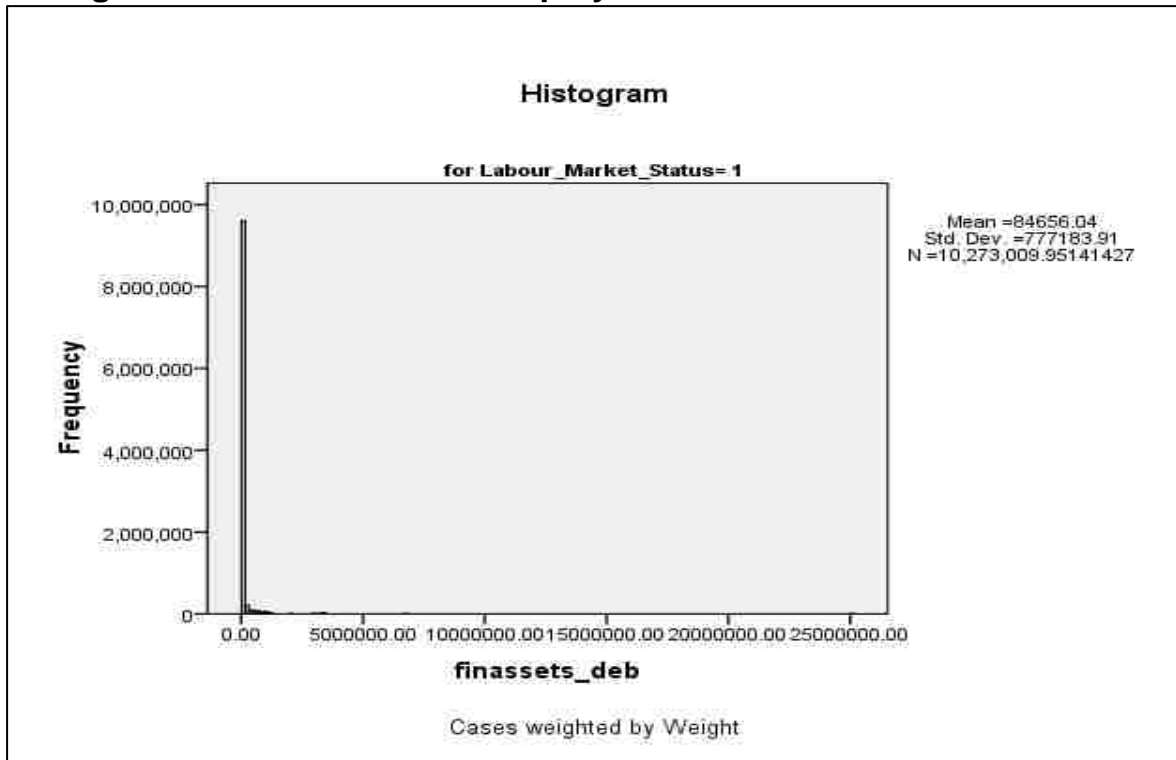


Boxplots: Other non-financial assets: Labour market status

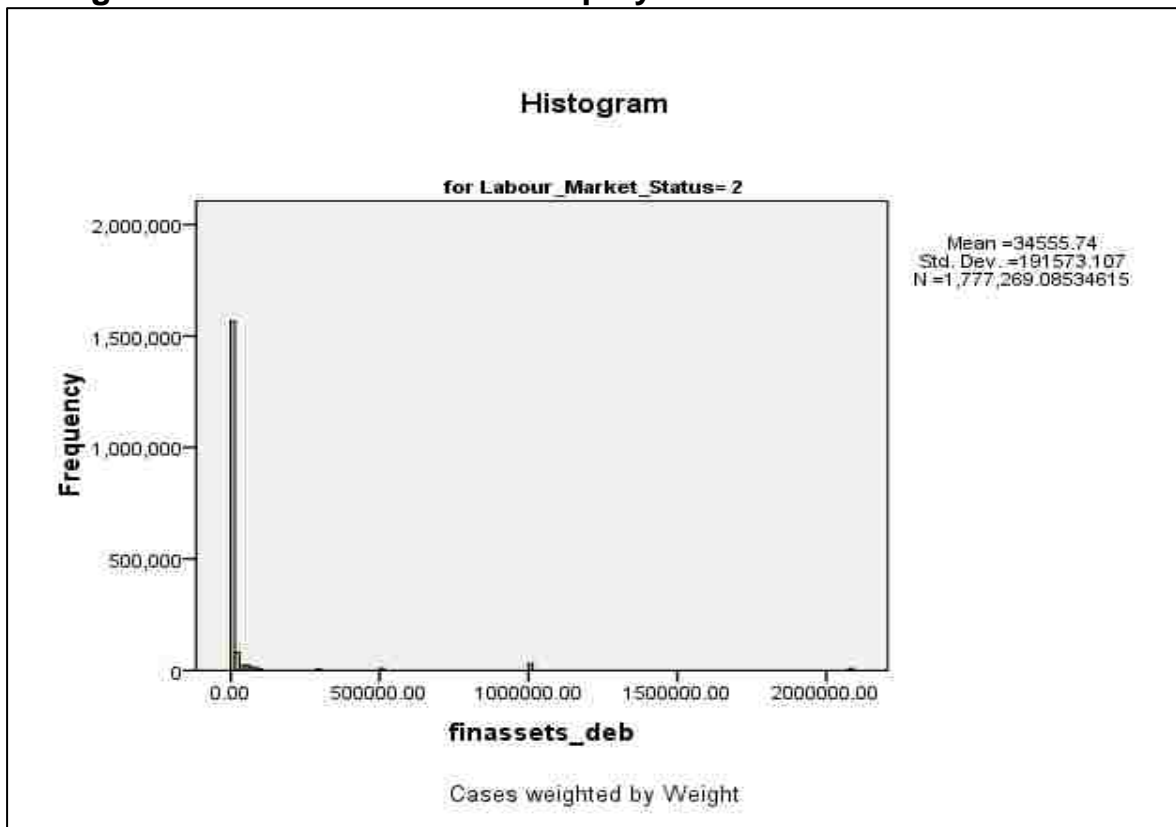


FINANCIAL ASSETS

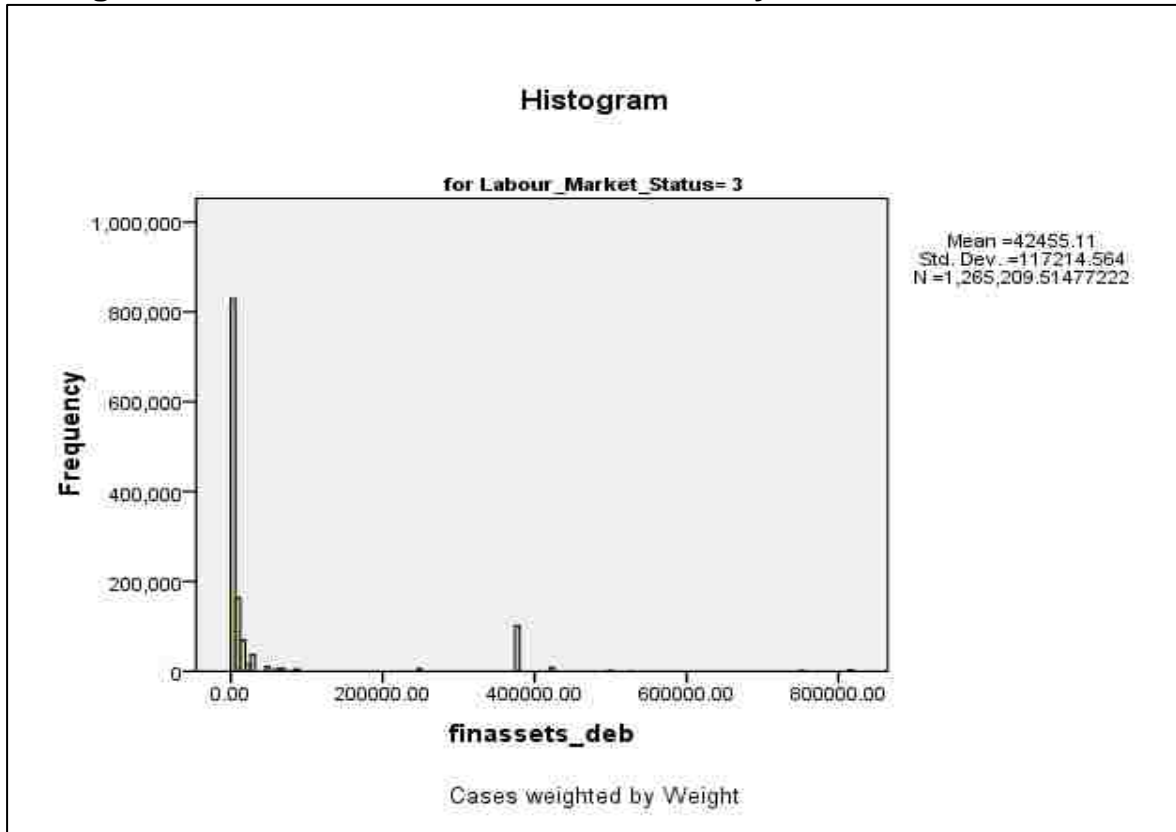
Histogram: Financial assets: Employed



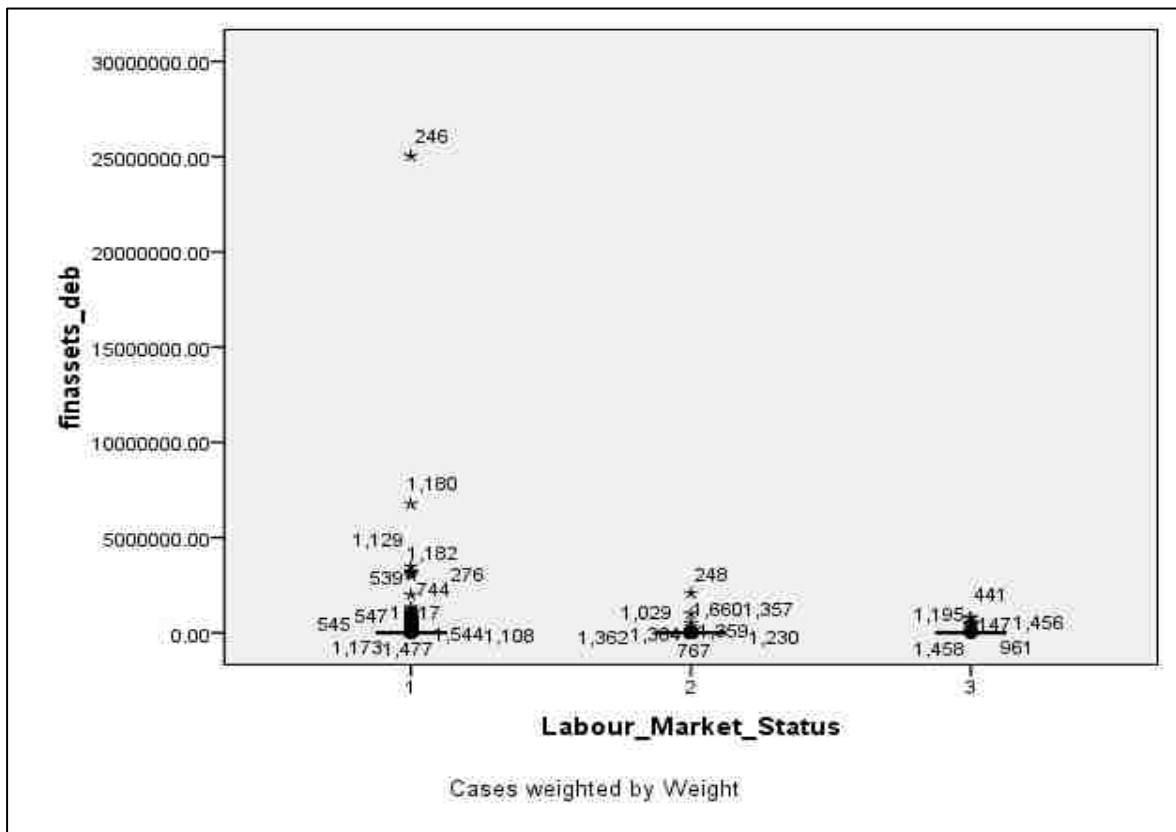
Histogram: Financial assets: Unemployed



Histogram: Financial assets: Not economically active

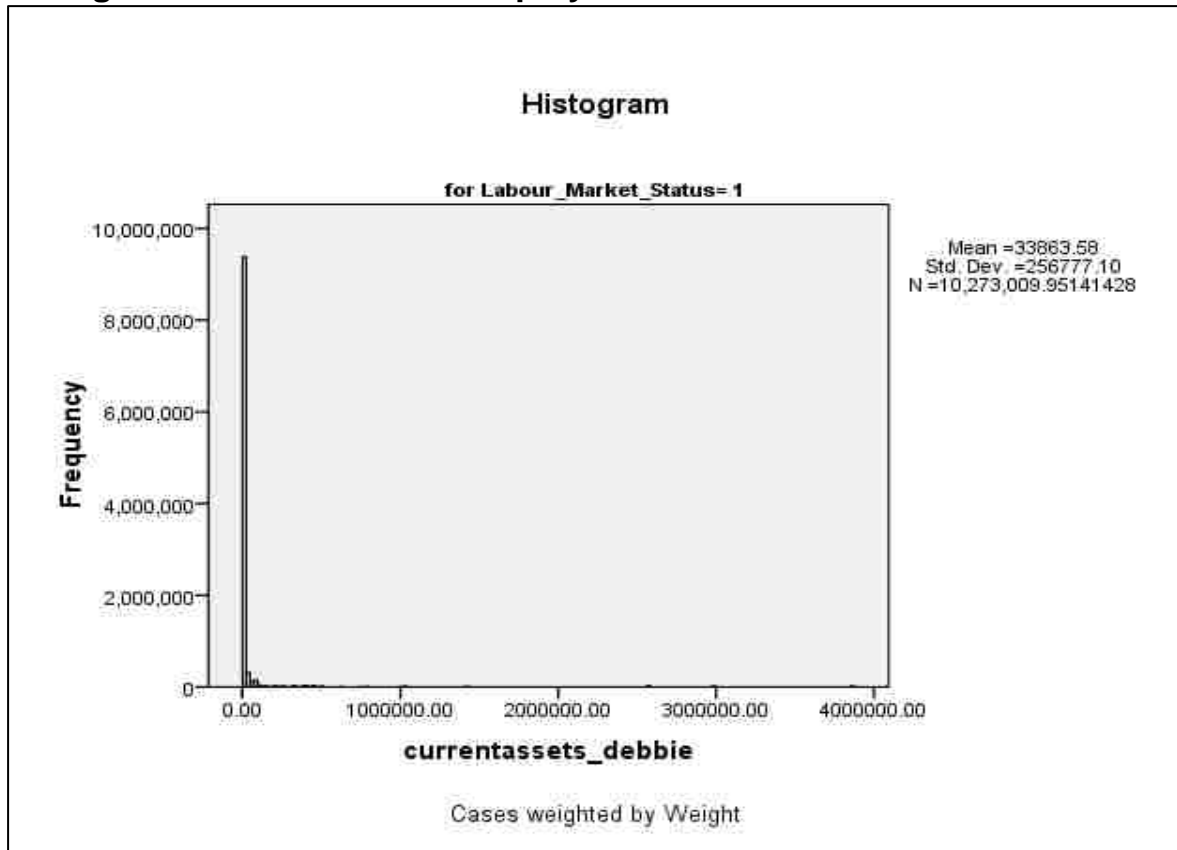


Boxplots: Financial assets: Labour market status

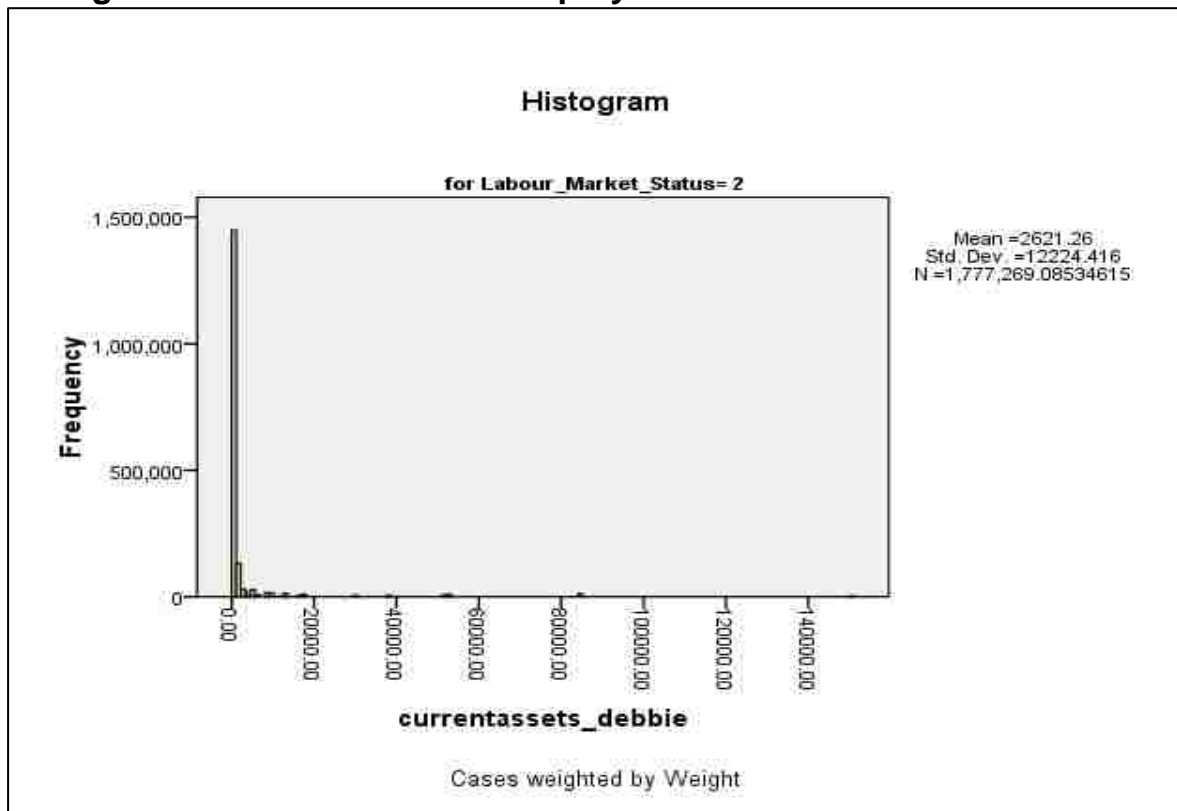


CURRENT ASSETS

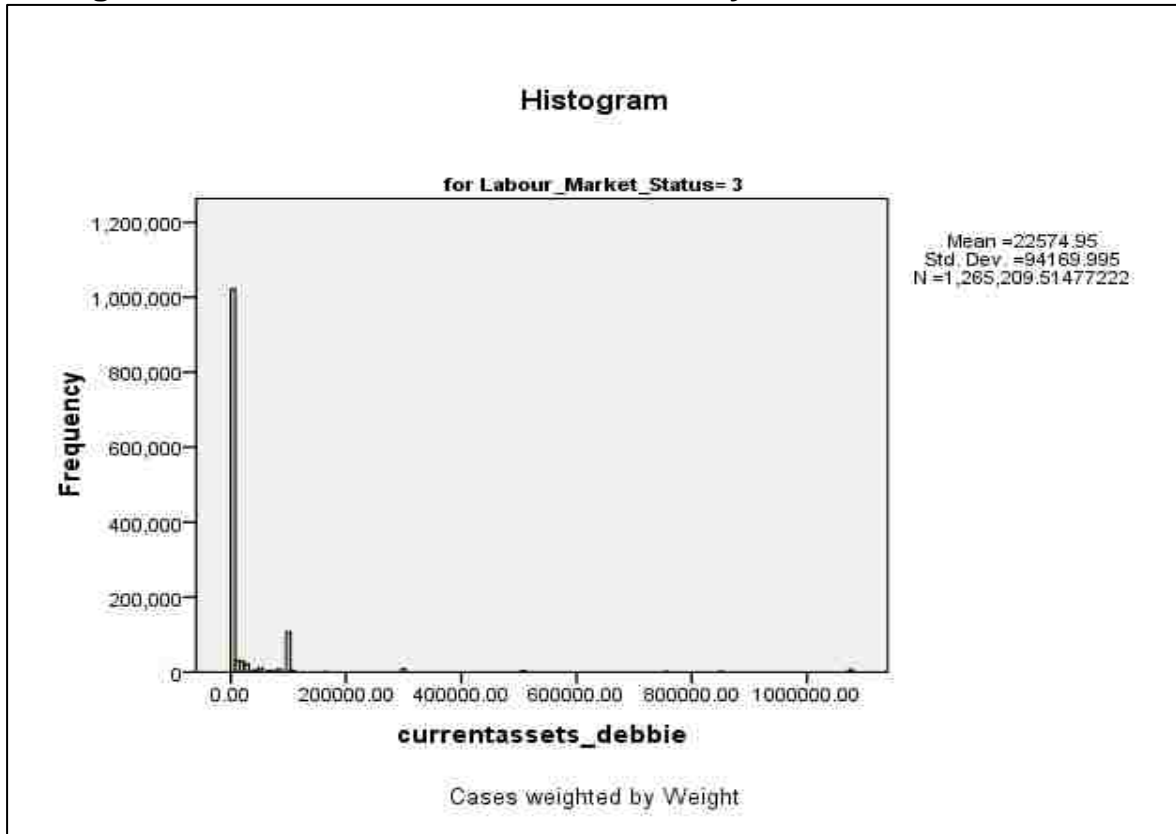
Histogram: Current assets: Employed



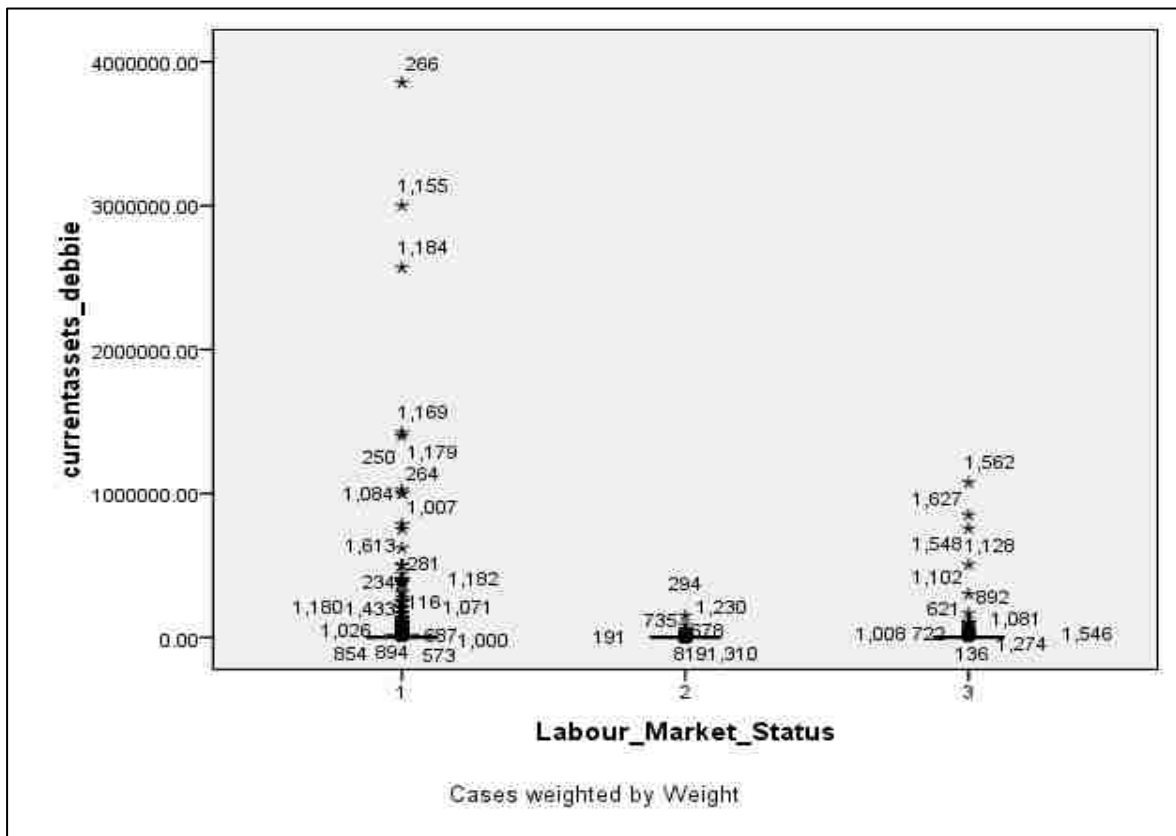
Histogram: Current assets: Unemployed



Histogram: Current assets: Not economically active

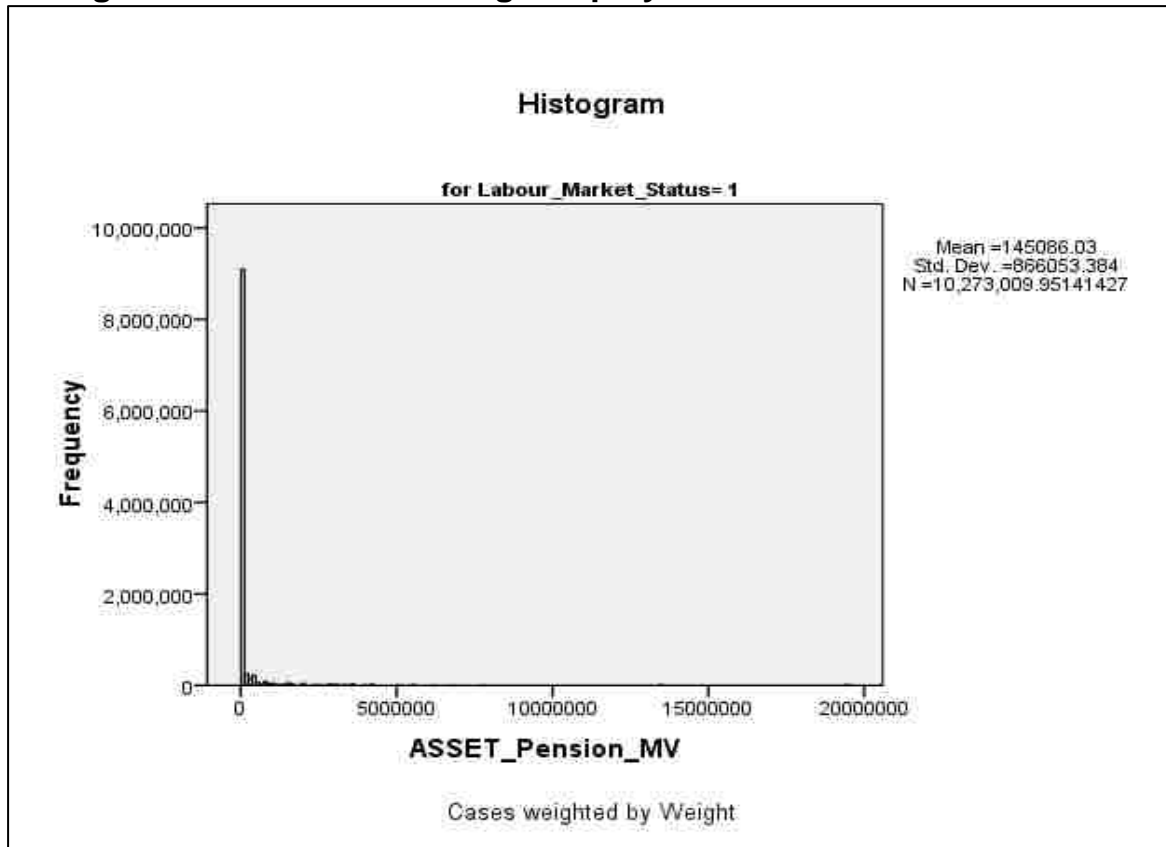


Boxplots: Current assets: Labour market status

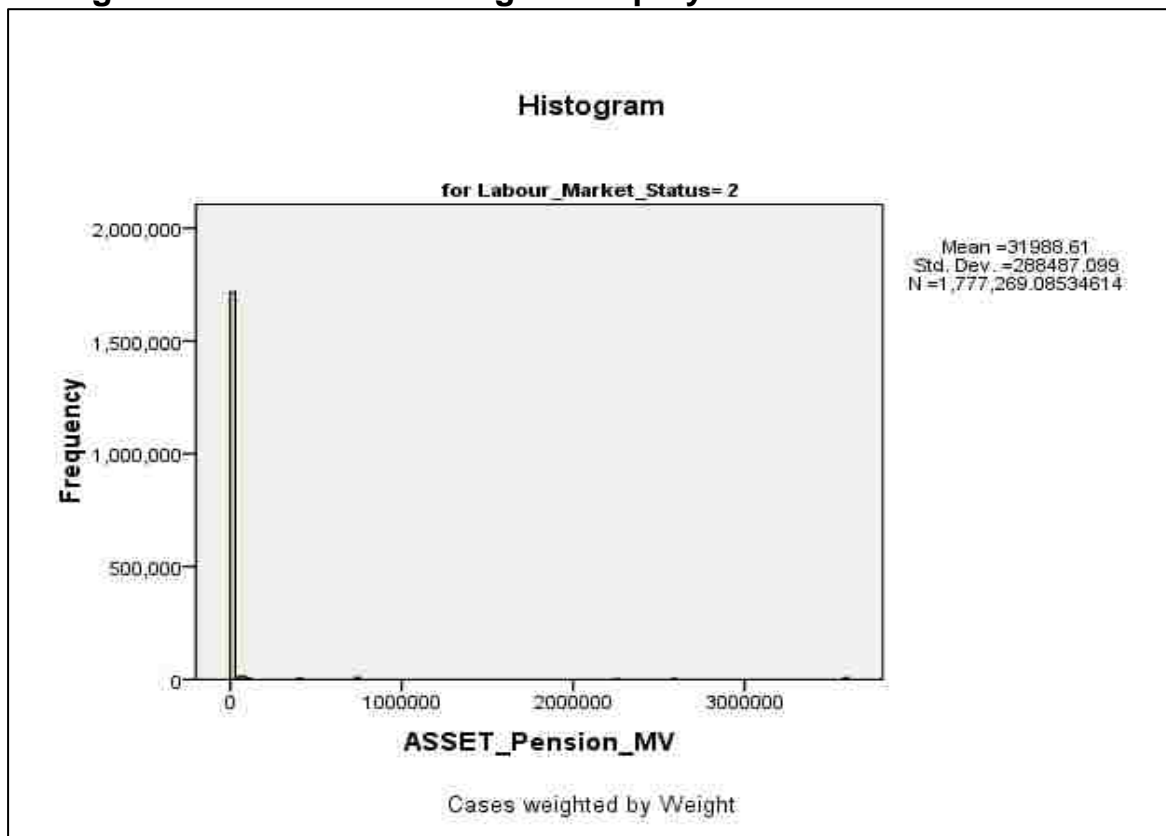


RETIREMENT FUNDING

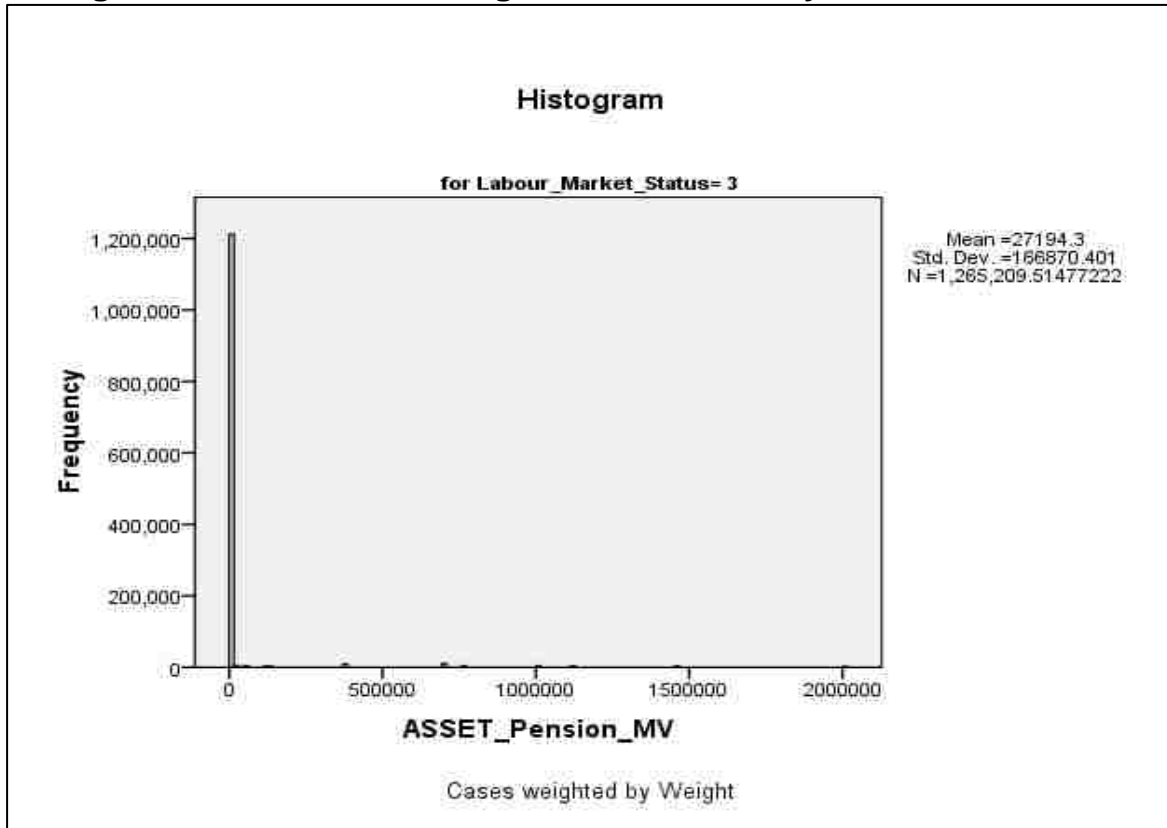
Histogram: Retirement funding: Employed



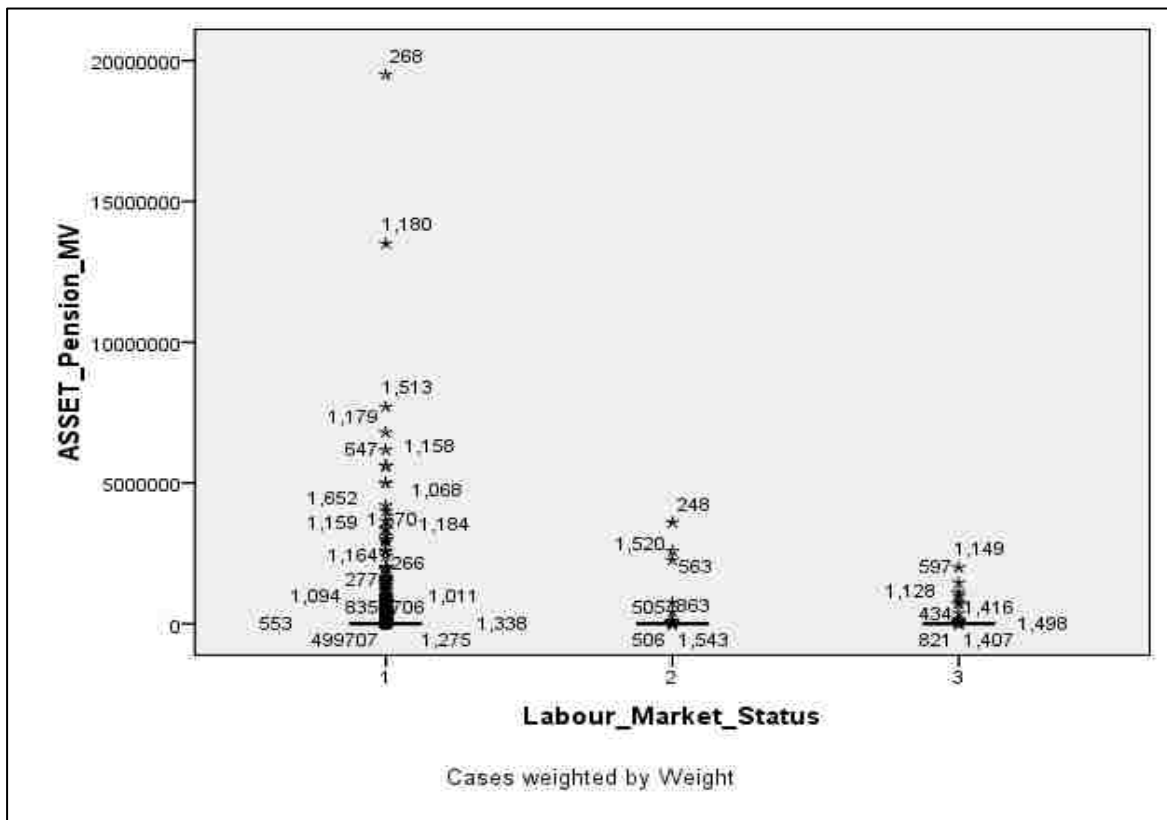
Histogram: Retirement funding: Unemployed



Histogram: Retirement funding: Not economically active



Boxplots: Retirement funding: Labour market status



DESCRIPTIVE STATISTICS

LIABILITY CLASS VARIABLES PER LABOUR STATUS GROUP

| Descriptives | | | | |
|-----------------------|-------------------------|----------------------------------|----------------|------------|
| | Labour_Market | Status | Statistic | Std. Error |
| Mortgage loans | Employed | Mean | 15724.9821 | 34.35272 |
| | | 95% Confidence Interval for Mean | Lower Bound | 15657.6520 |
| | | | Upper Bound | 15792.3122 |
| | | 5% Trimmed Mean | 525.6118 | |
| | | Median | .0000 | |
| | | Variance | 7943955766.203 | |
| | | Std. Deviation | 89128.87168 | |
| | | Minimum | .00 | |
| | | Maximum | 1.43E+006 | |
| | | Range | 1430687.00 | |
| | | Interquartile Range | .00 | |
| | | Skewness | 8.757 | .001 |
| | Kurtosis | 92.498 | .002 | |
| | Unemployed | Mean | 2889.0507 | 25.68192 |
| | | 95% Confidence Interval for Mean | Lower Bound | 2838.7150 |
| | | | Upper Bound | 2939.3863 |
| | | 5% Trimmed Mean | .0000 | |
| | | Median | .0000 | |
| | | Variance | 757727033.128 | |
| | | Std. Deviation | 27526.84205 | |
| | | Minimum | .00 | |
| | | Maximum | 300000.00 | |
| | | Range | 300000.00 | |
| | | Interquartile Range | .00 | |
| | | Skewness | 10.274 | .002 |
| | Kurtosis | 106.313 | .005 | |
| | Not economically active | Mean | 4988.0095 | 46.32293 |
| | | 95% Confidence Interval for Mean | Lower Bound | 4897.2181 |
| | | | Upper Bound | 5078.8008 |
| | | 5% Trimmed Mean | .0000 | |
| | | Median | .0000 | |
| | | Variance | 1806023442.438 | |
| | | Std. Deviation | 42497.33453 | |
| Minimum | | .00 | | |
| Maximum | | 530000.00 | | |
| Range | | 530000.00 | | |
| Interquartile Range | | .00 | | |
| Skewness | | 9.180 | .003 | |
| Kurtosis | 87.137 | .005 | | |
| Financial liabilities | Employed | Mean | 16859.0124 | 27.38698 |
| | | 95% Confidence Interval for Mean | Lower Bound | 16805.3349 |
| | | | Upper Bound | 16912.6899 |
| | | 5% Trimmed Mean | 5214.2016 | |
| | | Median | .0000 | |
| | | Variance | 5048971805.617 | |
| | | Std. Deviation | 71056.11730 | |
| | | Minimum | .00 | |
| | | Maximum | 1.90E+006 | |
| | | Range | 1900315.00 | |
| | | Interquartile Range | 1600.00 | |
| | | Skewness | 12.283 | .001 |
| | Kurtosis | 261.111 | .002 | |
| | Unemployed | Mean | 2815.9259 | 10.26006 |
| | | 95% Confidence Interval for Mean | Lower Bound | 2795.8166 |
| | | | Upper Bound | 2836.0353 |
| | | 5% Trimmed Mean | 522.2627 | |
| | | Median | .0000 | |
| | | Variance | 120936419.914 | |
| | | Std. Deviation | 10997.10962 | |
| | | Minimum | .00 | |
| Maximum | | 87500.00 | | |

| Descriptives | | | | | |
|---------------------|-------------------------|----------------------------------|-------------|---------------|----------|
| | Labour_Market_Status | | Statistic | Std. Error | |
| | | Range | 87500.00 | | |
| | | Interquartile Range | .00 | | |
| | | Skewness | 4.855 | .002 | |
| | | Kurtosis | 25.051 | .005 | |
| | Not economically active | Mean | | 3982.7516 | 21.40789 |
| | | 95% Confidence Interval for Mean | Lower Bound | 3940.7929 | |
| | | | Upper Bound | 4024.7103 | |
| | | 5% Trimmed Mean | | 674.7847 | |
| | | Median | | .0000 | |
| | | Variance | | 385726166.520 | |
| | | Std. Deviation | | 19639.91259 | |
| | | Minimum | | .00 | |
| | | Maximum | | 175000.00 | |
| | | Range | | 175000.00 | |
| | | Interquartile Range | | .00 | |
| | | Skewness | | 7.280 | .003 |
| Kurtosis | | 57.733 | .005 | | |
| Current liabilities | Employed | Mean | 4520.0294 | 5.19664 | |
| | | 95% Confidence Interval for Mean | Lower Bound | 4509.8441 | |
| | | | Upper Bound | 4530.2146 | |
| | | 5% Trimmed Mean | | 2305.8782 | |
| | | Median | | 800.0000 | |
| | | Variance | | 181785584.972 | |
| | | Std. Deviation | | 13482.78847 | |
| | | Minimum | | .00 | |
| | | Maximum | | 157200.00 | |
| | | Range | | 157200.00 | |
| | | Interquartile Range | | 3713.00 | |
| | | Skewness | | 7.224 | .001 |
| | Kurtosis | | 64.671 | .002 | |
| | Unemployed | Mean | | 4456.6160 | 19.55589 |
| | | 95% Confidence Interval for Mean | Lower Bound | 4418.2871 | |
| | | | Upper Bound | 4494.9448 | |
| | | 5% Trimmed Mean | | 1933.5894 | |
| | | Median | | 420.0000 | |
| | | Variance | | 439352148.601 | |
| | | Std. Deviation | | 20960.72872 | |
| | | Minimum | | .00 | |
| | | Maximum | | 307040.00 | |
| | | Range | | 307040.00 | |
| | | Interquartile Range | | 1990.00 | |
| | | Skewness | | 11.642 | .002 |
| | Kurtosis | | 152.713 | .005 | |
| | Not economically active | Mean | | 2562.7810 | 6.44915 |
| | | 95% Confidence Interval for Mean | Lower Bound | 2550.1409 | |
| | | | Upper Bound | 2575.4211 | |
| | | 5% Trimmed Mean | | 1528.6353 | |
| | | Median | | 400.0000 | |
| | | Variance | | 35005513.699 | |
| | | Std. Deviation | | 5916.54576 | |
| | | Minimum | | .00 | |
| | | Maximum | | 55000.00 | |
| | | Range | | 55000.00 | |
| Interquartile Range | | | 1895.00 | | |
| Skewness | | | 4.214 | .003 | |
| Kurtosis | | 21.107 | .005 | | |

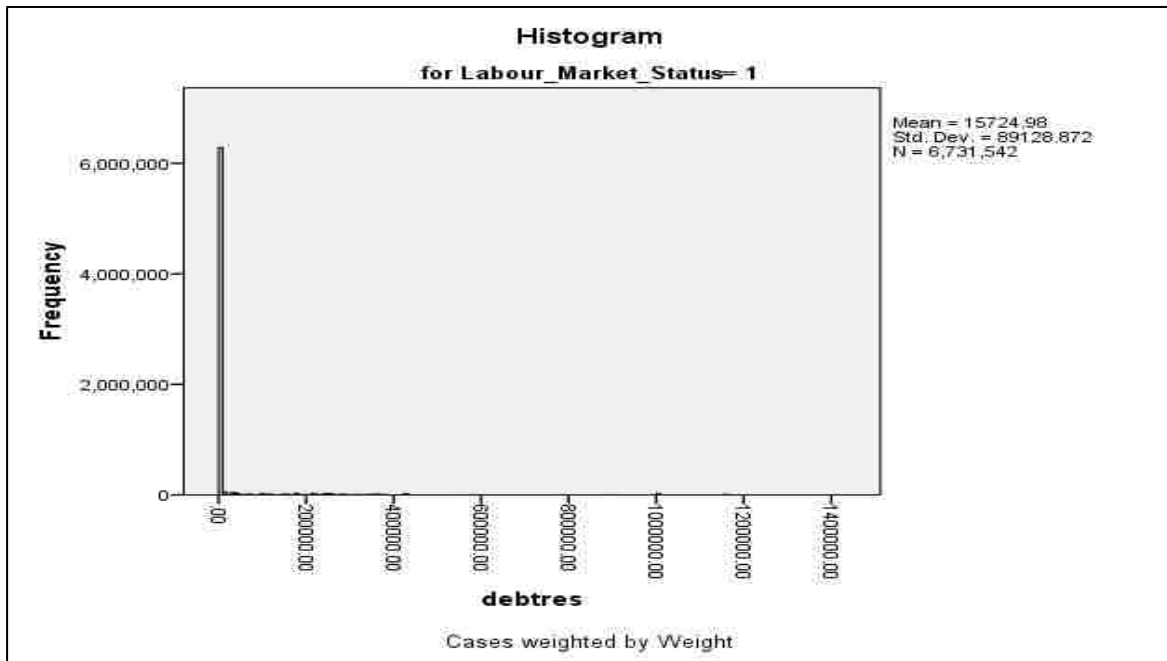
HISTOGRAMS AND BOXPLOTS: LIABILITY CLASS VARIABLES PER LABOUR MARKET STATUS GROUP

Note:

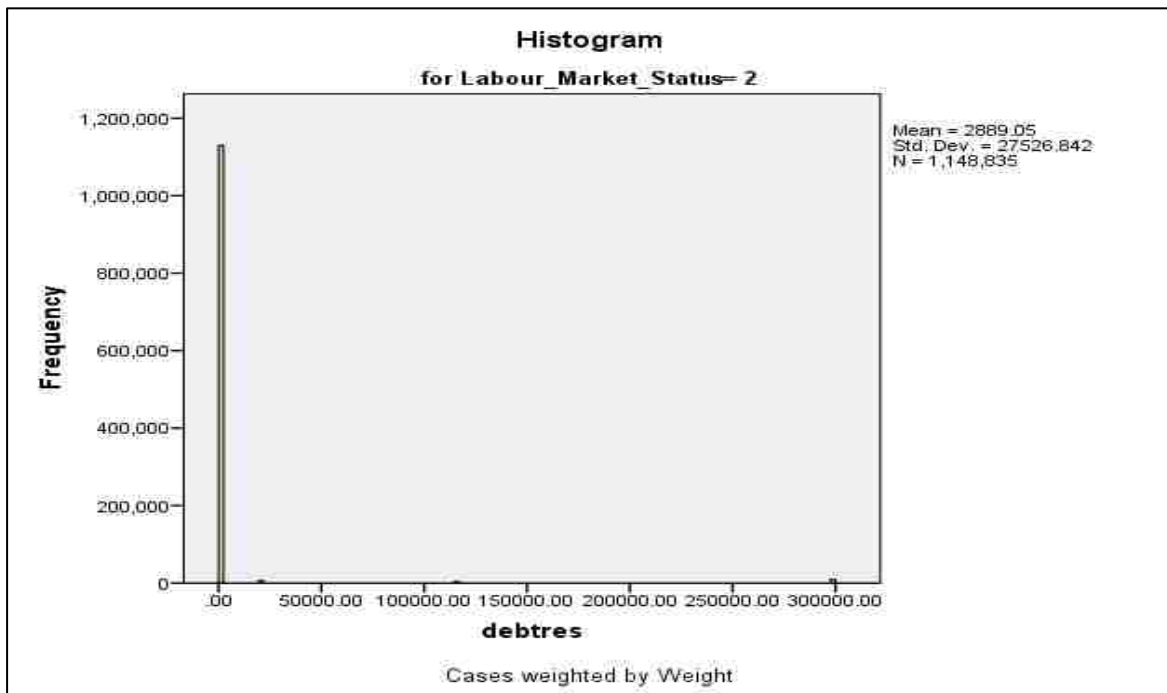
| | |
|------------------------|---------------------------|
| Labour market status 1 | = Employed |
| Labour market status 2 | = Unemployed |
| Labour market status 3 | = Not economically active |

MORTGAGE LOANS

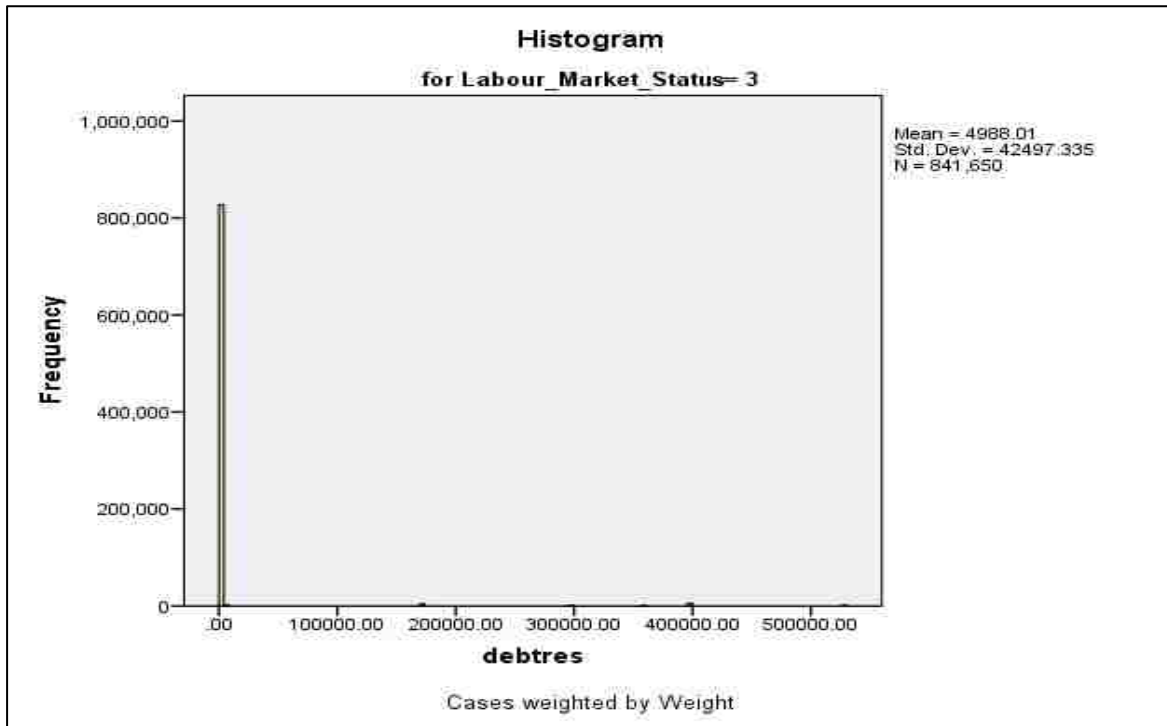
Histogram: Mortgage loans: Employed



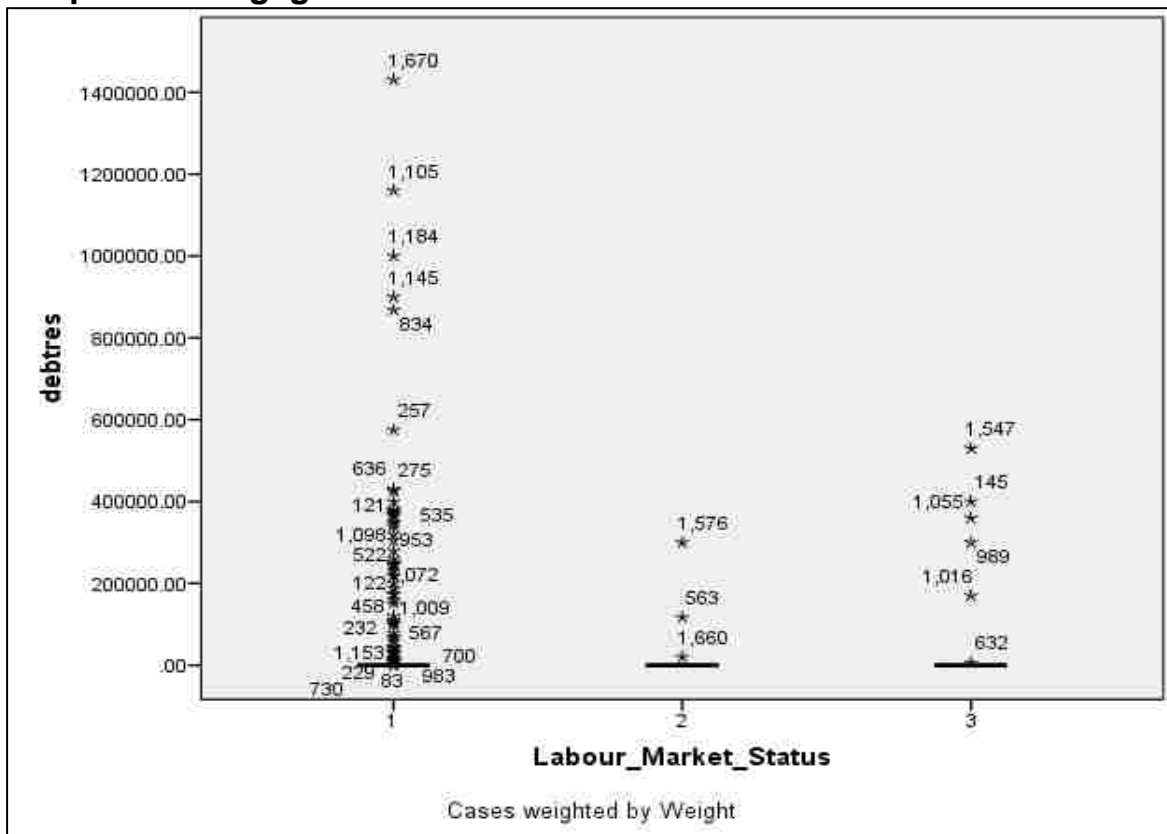
Histogram: Mortgage loans: Unemployed



Histogram: Mortgage loans: Not economically active

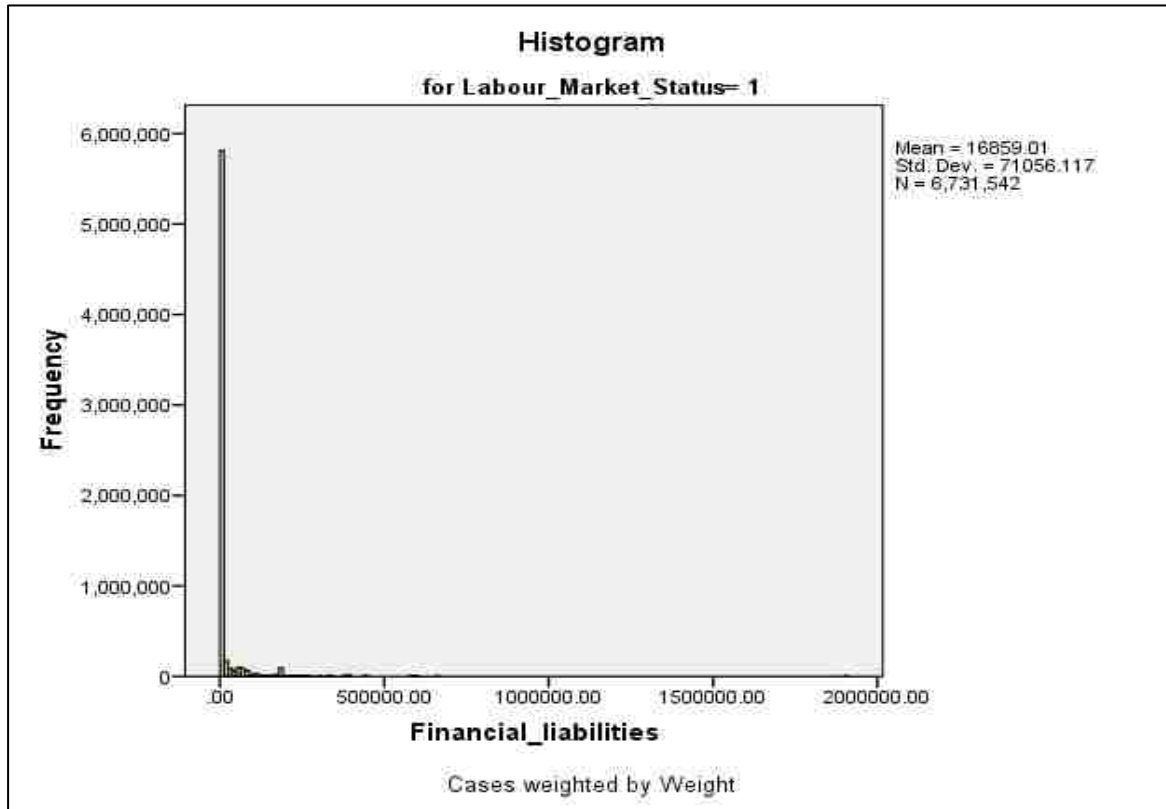


Boxplots: Mortgage loans: Labour market status

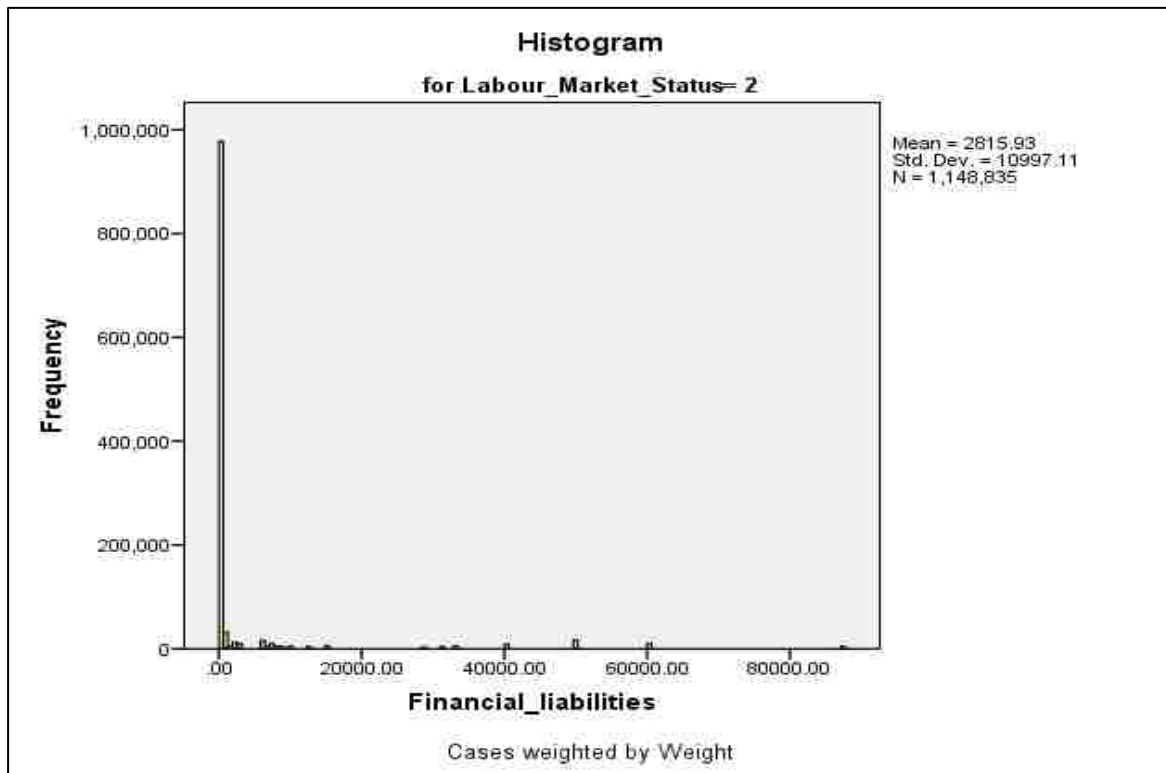


FINANCIAL LIABILITIES

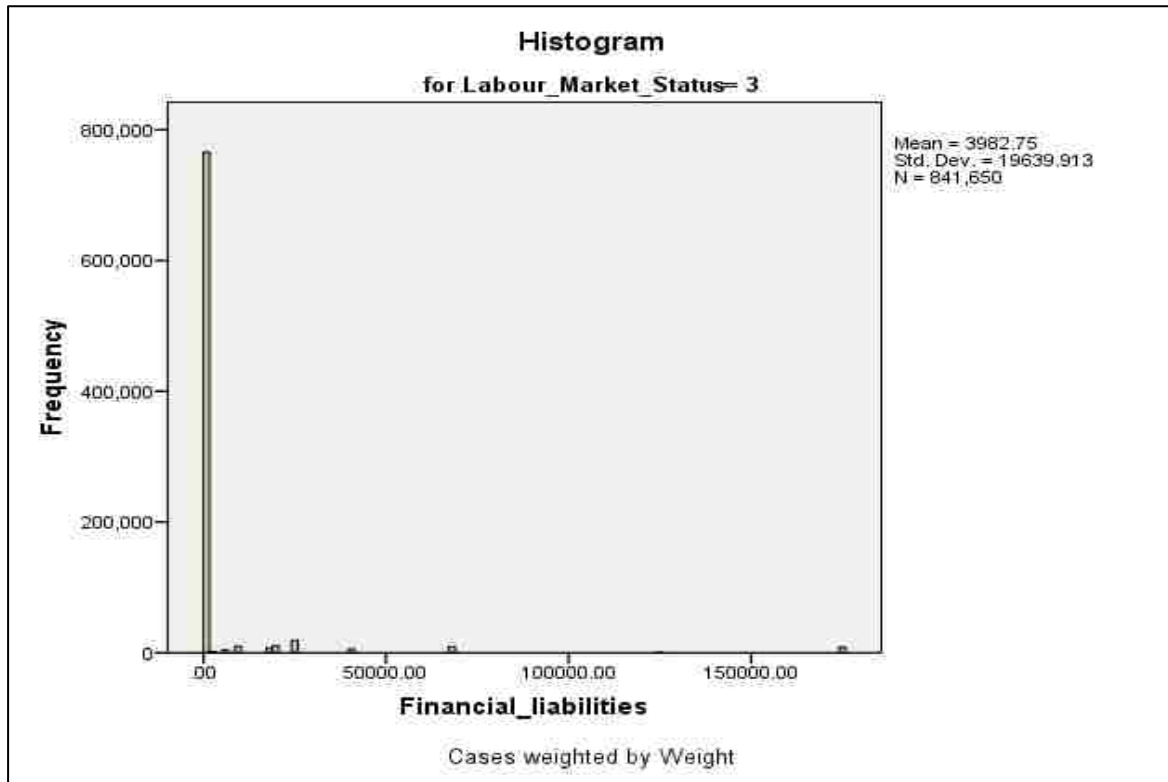
Histogram: Financial liabilities: Employed



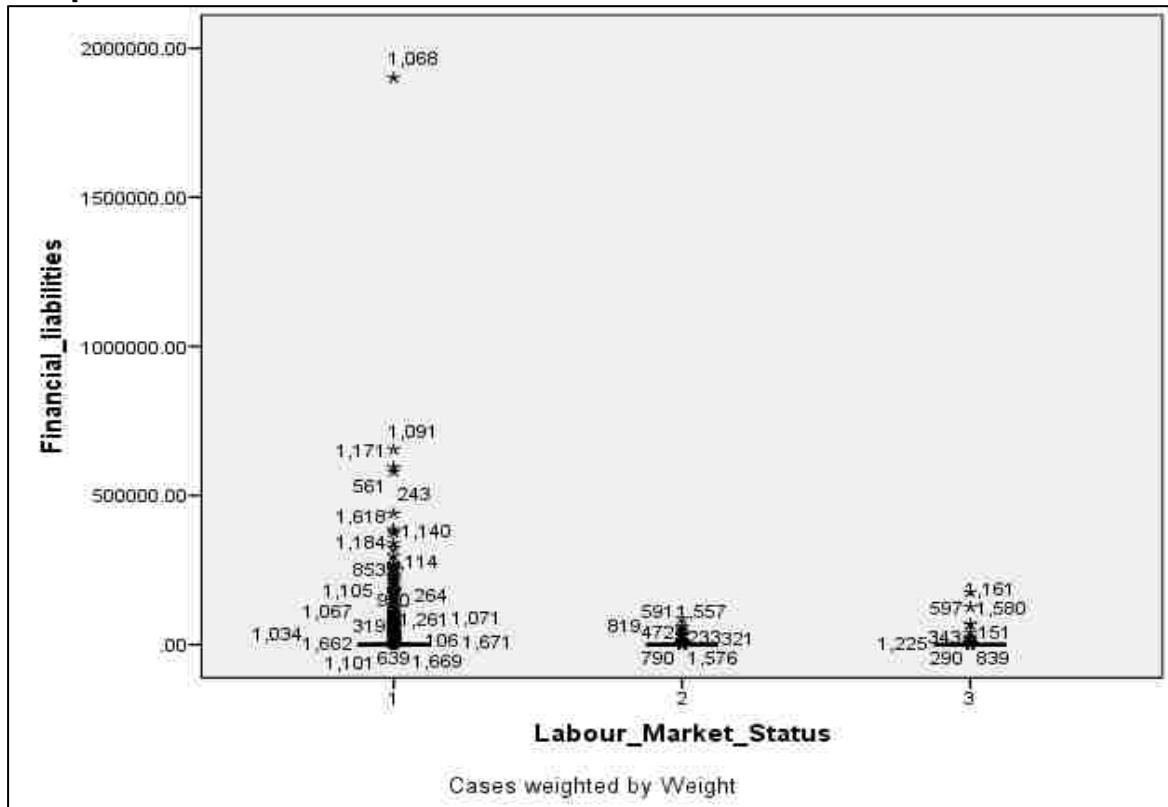
Histogram: Financial liabilities: Unemployed



Histogram: Financial liabilities: Not economically active

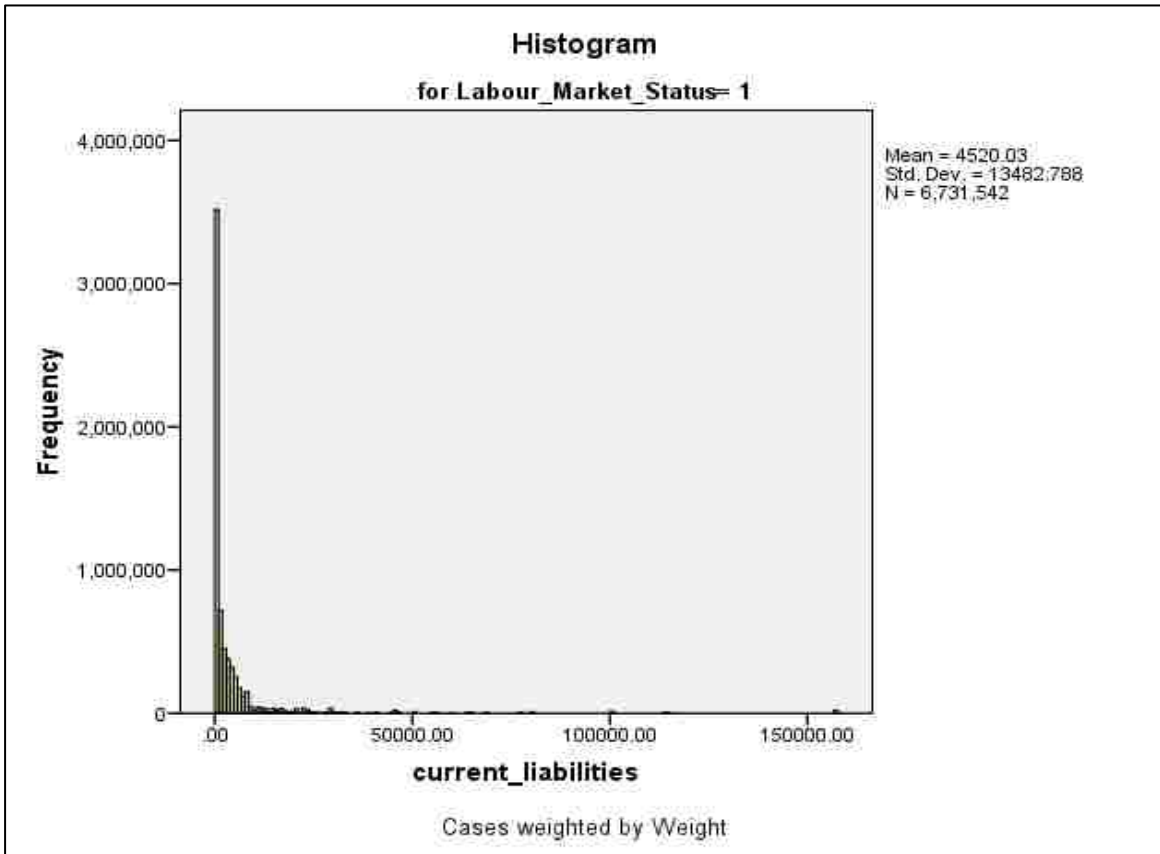


Boxplots: Financial liabilities: Labour market status

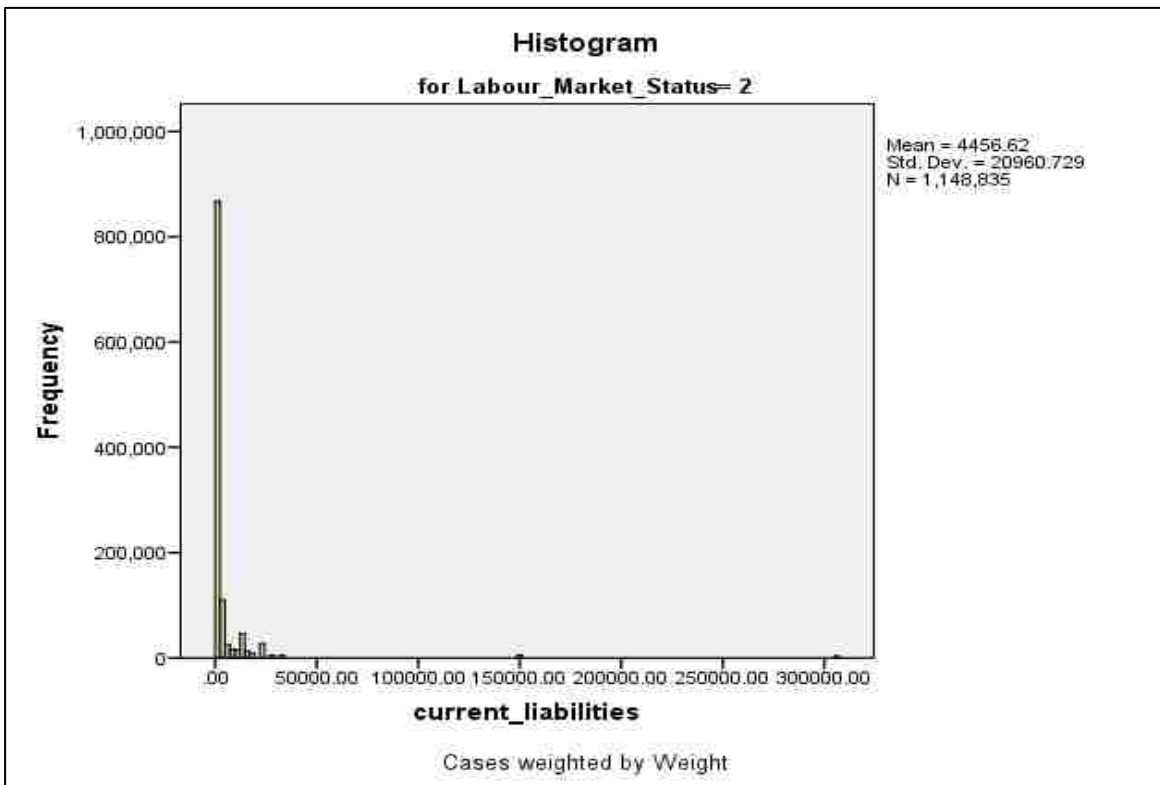


CURRENT LIABILITIES

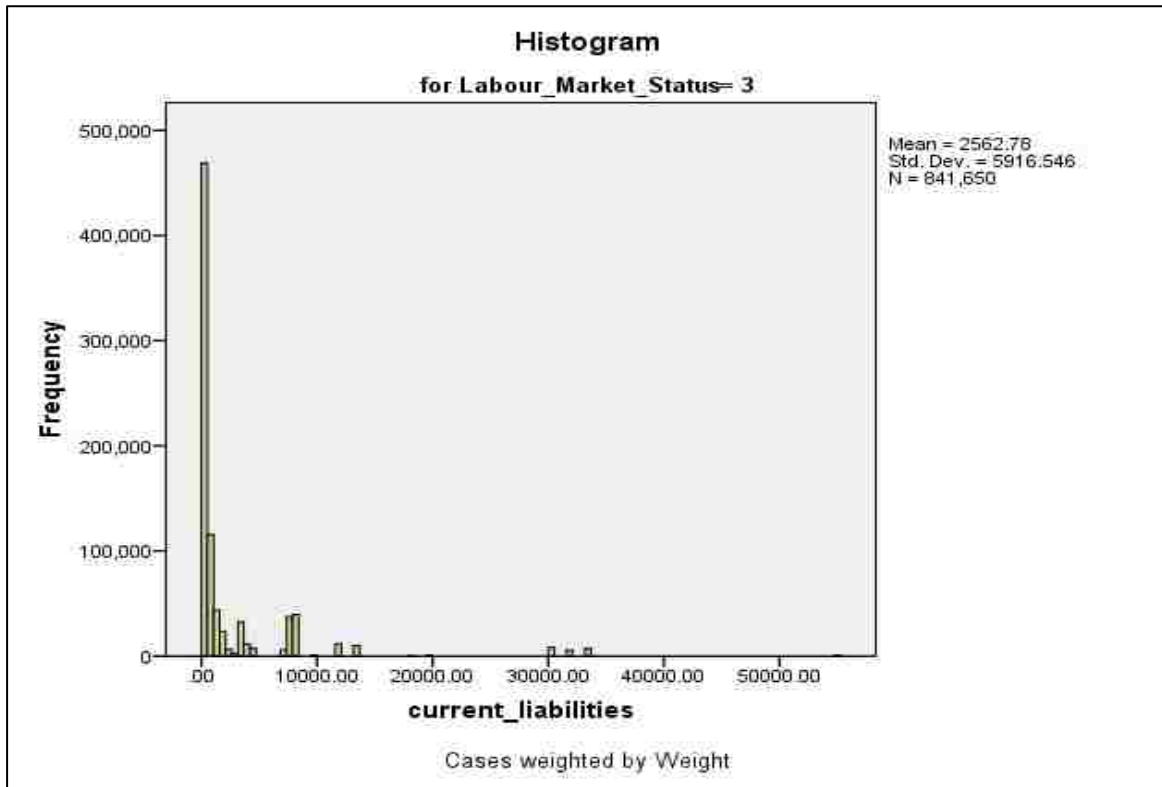
Histogram: Current liabilities: Employed



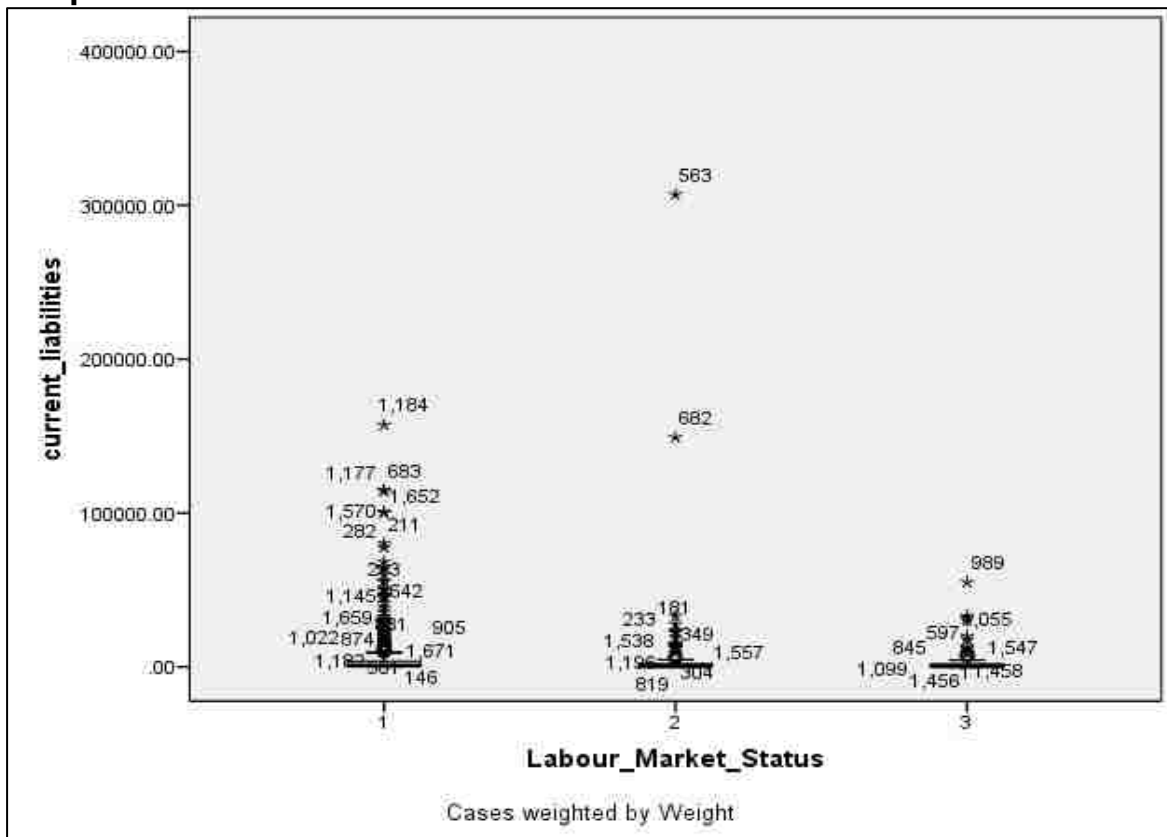
Histogram: Current liabilities: Unemployed



Histogram: Current liabilities: Employed



Boxplots: Current liabilities: Labour market status



DESCRIPTIVE STATISTICS

ASSET CLASS VARIABLES PER EDUCATION GROUP

| Descriptives | | | | | |
|---------------------|-------------------------------|----------------------------------|----------------------------------|-------------|------------|
| | Education_groups | | | Statistic | Std. Error |
| Non-current assets | Some primary education | | Mean | 57315.2127 | 381.40523 |
| | | 95% Confidence Interval for Mean | Lower Bound | 56567.6708 | |
| | | | Upper Bound | 58062.7546 | |
| | | | 5% Trimmed Mean | 13909.7207 | |
| | | | Median | .0000 | |
| | | | Variance | 8.167E10 | |
| | | | Std. Deviation | 2.85784E5 | |
| | | | Minimum | .00 | |
| | | | Maximum | 3062500.00 | |
| | | | Range | 3062500.00 | |
| | | | Interquartile Range | 20000.00 | |
| | | Skewness | 9.210 | .003 | |
| | | Kurtosis | 92.288 | .007 | |
| | | Some secondary education | Mean | 79630.4769 | 111.80027 |
| | | | 95% Confidence Interval for Mean | Lower Bound | 79411.3523 |
| | Upper Bound | | | 79849.6014 | |
| | | | 5% Trimmed Mean | 41777.3110 | |
| | | | Median | .0000 | |
| | | | Variance | 4.340E10 | |
| | | | Std. Deviation | 2.08320E5 | |
| | | | Minimum | .00 | |
| | | | Maximum | 2687500.00 | |
| | | | Range | 2687500.00 | |
| | | | Interquartile Range | 50000.00 | |
| | Skewness | | 4.063 | .001 | |
| | Kurtosis | 20.016 | .003 | | |
| | Completed secondary education | 95% Confidence Interval for Mean | Mean | 191292.6553 | 170.54763 |
| | | | Lower Bound | 190958.3881 | |
| | | | Upper Bound | 191626.9224 | |
| | | | 5% Trimmed Mean | 111280.0826 | |
| | | | Median | .0000 | |
| | | | Variance | 2.264E11 | |
| | | | Std. Deviation | 4.75778E5 | |
| Minimum | | | .00 | | |
| Maximum | | | 7200000.00 | | |
| Range | | | 7200000.00 | | |
| Interquartile Range | | | 108750.00 | | |
| Skewness | | 4.990 | .001 | | |
| Kurtosis | | 40.277 | .002 | | |
| Tertiary education | | 95% Confidence Interval for Mean | Mean | 863146.0263 | 1081.79221 |
| | | | Lower Bound | 861025.7511 | |
| | Upper Bound | 865266.3014 | | | |
| | 5% Trimmed Mean | 685694.1444 | | | |
| | Median | 500000.0000 | | | |

| | | | | | | |
|----------------------------|-------------------------------|----------------------------------|----------------------------------|-----------------|------------|--|
| Other non-financial assets | Some primary education | | Variance | 1.469E12 | | |
| | | | Std. Deviation | 1.21213E6 | | |
| | | | Minimum | .00 | | |
| | | | Maximum | 6700000.00 | | |
| | | | Range | 6700000.00 | | |
| | | | Interquartile Range | 1008200.00 | | |
| | | | Skewness | 2.674 | .002 | |
| | | | Kurtosis | 8.423 | .004 | |
| | | | Mean | 11667.6479 | 34.05333 | |
| | | | 95% Confidence Interval for Mean | Lower Bound | 11600.9045 | |
| | | | | Upper Bound | 11734.3913 | |
| | | | | 5% Trimmed Mean | 6944.2220 | |
| | | | | Median | 3750.0000 | |
| | | Variance | | 6.511E8 | | |
| | | Std. Deviation | | 25515.92150 | | |
| | | Minimum | | .00 | | |
| | | Maximum | | 140000.00 | | |
| | | Range | | 140000.00 | | |
| | | Interquartile Range | | 8000.00 | | |
| | | Skewness | 3.297 | .003 | | |
| | | Kurtosis | 10.697 | .007 | | |
| | | Some secondary education | Mean | 32991.4801 | 70.28611 | |
| | | | 95% Confidence Interval for Mean | Lower Bound | 32853.7218 | |
| | | | | Upper Bound | 33129.2383 | |
| | | | | 5% Trimmed Mean | 16987.6159 | |
| | | | | Median | 7000.0000 | |
| | | | | Variance | 1.715E10 | |
| | | | | Std. Deviation | 1.30966E5 | |
| | | | | Minimum | .00 | |
| | | | | Maximum | 3000000.00 | |
| | | | | Range | 3000000.00 | |
| | | Interquartile Range | | 25000.00 | | |
| | | Skewness | 16.757 | .001 | | |
| | Kurtosis | 356.109 | .003 | | | |
| | Completed secondary education | Mean | 79035.0298 | 94.81260 | | |
| | | 95% Confidence Interval for Mean | Lower Bound | 78849.2005 | | |
| | | | Upper Bound | 79220.8590 | | |
| | | | 5% Trimmed Mean | 42334.7030 | | |
| | | | Median | 16000.0000 | | |
| | | | Variance | 6.996E10 | | |
| | | | Std. Deviation | 2.64500E5 | | |
| | | | Minimum | .00 | | |
| | | | Maximum | 8100000.00 | | |
| | | | Range | 8100000.00 | | |
| | Interquartile Range | | 62500.00 | | | |
| | Skewness | 15.080 | .001 | | | |
| | Kurtosis | 382.226 | .002 | | | |
| | Tertiary education | Mean | 308586.2202 | 660.99041 | | |
| | | 95% Confidence Interval for Mean | Lower Bound | 307290.7019 | | |
| | | | Upper Bound | 309881.7384 | | |
| | | 5% Trimmed Mean | 195486.1272 | | | |

| | | | | | | |
|------------------|------------------------|----------------------------------|----------------------------------|-------------|------------|----------|
| | | | Median | 116500.0000 | | |
| | | | Variance | 5.485E11 | | |
| | | | Std. Deviation | 7.40629E5 | | |
| | | | Minimum | .00 | | |
| | | | Maximum | 5475000.00 | | |
| | | | Range | 5475000.00 | | |
| | | | Interquartile Range | 282500.00 | | |
| | | | Skewness | 6.030 | .002 | |
| | | | Kurtosis | 38.435 | .004 | |
| Financial assets | Some primary education | | Mean | 6813.8356 | 33.52083 | |
| | | 95% Confidence Interval for Mean | Lower Bound | 6748.1358 | | |
| | | | Upper Bound | 6879.5353 | | |
| | | | 5% Trimmed Mean | 2755.9178 | | |
| | | | Median | 65.0000 | | |
| | | | Variance | 6.309E8 | | |
| | | | Std. Deviation | 25116.92045 | | |
| | | | Minimum | .00 | | |
| | | | Maximum | 200000.00 | | |
| | | | Range | 200000.00 | | |
| | | | Interquartile Range | 500.00 | | |
| | | | Skewness | 6.391 | .003 | |
| | | Kurtosis | 44.434 | .007 | | |
| | | Some secondary education | | Mean | 17455.0904 | 41.35612 |
| | | | 95% Confidence Interval for Mean | Lower Bound | 17374.0339 | |
| | | | | Upper Bound | 17536.1469 | |
| | | | 5% Trimmed Mean | 5741.9615 | | |
| | | | Median | 250.0000 | | |
| | | | Variance | 5.938E9 | | |
| | | | Std. Deviation | 77059.86435 | | |
| | | | Minimum | .00 | | |
| | | | Maximum | 3160000.00 | | |
| | | | Range | 3160000.00 | | |
| | | | Interquartile Range | 10000.00 | | |
| | | | Skewness | 9.851 | .001 | |
| | | Kurtosis | 186.606 | .003 | | |
| | | Completed secondary education | | Mean | 45848.3524 | 70.77242 |
| | | | 95% Confidence Interval for Mean | Lower Bound | 45709.6410 | |
| | | | | Upper Bound | 45987.0638 | |
| | | | 5% Trimmed Mean | 12385.5434 | | |
| | | | Median | 241.0000 | | |
| | | | Variance | 3.898E10 | | |
| | Std. Deviation | | 1.97435E5 | | | |
| | Minimum | | .00 | | | |
| | Maximum | | 3212500.00 | | | |
| | Range | | 3212500.00 | | | |
| | Interquartile Range | | 10000.00 | | | |
| | Skewness | | 9.096 | .001 | | |
| | Kurtosis | 112.219 | .002 | | | |
| | Tertiary education | | Mean | 448176.9735 | 1913.53533 | |
| | | 95% Confidence Interval for Mean | Lower Bound | 444426.5108 | | |
| | Upper Bound | | 451927.4363 | | | |

| | | | | | |
|---------------------|-------------------------------|----------------------------------|---------------------|-------------|-----------|
| | | | 5% Trimmed Mean | 128605.4133 | |
| | | | Median | 6750.0000 | |
| | | | Variance | 4.597E12 | |
| | | | Std. Deviation | 2.14408E6 | |
| | | | Minimum | .00 | |
| | | | Maximum | 25035000.00 | |
| | | | Range | 25035000.00 | |
| | | | Interquartile Range | 100000.00 | |
| | | | Skewness | 9.743 | .002 |
| | | | Kurtosis | 106.078 | .004 |
| Current assets | Some primary education | 95% Confidence Interval for Mean | Mean | 2446.5195 | 19.17495 |
| | | | Lower Bound | 2408.9372 | |
| | | | Upper Bound | 2484.1018 | |
| | | | 5% Trimmed Mean | 458.6209 | |
| | | | Median | .0000 | |
| | | | Variance | 2.064E8 | |
| | | | Std. Deviation | 14367.65343 | |
| | | | Minimum | .00 | |
| | | | Maximum | 150000.00 | |
| | | | Range | 150000.00 | |
| | | | Interquartile Range | 200.00 | |
| | | | Skewness | 9.494 | .003 |
| | Kurtosis | 94.000 | .007 | | |
| | Some secondary education | 95% Confidence Interval for Mean | Mean | 8055.1652 | 29.25829 |
| | | | Lower Bound | 7997.8200 | |
| | | | Upper Bound | 8112.5104 | |
| | | | 5% Trimmed Mean | 1724.0166 | |
| | | | Median | 100.0000 | |
| | | | Variance | 2.972E9 | |
| | | | Std. Deviation | 54517.67329 | |
| | | | Minimum | .00 | |
| | | | Maximum | 1025000.00 | |
| | | | Range | 1025000.00 | |
| | | | Interquartile Range | 2100.00 | |
| | | | Skewness | 15.875 | .001 |
| | Kurtosis | 281.901 | .003 | | |
| | Completed secondary education | 95% Confidence Interval for Mean | Mean | 11726.7992 | 26.06785 |
| | | | Lower Bound | 11675.7072 | |
| | | | Upper Bound | 11777.8913 | |
| | | | 5% Trimmed Mean | 3393.2168 | |
| | | | Median | 400.0000 | |
| | | | Variance | 5.288E9 | |
| Std. Deviation | | | 72721.73399 | | |
| Minimum | | | .00 | | |
| Maximum | | | 1425000.00 | | |
| Range | | | 1425000.00 | | |
| Interquartile Range | | | 5000.00 | | |
| Skewness | | | 14.657 | .001 | |
| Kurtosis | 245.547 | .002 | | | |
| Tertiary education | | | Mean | 207492.6485 | 614.04290 |
| | 95% Confidence | | Lower Bound | 206289.1457 | |

| | | | | | | |
|---------------------|----------------------------------|----------------------------------|-------------------|-----------------|---------|--|
| Retirement funding | Some primary education | Interval for Mean | Upper Bound | 208696.1512 | | |
| | | | 5% Trimmed Mean | 58017.0566 | | |
| | | Median | 7000.0000 | | | |
| | | Variance | 4.734E11 | | | |
| | | Std. Deviation | 6.88025E5 | | | |
| | | Minimum | .00 | | | |
| | | Maximum | 3855000.00 | | | |
| | | Range | 3855000.00 | | | |
| | | Interquartile Range | 40000.00 | | | |
| | | Skewness | 4.181 | .002 | | |
| | | Kurtosis | 16.645 | .004 | | |
| | | Mean | 7764.56 | 24.664 | | |
| | | 95% Confidence Interval for Mean | Lower Bound | 7716.22 | | |
| | | | Upper Bound | 7812.90 | | |
| | | Some secondary education | Interval for Mean | 5% Trimmed Mean | 4234.83 | |
| | | | | Median | .00 | |
| | Variance | | 3.415E8 | | | |
| | Std. Deviation | | 18480.722 | | | |
| | Minimum | | 0 | | | |
| | Maximum | | 100000 | | | |
| | Range | | 100000 | | | |
| | Interquartile Range | | 6250 | | | |
| | Skewness | | 3.188 | .003 | | |
| | Kurtosis | | 9.828 | .007 | | |
| | Mean | | 34646.82 | 126.013 | | |
| | 95% Confidence Interval for Mean | | Lower Bound | 34399.83 | | |
| | | | Upper Bound | 34893.80 | | |
| | Completed secondary education | | Interval for Mean | 5% Trimmed Mean | 4105.57 | |
| | | | | Median | .00 | |
| | | | Variance | 5.513E10 | | |
| | | Std. Deviation | 234803.512 | | | |
| | | Minimum | 0 | | | |
| Maximum | | 6175000 | | | | |
| Range | | 6175000 | | | | |
| Interquartile Range | | 0 | | | | |
| Skewness | | 15.488 | .001 | | | |
| Kurtosis | | 304.795 | .003 | | | |
| Tertiary education | Interval for Mean | Mean | 86872.38 | 152.136 | | |
| | | Lower Bound | 86574.20 | | | |
| | Upper Bound | 87170.56 | | | | |
| | 5% Trimmed Mean | 16382.17 | | | | |
| | Median | .00 | | | | |
| | Variance | 1.801E11 | | | | |
| | Std. Deviation | 424416.409 | | | | |
| | Minimum | 0 | | | | |
| | Maximum | 7700000 | | | | |
| | Range | 7700000 | | | | |
| Interquartile Range | 0 | | | | | |
| Skewness | 8.614 | .001 | | | | |
| Kurtosis | 93.355 | .002 | | | | |
| Mean | 621681.31 | 1945.371 | | | | |

| | | | |
|----------------------------------|---------------------|-------------|------|
| 95% Confidence Interval for Mean | Lower Bound | 617868.45 | |
| | Upper Bound | 625494.17 | |
| | 5% Trimmed Mean | 265508.37 | |
| | Median | .00 | |
| | Variance | 4.751E12 | |
| | Std. Deviation | 2179755.836 | |
| | Minimum | 0 | |
| | Maximum | 19500000 | |
| | Range | 19500000 | |
| | Interquartile Range | 190000 | |
| | Skewness | 6.424 | .002 |
| | Kurtosis | 46.939 | .004 |

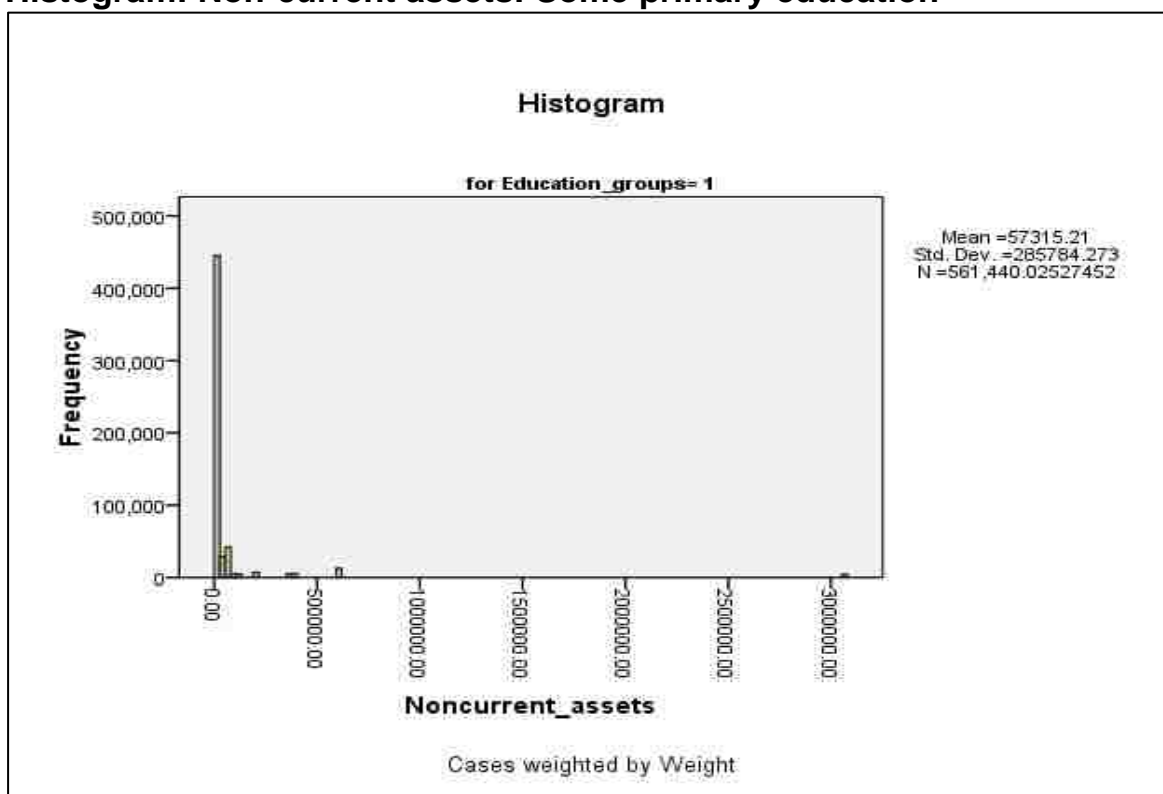
HISTOGRAMS AND BOXPLOTS: ASSET CLASS VARIABLES PER EDUCATION GROUP

Note:

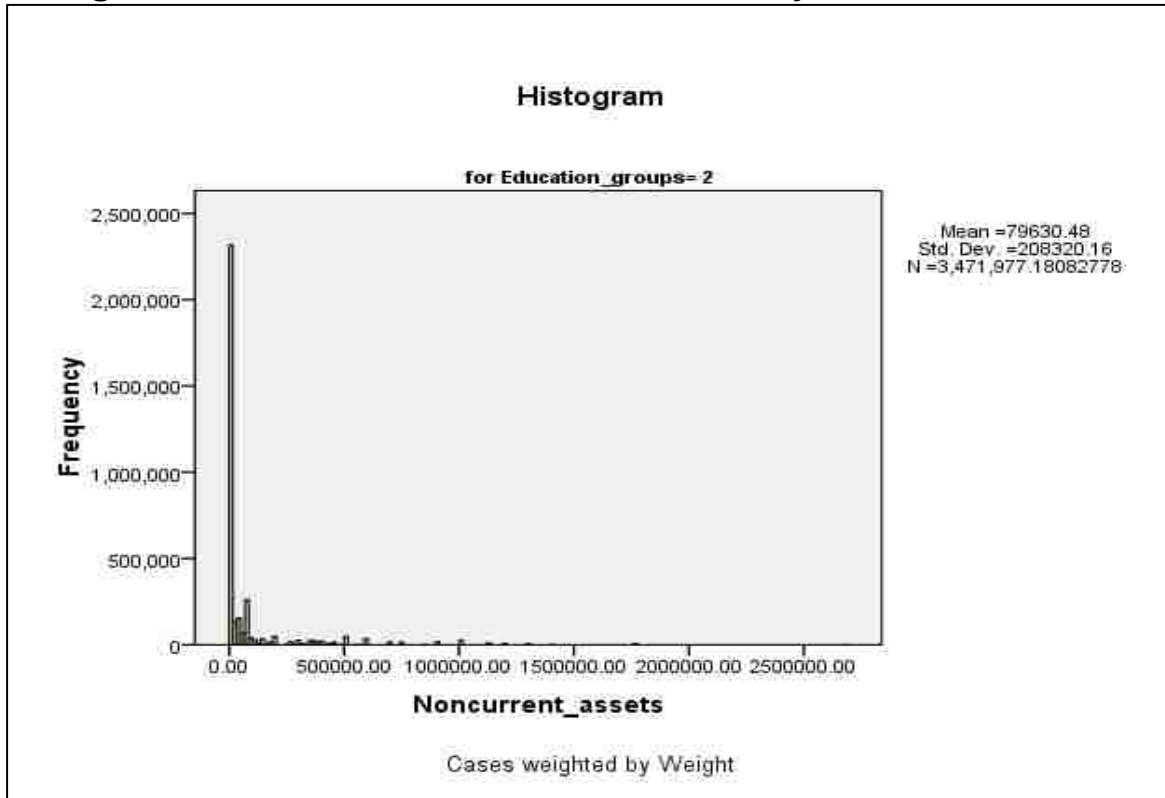
| | |
|-------------------|---------------------------------|
| Education group 1 | = Some primary education |
| Education group 2 | = Some secondary education |
| Education group 3 | = Completed secondary education |
| Education group 4 | = Tertiary education |

NON-CURRENT ASSETS

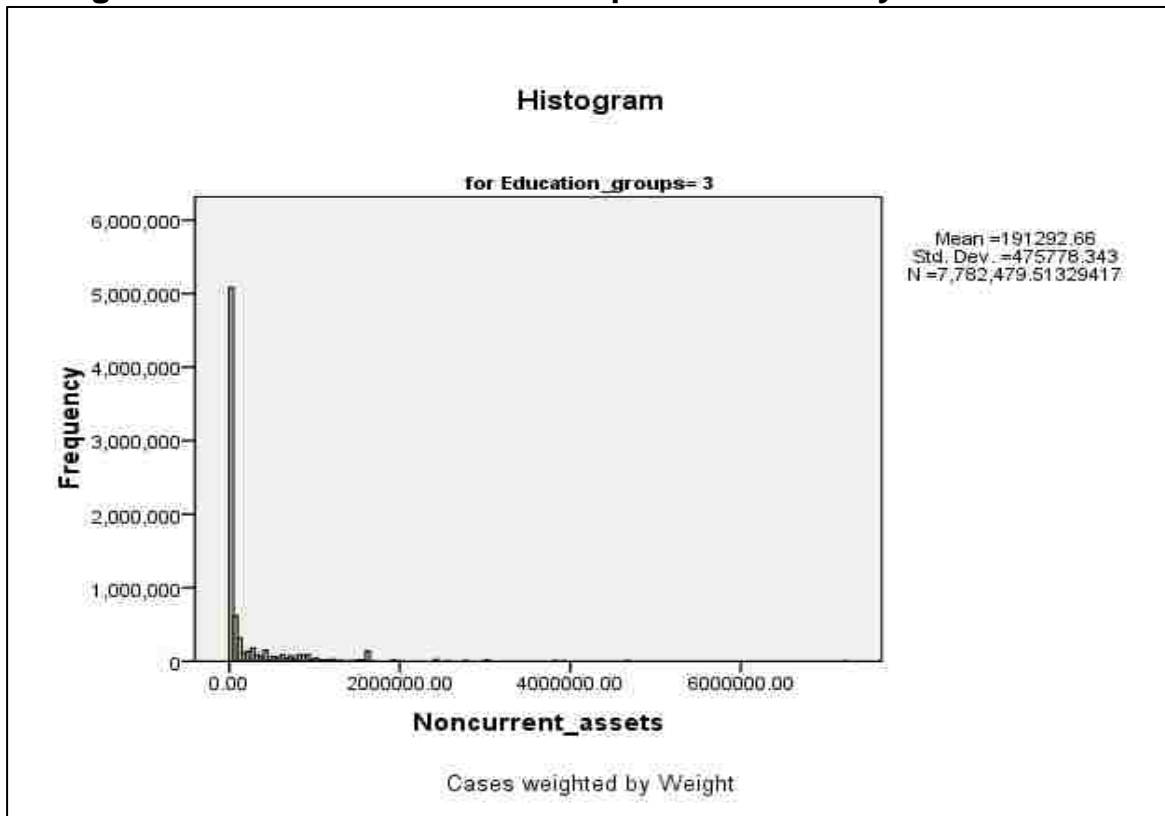
Histogram: Non-current assets: Some primary education



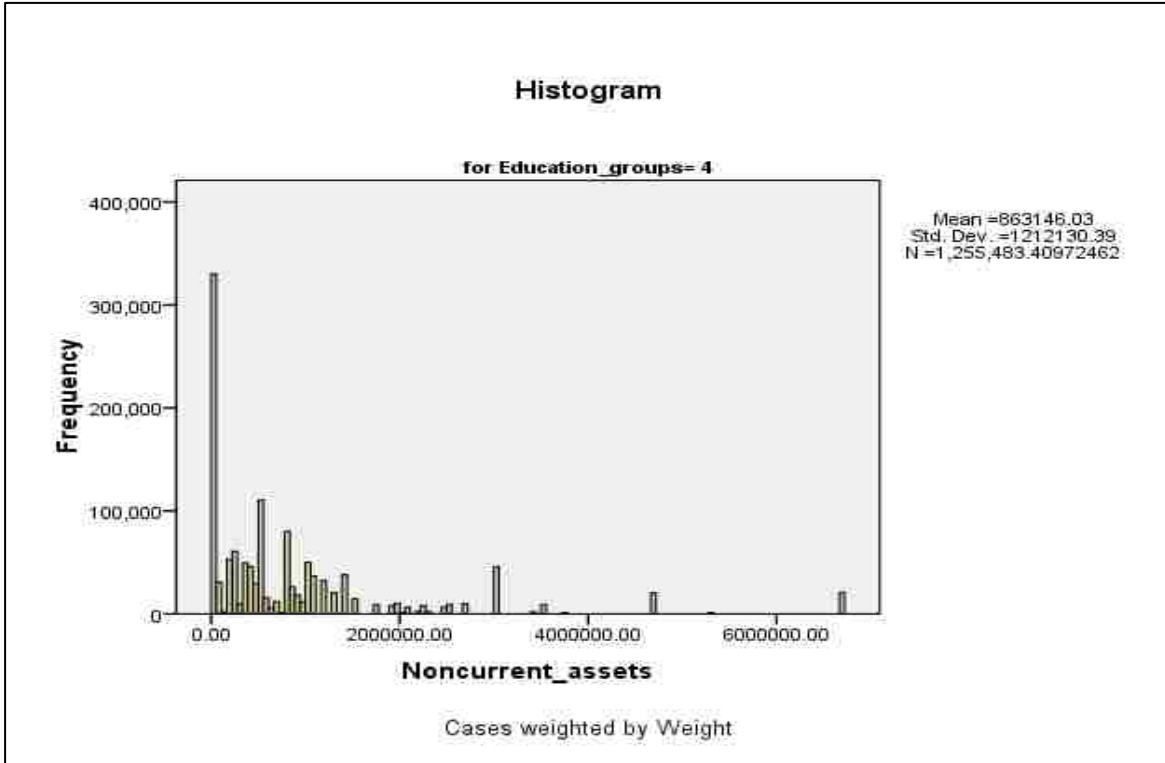
Histogram: Non-current assets: Some secondary education



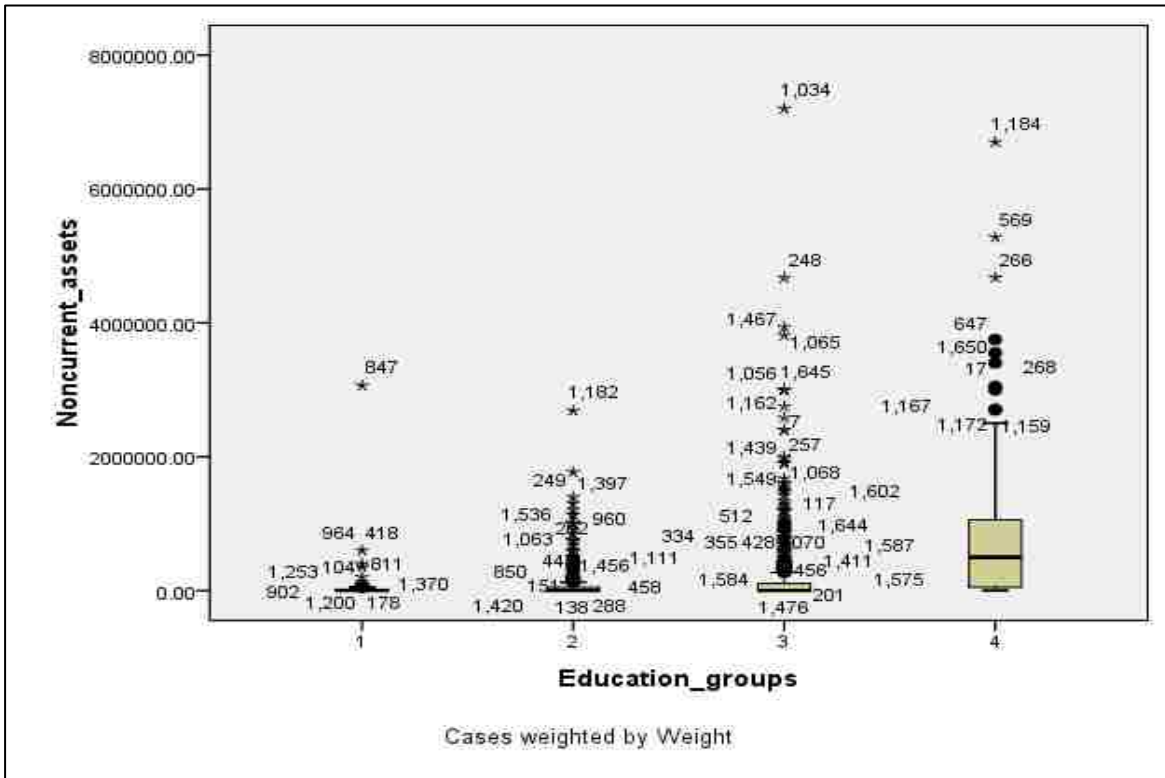
Histogram: Non-current assets: Completed secondary education



Histogram: Non-current assets: Tertiary education

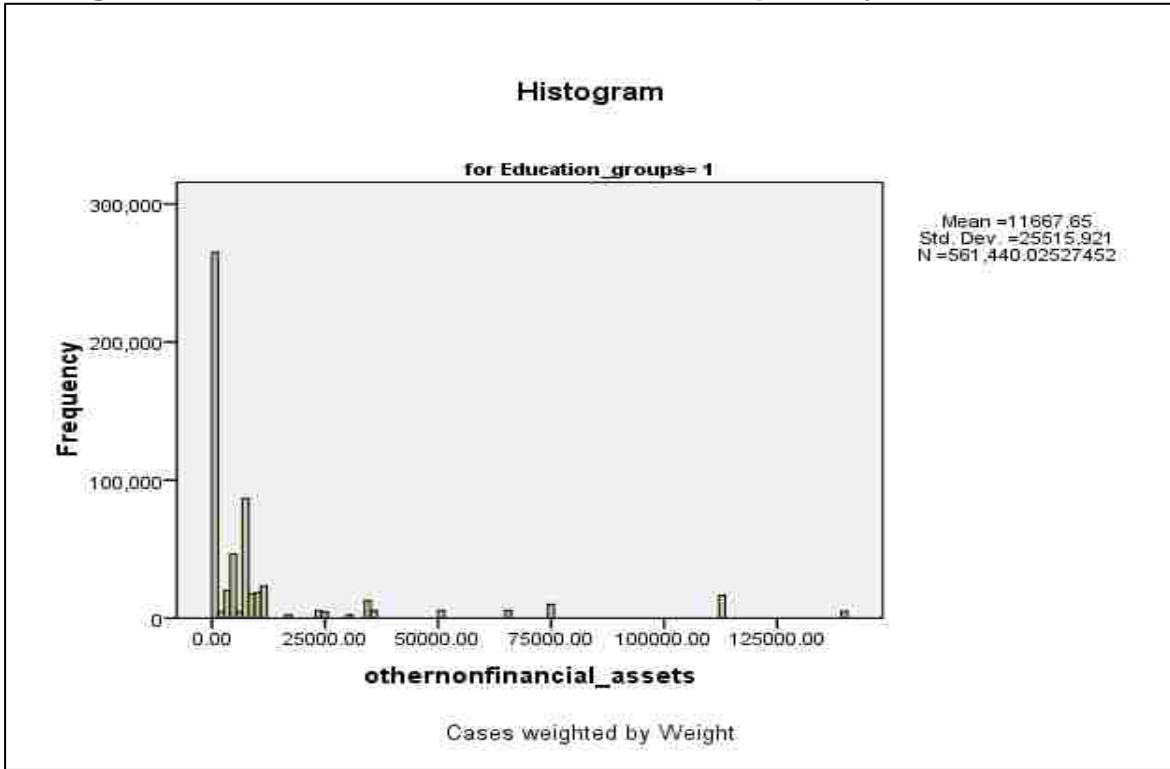


Boxplots: Non-current assets: Education groups

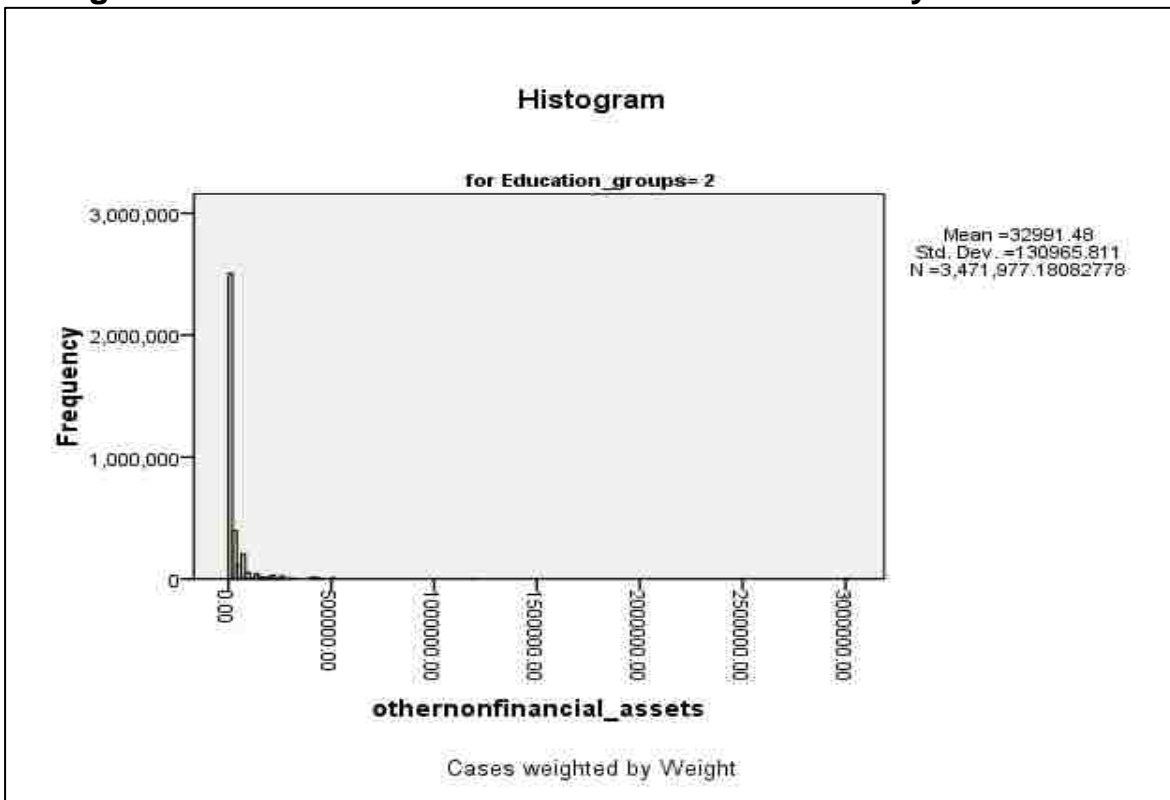


OTHER NON-FINANCIAL ASSETS

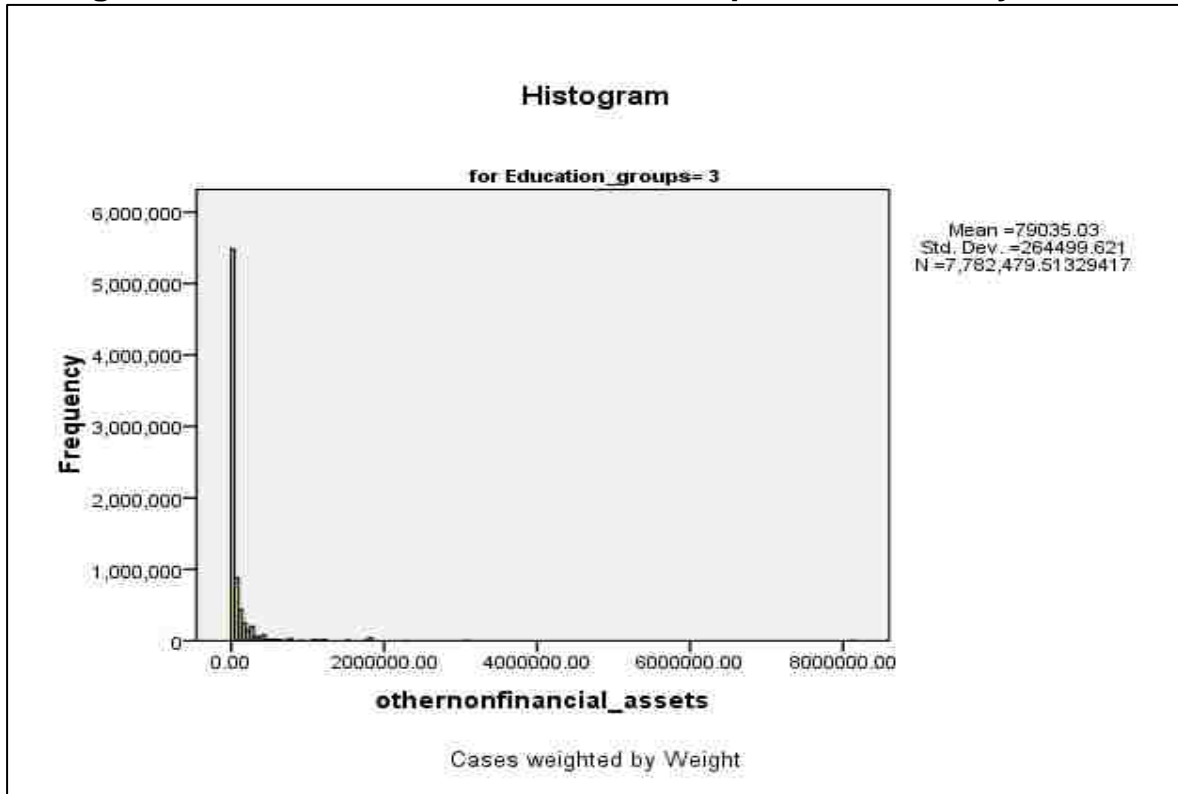
Histogram: Other non-financial assets: Some primary education



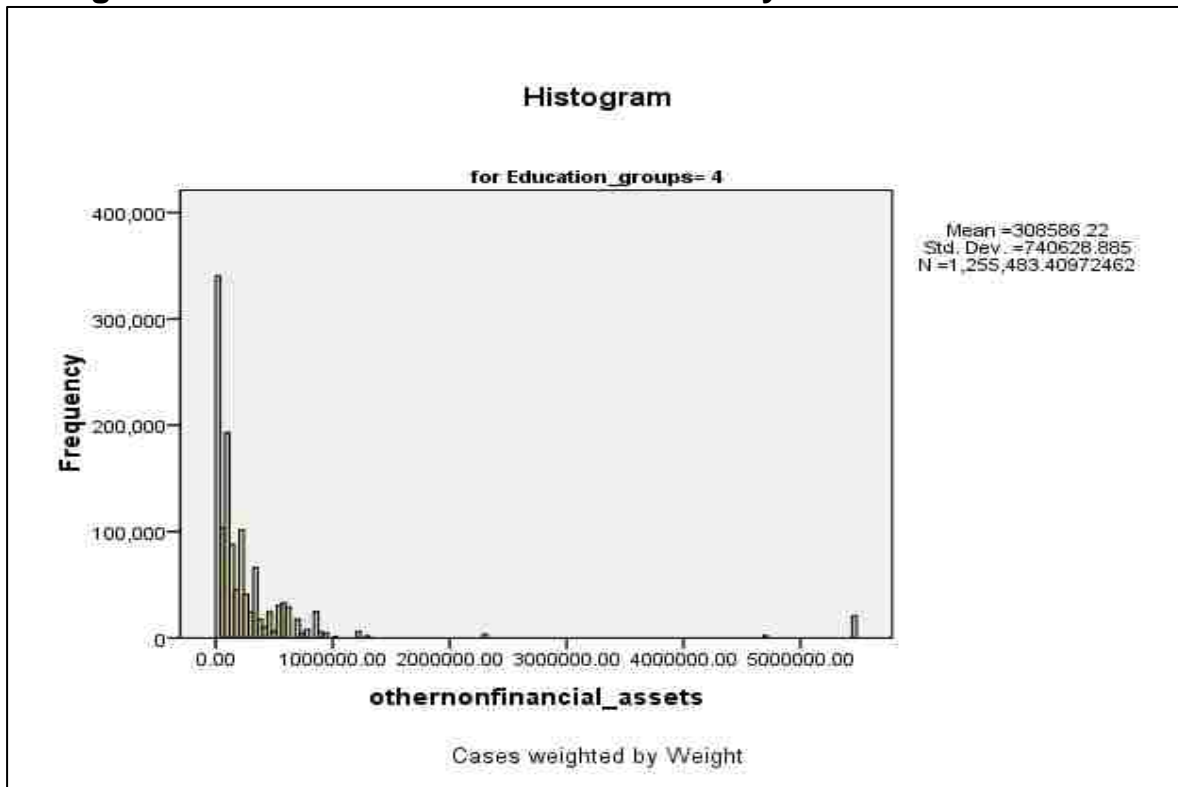
Histogram: Other non-financial assets: Some secondary education



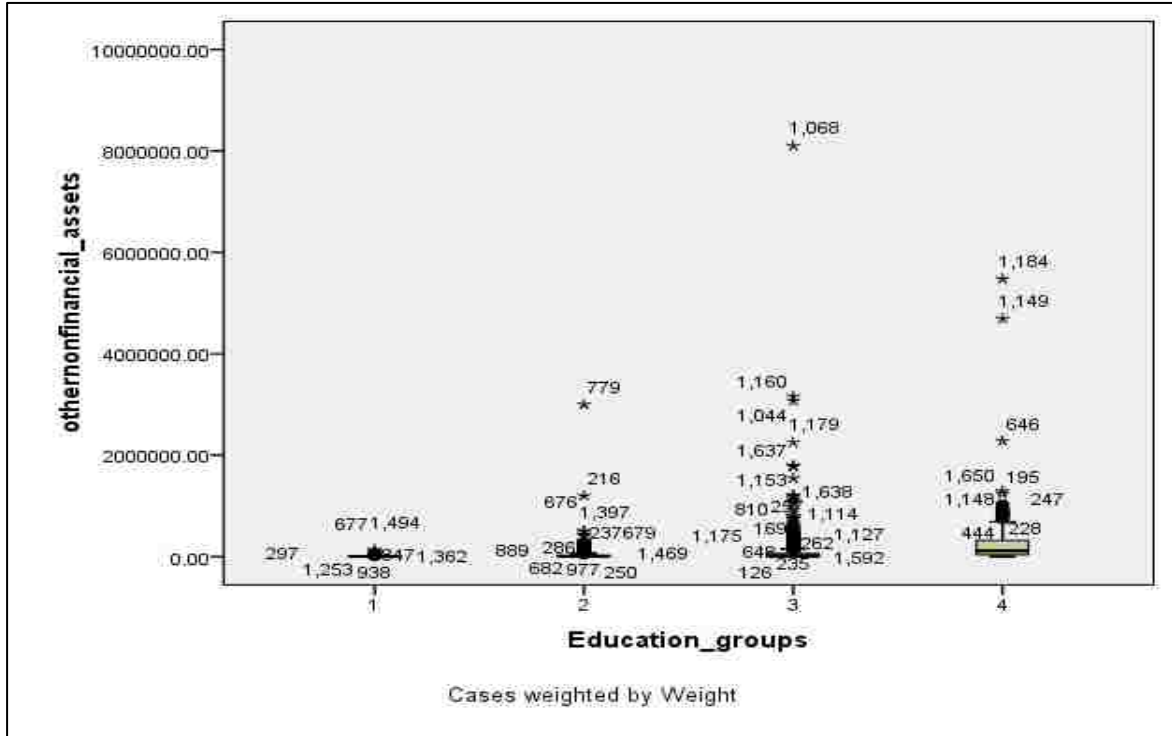
Histogram: Other non-financial assets: Completed secondary education



Histogram: Other non-financial assets: Tertiary education

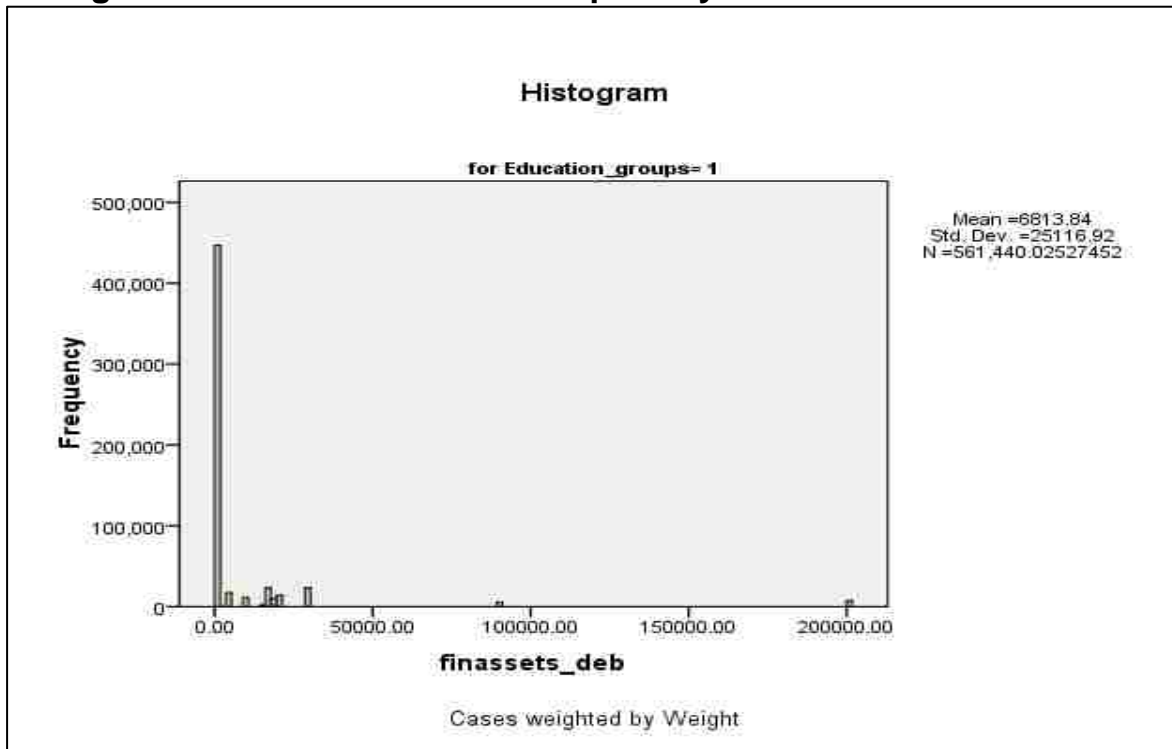


Boxplots: Other non-financial assets: Education groups

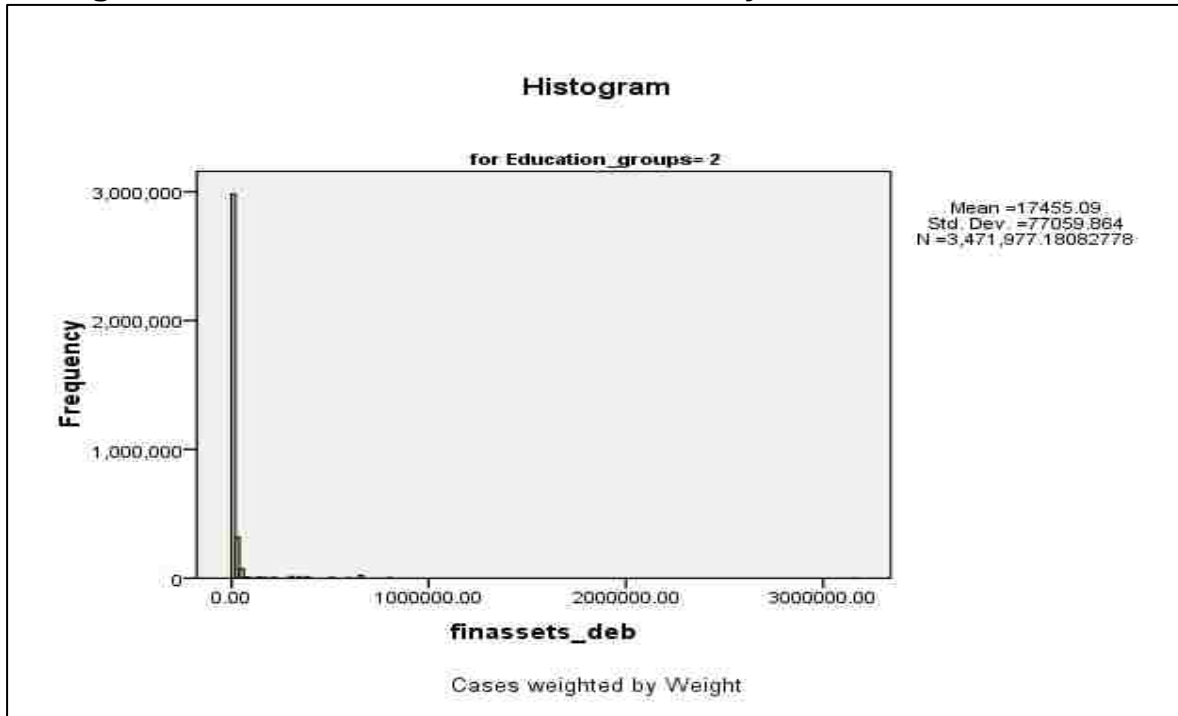


FINANCIAL ASSETS

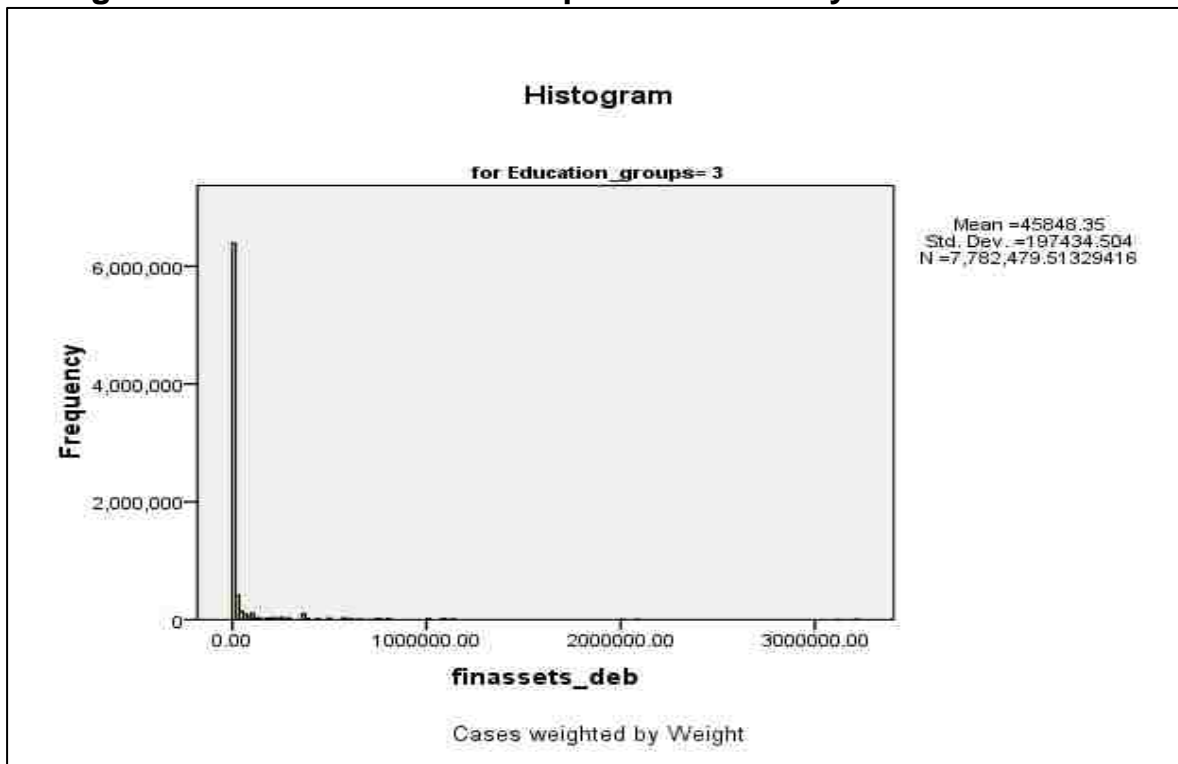
Histogram: Financial assets: Some primary education



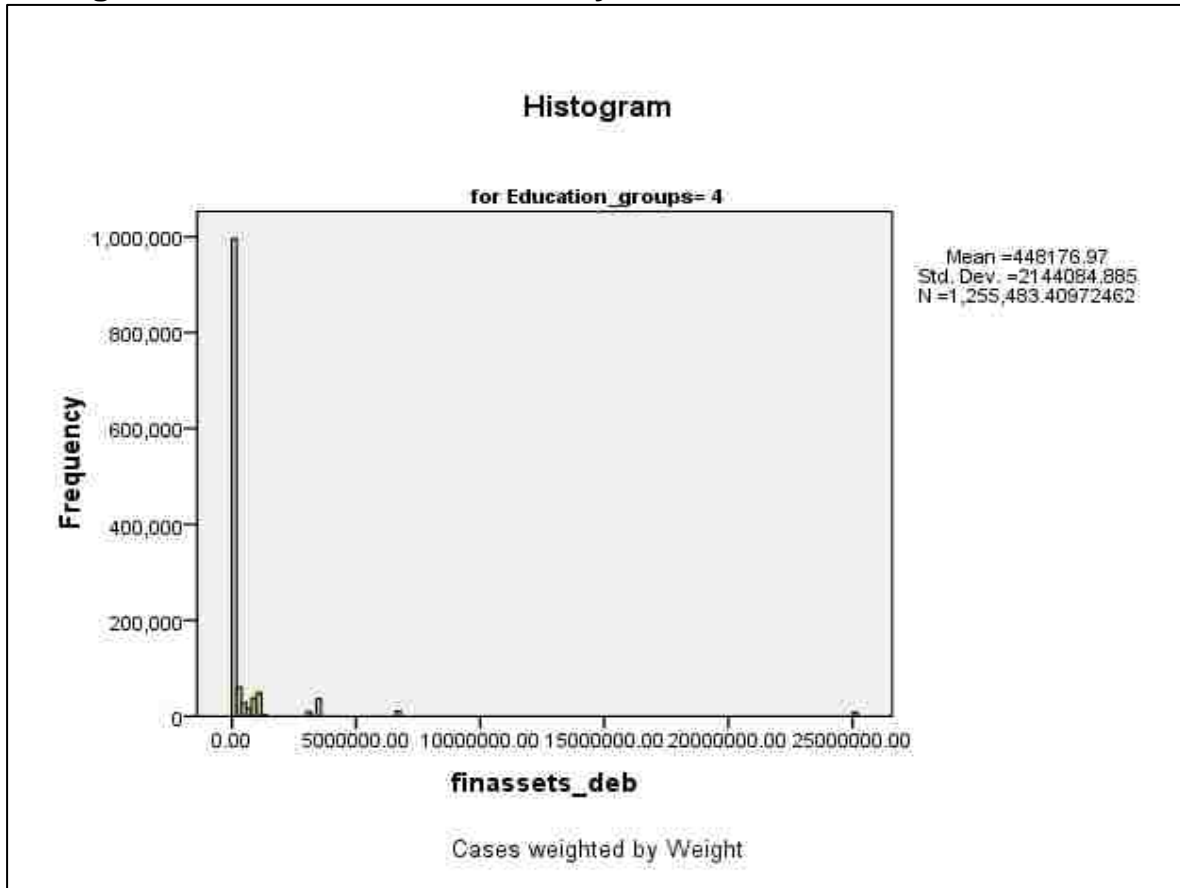
Histogram: Financial assets: Some secondary education



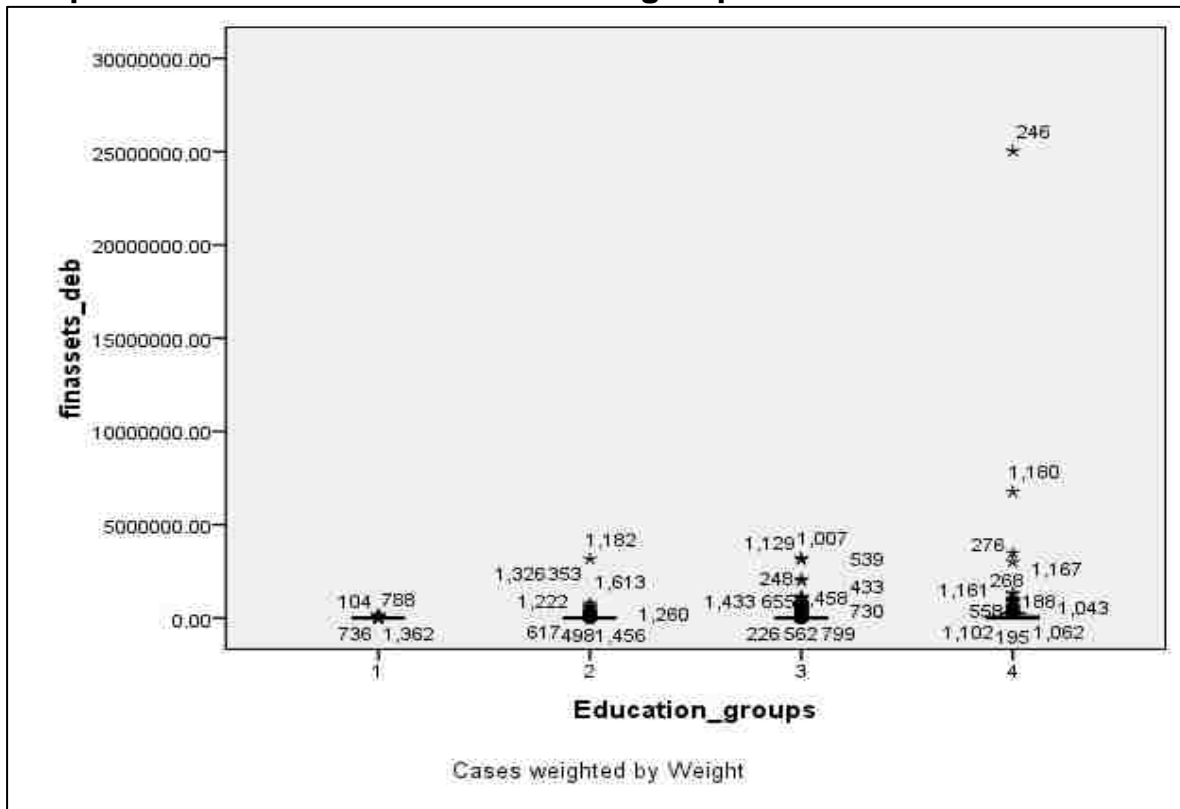
Histogram: Financial assets: Completed secondary education

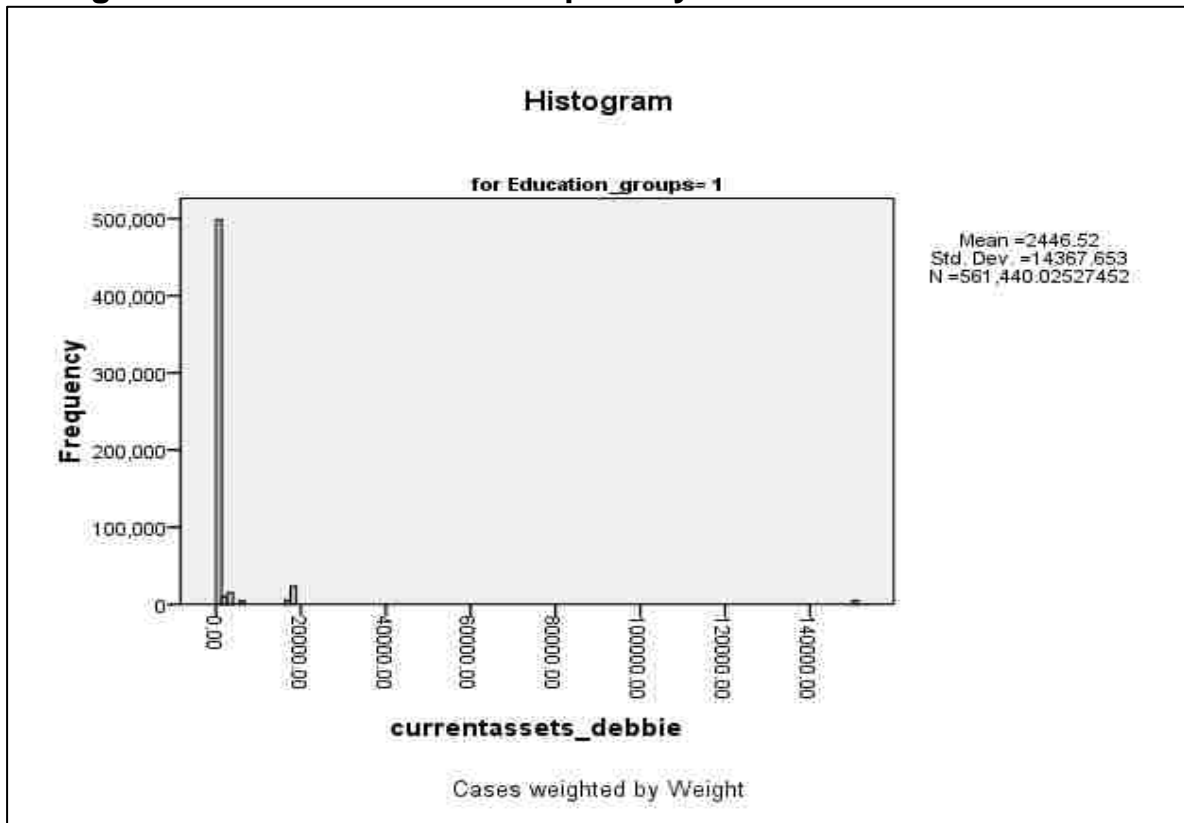
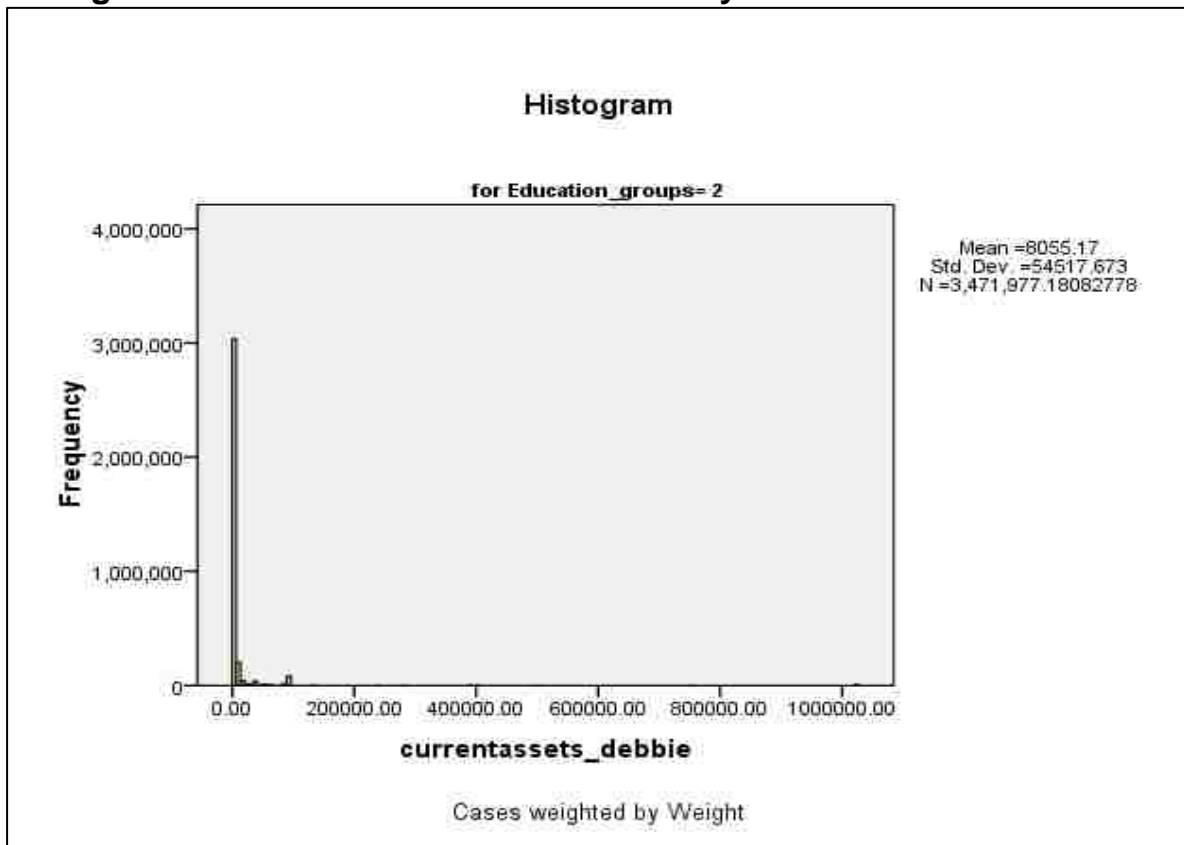


Histogram: Financial assets: Tertiary education

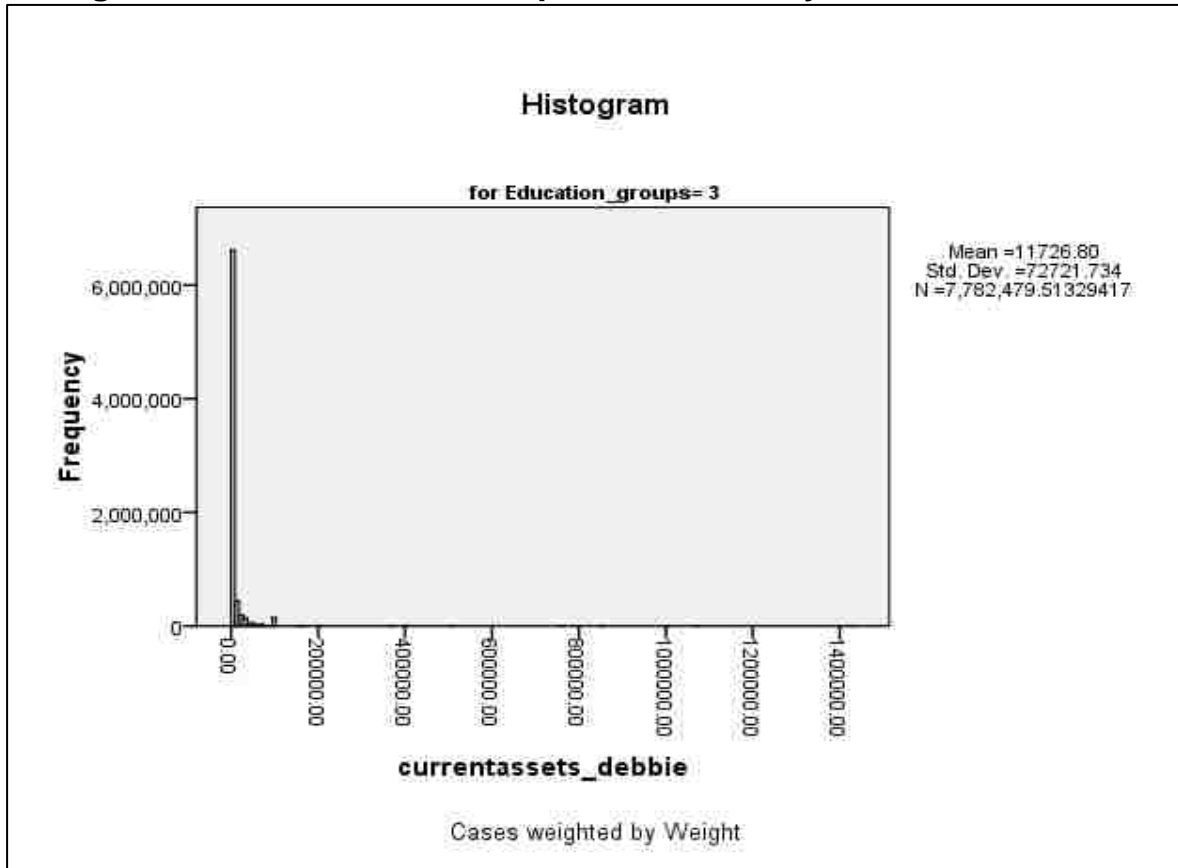


Boxplots: Financial assets: Education groups

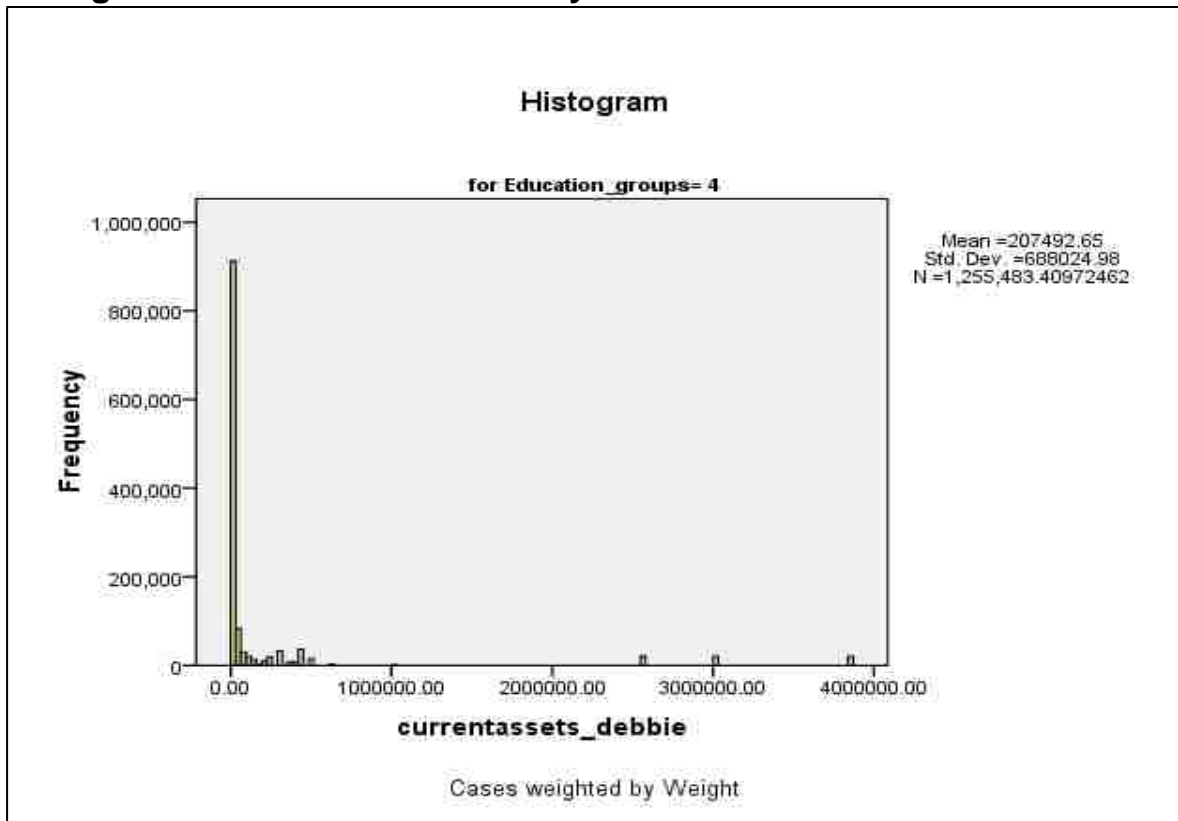


CURRENT ASSETS:**Histogram: Current assets: Some primary education****Histogram: Current assets: Some secondary education**

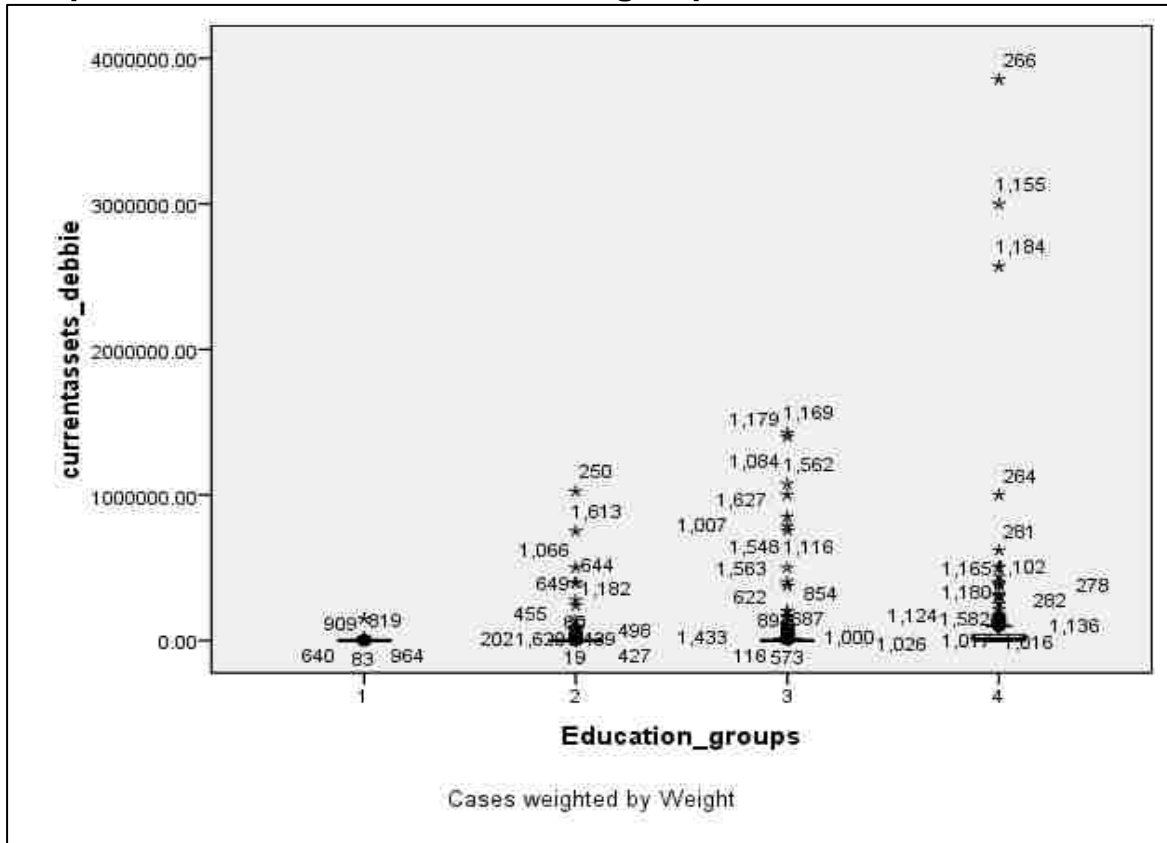
Histogram: Current assets: Completed secondary education



Histogram: Current assets: Tertiary education

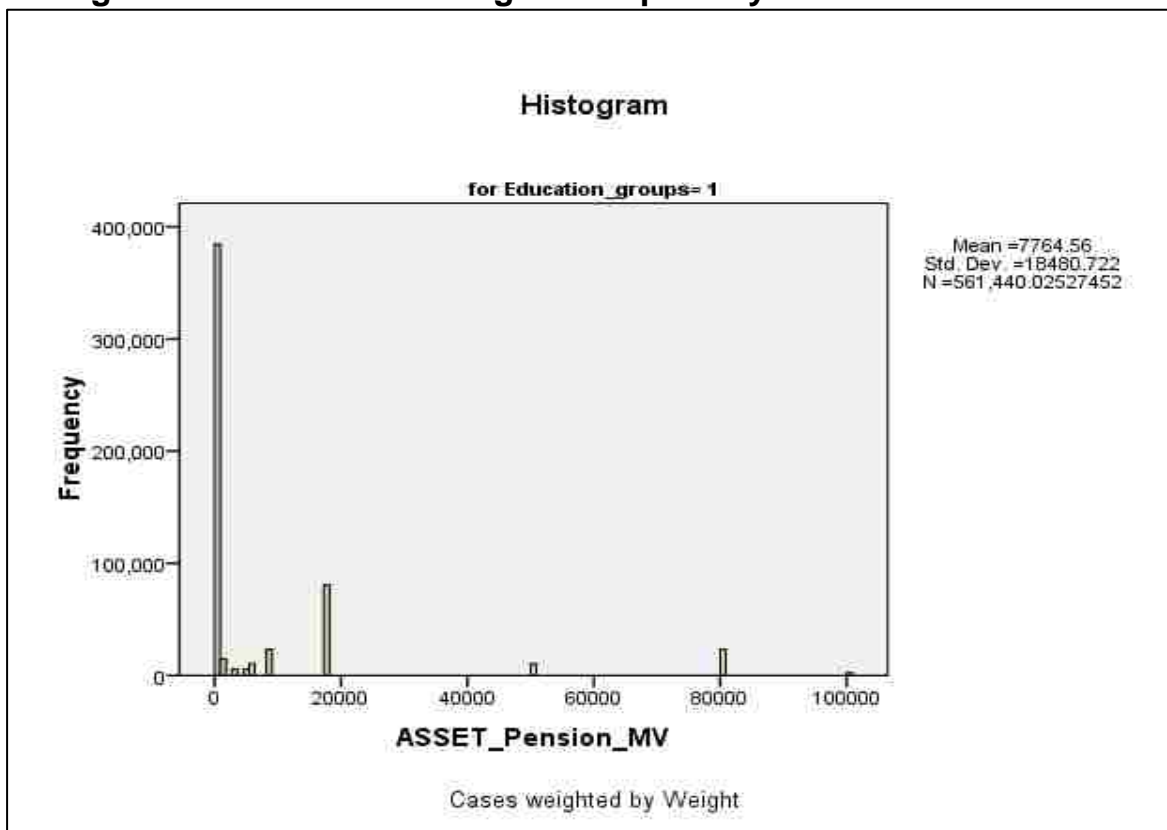


Boxplots: Current assets: Education groups

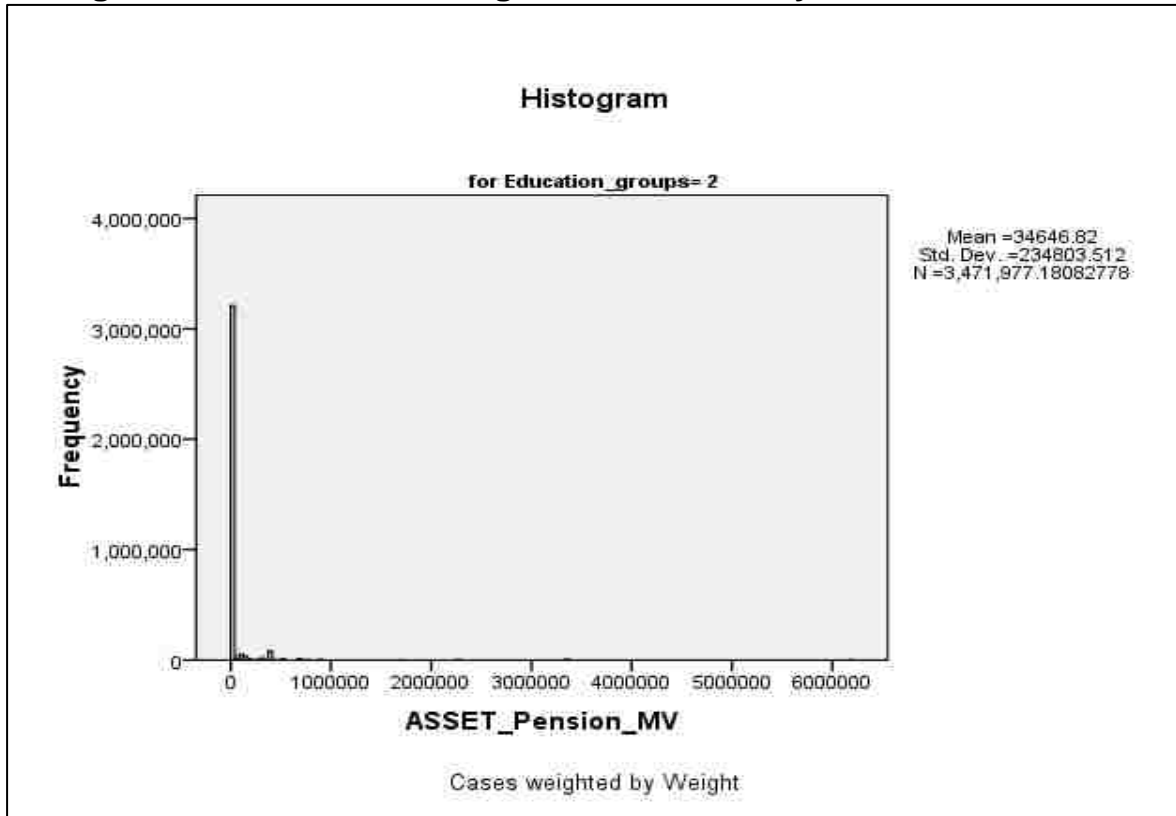


RETIREMENT FUNDING

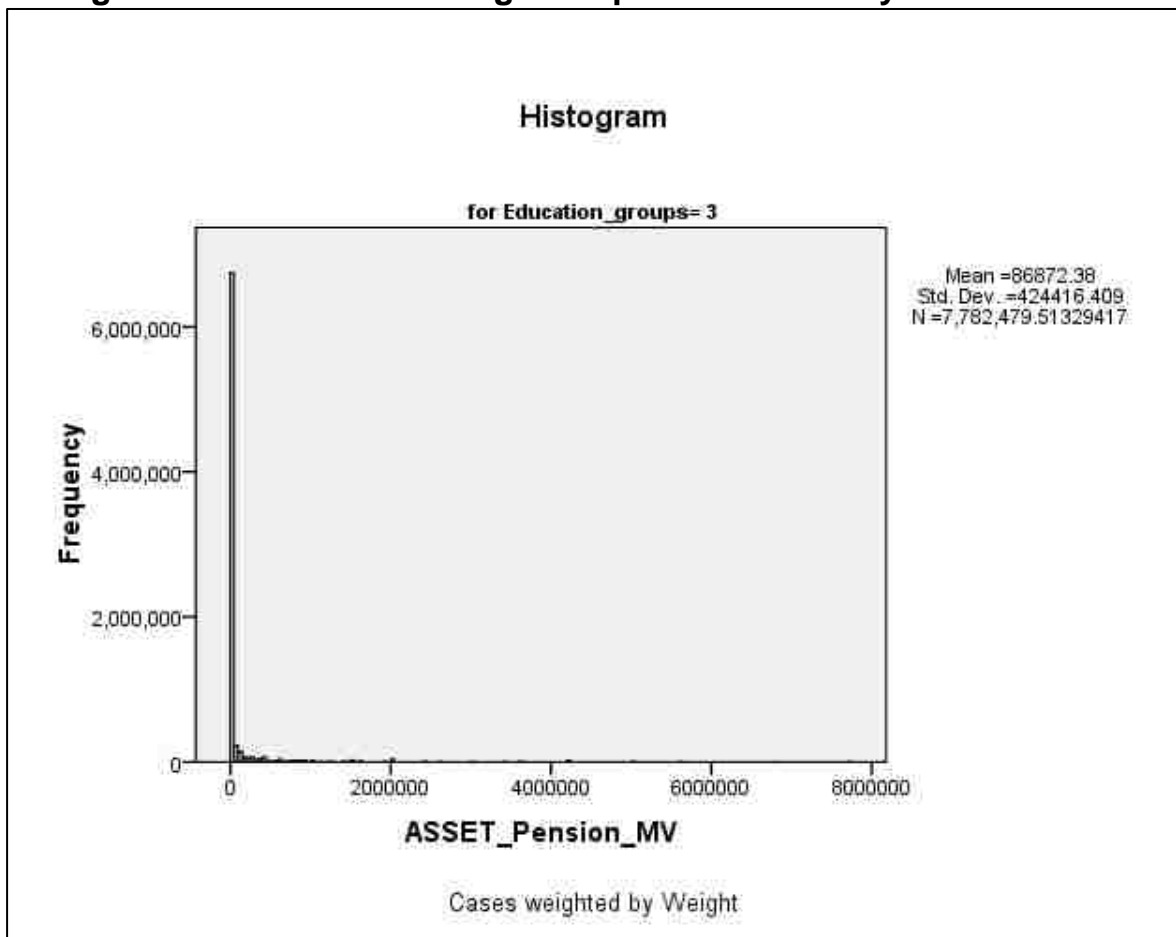
Histogram: Retirement funding: Some primary education



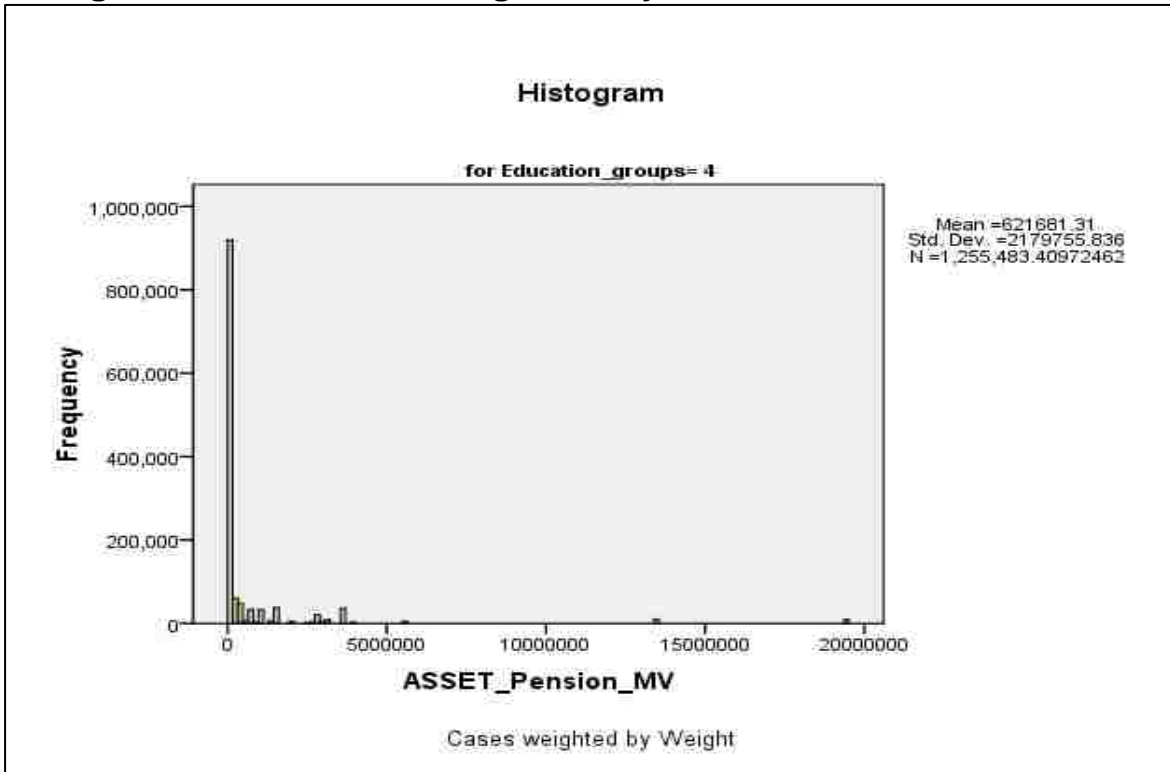
Histogram: Retirement funding: Some secondary education



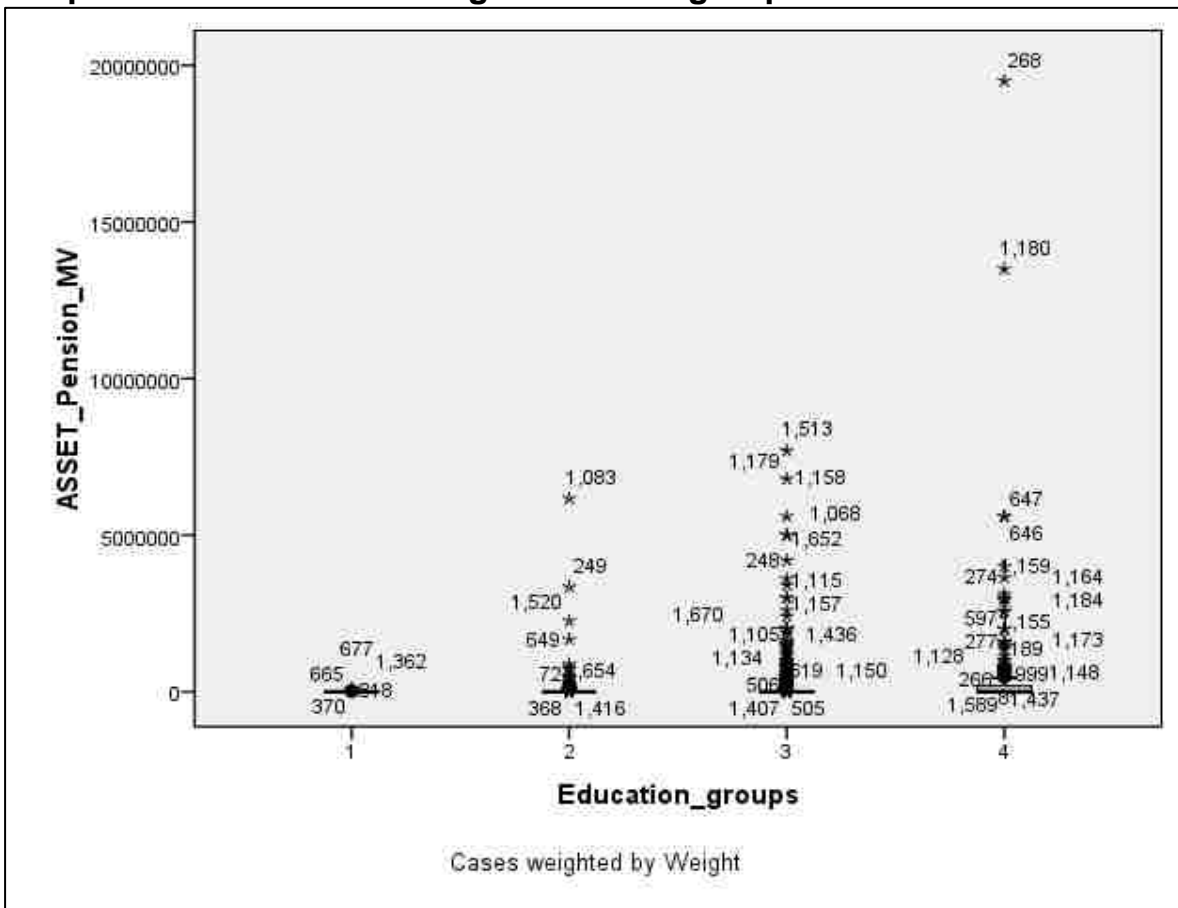
Histogram: Retirement funding: Completed secondary education



Histogram: Retirement funding: Tertiary education



Boxplots: Retirement funding: Education groups



DESCRIPTIVE STATISTICS

LIABILITY CLASS VARIABLES PER EDUCATION GROUP

| Descriptives | | | | |
|-----------------------|----------------------------------|----------------------------------|----------------|------------|
| | Education_groups | | Statistic | Std. Error |
| Mortgage loans | Some primary education | Mean | 3.5996 | .04738 |
| | | 95% Confidence Interval for Mean | Lower Bound | 3.5068 |
| | | | Upper Bound | 3.6925 |
| | | 5% Trimmed Mean | .0000 | |
| | | Median | .0000 | |
| | | Variance | 1066.939 | |
| | | Std. Deviation | 32.66403 | |
| | | Minimum | .00 | |
| | | Maximum | 300.00 | |
| | | Range | 300.00 | |
| | | Interquartile Range | .00 | |
| | | Skewness | 8.964 | .004 |
| | | Kurtosis | 78.354 | .007 |
| | | Some secondary education | Mean | 2857.2557 |
| | 95% Confidence Interval for Mean | | Lower Bound | 2829.2964 |
| | | | Upper Bound | 2885.2151 |
| | 5% Trimmed Mean | | .0000 | |
| | Median | | .0000 | |
| | Variance | | 525789233.761 | |
| | Std. Deviation | | 22930.09450 | |
| | Minimum | | .00 | |
| | Maximum | | 360000.00 | |
| | Range | | 360000.00 | |
| | Interquartile Range | | .00 | |
| | Skewness | | 9.227 | .002 |
| | Kurtosis | | 91.289 | .003 |
| | Completed secondary education | | Mean | 12299.0582 |
| | | 95% Confidence Interval for Mean | Lower Bound | 12235.5083 |
| | | | Upper Bound | 12362.6082 |
| | | 5% Trimmed Mean | 307.0924 | |
| | | Median | .0000 | |
| | | Variance | 5376173227.393 | |
| | | Std. Deviation | 73322.39240 | |
| | | Minimum | .00 | |
| | | Maximum | 1.43E+006 | |
| | | Range | 1430687.00 | |
| | | Interquartile Range | .00 | |
| | | Skewness | 10.189 | .001 |
| | | Kurtosis | 137.713 | .002 |
| | | Tertiary education | Mean | 78448.6679 |
| | 95% Confidence Interval for Mean | | Lower Bound | 77889.7777 |
| | | | Upper Bound | 79007.5582 |
| 5% Trimmed Mean | 39334.7606 | | | |
| Median | .0000 | | | |
| Variance | 44665049596.865 | | | |
| Std. Deviation | 211341.07409 | | | |
| Minimum | .00 | | | |
| Maximum | 1.00E+006 | | | |
| Range | 1000000.00 | | | |
| Interquartile Range | .00 | | | |
| Skewness | 3.327 | | .003 | |
| Kurtosis | 11.019 | | .007 | |
| Financial liabilities | Some primary education | | Mean | 1099.5982 |
| | | 95% Confidence Interval for Mean | Lower Bound | 1081.4963 |
| | | | Upper Bound | 1117.7001 |
| | | 5% Trimmed Mean | 81.0154 | |
| | | Median | .0000 | |
| | | Variance | 40535665.461 | |
| | | Std. Deviation | 6366.76256 | |
| | | Minimum | .00 | |

| Descriptives | | | | | |
|--------------------------|----------------------------------|----------------------------------|------------------------|-------------|-----------|
| | Education_groups | | Statistic | Std. Error | |
| | | Maximum | 60140.00 | | |
| | | Range | 60140.00 | | |
| | | Interquartile Range | .00 | | |
| | | Skewness | 8.335 | .004 | |
| | | Kurtosis | 73.329 | .007 | |
| | Some secondary education | Mean | 6212.3807 | 15.08444 | |
| | | 95% Confidence Interval for Mean | Lower Bound | 6182.8157 | |
| | | | Upper Bound | 6241.9457 | |
| | | 5% Trimmed Mean | 1473.1029 | | |
| | | Median | .0000 | | |
| | | Variance | 587911354.987 | | |
| | | Std. Deviation | 24246.88341 | | |
| | | Minimum | .00 | | |
| | | Maximum | 260000.00 | | |
| | | Range | 260000.00 | | |
| | | Interquartile Range | 550.00 | | |
| | | Skewness | 5.676 | .002 | |
| | | Kurtosis | 36.303 | .003 | |
| | | Completed secondary education | Mean | 13300.2651 | 30.52675 |
| | 95% Confidence Interval for Mean | | Lower Bound | 13240.4338 | |
| | | | Upper Bound | 13360.0964 | |
| | 5% Trimmed Mean | | 3628.1182 | | |
| | Median | | .0000 | | |
| | Variance | | 4765407511.741 | | |
| | Std. Deviation | | 69031.93110 | | |
| | Minimum | | .00 | | |
| | Maximum | | 1.90E+006 | | |
| | Range | | 1900315.00 | | |
| | Interquartile Range | | 800.00 | | |
| | Skewness | | 16.060 | .001 | |
| | Kurtosis | | 381.081 | .002 | |
| | Tertiary education | | Mean | 64602.1986 | 154.27967 |
| | | 95% Confidence Interval for Mean | Lower Bound | 64299.8155 | |
| | | | Upper Bound | 64904.5818 | |
| | | 5% Trimmed Mean | 48348.8459 | | |
| | | Median | 131.0000 | | |
| | | Variance | 13074647519.039 | | |
| | | Std. Deviation | 114344.42496 | | |
| | | Minimum | .00 | | |
| | | Maximum | 654000.00 | | |
| | | Range | 654000.00 | | |
| | | Interquartile Range | 71200.00 | | |
| | | Skewness | 2.061 | .003 | |
| | | Kurtosis | 3.986 | .007 | |
| | | Current liabilities | Some primary education | Mean | 1694.4518 |
| | 95% Confidence Interval for Mean | | | Lower Bound | 1679.0254 |
| | | | | Upper Bound | 1709.8782 |
| 5% Trimmed Mean | 536.4938 | | | | |
| Median | 250.0000 | | | | |
| Variance | 29438846.972 | | | | |
| Std. Deviation | 5425.75773 | | | | |
| Minimum | .00 | | | | |
| Maximum | 32500.00 | | | | |
| Range | 32500.00 | | | | |
| Interquartile Range | 580.00 | | | | |
| Skewness | 4.326 | | | .004 | |
| Kurtosis | 18.187 | | | .007 | |
| Some secondary education | Mean | | | 2836.2419 | 6.29631 |
| | 95% Confidence Interval for Mean | | Lower Bound | 2823.9013 | |
| | | | Upper Bound | 2848.5824 | |
| | 5% Trimmed Mean | | 1350.4010 | | |
| | Median | | 490.0000 | | |
| | Variance | | 102429520.972 | | |
| | Std. Deviation | | 10120.74706 | | |
| | Minimum | | .00 | | |

| Descriptives | | | | | |
|---------------------|-------------------------------|----------------------------------|-------------|----------------|----------|
| Education_groups | | | Statistic | Std. Error | |
| | | Maximum | 149125.00 | | |
| | | Range | 149125.00 | | |
| | | Interquartile Range | 2000.00 | | |
| | | Skewness | 10.010 | .002 | |
| | | Kurtosis | 124.081 | .003 | |
| | Completed secondary education | Mean | | 3812.6605 | 4.21635 |
| | | 95% Confidence Interval for Mean | Lower Bound | 3804.3966 | |
| | | | Upper Bound | 3820.9244 | |
| | | 5% Trimmed Mean | | 2294.8364 | |
| | | Median | | 880.0000 | |
| | | Variance | | 90910307.979 | |
| | | Std. Deviation | | 9534.68972 | |
| | | Minimum | | .00 | |
| | | Maximum | | 115000.00 | |
| | | Range | | 115000.00 | |
| | | Interquartile Range | | 4320.00 | |
| | | Skewness | | 6.729 | .001 |
| | | Kurtosis | | 56.817 | .002 |
| | Tertiary education | Mean | | 18338.2448 | 54.58525 |
| | | 95% Confidence Interval for Mean | Lower Bound | 18231.2594 | |
| | | | Upper Bound | 18445.2301 | |
| | | 5% Trimmed Mean | | 10943.1558 | |
| | | Median | | 2500.0000 | |
| | | Variance | | 1636677759.226 | |
| | | Std. Deviation | | 40455.87422 | |
| | | Minimum | | .00 | |
| | | Maximum | | 307040.00 | |
| Range | | | 307040.00 | | |
| Interquartile Range | | | 12426.00 | | |
| Skewness | | | 4.113 | .003 | |
| Kurtosis | | | 20.470 | .007 | |

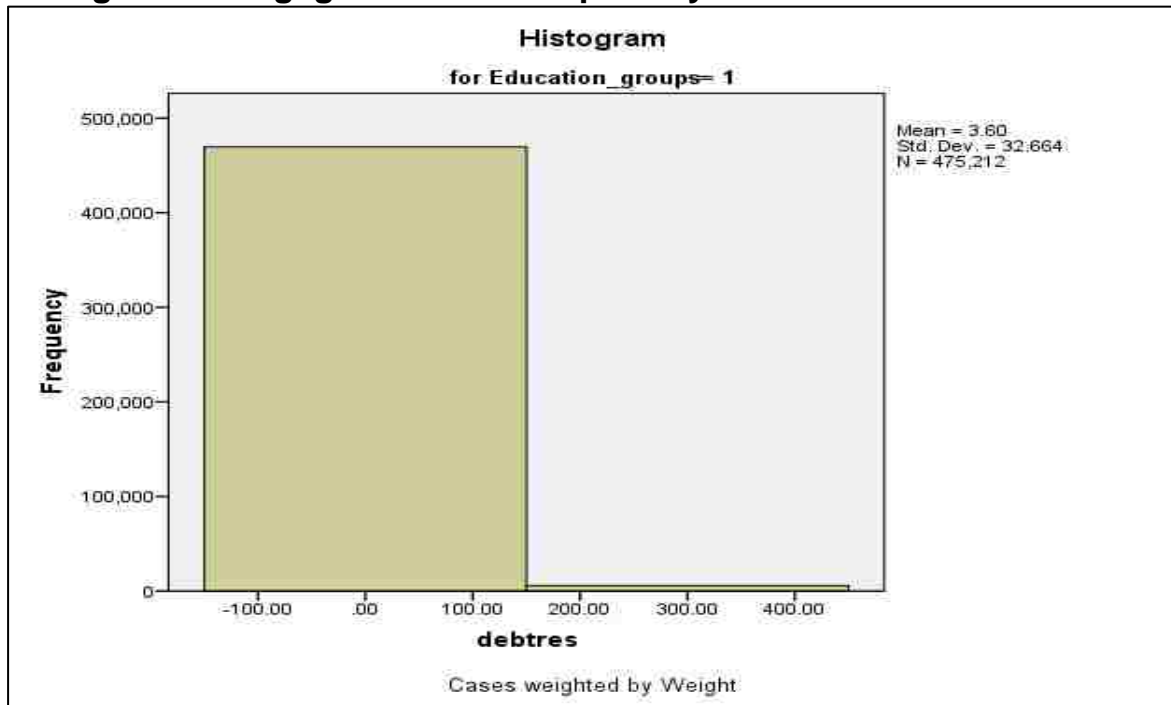
HISTOGRAMS AND BOXPLOTS: LIABILITY CLASS VARIABLES PER EDUCATION GROUP

Note:

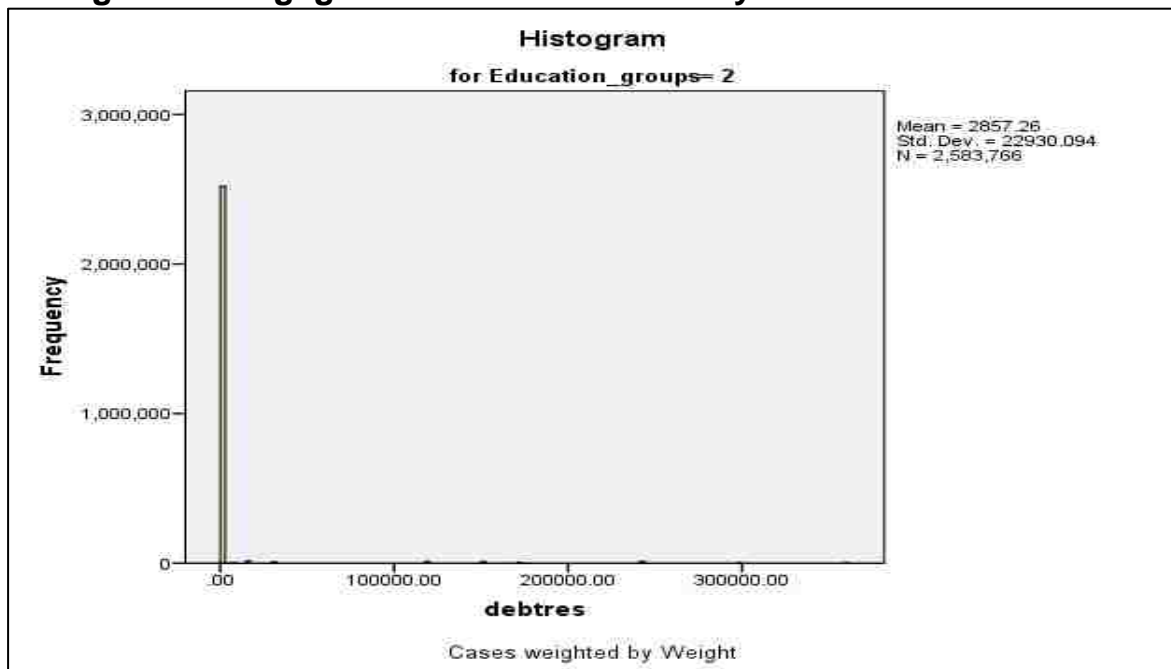
| | |
|-------------------|---------------------------------|
| Education group 1 | = Some primary education |
| Education group 2 | = Some secondary education |
| Education group 3 | = Completed secondary education |
| Education group 4 | = Tertiary education |

MORTGAGE LOANS

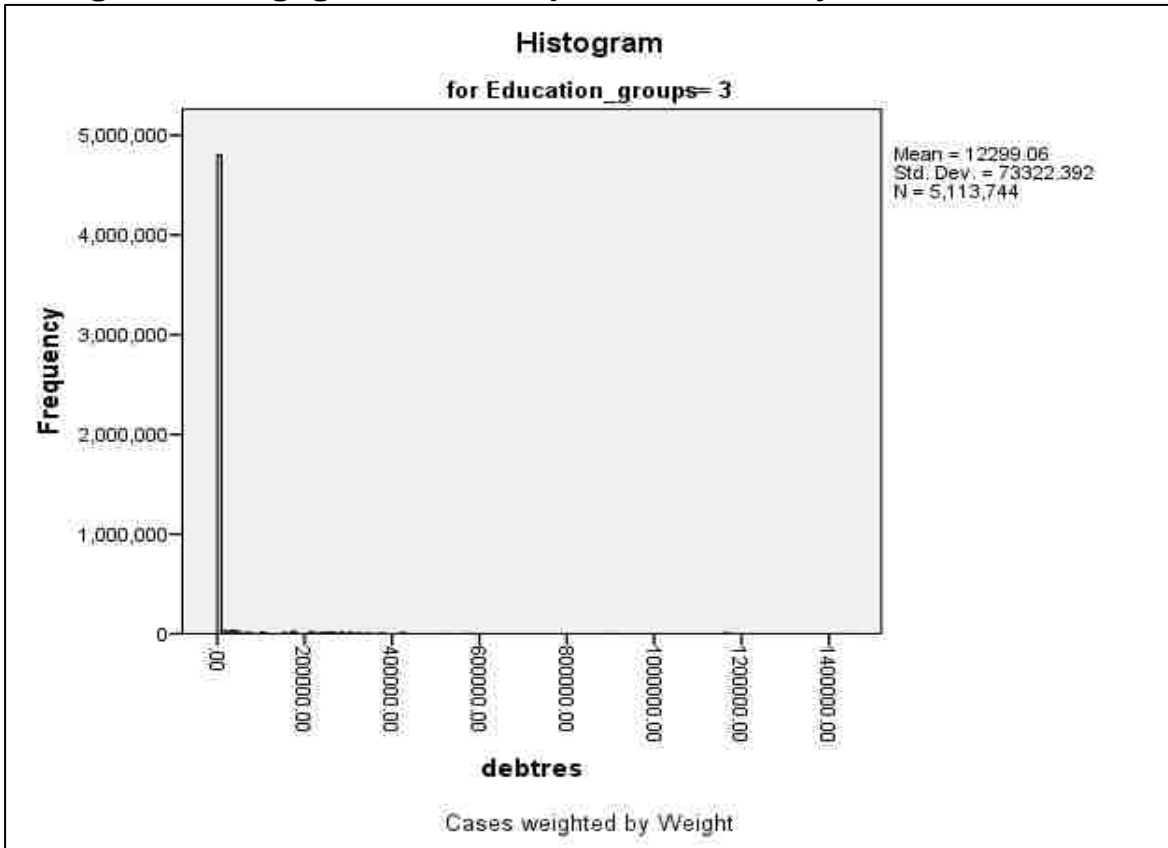
Histogram: Mortgage loans: Some primary education



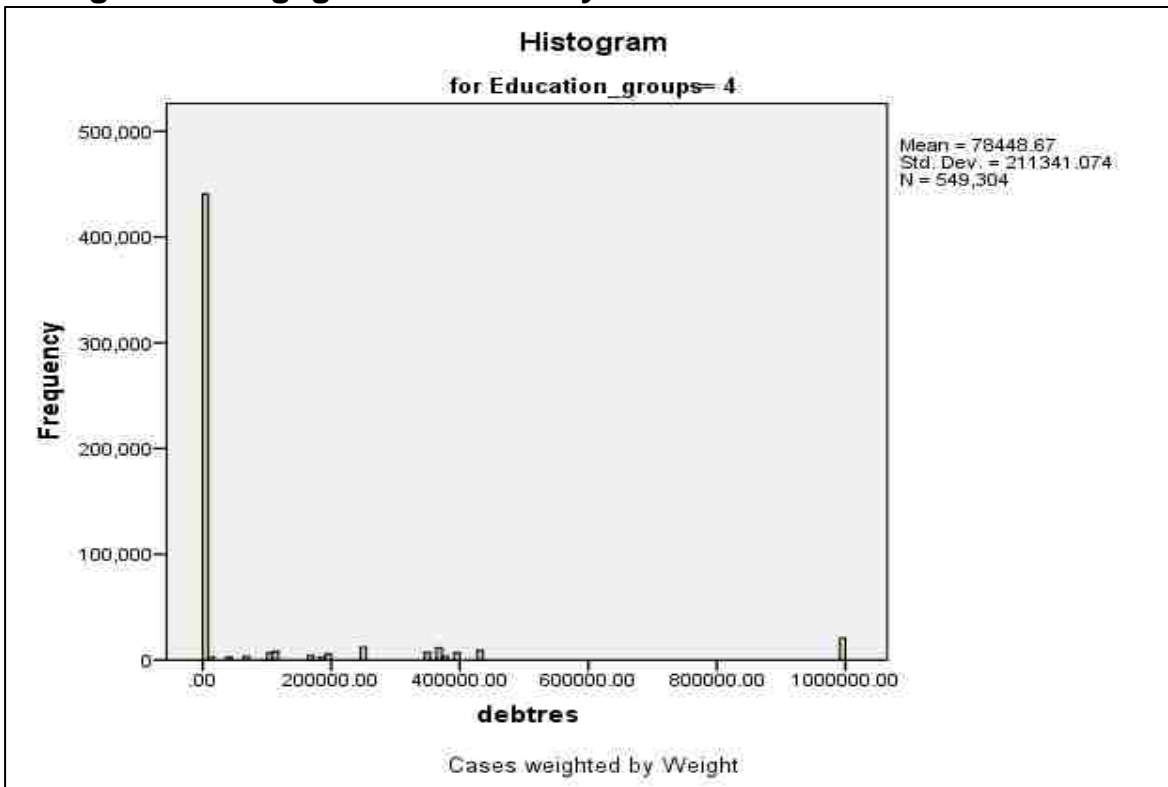
Histogram: Mortgage loans: Some secondary education



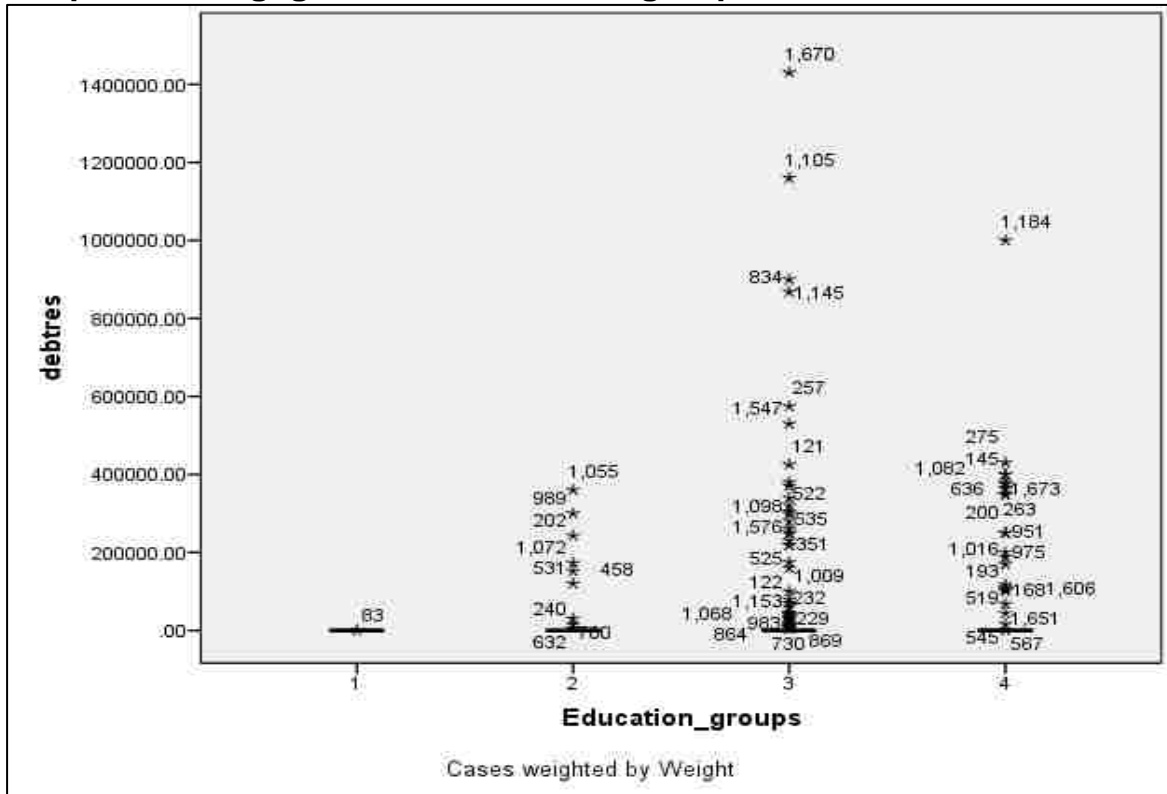
Histogram: Mortgage loans: Completed secondary education



Histogram: Mortgage loans: Tertiary education

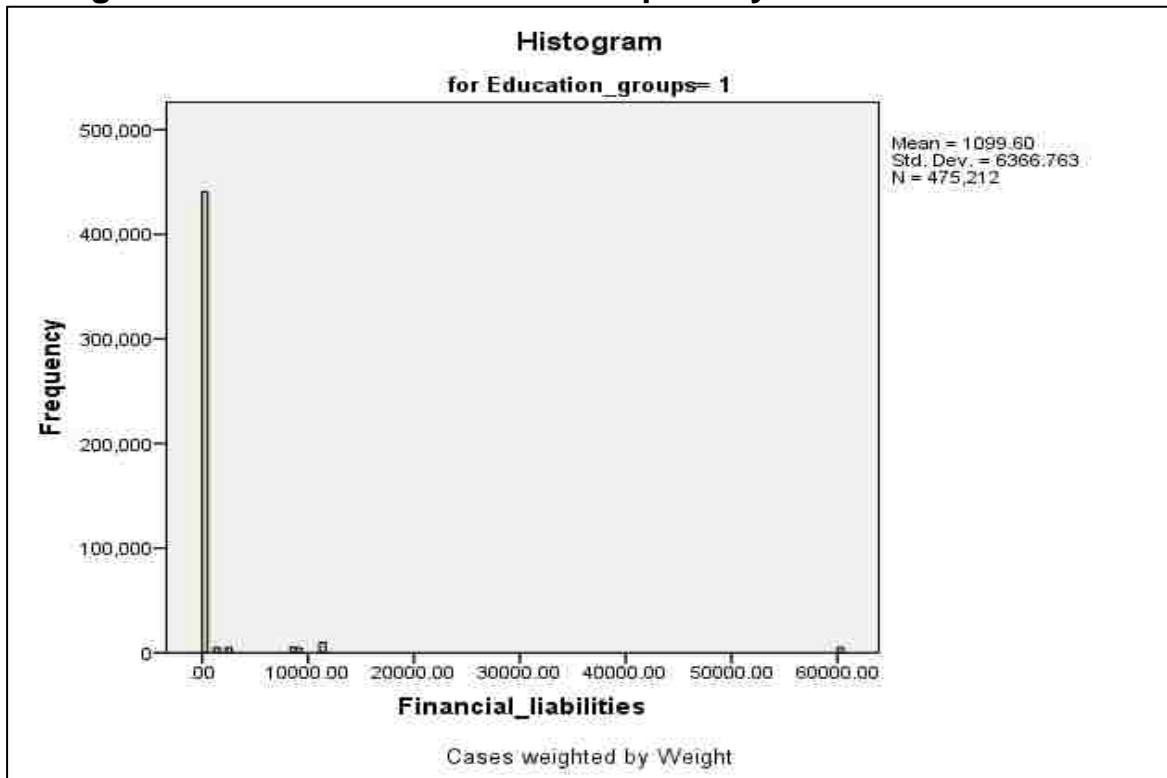


Boxplots: Mortgage Loans: Education groups

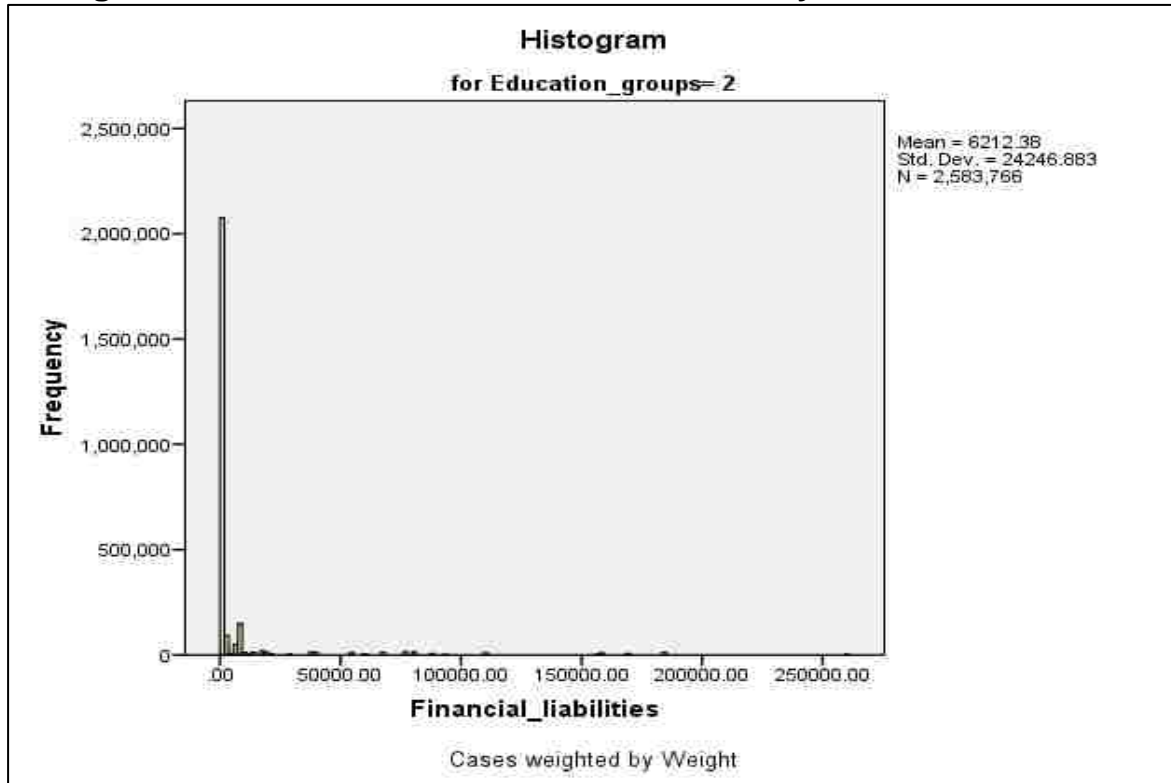


FINANCIAL LIABILITIES

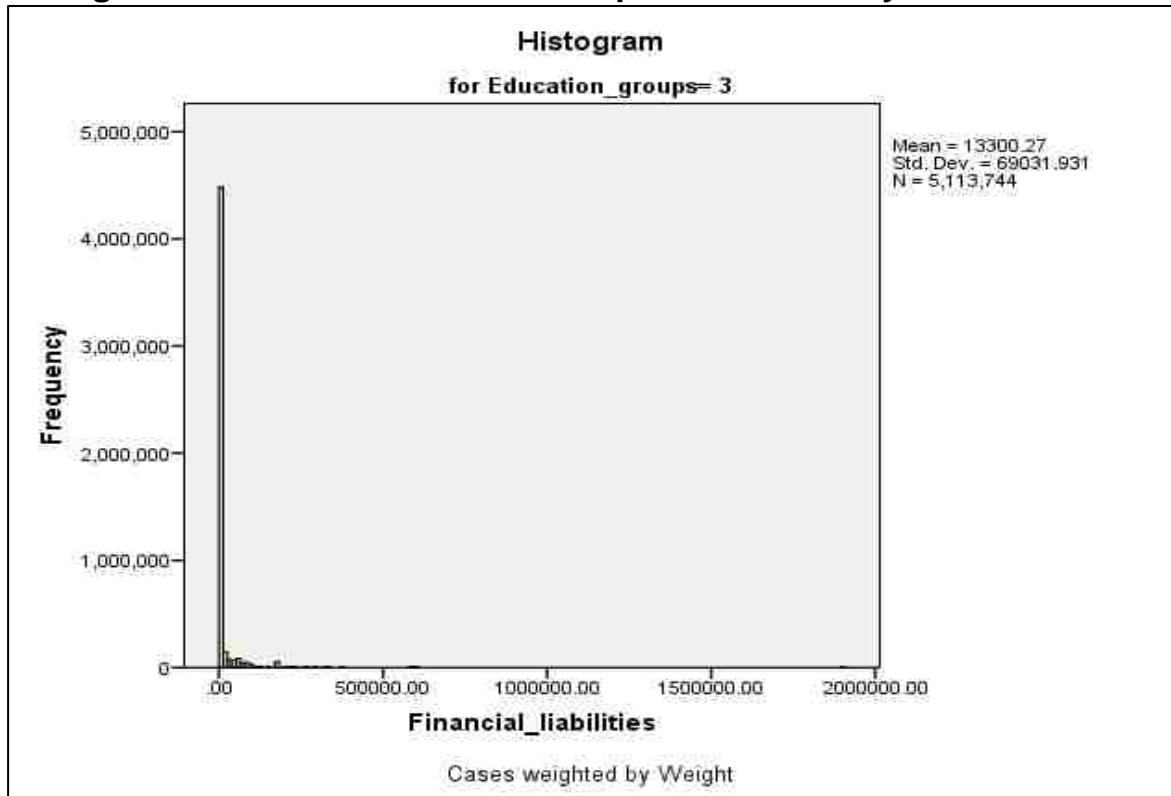
Histogram: Financial Liabilities: Some primary education



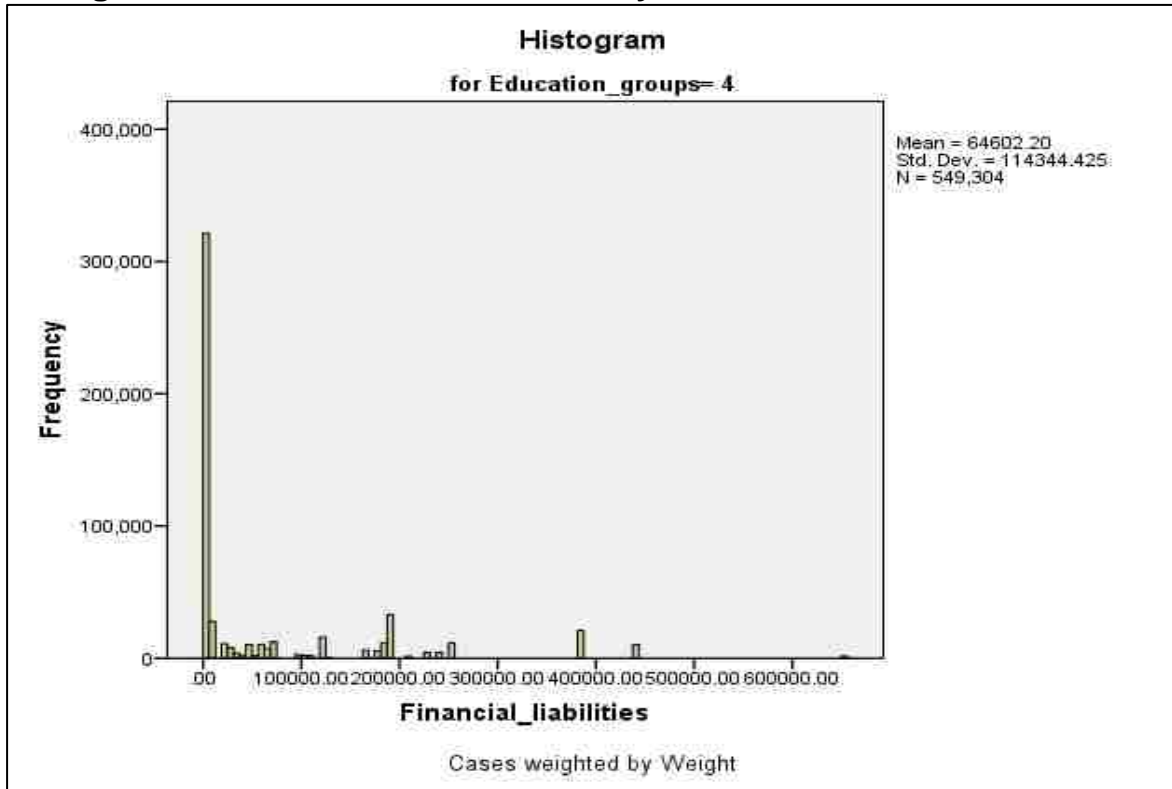
Histogram: Financial Liabilities: Some secondary education



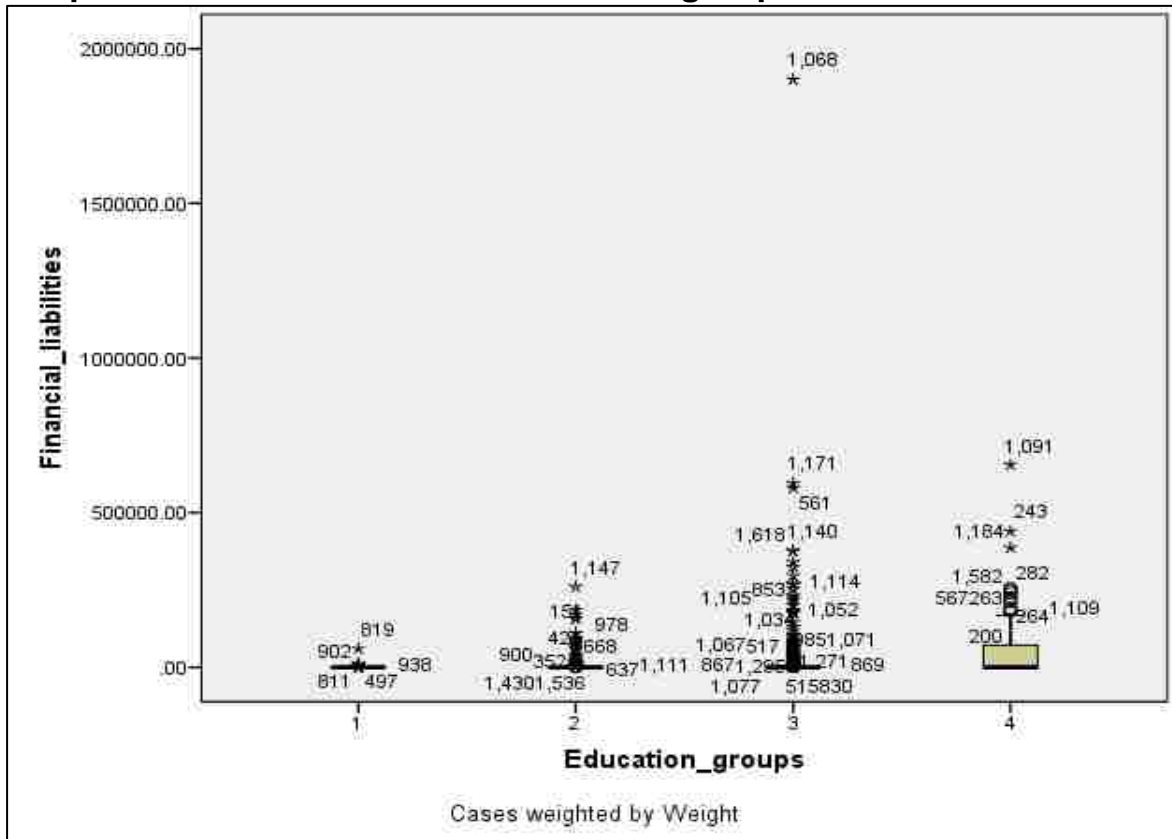
Histogram: Financial Liabilities: Completed secondary education



Histogram: Financial Liabilities: tertiary education

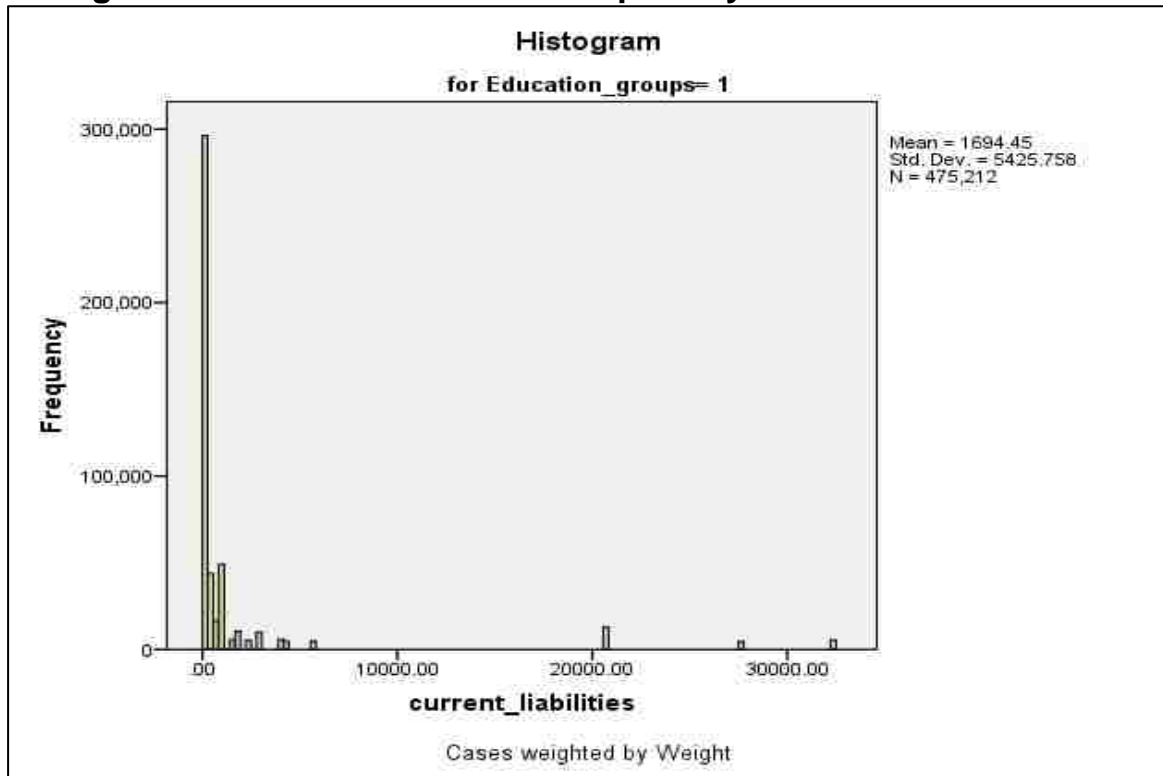


Boxplots: Financial liabilities: Education groups

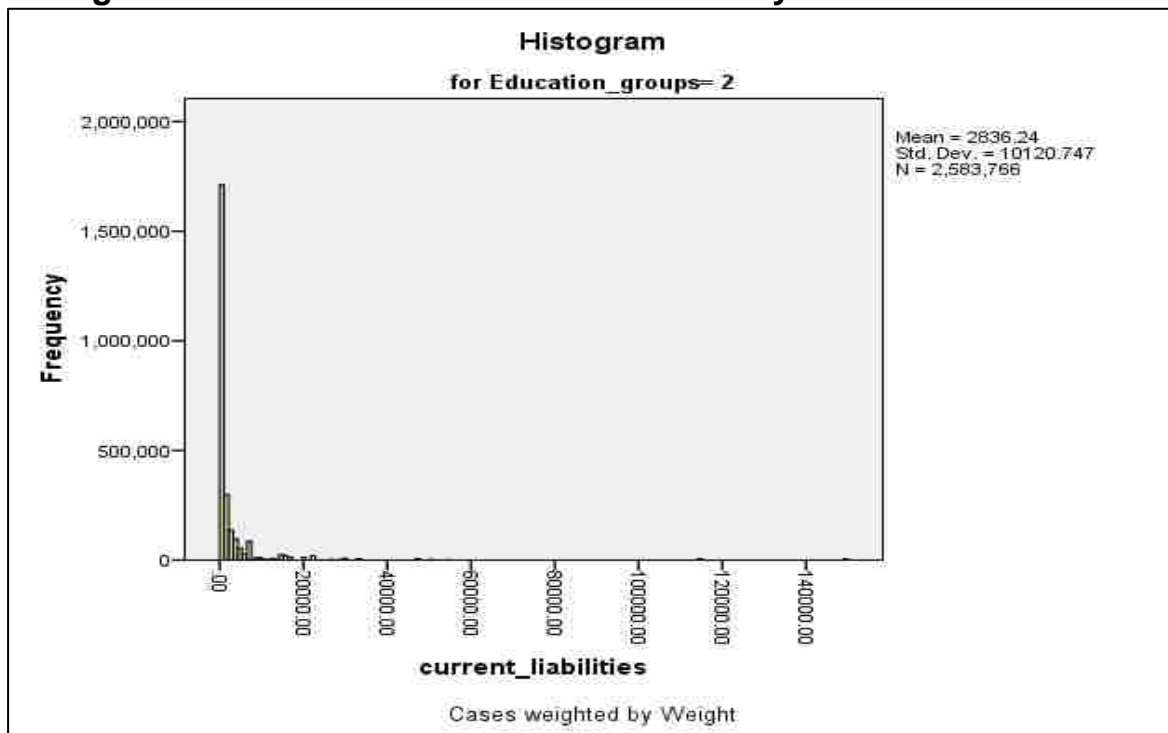


CURRENT LIABILITIES

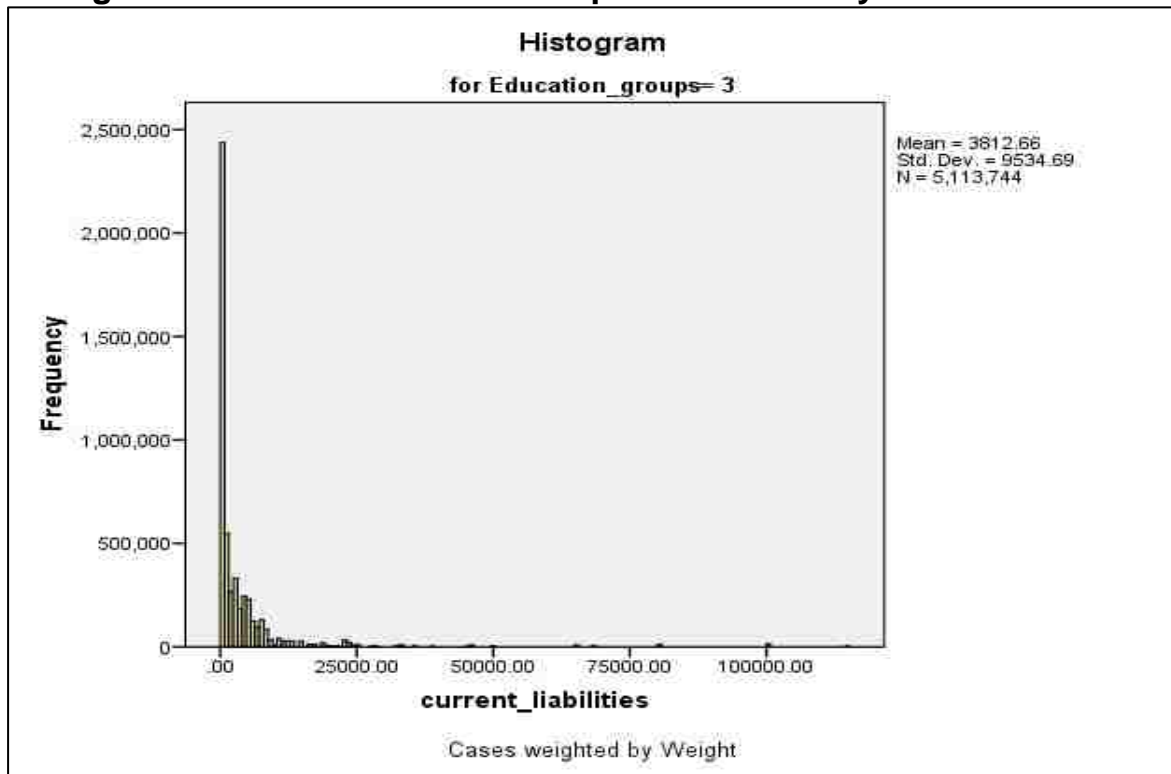
Histogram: Current Liabilities: Some primary education



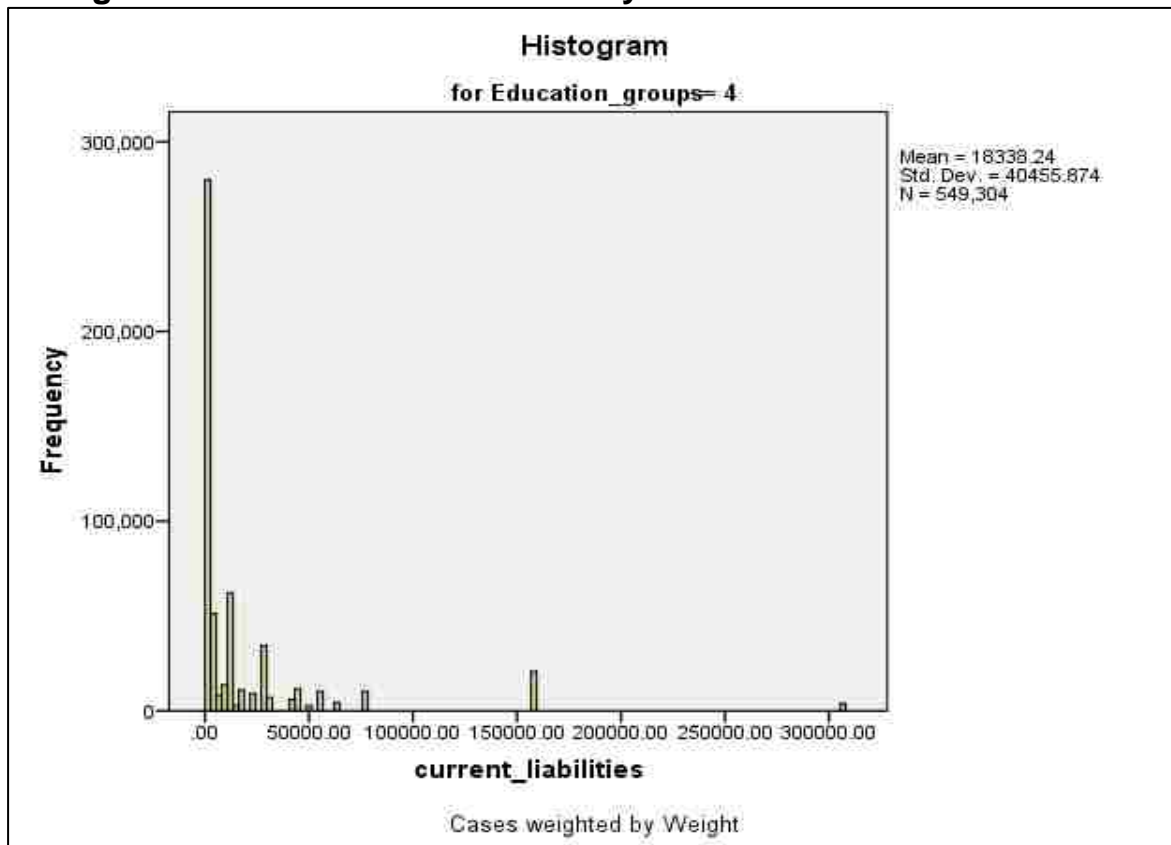
Histogram: Current Liabilities: Some secondary education



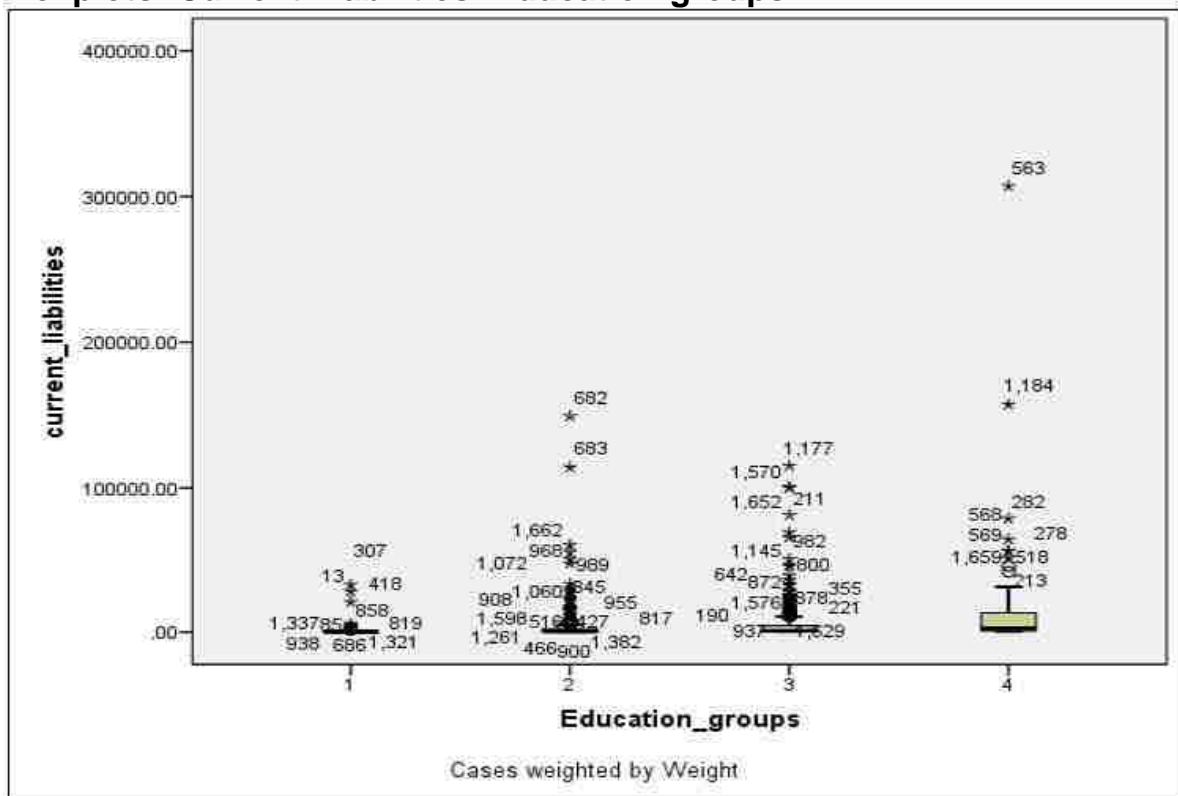
Histogram: Current Liabilities: Completed secondary education



Histogram: Current Liabilities: Tertiary education



Boxplots: Current Liabilities: Education groups



DESCRIPTIVE STATISTICS

ASSET CLASS VARIABLES PER AGE GROUP

| Descriptives | | | | | |
|--------------------|----------------------------------|----------------------------------|---------------------|-------------|-------------|
| | Age_Groups | | Statistic | Std. Error | |
| Non-current assets | 17-24 | | Mean | 133518.1069 | 464.75927 |
| | | 95% Confidence Interval for Mean | Lower Bound | 132607.1943 | |
| | | | Upper Bound | 134429.0196 | |
| | | | 5% Trimmed Mean | 63868.3182 | |
| | | | Median | .0000 | |
| | | | Variance | 1.606E11 | |
| | | | Std. Deviation | 4.00716E5 | |
| | | | Minimum | .00 | |
| | | | Maximum | 3000000.00 | |
| | | | Range | 3000000.00 | |
| | | | Interquartile Range | 80000.00 | |
| | | | Skewness | 5.302 | .003 |
| | | | Kurtosis | 31.673 | .006 |
| | | 25-34 | | Mean | 64169.2119 |
| | 95% Confidence Interval for Mean | | Lower Bound | 63989.2912 | |
| | | | Upper Bound | 64349.1325 | |
| | | | 5% Trimmed Mean | 33315.1494 | |
| | | | Median | .0000 | |
| | | | Variance | 3.023E10 | |
| | | | Std. Deviation | 1.73864E5 | |
| | | | Minimum | .00 | |
| | | | Maximum | 2000000.00 | |
| | | | Range | 2000000.00 | |
| | | | Interquartile Range | 17500.00 | |
| | | | Skewness | 4.164 | .001 |
| | | | Kurtosis | 21.949 | .003 |
| | 35-49 | | | Mean | 221884.3624 |
| | | 95% Confidence Interval for Mean | Lower Bound | 221336.7008 | |
| | | | Upper Bound | 222432.0240 | |
| | | | 5% Trimmed Mean | 128458.7465 | |
| | | | Median | .0000 | |
| | | | Variance | 3.856E11 | |
| | | | Std. Deviation | 6.20994E5 | |
| | | | Minimum | .00 | |
| | | | Maximum | 7200000.00 | |
| | | | Range | 7200000.00 | |
| | | | Interquartile Range | 200000.00 | |
| | | | Skewness | 6.933 | .001 |
| | | | Kurtosis | 63.485 | .002 |
| | | 50-59 | | Mean | 318769.4394 |
| | 95% Confidence Interval for Mean | | Lower Bound | 317874.3508 | |
| | | | Upper Bound | 319664.5281 | |
| | 5% Trimmed Mean | | 187700.4441 | | |
| | Median | | 20000.0000 | | |
| | Variance | | 5.214E11 | | |
| | Std. Deviation | | 7.22108E5 | | |
| | Minimum | | .00 | | |

| | | | | | | | |
|----------------------------|-------|----------------------------------|----------------------------------|----------------------------------|-----------------|-------------|--|
| | | | Maximum | 4675000.00 | | | |
| | | | Range | 4675000.00 | | | |
| | | | Interquartile Range | 250000.00 | | | |
| | | | Skewness | 3.625 | .002 | | |
| | | | Kurtosis | 14.917 | .003 | | |
| | 60-64 | | Mean | 501631.1895 | 900.57061 | | |
| | | 95% Confidence Interval for Mean | Lower Bound | 499866.1014 | | | |
| | | | Upper Bound | 503396.2777 | | | |
| | | | 5% Trimmed Mean | 414702.3291 | | | |
| | | | Median | 50000.0000 | | | |
| | | | Variance | 6.294E11 | | | |
| | | | Std. Deviation | 7.93365E5 | | | |
| | | | Minimum | .00 | | | |
| | | | Maximum | 4670000.00 | | | |
| | | | Range | 4670000.00 | | | |
| | | | Interquartile Range | 800000.00 | | | |
| | | | Skewness | 2.169 | .003 | | |
| | | | Kurtosis | 6.451 | .006 | | |
| | 65+ | | Mean | 257308.6786 | 472.11234 | | |
| | | 95% Confidence Interval for Mean | Lower Bound | 256383.3548 | | | |
| | | | Upper Bound | 258234.0024 | | | |
| | | | 5% Trimmed Mean | 166303.5249 | | | |
| | | | Median | 40000.0000 | | | |
| | | | Variance | 2.796E11 | | | |
| | | | Std. Deviation | 5.28726E5 | | | |
| | | | Minimum | .00 | | | |
| | | | Maximum | 2750000.00 | | | |
| | | | Range | 2750000.00 | | | |
| | | | Interquartile Range | 175000.00 | | | |
| | | | Skewness | 2.875 | .002 | | |
| | | | Kurtosis | 8.192 | .004 | | |
| Other non-financial assets | 17-24 | | Mean | 37866.0513 | 88.10112 | | |
| | | | 95% Confidence Interval for Mean | Lower Bound | 37693.3760 | | |
| | | | | Upper Bound | 38038.7265 | | |
| | | | | 5% Trimmed Mean | 24037.1044 | | |
| | | | | Median | 10000.0000 | | |
| | | | | Variance | 5.770E9 | | |
| | | | | Std. Deviation | 75960.90190 | | |
| | | | | Minimum | .00 | | |
| | | | | Maximum | 500000.00 | | |
| | | | | Range | 500000.00 | | |
| | | | | Interquartile Range | 35000.00 | | |
| | | | | Skewness | 3.380 | .003 | |
| | | | | Kurtosis | 12.669 | .006 | |
| | | 35-34 | | Mean | 37231.5709 | 41.82047 | |
| | | | | 95% Confidence Interval for Mean | Lower Bound | 37149.6043 | |
| | | | | | Upper Bound | 37313.5375 | |
| | | | | | 5% Trimmed Mean | 24248.4196 | |
| | | | | | Median | 10000.0000 | |
| | | | | | Variance | 6.274E9 | |
| | | | | | Std. Deviation | 79207.59410 | |
| | | | Minimum | .00 | | | |

| | | | | |
|-------|----------------------------------|---------------------|-------------|-------------|
| | | Maximum | 880000.00 | |
| | | Range | 880000.00 | |
| | | Interquartile Range | 40000.00 | |
| | | Skewness | 4.712 | .001 |
| | | Kurtosis | 29.782 | .003 |
| 35-49 | | Mean | 127170.5882 | 218.29853 |
| | 95% Confidence Interval for Mean | Lower Bound | 126742.7310 | |
| | | Upper Bound | 127598.4454 | |
| | | 5% Trimmed Mean | 54645.9316 | |
| | | Median | 15000.0000 | |
| | | Variance | 2.354E11 | |
| | | Std. Deviation | 4.85148E5 | |
| | | Minimum | .00 | |
| | | Maximum | 8100000.00 | |
| | | Range | 8100000.00 | |
| | | Interquartile Range | 67000.00 | |
| | | Skewness | 9.495 | .001 |
| | | Kurtosis | 112.102 | .002 |
| 50-59 | | | Mean | 75601.0590 |
| | 95% Confidence Interval for Mean | Lower Bound | 75328.2415 | |
| | | Upper Bound | 75873.8765 | |
| | | 5% Trimmed Mean | 47061.8364 | |
| | | Median | 18000.0000 | |
| | | Variance | 4.844E10 | |
| | | Std. Deviation | 2.20094E5 | |
| | | Minimum | .00 | |
| | | Maximum | 4690000.00 | |
| | | Range | 4690000.00 | |
| | | Interquartile Range | 80000.00 | |
| | | Skewness | 11.688 | .002 |
| | | Kurtosis | 195.123 | .003 |
| 60-64 | | | Mean | 120343.2264 |
| | 95% Confidence Interval for Mean | Lower Bound | 119983.0735 | |
| | | Upper Bound | 120703.3792 | |
| | | 5% Trimmed Mean | 99789.6198 | |
| | | Median | 37500.0000 | |
| | | Variance | 2.621E10 | |
| | | Std. Deviation | 1.61880E5 | |
| | | Minimum | .00 | |
| | | Maximum | 790000.00 | |
| | | Range | 790000.00 | |
| | | Interquartile Range | 257750.00 | |
| | | Skewness | 2.059 | .003 |
| | | Kurtosis | 5.325 | .006 |
| 65+ | | | Mean | 57032.7795 |
| | 95% Confidence Interval for Mean | Lower Bound | 56808.8595 | |
| | | Upper Bound | 57256.6995 | |
| | | 5% Trimmed Mean | 33614.8180 | |
| | | Median | 7000.0000 | |
| | | Variance | 1.637E10 | |
| | | Std. Deviation | 1.27947E5 | |
| | | Minimum | .00 | |
| | | Maximum | | |

| | | | | | |
|---------------------|----------------------------------|----------------------------------|---------------------|-------------|----------|
| | | | Maximum | 787500.00 | |
| | | | Range | 787500.00 | |
| | | | Interquartile Range | 40000.00 | |
| | | | Skewness | 3.704 | .002 |
| | | | Kurtosis | 14.856 | .004 |
| Financial assets | 17-24 | | Mean | 19277.2833 | 83.61526 |
| | | 95% Confidence Interval for Mean | Lower Bound | 19113.4002 | |
| | | | Upper Bound | 19441.1664 | |
| | | | 5% Trimmed Mean | 10044.9302 | |
| | | | Median | .0000 | |
| | | | Variance | 5.197E9 | |
| | | | Std. Deviation | 72093.18250 | |
| | | | Minimum | .00 | |
| | | | Maximum | 3160000.00 | |
| | | | Range | 3160000.00 | |
| | | | Interquartile Range | 600.00 | |
| | | Skewness | 21.453 | .003 | |
| | | Kurtosis | 849.825 | .006 | |
| | 25-34 | | Mean | 24803.1690 | 63.28538 |
| | | 95% Confidence Interval for Mean | Lower Bound | 24679.1319 | |
| | | | Upper Bound | 24927.2060 | |
| | | | 5% Trimmed Mean | 5348.3466 | |
| | | | Median | 150.0000 | |
| | | | Variance | 1.437E10 | |
| | | | Std. Deviation | 1.19862E5 | |
| | | | Minimum | .00 | |
| | | | Maximum | 1337500.00 | |
| | | | Range | 1337500.00 | |
| | | | Interquartile Range | 9000.00 | |
| | | Skewness | 7.712 | .001 | |
| | Kurtosis | 63.870 | .003 | | |
| | 35-49 | | Mean | 43999.1561 | 70.43748 |
| | | 95% Confidence Interval for Mean | Lower Bound | 43861.1012 | |
| | | | Upper Bound | 44137.2110 | |
| | | | 5% Trimmed Mean | 14901.1303 | |
| | | | Median | 250.0000 | |
| | | | Variance | 2.450E10 | |
| | | | Std. Deviation | 1.56541E5 | |
| Minimum | | | .00 | | |
| Maximum | | | 3125000.00 | | |
| Range | | | 3125000.00 | | |
| Interquartile Range | | | 10729.00 | | |
| Skewness | | 7.943 | .001 | | |
| Kurtosis | 111.766 | .002 | | | |
| 50-59 | | Mean | 229886.1557 | 978.23959 | |
| | 95% Confidence Interval for Mean | Lower Bound | 227968.8411 | | |
| | | Upper Bound | 231803.4704 | | |
| | | 5% Trimmed Mean | 30506.9322 | | |
| | | Median | 550.0000 | | |
| | | Variance | 2.393E12 | | |
| | | Std. Deviation | 1.54678E6 | | |
| Minimum | .00 | | | | |

| | | | | | |
|----------------|-------|----------------------------------|---------------------|-------------|-----------|
| | | | Maximum | 25035000.00 | |
| | | | Range | 25035000.00 | |
| | | | Interquartile Range | 15000.00 | |
| | | | Skewness | 13.465 | .002 |
| | | | Kurtosis | 206.740 | .003 |
| | 60-64 | | Mean | 86934.5998 | 278.66733 |
| | | 95% Confidence Interval for Mean | Lower Bound | 86388.4212 | |
| | | | Upper Bound | 87480.7784 | |
| | | | 5% Trimmed Mean | 53797.7913 | |
| | | | Median | 275.0000 | |
| | | | Variance | 6.027E10 | |
| | | | Std. Deviation | 2.45494E5 | |
| | | | Minimum | .00 | |
| | | | Maximum | 2082000.00 | |
| | | | Range | 2082000.00 | |
| | | | Interquartile Range | 28000.00 | |
| | | | Skewness | 5.777 | .003 |
| | | | Kurtosis | 41.897 | .006 |
| | 65+ | | Mean | 18080.3700 | 80.94758 |
| | | 95% Confidence Interval for Mean | Lower Bound | 17921.7155 | |
| | | | Upper Bound | 18239.0244 | |
| | | | 5% Trimmed Mean | 2835.1663 | |
| | | | Median | 135.0000 | |
| | | | Variance | 8.218E9 | |
| | | | Std. Deviation | 90654.52979 | |
| | | | Minimum | .00 | |
| | | | Maximum | 767500.00 | |
| | | | Range | 767500.00 | |
| | | | Interquartile Range | 5000.00 | |
| | | | Skewness | 6.677 | .002 |
| | | | Kurtosis | 45.802 | .004 |
| Current assets | 17-24 | | Mean | 21804.1467 | 85.38533 |
| | | 95% Confidence Interval for Mean | Lower Bound | 21636.7943 | |
| | | | Upper Bound | 21971.4991 | |
| | | | 5% Trimmed Mean | 11026.0120 | |
| | | | Median | 100.0000 | |
| | | | Variance | 5.420E9 | |
| | | | Std. Deviation | 73619.34510 | |
| | | | Minimum | .00 | |
| | | | Maximum | 1000000.00 | |
| | | | Range | 1000000.00 | |
| | | | Interquartile Range | 6330.00 | |
| | | | Skewness | 7.378 | .003 |
| | | | Kurtosis | 74.696 | .006 |
| | 25-34 | | Mean | 5398.4928 | 15.94420 |
| | | 95% Confidence Interval for Mean | Lower Bound | 5367.2428 | |
| | | | Upper Bound | 5429.7429 | |
| | | | 5% Trimmed Mean | 2413.1589 | |
| | | | Median | 200.0000 | |
| | | | Variance | 9.119E8 | |
| | | | Std. Deviation | 30198.17639 | |
| | | | Minimum | .00 | |

| | | | | | |
|-------|----------------------------------|----------------------------------|-------------|------------|-----------|
| | | Maximum | 1000100.00 | | |
| | | Range | 1000100.00 | | |
| | | Interquartile Range | 4000.00 | | |
| | | Skewness | 22.821 | .001 | |
| | | Kurtosis | 629.414 | .003 | |
| 35-49 | | Mean | 33147.5850 | 115.45363 | |
| | 95% Confidence Interval for Mean | Lower Bound | 32921.3001 | | |
| | | Upper Bound | 33373.8700 | | |
| | | 5% Trimmed Mean | 3799.1117 | | |
| | | Median | 400.0000 | | |
| | | Variance | 6.584E10 | | |
| | | Std. Deviation | 2.56585E5 | | |
| | | Minimum | .00 | | |
| | | Maximum | 3000000.00 | | |
| | | Range | 3000000.00 | | |
| | | Interquartile Range | 5000.00 | | |
| | | Skewness | 10.510 | .001 | |
| | | Kurtosis | 111.449 | .002 | |
| 50-59 | | | Mean | 52393.3119 | 227.40047 |
| | | 95% Confidence Interval for Mean | Lower Bound | 51947.6151 | |
| | Upper Bound | | 52839.0087 | | |
| | | 5% Trimmed Mean | 3800.6262 | | |
| | | Median | 300.0000 | | |
| | | Variance | 1.293E11 | | |
| | | Std. Deviation | 3.59563E5 | | |
| | | Minimum | .00 | | |
| | | Maximum | 3855000.00 | | |
| | | Range | 3855000.00 | | |
| | | Interquartile Range | 3280.00 | | |
| | | Skewness | 9.832 | .002 | |
| | | Kurtosis | 99.942 | .003 | |
| 60-64 | | | Mean | 31727.7624 | 124.28950 |
| | | 95% Confidence Interval for Mean | Lower Bound | 31484.1591 | |
| | Upper Bound | | 31971.3656 | | |
| | | 5% Trimmed Mean | 16258.5696 | | |
| | | Median | 200.0000 | | |
| | | Variance | 1.199E10 | | |
| | | Std. Deviation | 1.09494E5 | | |
| | | Minimum | .00 | | |
| | | Maximum | 1075000.00 | | |
| | | Range | 1075000.00 | | |
| | | Interquartile Range | 17500.00 | | |
| | | Skewness | 7.479 | .003 | |
| | | Kurtosis | 64.668 | .006 | |
| 65+ | | | Mean | 21246.8409 | 118.69264 |
| | | 95% Confidence Interval for Mean | Lower Bound | 21014.2075 | |
| | Upper Bound | | 21479.4744 | | |
| | | 5% Trimmed Mean | 2354.4045 | | |
| | | Median | .0000 | | |
| | | Variance | 1.767E10 | | |
| | | Std. Deviation | 1.32926E5 | | |
| | | Minimum | .00 | | |
| | | Maximum | | | |

| | | | | | |
|--------------------|----------------------------------|----------------------------------|---------------------|------------|-----------|
| | | | Maximum | 1425000.00 | |
| | | | Range | 1425000.00 | |
| | | | Interquartile Range | 1500.00 | |
| | | | Skewness | 9.279 | .002 |
| | | | Kurtosis | 91.388 | .004 |
| Retirement funding | 17-24 | | Mean | 9488.74 | 54.135 |
| | | 95% Confidence Interval for Mean | Lower Bound | 9382.63 | |
| | | | Upper Bound | 9594.84 | |
| | | | 5% Trimmed Mean | 965.57 | |
| | | | Median | .00 | |
| | | | Variance | 2.179E9 | |
| | | | Std. Deviation | 46675.187 | |
| | | | Minimum | 0 | |
| | | | Maximum | 422000 | |
| | | | Range | 422000 | |
| | | | Interquartile Range | 0 | |
| | | Skewness | 6.643 | .003 | |
| | | Kurtosis | 48.463 | .006 | |
| | | 25-34 | | Mean | 58209.05 |
| | 95% Confidence Interval for Mean | | Lower Bound | 57789.75 | |
| | | | Upper Bound | 58628.34 | |
| | | | 5% Trimmed Mean | 5328.98 | |
| | | | Median | .00 | |
| | | | Variance | 1.642E11 | |
| | | | Std. Deviation | 405178.530 | |
| | | | Minimum | 0 | |
| | | | Maximum | 7700000 | |
| | | | Range | 7700000 | |
| | | | Interquartile Range | 0 | |
| | Skewness | | 11.023 | .001 | |
| | Kurtosis | | 138.211 | .003 | |
| | 35-49 | | | Mean | 144580.37 |
| | | 95% Confidence Interval for Mean | Lower Bound | 143762.94 | |
| Upper Bound | | | 145397.80 | | |
| | | 5% Trimmed Mean | 31445.73 | | |
| | | Median | .00 | | |
| | | Variance | 8.591E11 | | |
| | | Std. Deviation | 926887.147 | | |
| | | Minimum | 0 | | |
| | | Maximum | 19500000 | | |
| | | Range | 19500000 | | |
| | | Interquartile Range | 17500 | | |
| Skewness | | 16.995 | .001 | | |
| Kurtosis | | 341.246 | .002 | | |
| 50-59 | | | Mean | 219353.72 | 674.789 |
| | 95% Confidence Interval for Mean | Lower Bound | 218031.16 | | |
| | | Upper Bound | 220676.28 | | |
| | | 5% Trimmed Mean | 42304.57 | | |
| | | Median | .00 | | |
| | | Variance | 1.138E12 | | |
| | | Std. Deviation | 1066969.415 | | |
| | | Minimum | 0 | | |

| | | | | | |
|--|-------------|----------------------------------|----------------------------------|-------------|----------|
| | | Maximum | 13500000 | | |
| | | Range | 13500000 | | |
| | | Interquartile Range | 0 | | |
| | | Skewness | 9.002 | .002 | |
| | | Kurtosis | 99.426 | .003 | |
| | 60-64 | Mean | 78202.30 | 456.637 | |
| | 60-64 | 95% Confidence Interval for Mean | Lower Bound | 77307.31 | |
| | | | Upper Bound | 79097.29 | |
| | 60-64 | 5% Trimmed Mean | 7018.85 | | |
| | | Median | .00 | | |
| | | Variance | 1.618E11 | | |
| | | Std. Deviation | 402277.618 | | |
| | | Minimum | 0 | | |
| | | Maximum | 3600000 | | |
| | | Range | 3600000 | | |
| | | Interquartile Range | 0 | | |
| | | Skewness | 7.298 | .003 | |
| | | Kurtosis | 58.182 | .006 | |
| | | 65+ | Mean | 40113.98 | 197.594 |
| | | 65+ | 95% Confidence Interval for Mean | Lower Bound | 39726.70 |
| | Upper Bound | | | 40501.26 | |
| | 65+ | 5% Trimmed Mean | 2330.84 | | |
| | | Median | .00 | | |
| | | Variance | 4.897E10 | | |
| | | Std. Deviation | 221288.670 | | |
| | | Minimum | 0 | | |
| | | Maximum | 2000000 | | |
| | | Range | 2000000 | | |
| | | Interquartile Range | 0 | | |
| | | Skewness | 7.296 | .002 | |
| | | Kurtosis | 56.058 | .004 | |

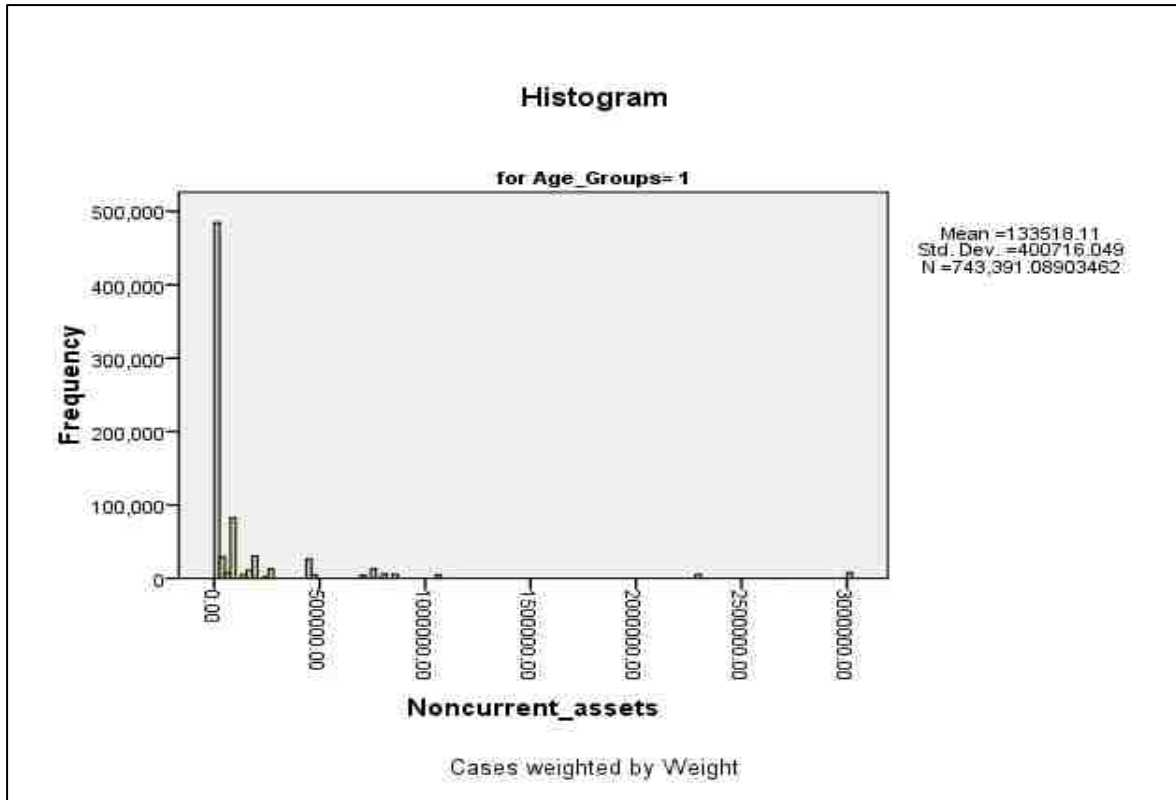
HISTOGRAMS AND BOXPLOTS: ASSET CLASS VARIABLES PER AGE GROUP

Note:

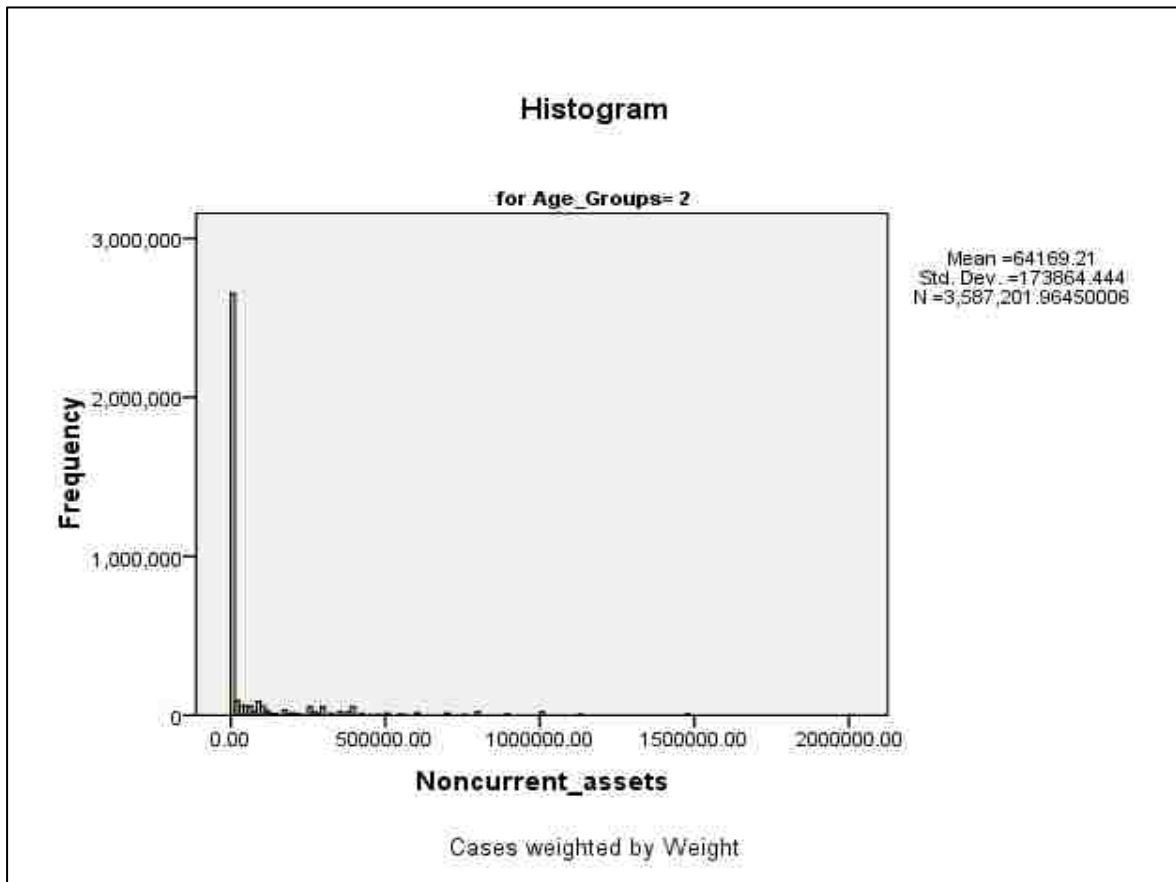
| | |
|-------------|---------|
| Age group 1 | = 17-24 |
| Age group 2 | = 25-34 |
| Age group 3 | = 35-49 |
| Age group 4 | = 50-59 |
| Age group 5 | = 60-64 |
| Age group 6 | = 65+ |

NON-CURRENT ASSETS

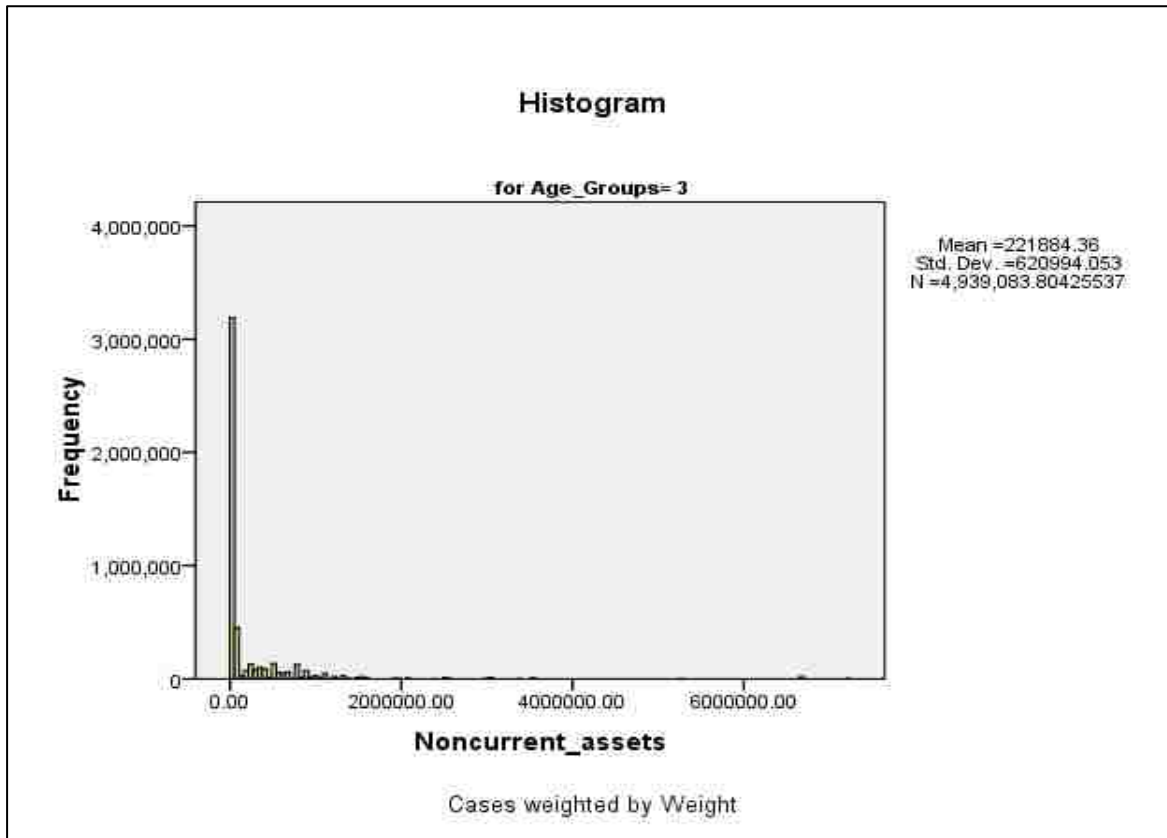
Histogram: Non-current assets: Age group 17-24



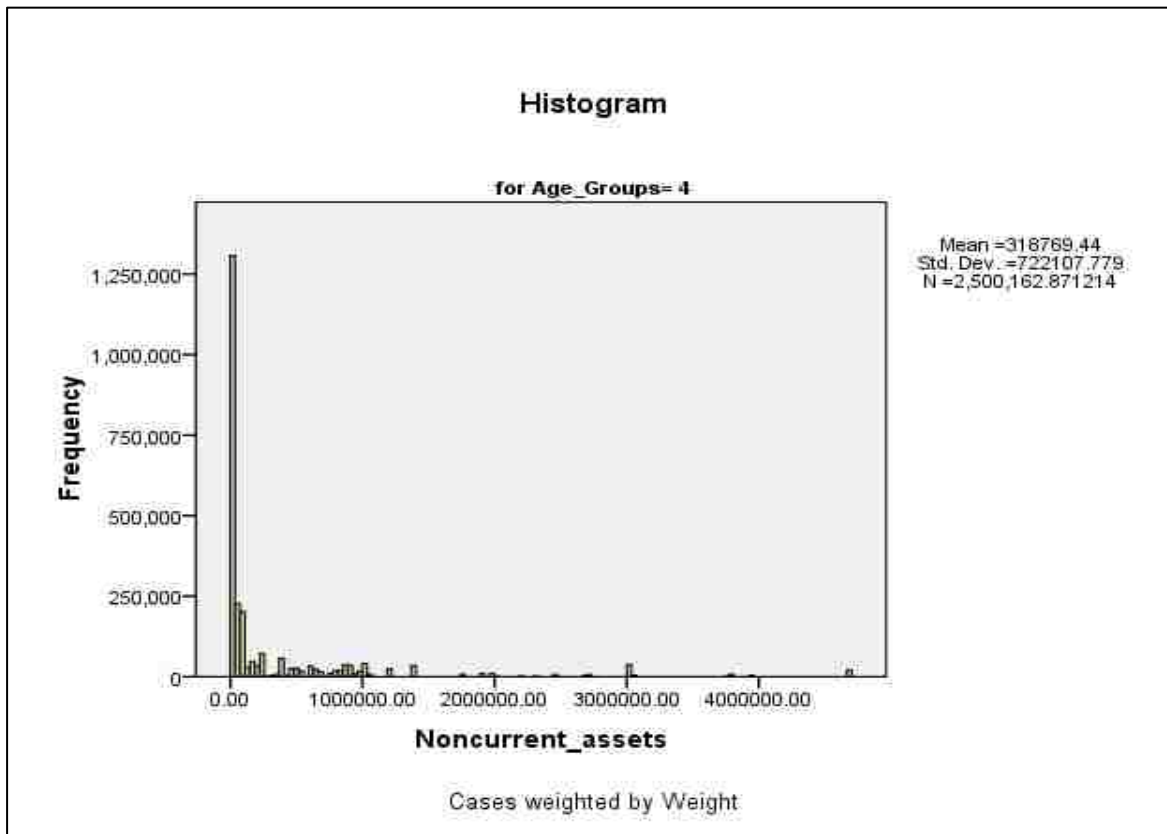
Histogram: Non-current assets: Age group 25-34



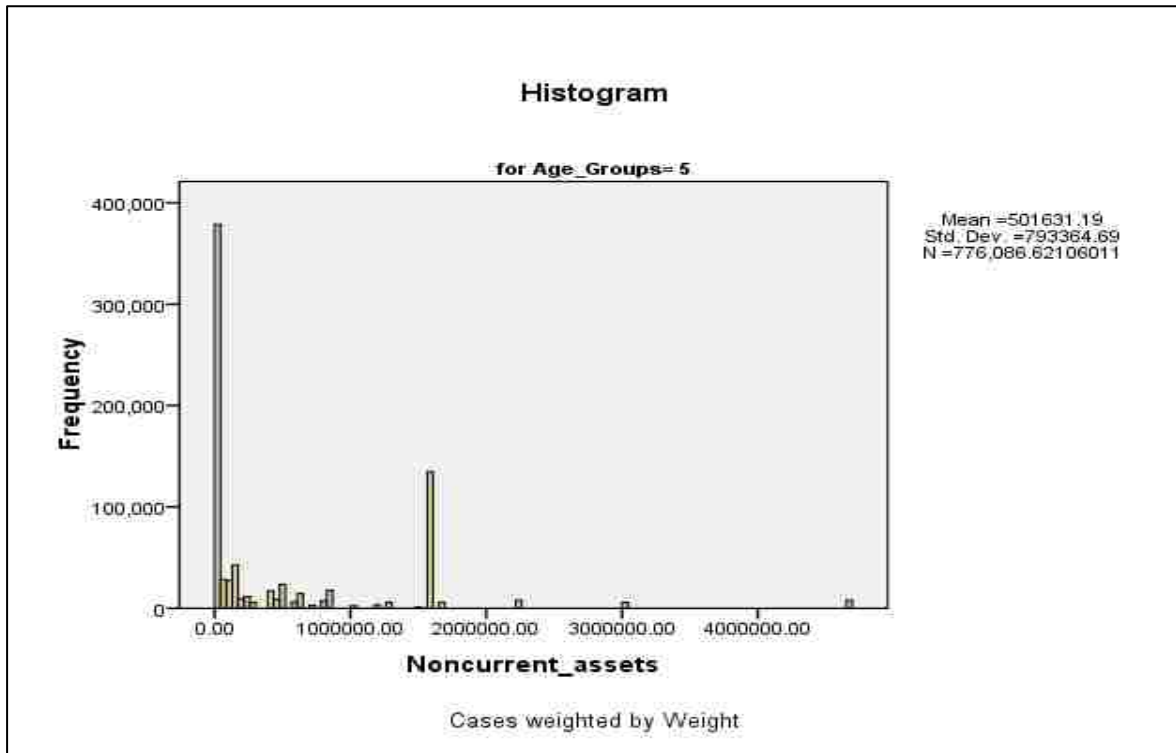
Histogram: Non-current assets: Age group 35-49



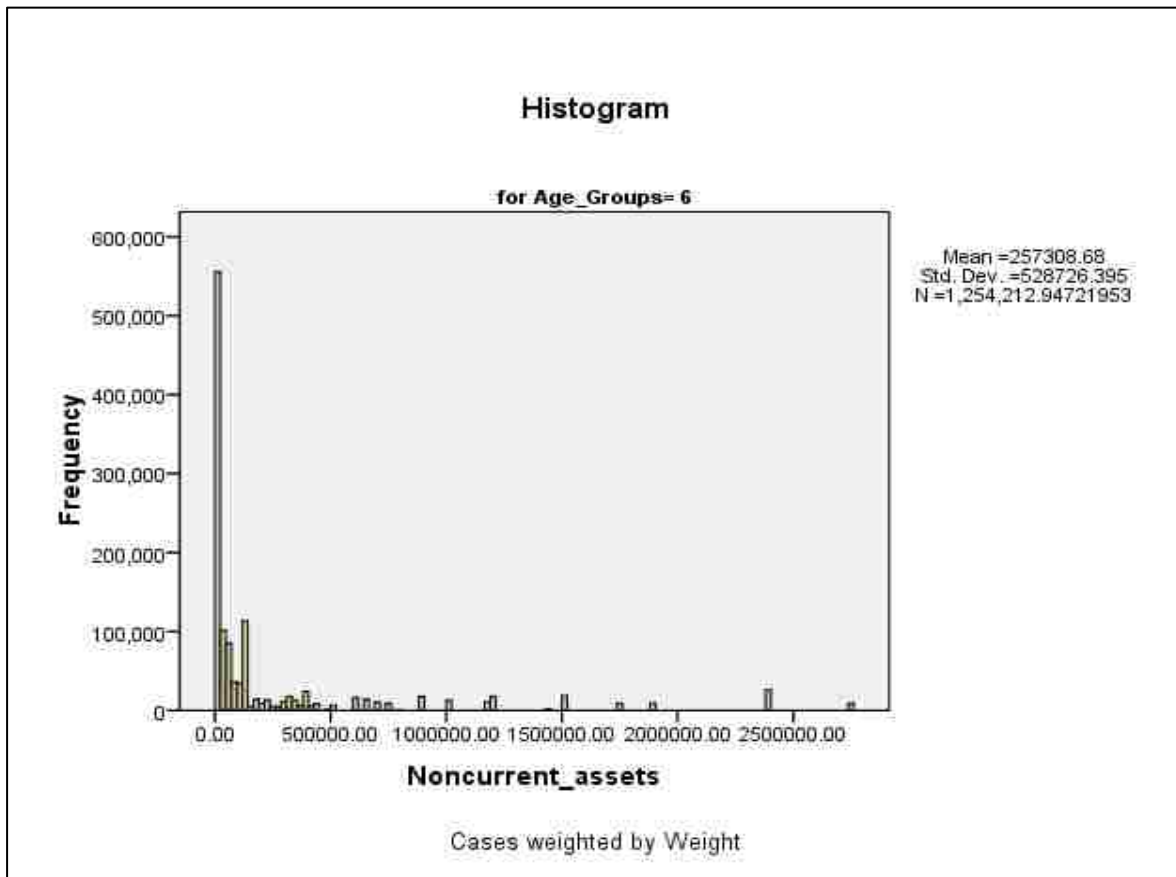
Histogram: Non-current assets: Age group 50-59



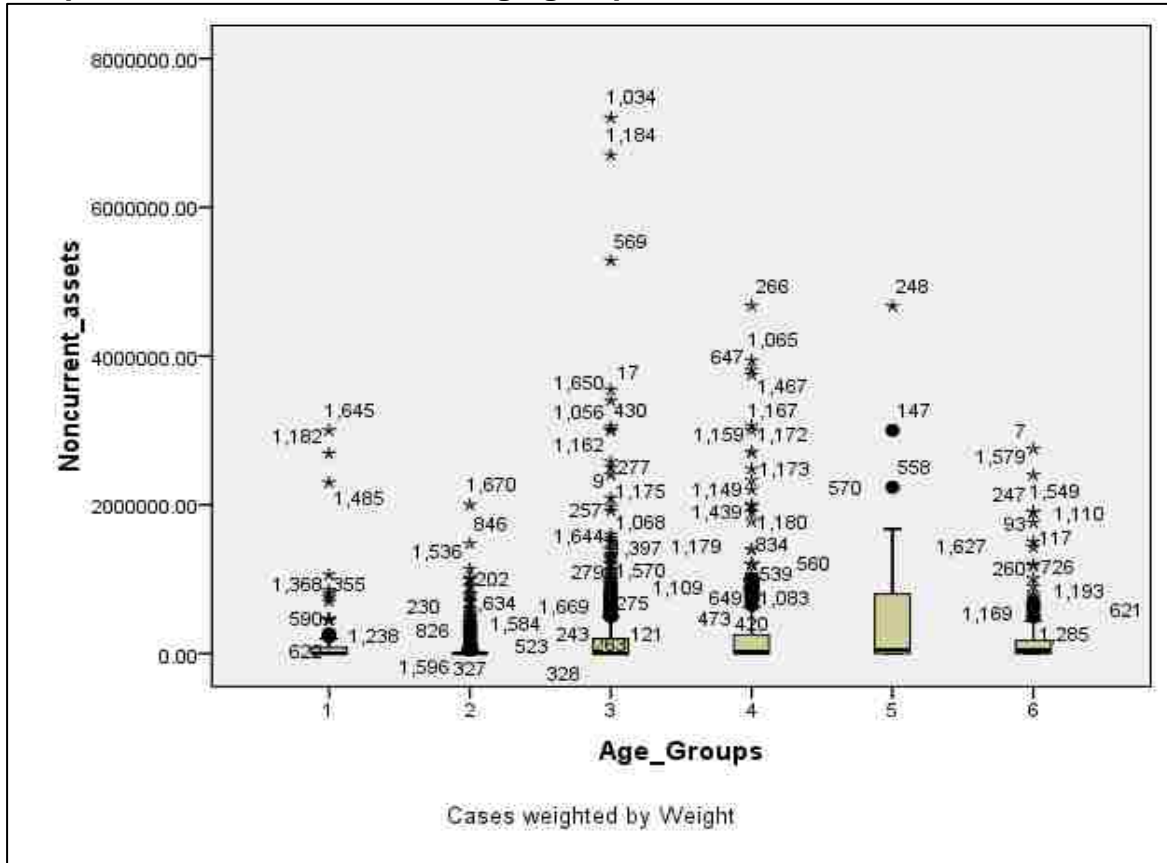
Histogram: Non-current assets: Age group 60-64



Histogram: Non-current assets: Age group 65+

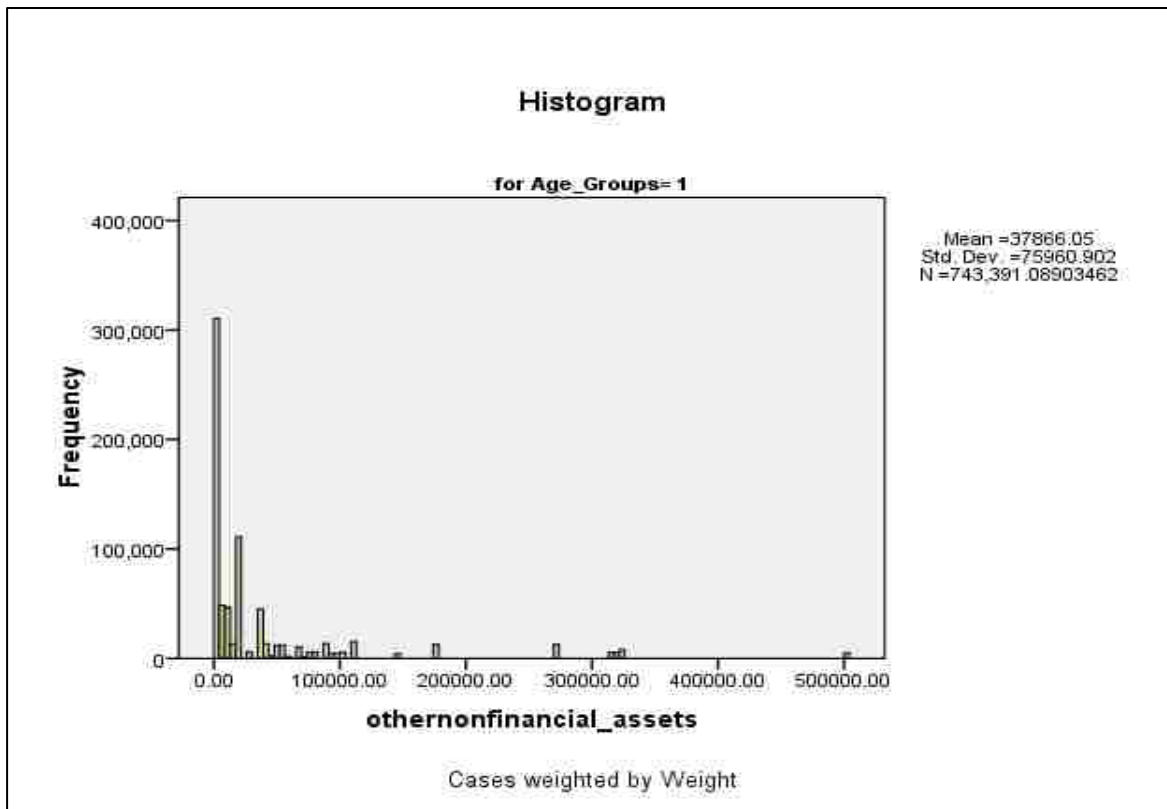


Boxplots: Non-current assets: Age groups

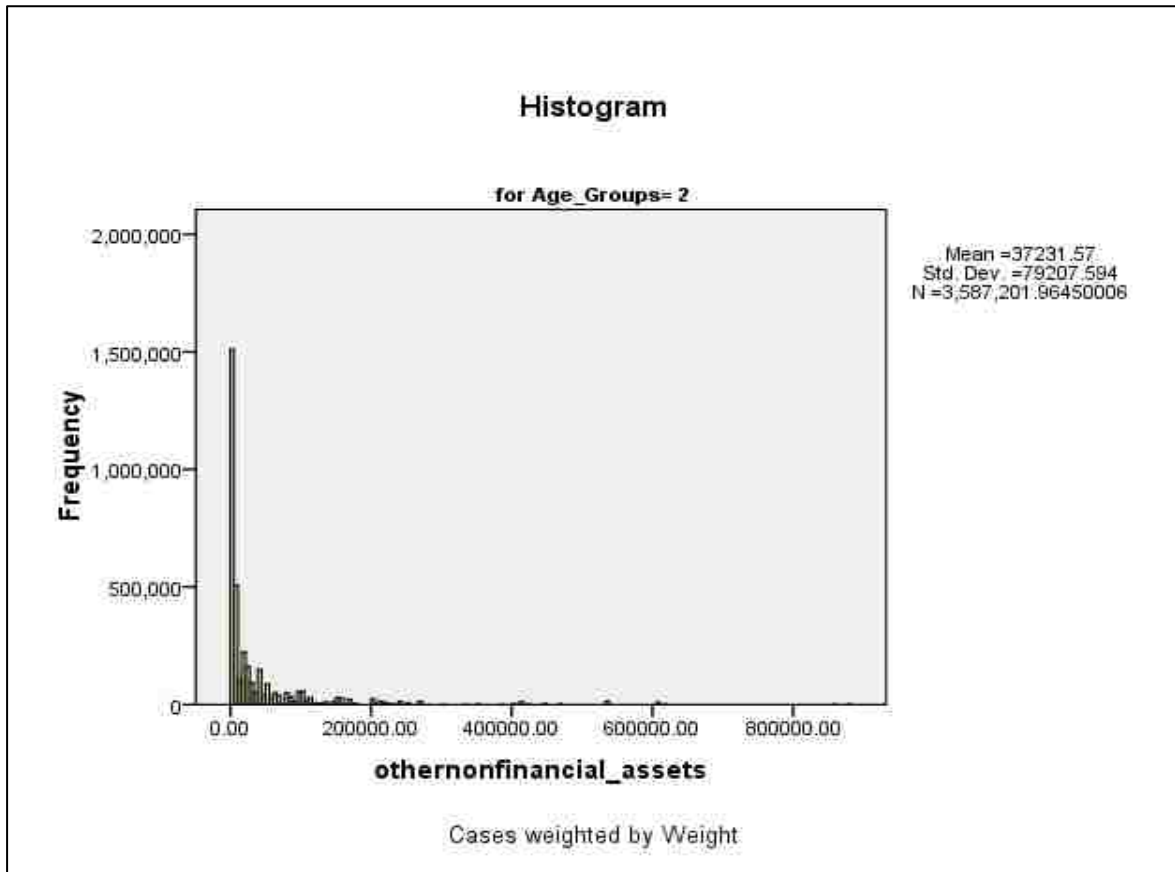


OTHER NON-FINANCIAL ASSETS

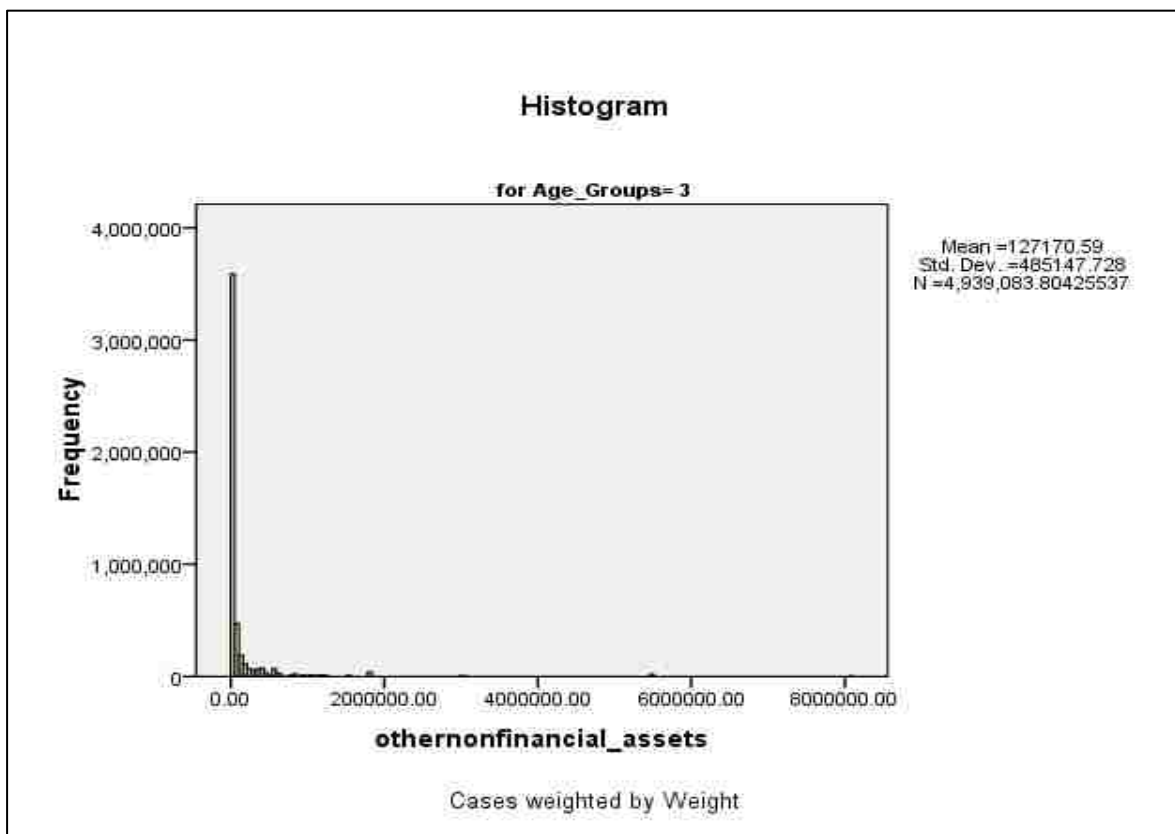
Histogram: Other non-financial assets: Age group 17-24



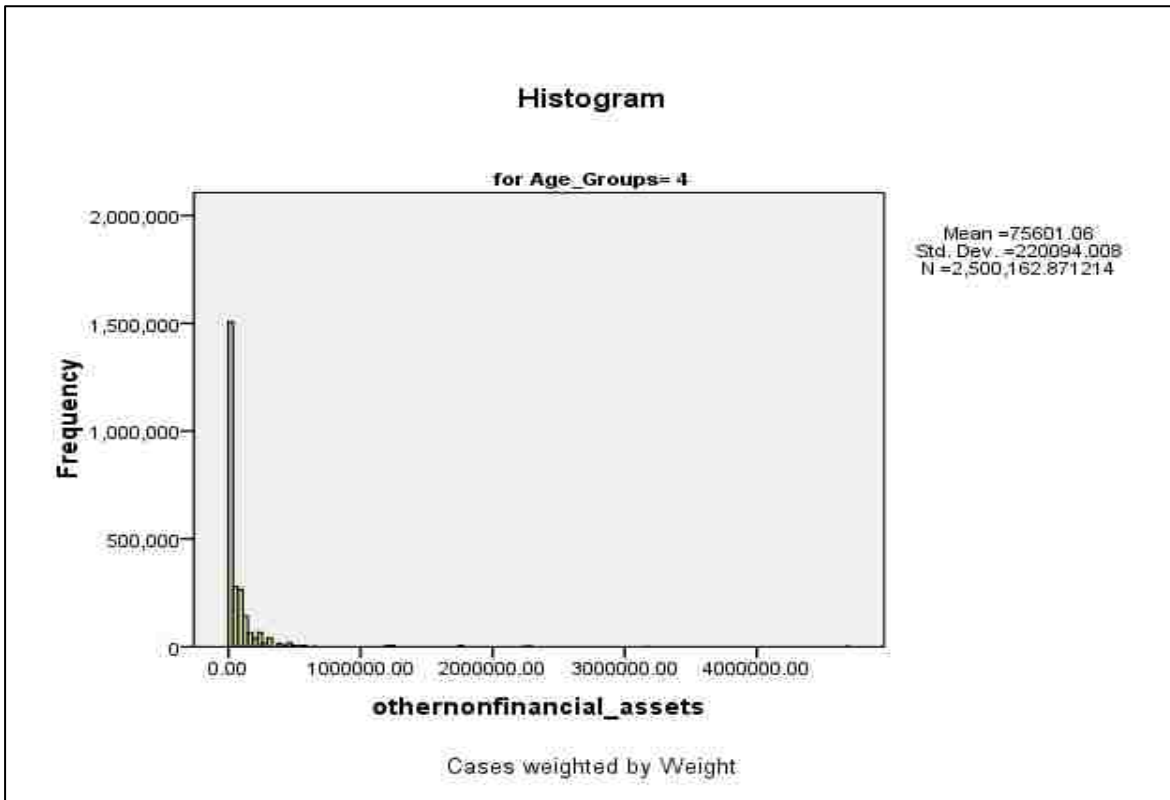
Histogram: Other non-financial assets: Age group 25-34



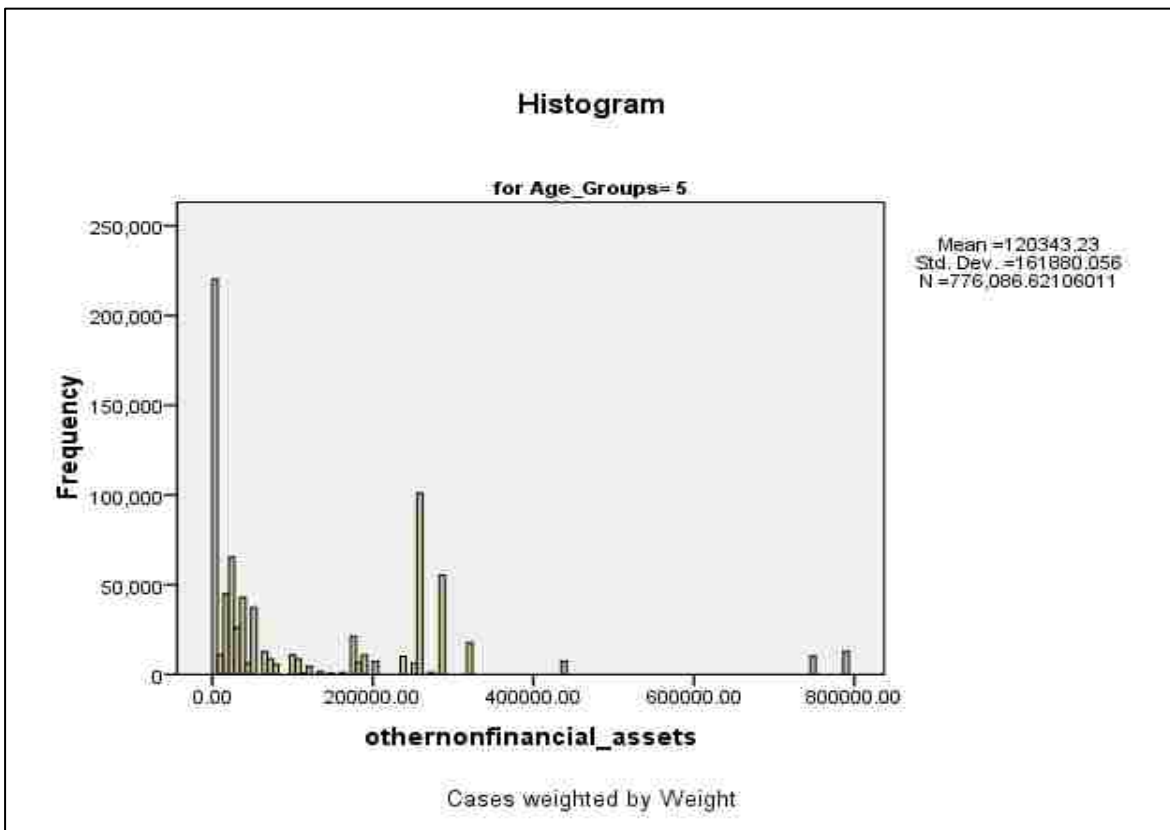
Histogram: Other non-financial assets: Age group 35-49



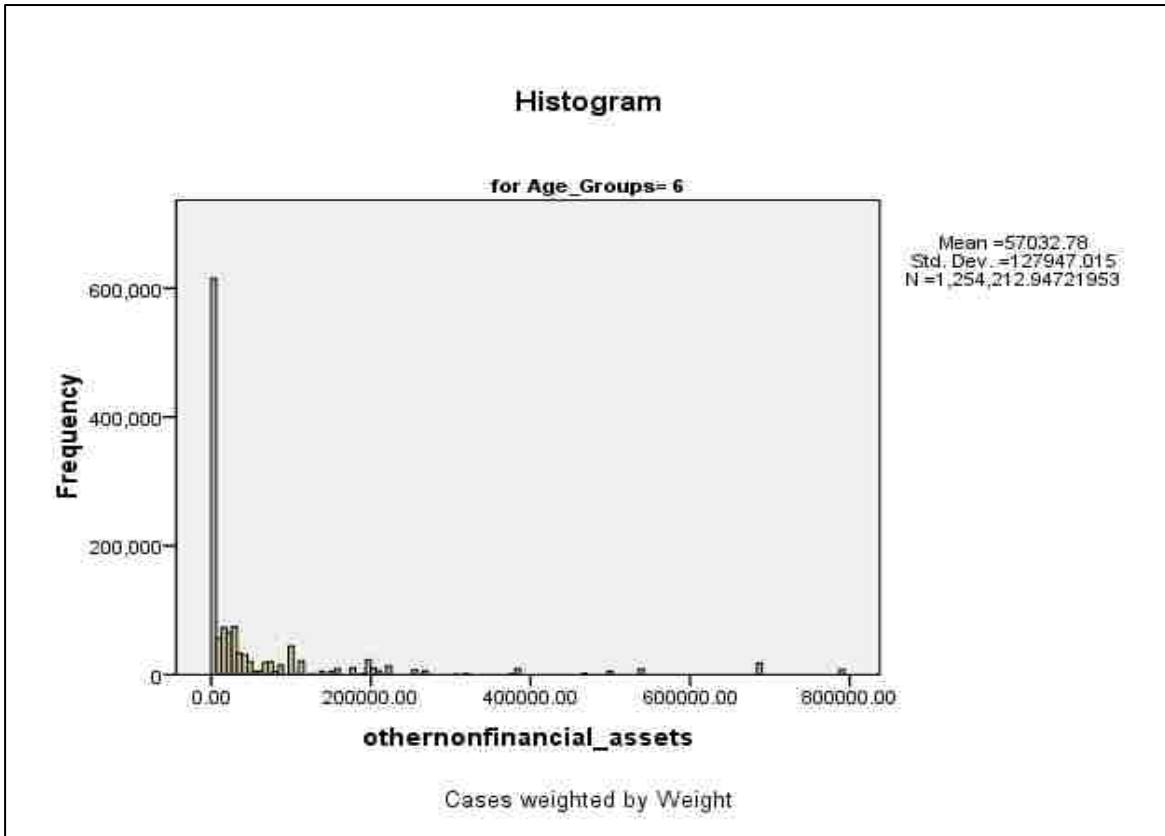
Histogram: Other non-financial assets: Age group 50-59



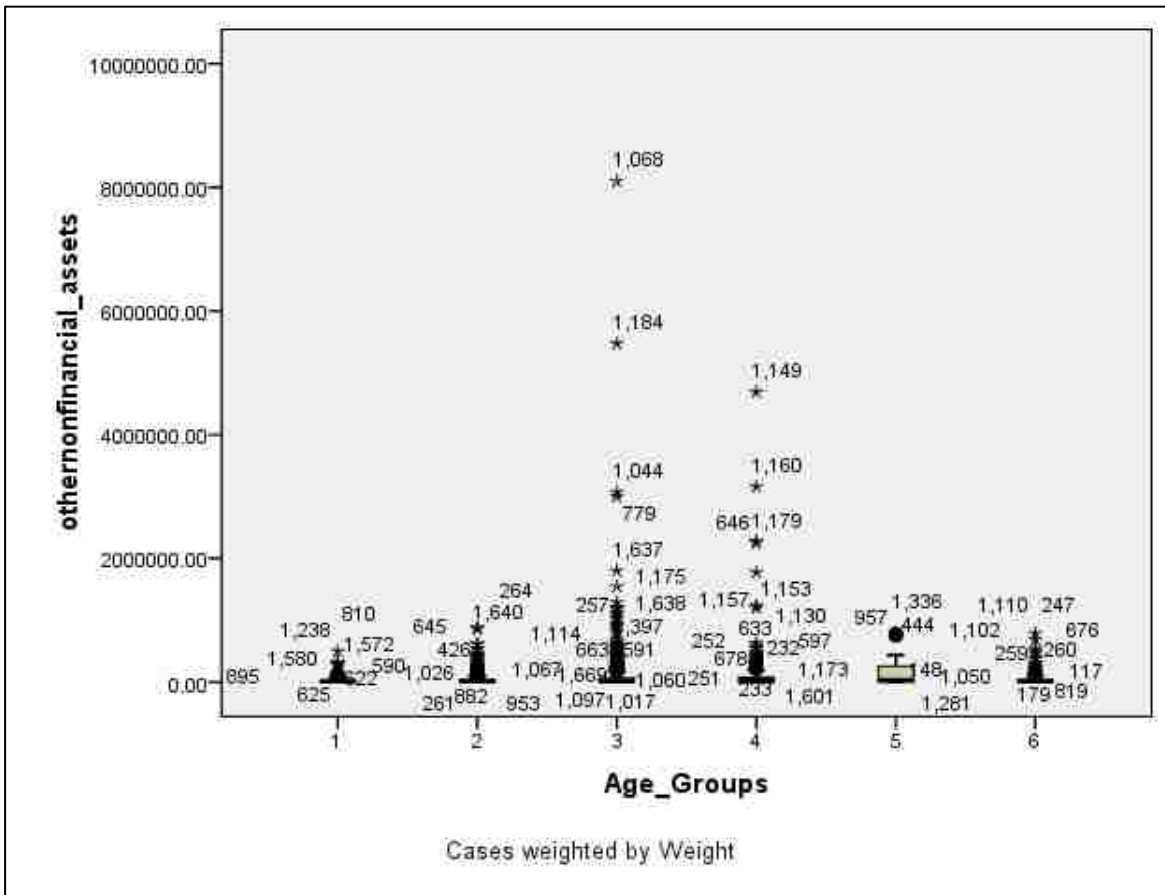
Histogram: Other non-financial assets: Age group 60-64



Histogram: Other non-financial assets: Age group 65+

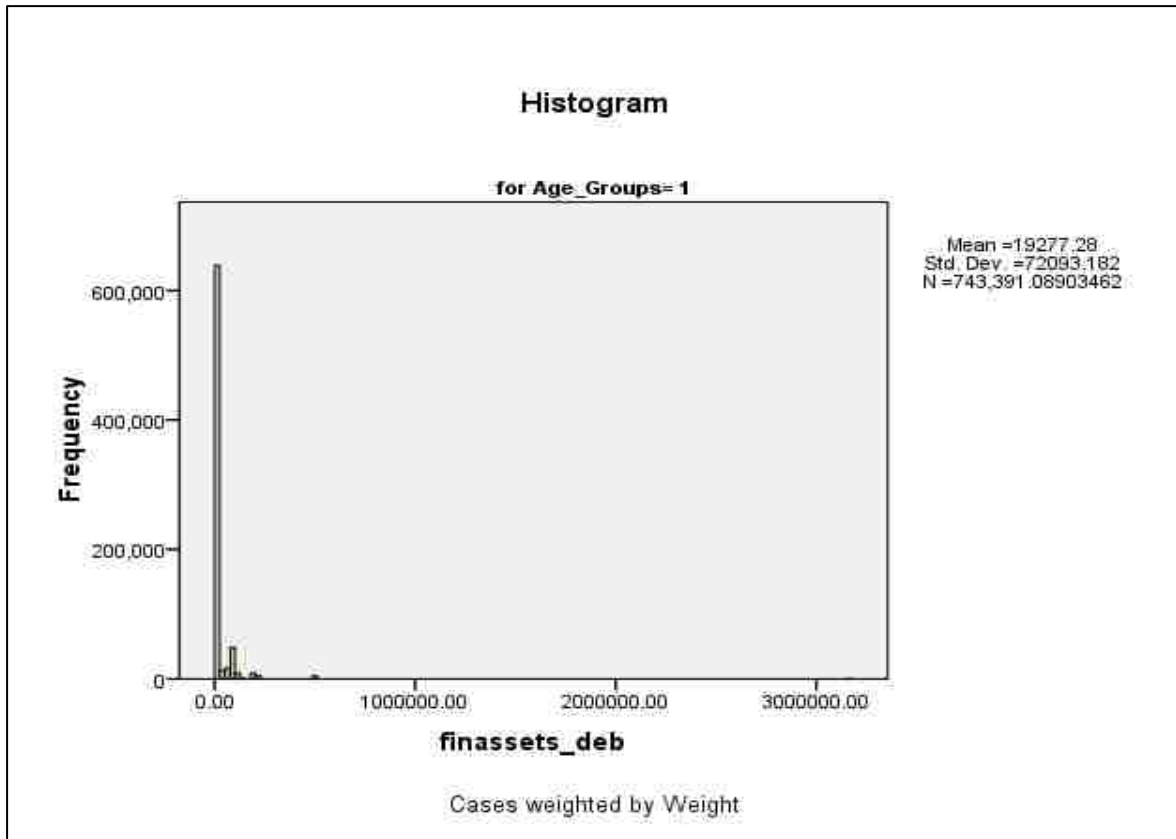


Boxplots: Other non-financial assets: Age groups

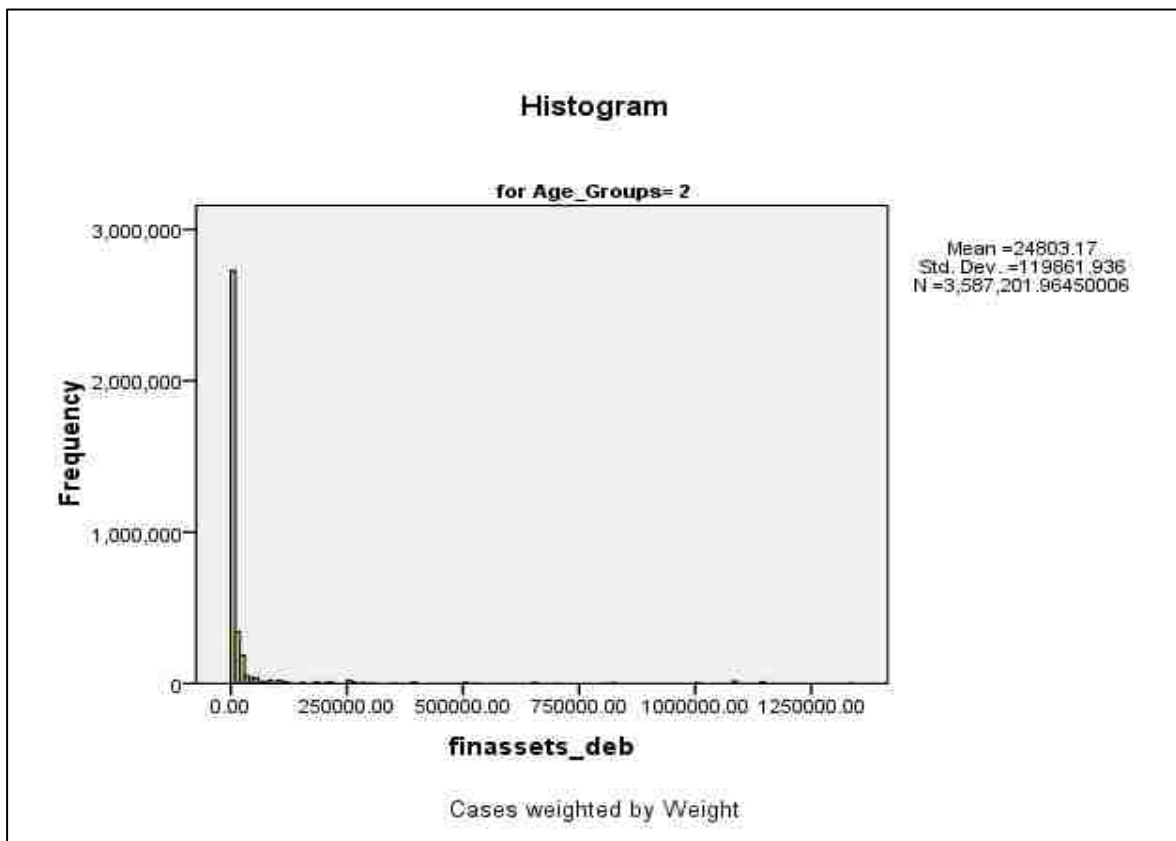


FINANCIAL ASSETS

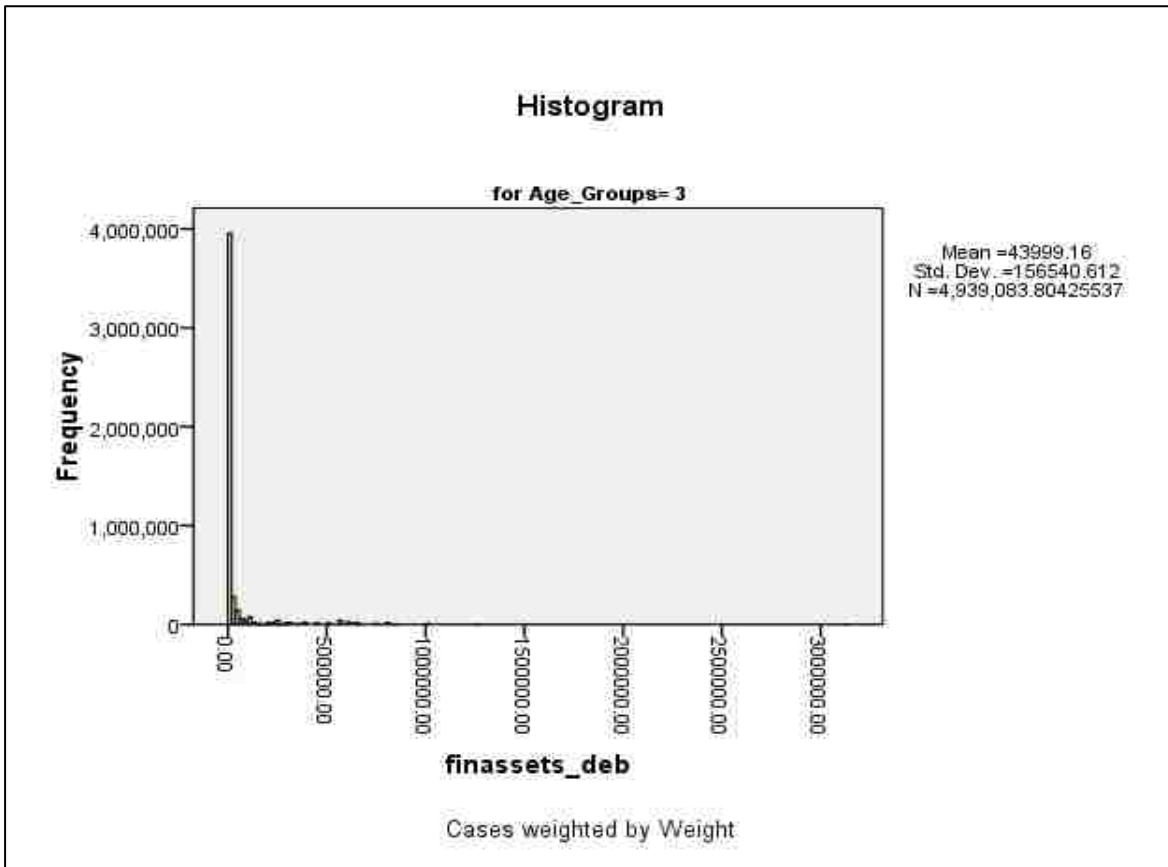
Histogram: Financial assets: Age group 17-24



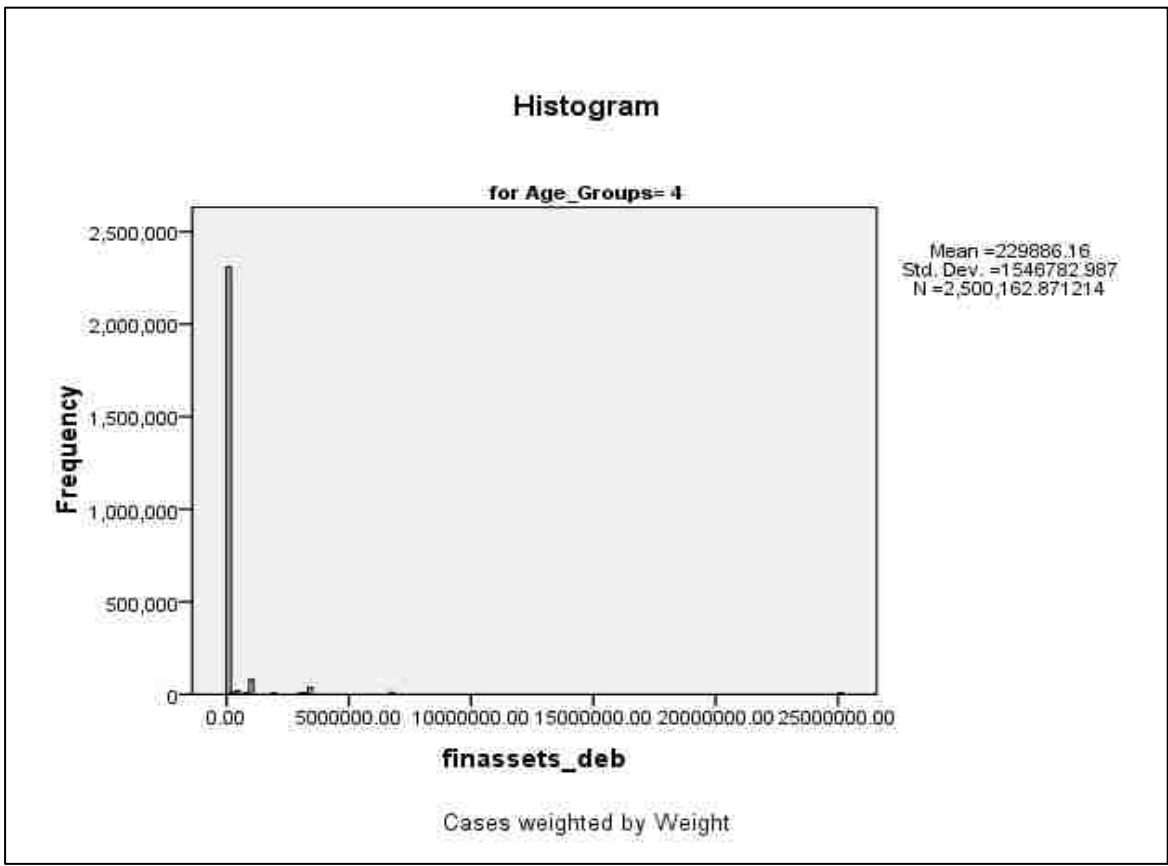
Histogram: Financial assets: Age group 25-34



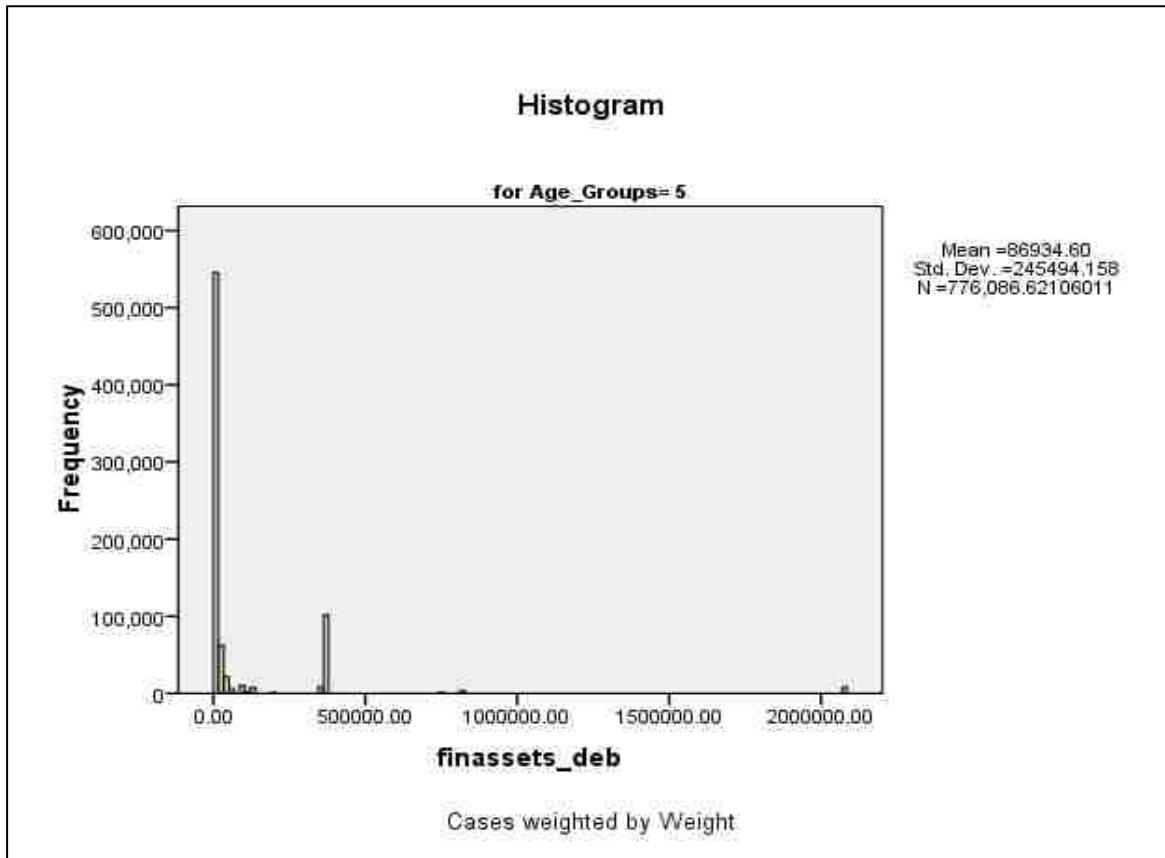
Histogram: Financial assets: Age group 35-49



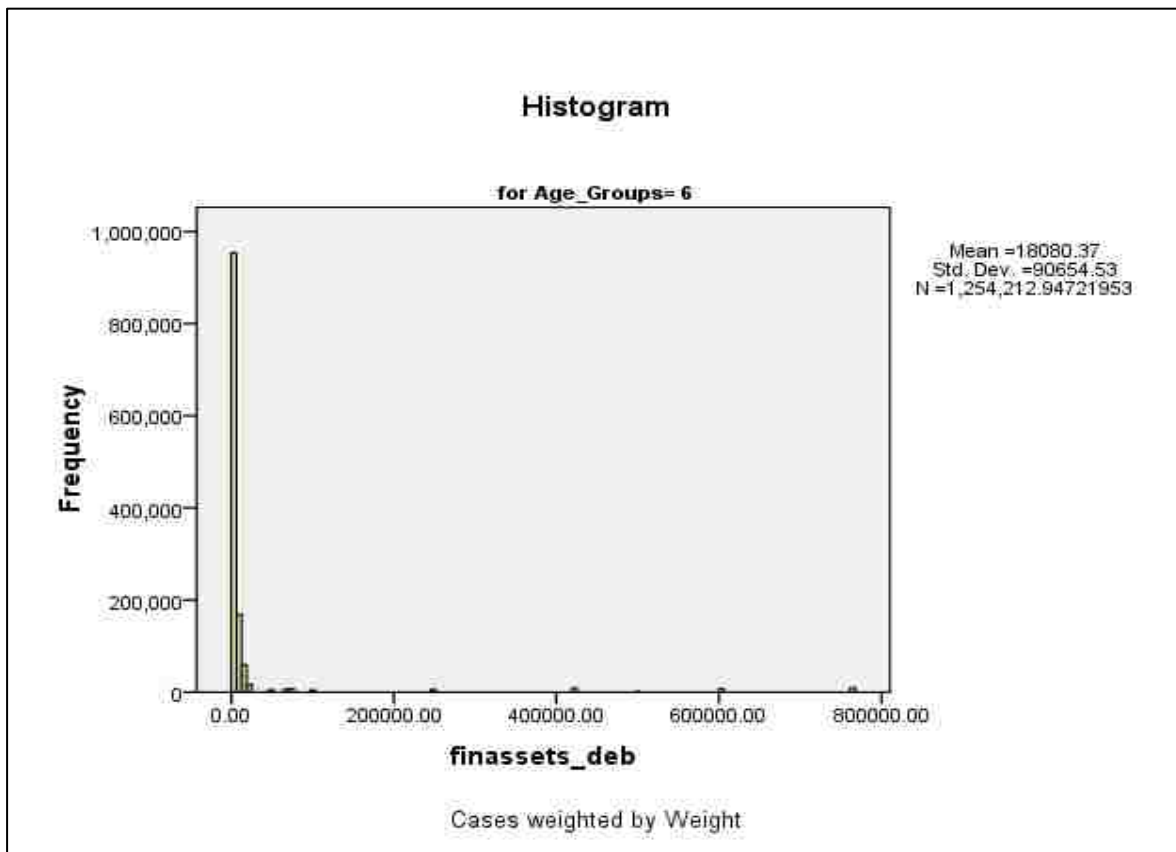
Histogram: Financial assets: Age group 50-59



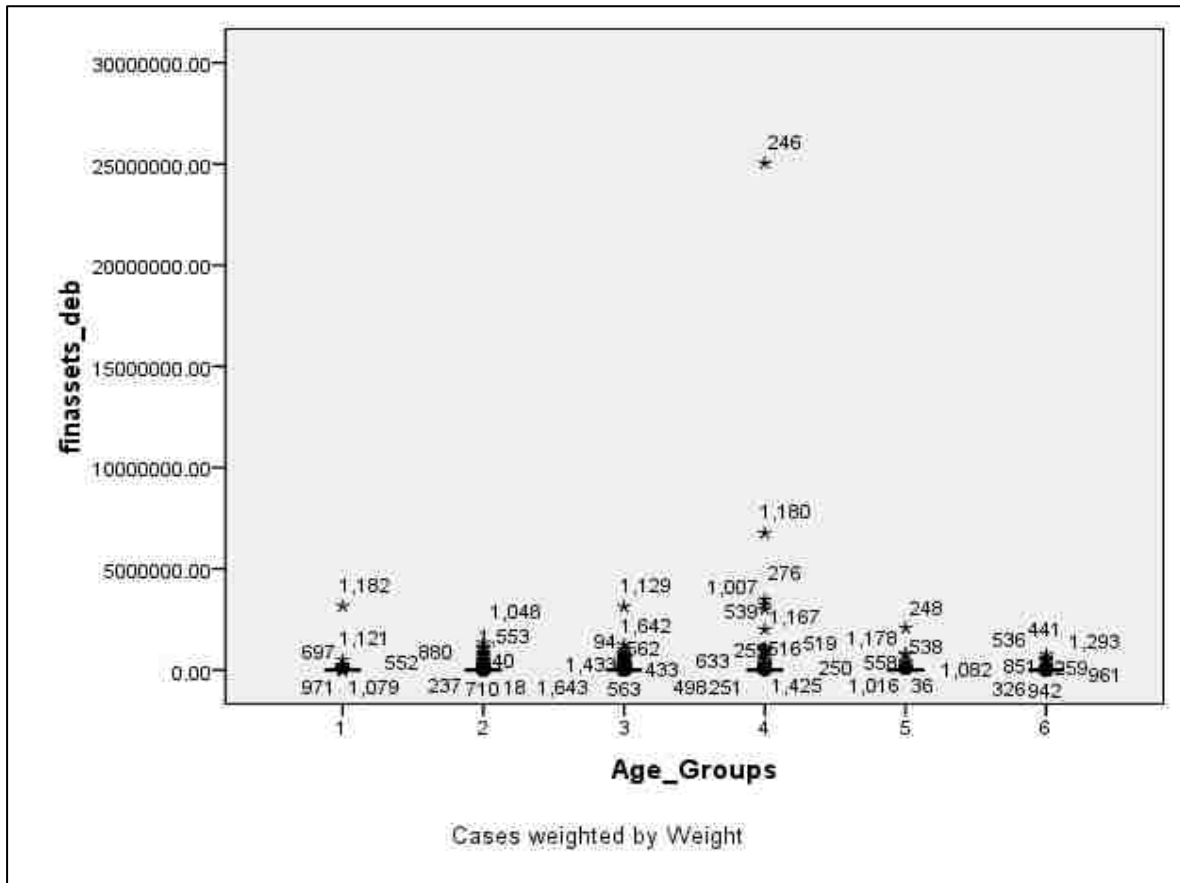
Histogram: Financial assets: Age group 60-64



Histogram: Financial assets: Age group 65+

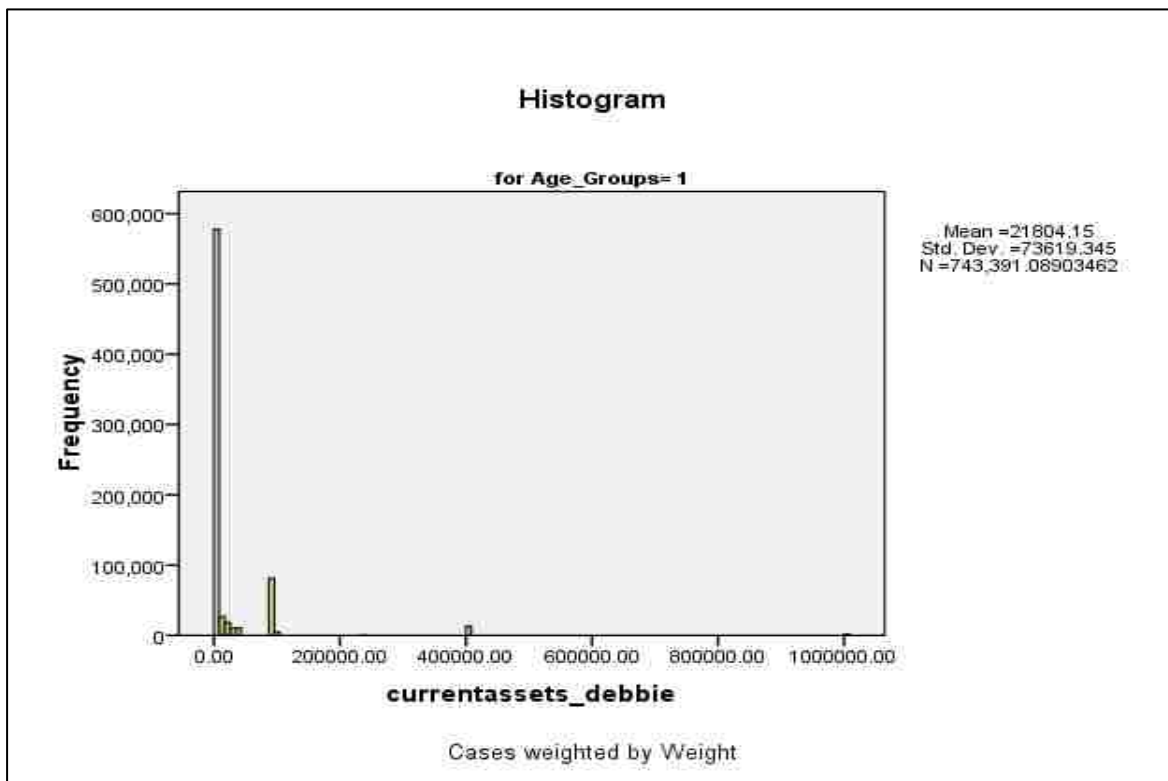


Boxplots: Financial assets: Age groups

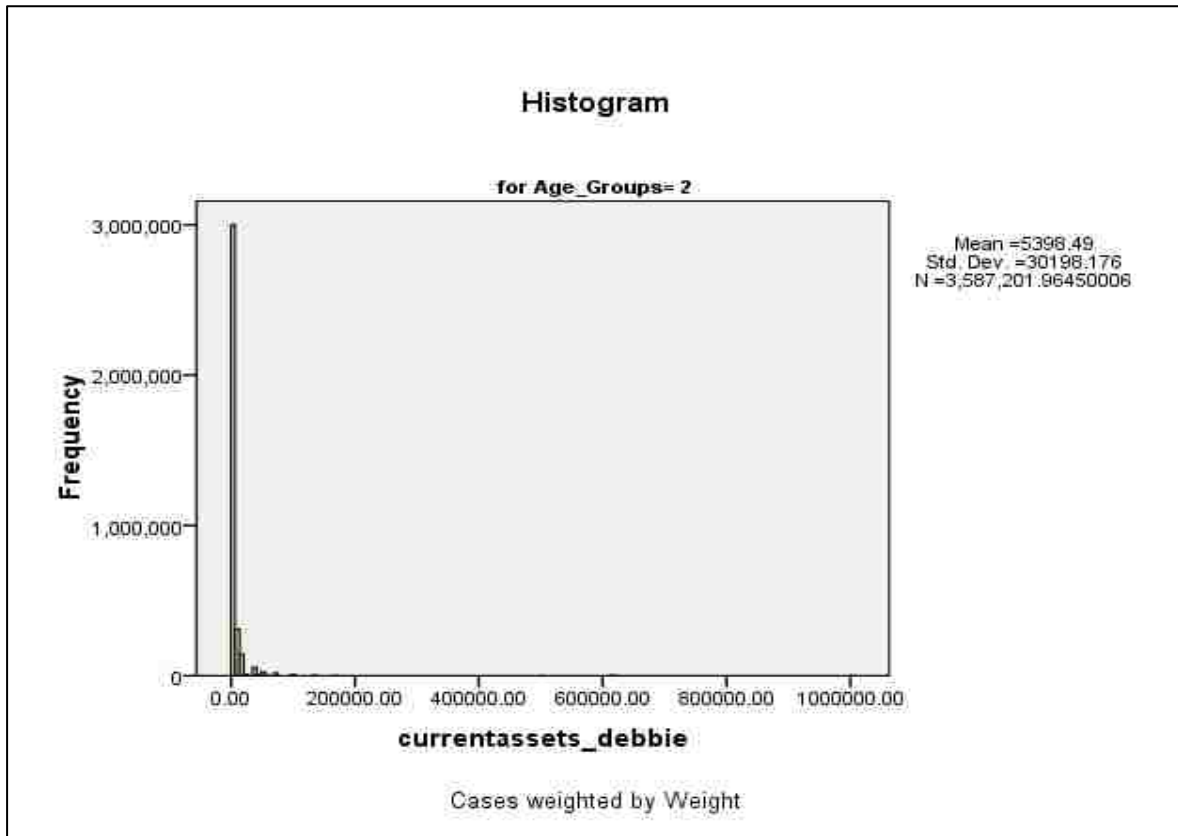


CURRENT ASSETS

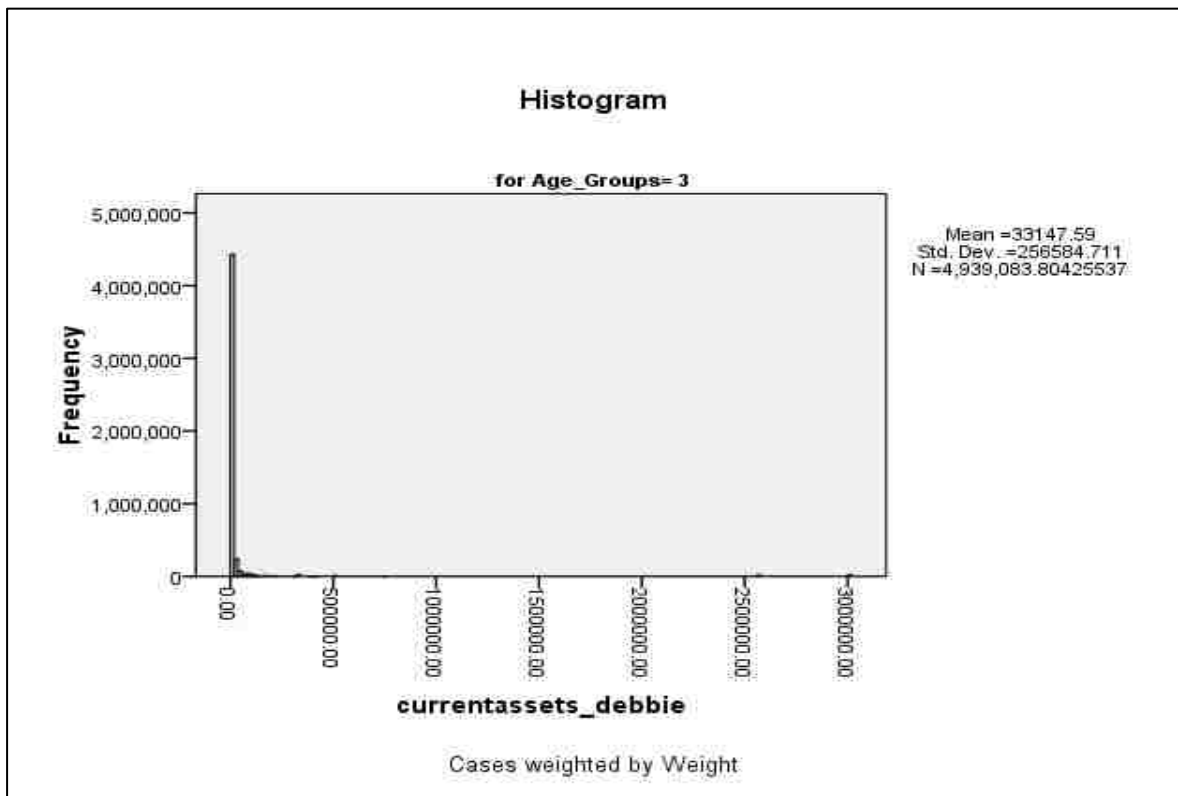
Histogram: Current assets: Age group 17-24



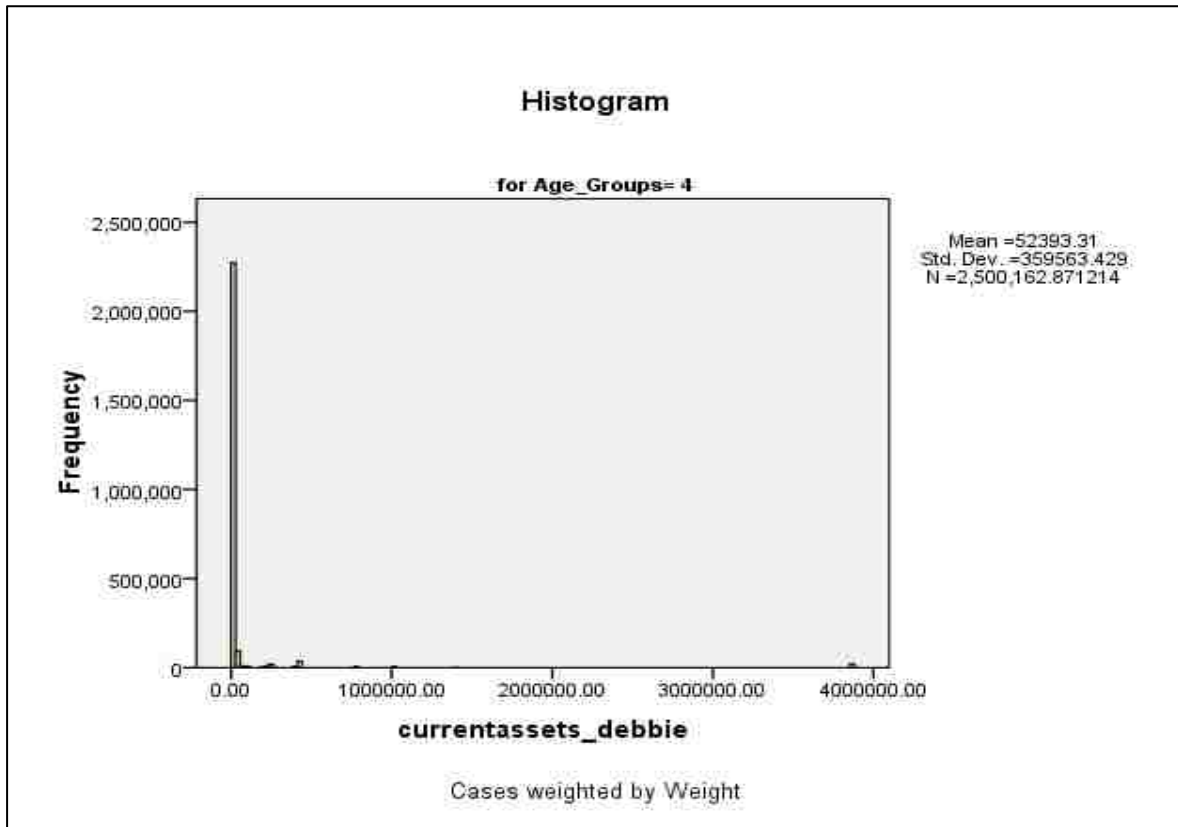
Histogram: Current assets: Age group 25-34



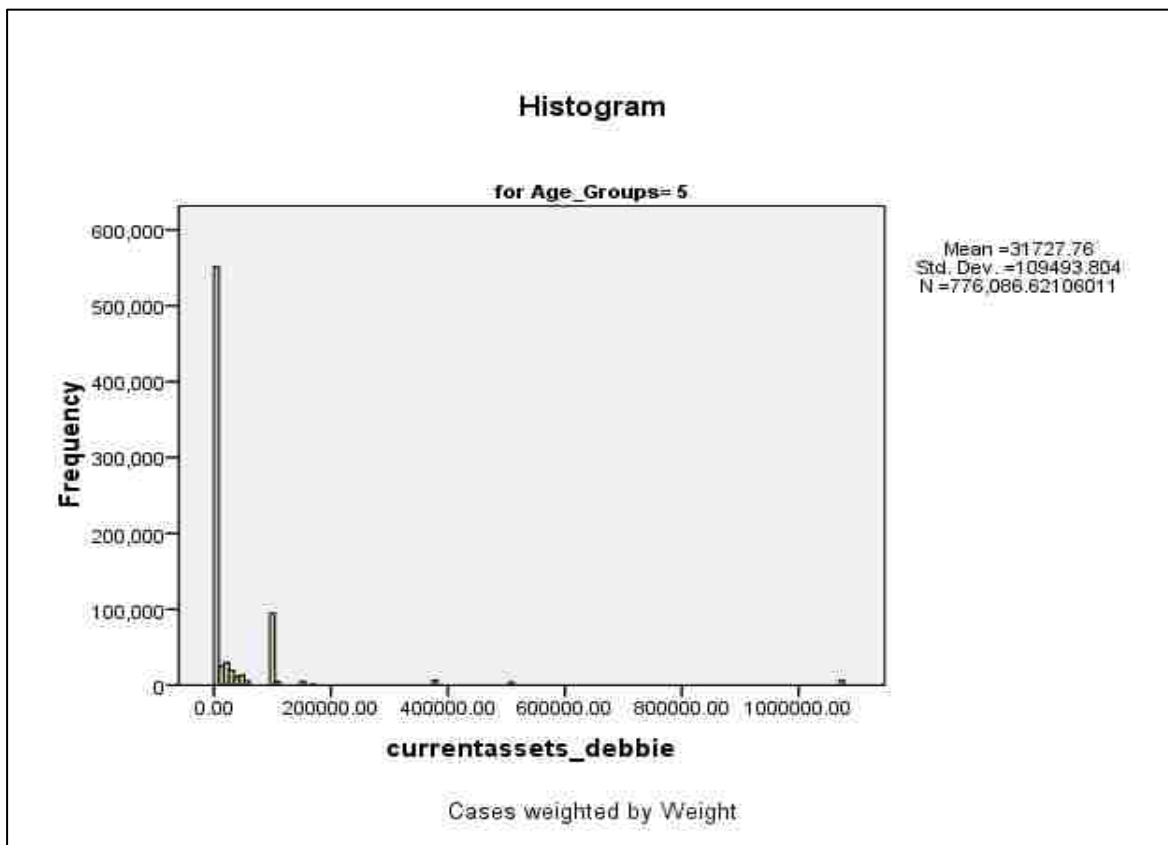
Histogram: Current assets: Age group 35-49



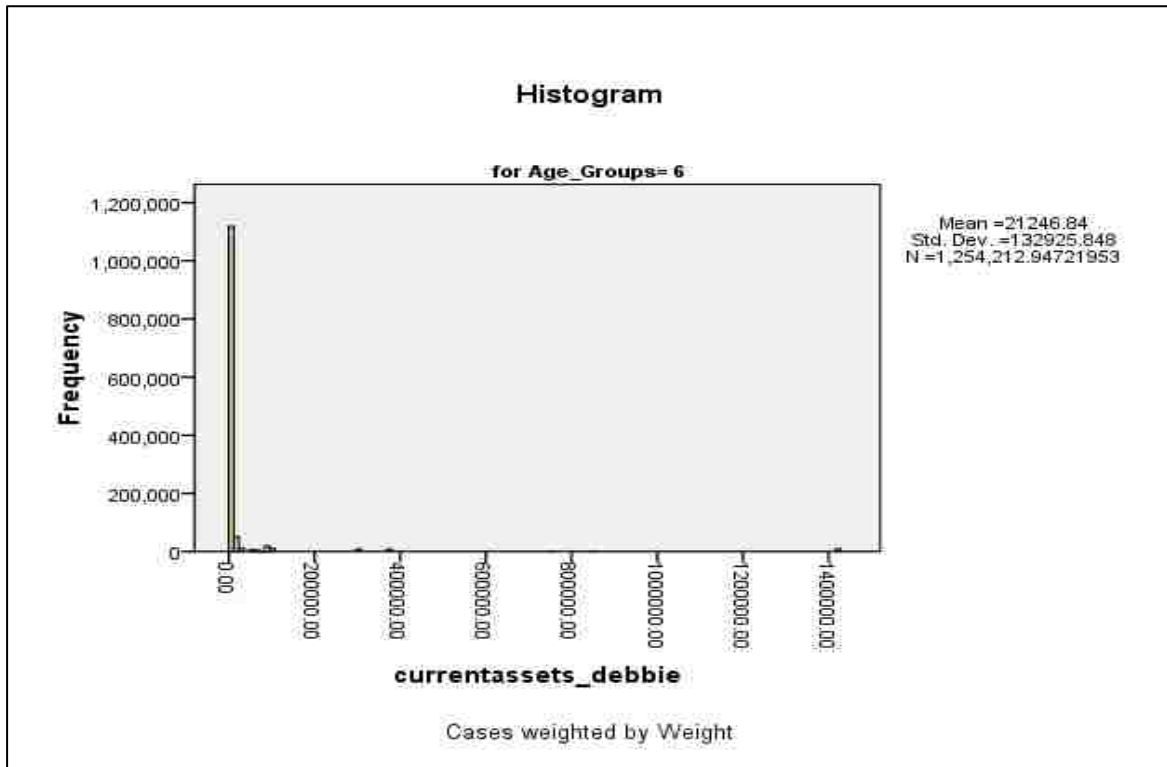
Histogram: Current assets: Age group 50-59



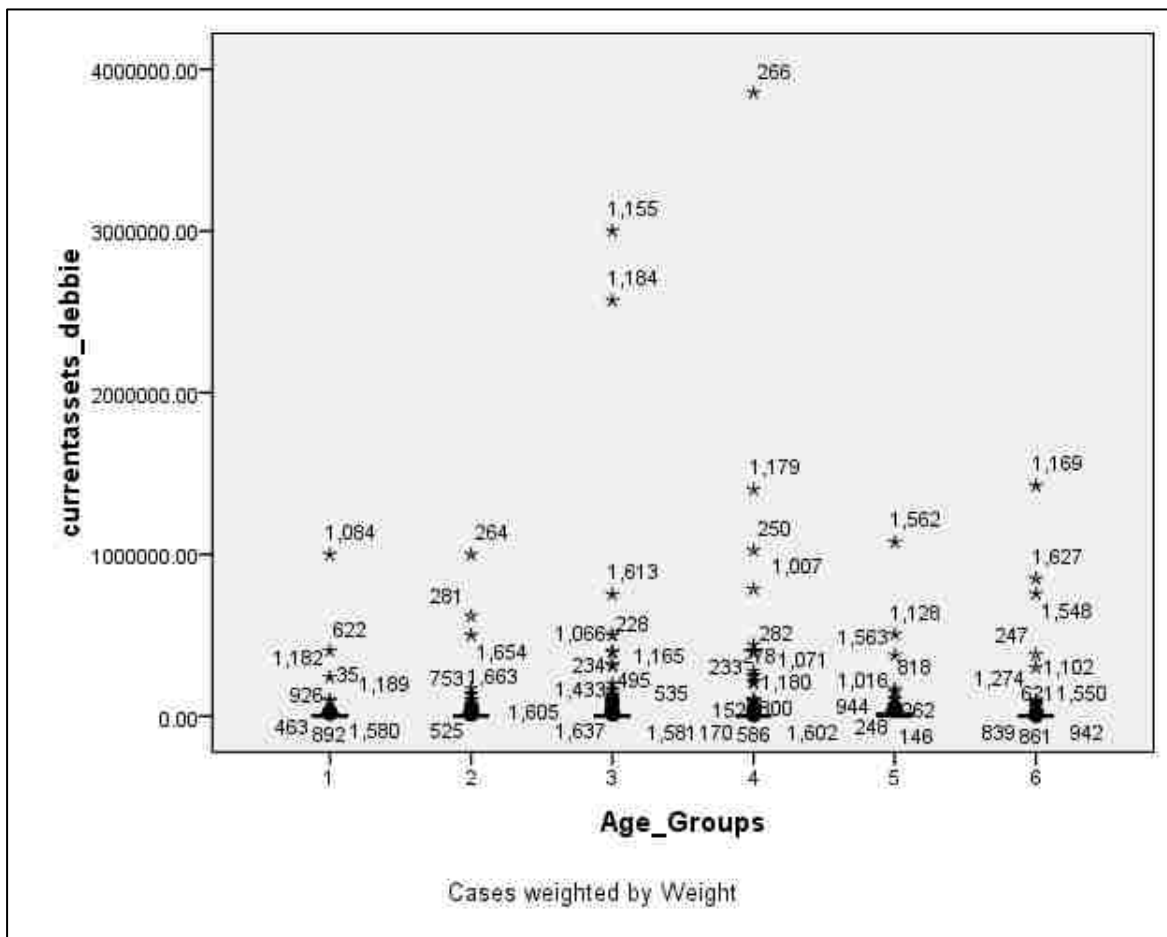
Histogram: Current assets: Age group 60-64



Histogram: Current assets: Age group 65+

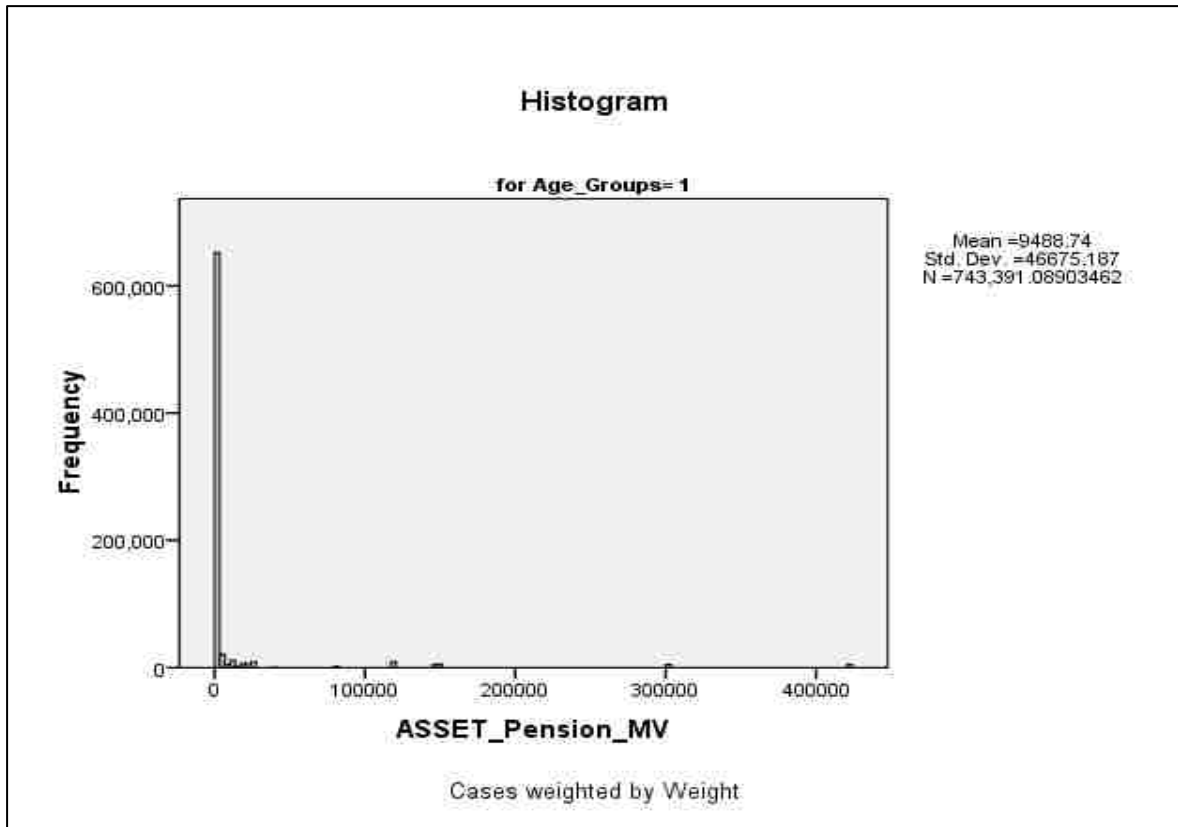


Boxplots: Current assets: Age group

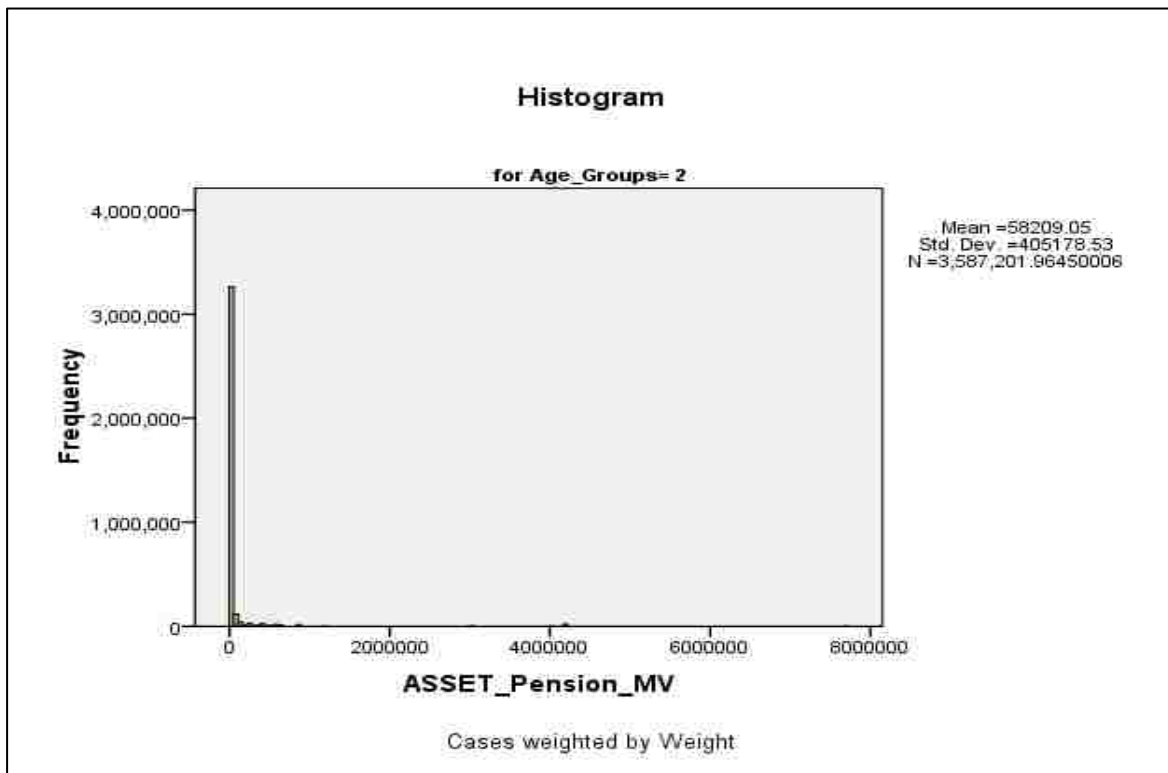


RETIREMENT FUNDING

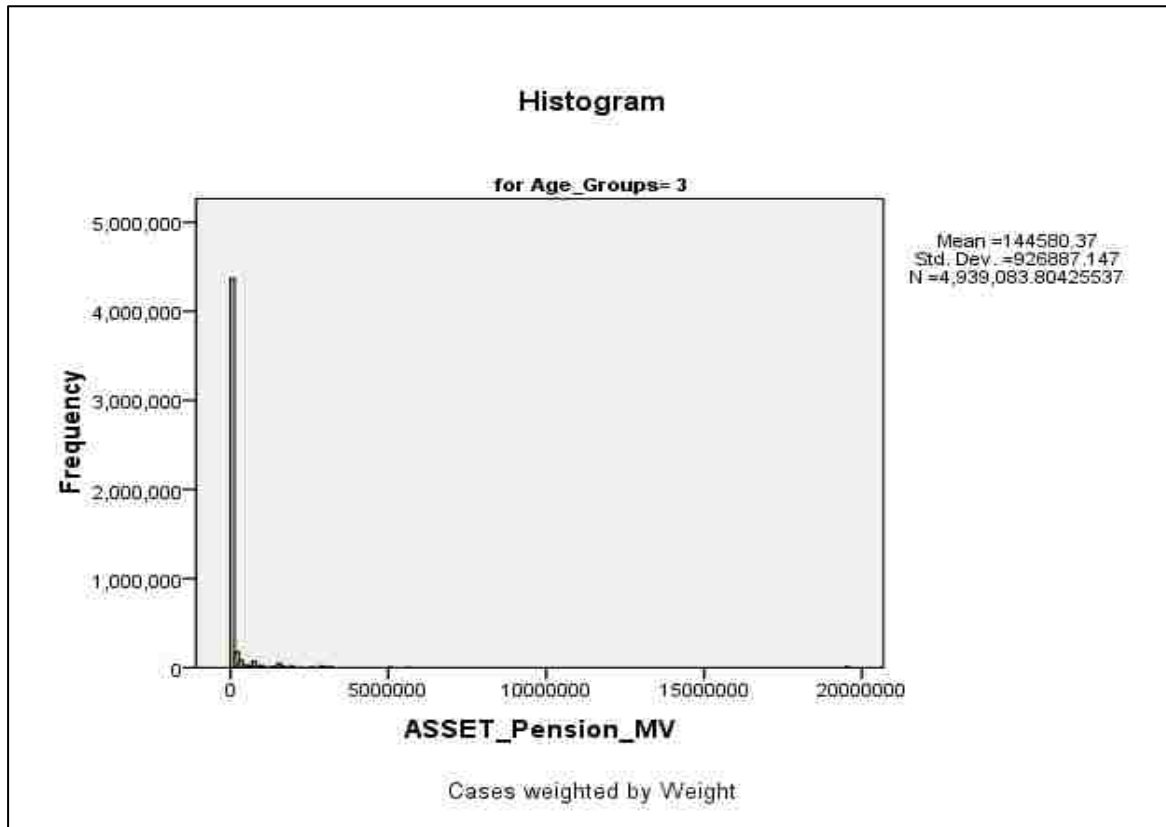
Histogram: Retirement Funding: Age group 17-24



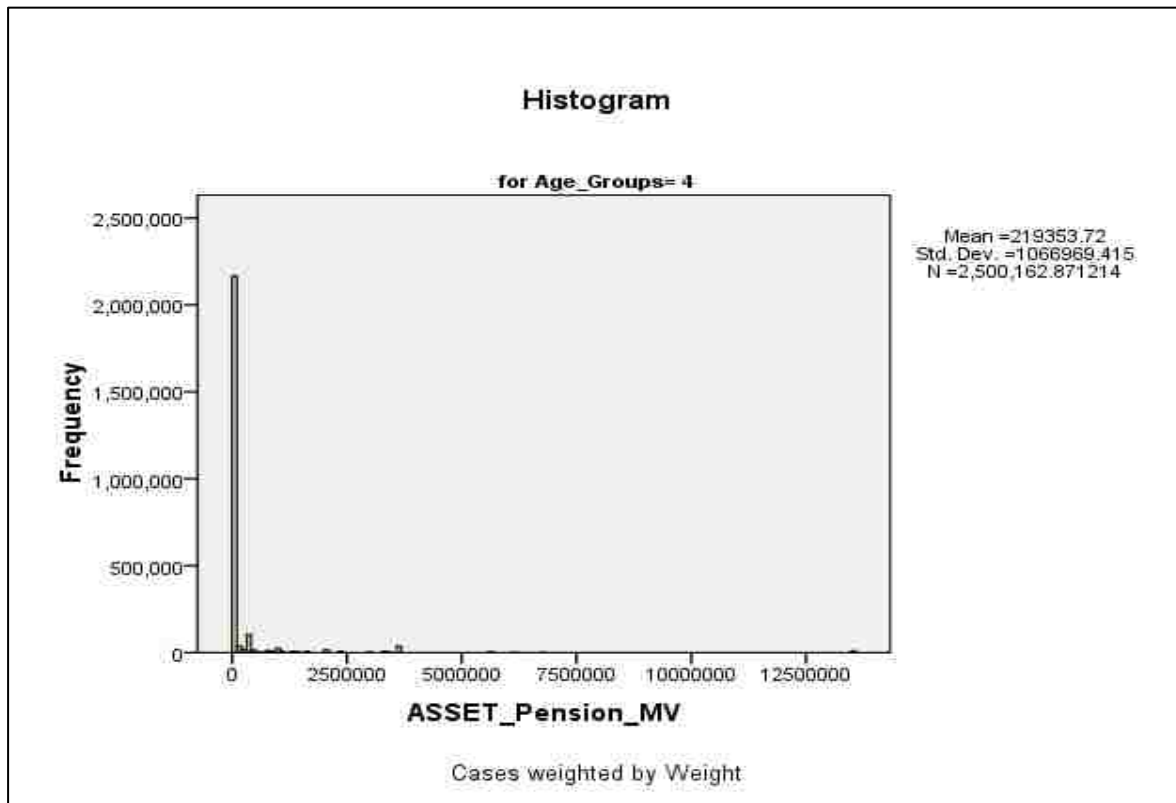
Histogram: Retirement Funding: Age group 25-34



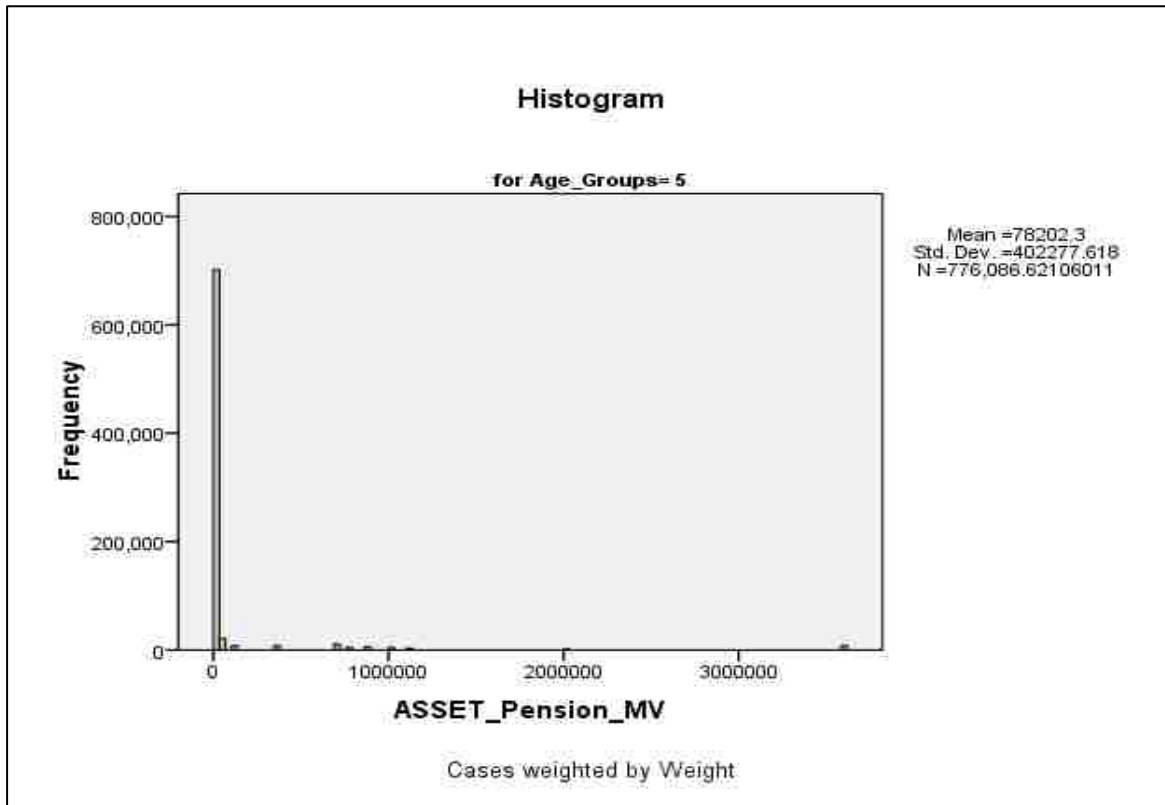
Histogram: Retirement Funding: Age group 35-49



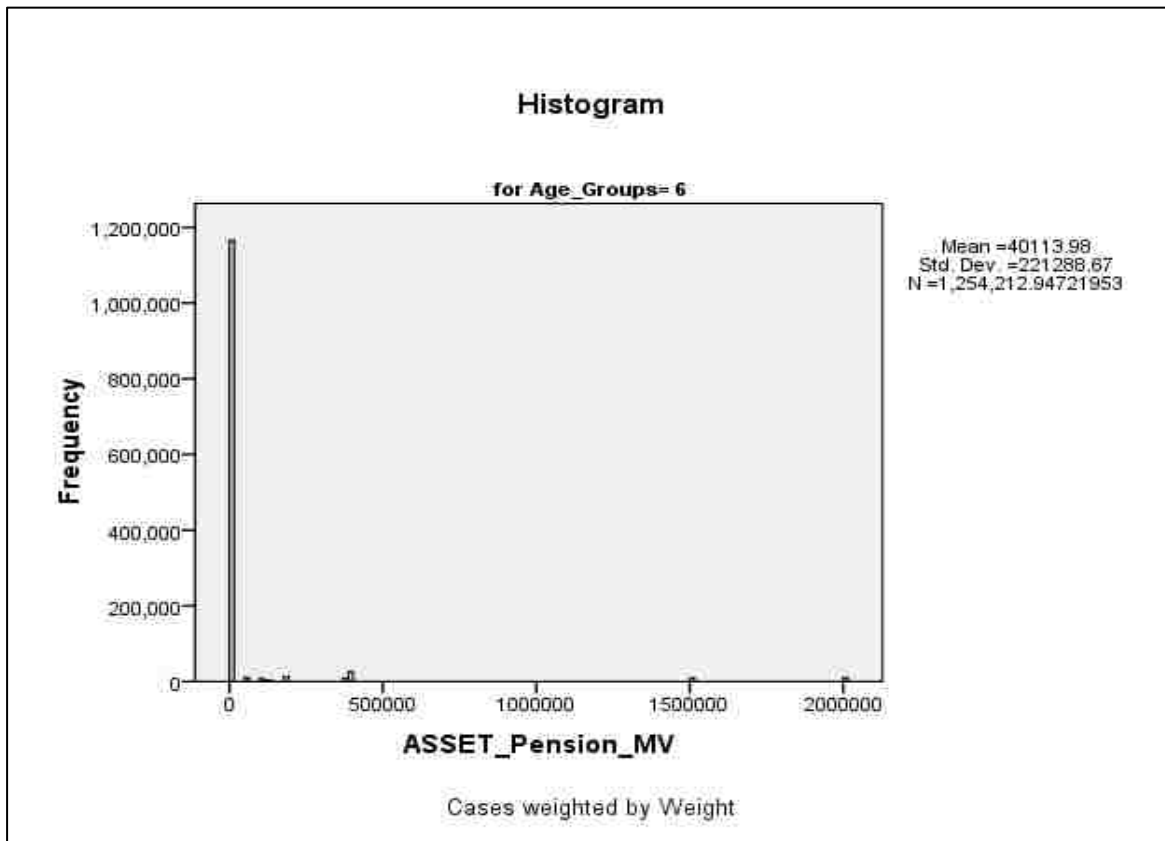
Histogram: Retirement Funding: Age group 50-59



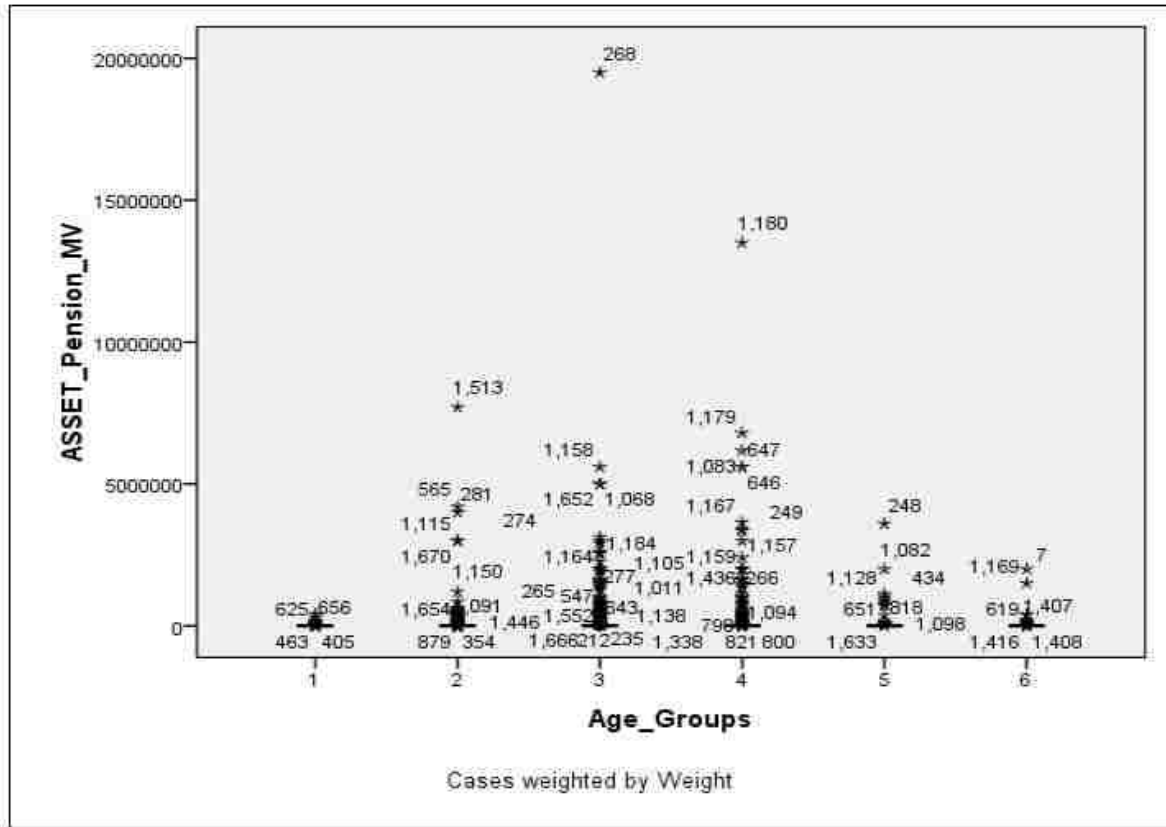
Histogram: Retirement Funding: Age group 60-64



Histogram: Retirement Funding: Age group 65+



Boxplots: Retirement Funding: Age groups



DESCRIPTIVE STATISTICS

LIABILITY CLASS VARIABLES PER AGE GROUP

| Descriptives | | | | | |
|----------------|----------------------------------|----------------------------------|-----------------|------------|----------|
| | Age_Groups | | Statistic | Std. Error | |
| Mortgage loans | 17-24 | Mean | 64.9571 | 5.31032 | |
| | | 95% Confidence Interval for Mean | Lower Bound | 54.5491 | |
| | | | Upper Bound | 75.3652 | |
| | | 5% Trimmed Mean | .0000 | | |
| | | Median | .0000 | | |
| | | Variance | 16235090.439 | | |
| | | Std. Deviation | 4029.27915 | | |
| | | Minimum | .00 | | |
| | | Maximum | 250000.00 | | |
| | | Range | 250000.00 | | |
| | | Interquartile Range | .00 | | |
| | | Skewness | 62.014 | .003 | |
| | | Kurtosis | 3843.726 | .006 | |
| | | 25-34 | Mean | 8715.1432 | 33.52648 |
| | 95% Confidence Interval for Mean | | Lower Bound | 8649.4325 | |
| | | | Upper Bound | 8780.8539 | |
| | 5% Trimmed Mean | | 180.5736 | | |
| | Median | | .0000 | | |
| | Variance | | 2632872116.345 | | |
| | Std. Deviation | | 51311.52031 | | |
| | Minimum | | .00 | | |
| | Maximum | | 1.43E+006 | | |
| | Range | | 1430687.00 | | |
| | Interquartile Range | | .00 | | |
| | Skewness | | 12.292 | .002 | |
| | Kurtosis | | 267.808 | .003 | |
| | 35-49 | | Mean | 23117.2219 | 60.40478 |
| | | 95% Confidence Interval for Mean | Lower Bound | 22998.8307 | |
| | | | Upper Bound | 23235.6131 | |
| | | 5% Trimmed Mean | 2453.6746 | | |
| | | Median | .0000 | | |
| | | Variance | 12753204518.965 | | |
| | | Std. Deviation | 112930.08686 | | |
| | | Minimum | .00 | | |
| | | Maximum | 1.16E+006 | | |
| | | Range | 1160000.00 | | |
| | | Interquartile Range | .00 | | |
| | | Skewness | 6.994 | .001 | |
| | | Kurtosis | 56.225 | .003 | |
| | | 50-59 | Mean | 2083.7230 | 25.66665 |
| | 95% Confidence Interval for Mean | | Lower Bound | 2033.4173 | |
| | | | Upper Bound | 2134.0287 | |
| | 5% Trimmed Mean | | .0000 | | |
| | Median | | .0000 | | |
| | Variance | | 1202551128.338 | | |
| | Std. Deviation | | 34677.81897 | | |
| | Minimum | | .00 | | |
| | Maximum | | 900000.00 | | |
| | Range | | 900000.00 | | |
| | Interquartile Range | | .00 | | |
| | Skewness | | 25.182 | .002 | |
| | Kurtosis | | 644.339 | .004 | |
| 60-64 | Mean | | 13562.0990 | 87.16554 | |
| | 95% Confidence Interval for Mean | Lower Bound | 13391.2573 | | |
| | | Upper Bound | 13732.9407 | | |
| | 5% Trimmed Mean | 342.8149 | | | |
| | Median | .0000 | | | |
| | Variance | 3462056353.312 | | | |
| | Std. Deviation | 58839.24161 | | | |
| | Minimum | .00 | | | |

| Descriptives | | | | | |
|-----------------------|------------|----------------------------------|-------------|----------------|----------|
| | Age_Groups | | Statistic | Std. Error | |
| | | Maximum | 350000.00 | | |
| | | Range | 350000.00 | | |
| | | Interquartile Range | .00 | | |
| | | Skewness | 4.316 | .004 | |
| | | Kurtosis | 17.119 | .007 | |
| | 65+ | Mean | | 2423.5382 | 31.92279 |
| | | 95% Confidence Interval for Mean | Lower Bound | 2360.9707 | |
| | | | Upper Bound | 2486.1058 | |
| | | 5% Trimmed Mean | | .0000 | |
| | | Median | | .0000 | |
| | | Variance | | 960650056.688 | |
| | | Std. Deviation | | 30994.35524 | |
| | | Minimum | | .00 | |
| | | Maximum | | 400000.00 | |
| | | Range | | 400000.00 | |
| | | Interquartile Range | | .00 | |
| | | Skewness | | 12.749 | .003 |
| Kurtosis | | 160.541 | .005 | | |
| Financial liabilities | 17-24 | Mean | 3538.4830 | 17.96842 | |
| | | 95% Confidence Interval for Mean | Lower Bound | 3503.2655 | |
| | | | Upper Bound | 3573.7006 | |
| | | 5% Trimmed Mean | | 621.1926 | |
| | | Median | | .0000 | |
| | | Variance | | 185880415.576 | |
| | | Std. Deviation | | 13633.79681 | |
| | | Minimum | | .00 | |
| | | Maximum | | 100050.00 | |
| | | Range | | 100050.00 | |
| | | Interquartile Range | | 60.00 | |
| | | Skewness | | 3.985 | .003 |
| | | Kurtosis | | 14.652 | .006 |
| | 25-34 | Mean | | 8758.6142 | 22.87131 |
| | | 95% Confidence Interval for Mean | Lower Bound | 8713.7872 | |
| | | | Upper Bound | 8803.4411 | |
| | | 5% Trimmed Mean | | 2243.4413 | |
| | | Median | | .0000 | |
| | | Variance | | 1225281664.161 | |
| | | Std. Deviation | | 35004.02354 | |
| | | Minimum | | .00 | |
| | | Maximum | | 654000.00 | |
| | | Range | | 654000.00 | |
| | | Interquartile Range | | 300.00 | |
| | | Skewness | | 7.460 | .002 |
| | | Kurtosis | | 90.726 | .003 |
| | 35-49 | Mean | | 21504.1804 | 48.05826 |
| | | 95% Confidence Interval for Mean | Lower Bound | 21409.9879 | |
| | | | Upper Bound | 21598.3729 | |
| | | 5% Trimmed Mean | | 6636.9327 | |
| | | Median | | .0000 | |
| | | Variance | | 8072586780.336 | |
| | | Std. Deviation | | 89847.57526 | |
| | | Minimum | | .00 | |
| | | Maximum | | 1.90E+006 | |
| | | Range | | 1900315.00 | |
| | | Interquartile Range | | 2500.00 | |
| | | Skewness | | 11.058 | .001 |
| | | Kurtosis | | 191.706 | .003 |
| | 50-59 | Mean | | 11381.6916 | 29.91686 |
| | | 95% Confidence Interval for Mean | Lower Bound | 11323.0556 | |
| | | | Upper Bound | 11440.3276 | |
| | | 5% Trimmed Mean | | 3750.4078 | |
| | | Median | | .0000 | |
| | | Variance | | 1633793820.696 | |
| Std. Deviation | | | 40420.21550 | | |
| Minimum | | .00 | | | |

| Descriptives | | | | | |
|---------------------|----------------------------------|----------------------------------|----------------|----------------|------------|
| | Age_Groups | | Statistic | Std. Error | |
| | | Maximum | 324000.00 | | |
| | | Range | 324000.00 | | |
| | | Interquartile Range | 2300.00 | | |
| | | Skewness | 5.202 | .002 | |
| | | Kurtosis | 29.810 | .004 | |
| | 60-64 | Mean | | 13038.0633 | 65.84608 |
| | | 95% Confidence Interval for Mean | Lower Bound | 12909.0071 | |
| | | | Upper Bound | 13167.1196 | |
| | | 5% Trimmed Mean | | 3466.9106 | |
| | | Median | | .0000 | |
| | | Variance | | 1975623826.841 | |
| | | Std. Deviation | | 44447.99013 | |
| | | Minimum | | .00 | |
| | | Maximum | | 221440.00 | |
| | | Range | | 221440.00 | |
| | | Interquartile Range | | 125.00 | |
| | | Skewness | | 4.003 | .004 |
| | | Kurtosis | | 15.069 | .007 |
| | | 65+ | Mean | | 1143.5737 |
| | 95% Confidence Interval for Mean | | Lower Bound | 1127.5924 | |
| | | | Upper Bound | 1159.5550 | |
| | 5% Trimmed Mean | | | 31.8860 | |
| | Median | | | .0000 | |
| | Variance | | | 62674522.588 | |
| | Std. Deviation | | | 7916.72423 | |
| | Minimum | | | .00 | |
| | Maximum | | | 87500.00 | |
| | Range | | | 87500.00 | |
| | Interquartile Range | | | .00 | |
| | Skewness | | | 9.045 | .003 |
| Kurtosis | | | 86.861 | .005 | |
| Current liabilities | 17-24 | | Mean | | 1792.3296 |
| | | 95% Confidence Interval for Mean | Lower Bound | 1783.7226 | |
| | | | Upper Bound | 1800.9366 | |
| | | 5% Trimmed Mean | | 1249.0908 | |
| | | Median | | 400.0000 | |
| | | Variance | | 11102393.936 | |
| | | Std. Deviation | | 3332.02550 | |
| | | Minimum | | .00 | |
| | | Maximum | | 17500.00 | |
| | | Range | | 17500.00 | |
| | | Interquartile Range | | 1900.00 | |
| | | Skewness | | 2.809 | .003 |
| | | Kurtosis | | 8.414 | .006 |
| | | 25-34 | Mean | | 2314.1900 |
| | 95% Confidence Interval for Mean | | Lower Bound | 2305.2112 | |
| | | | Upper Bound | 2323.1689 | |
| | 5% Trimmed Mean | | | 1357.8334 | |
| | Median | | | 635.0000 | |
| | Variance | | | 49158509.865 | |
| | Std. Deviation | | | 7011.31299 | |
| | Minimum | | | .00 | |
| | Maximum | | | 114212.00 | |
| | Range | | | 114212.00 | |
| | Interquartile Range | | | 2140.00 | |
| | Skewness | | | 11.052 | .002 |
| | Kurtosis | | | 157.603 | .003 |
| | 35-49 | | Mean | | 11750.5374 |
| | | 95% Confidence Interval for Mean | Lower Bound | 11678.4844 | |
| | | | Upper Bound | 11822.5904 | |
| | | 5% Trimmed Mean | | 2694.6614 | |
| Median | | | 800.0000 | | |
| Variance | | | 4723723446.444 | | |
| Std. Deviation | | | 68729.34924 | | |
| Minimum | | .00 | | | |

| Descriptives | | | | |
|--------------|------------|----------------------------------|---------------|------------|
| | Age_Groups | | Statistic | Std. Error |
| | | Maximum | 720093.00 | |
| | | Range | 720093.00 | |
| | | Interquartile Range | 4000.00 | |
| | | Skewness | 9.585 | .001 |
| | | Kurtosis | 94.662 | .003 |
| | 50-59 | Mean | 4639.3713 | 7.65863 |
| | | 95% Confidence Interval for Mean | Lower Bound | 4624.3607 |
| | | | Upper Bound | 4654.3820 |
| | | 5% Trimmed Mean | 2912.5100 | |
| | | Median | 704.0000 | |
| | | Variance | 107070032.432 | |
| | | Std. Deviation | 10347.46502 | |
| | | Minimum | .00 | |
| | | Maximum | 77750.00 | |
| | | Range | 77750.00 | |
| | | Interquartile Range | 4265.00 | |
| | | Skewness | 4.165 | .002 |
| | | Kurtosis | 21.151 | .004 |
| | 60-64 | Mean | 3178.3964 | 7.18886 |
| | | 95% Confidence Interval for Mean | Lower Bound | 3164.3065 |
| | | | Upper Bound | 3192.4863 |
| | | 5% Trimmed Mean | 2568.6586 | |
| | | Median | 920.0000 | |
| | | Variance | 23548535.920 | |
| | | Std. Deviation | 4852.68337 | |
| | | Minimum | .00 | |
| | | Maximum | 55000.00 | |
| | | Range | 55000.00 | |
| | | Interquartile Range | 5180.00 | |
| | | Skewness | 4.000 | .004 |
| | | Kurtosis | 32.337 | .007 |
| | 65+ | Mean | 3015.9716 | 12.89131 |
| | | 95% Confidence Interval for Mean | Lower Bound | 2990.7051 |
| | | | Upper Bound | 3041.2382 |
| | | 5% Trimmed Mean | 1109.8796 | |
| | | Median | 299.0000 | |
| | | Variance | 156659931.464 | |
| | | Std. Deviation | 12516.38652 | |
| | | Minimum | .00 | |
| | | Maximum | 149125.00 | |
| | | Range | 149125.00 | |
| | | Interquartile Range | 1090.00 | |
| | | Skewness | 9.623 | .003 |
| | | Kurtosis | 106.219 | .005 |

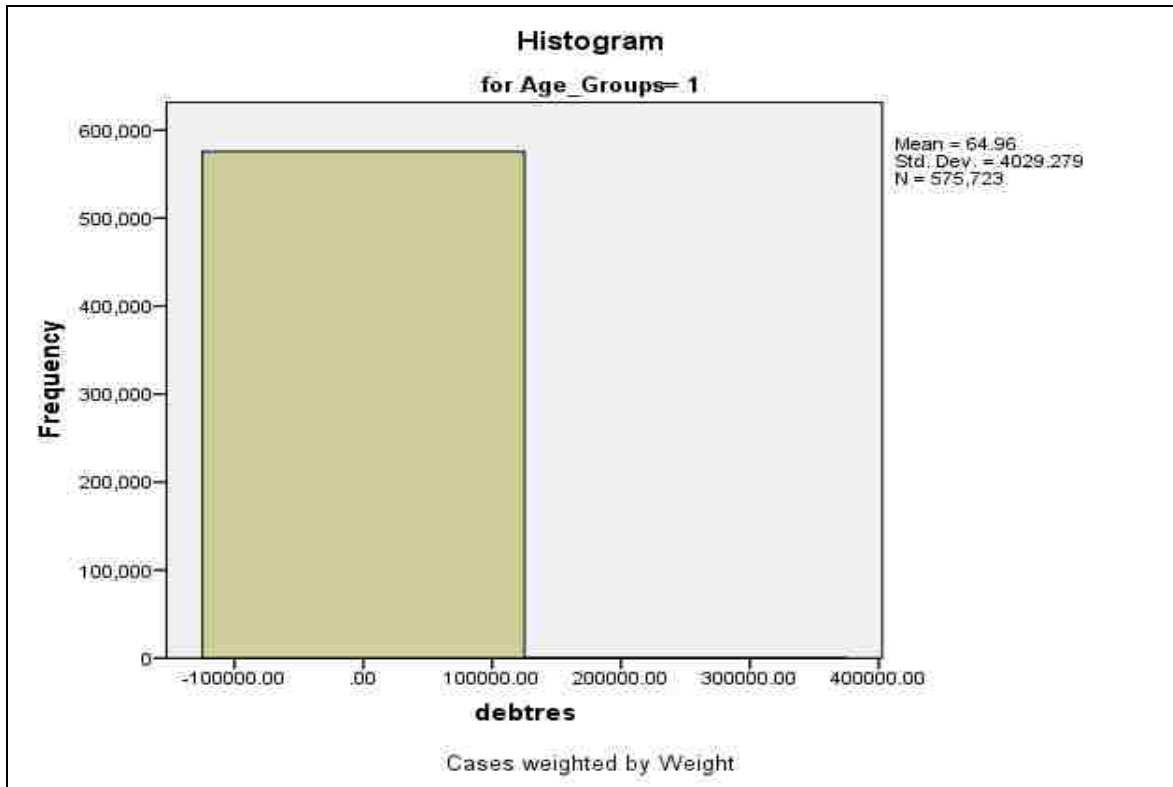
HISTOGRAMS AND BOXPLOTS: LIABILITY CLASS VARIABLES PER AGE GROUP

Note:

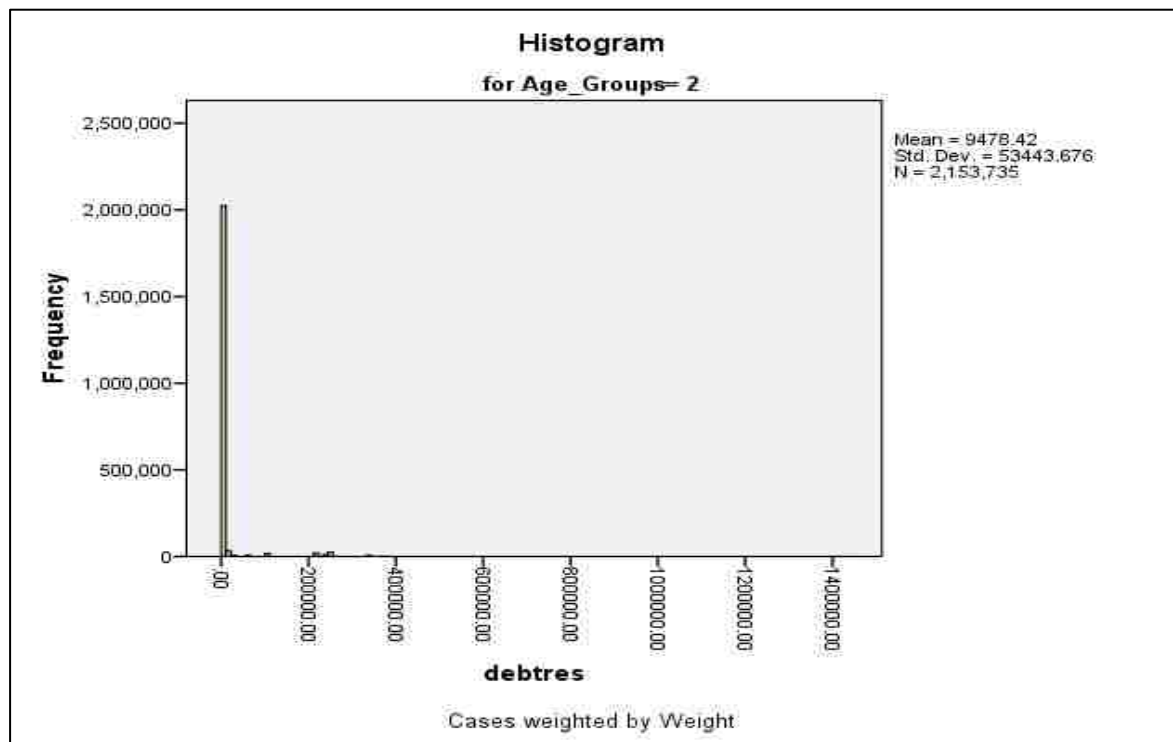
| | |
|-------------|---------|
| Age group 1 | = 17-24 |
| Age group 2 | = 25-34 |
| Age group 3 | = 35-49 |
| Age group 4 | = 50-59 |
| Age group 5 | = 60-64 |
| Age group 6 | = 65+ |

MORTGAGE LOANS

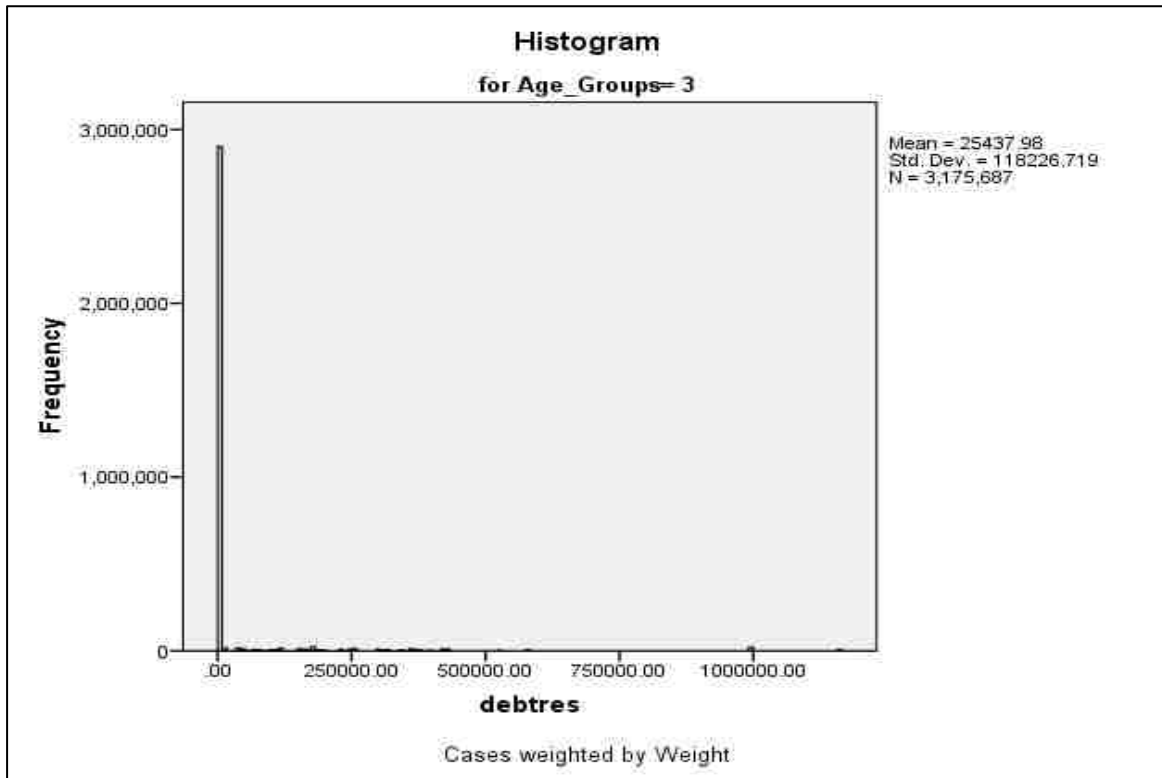
Histogram: Mortgage loans: Age group 17-24



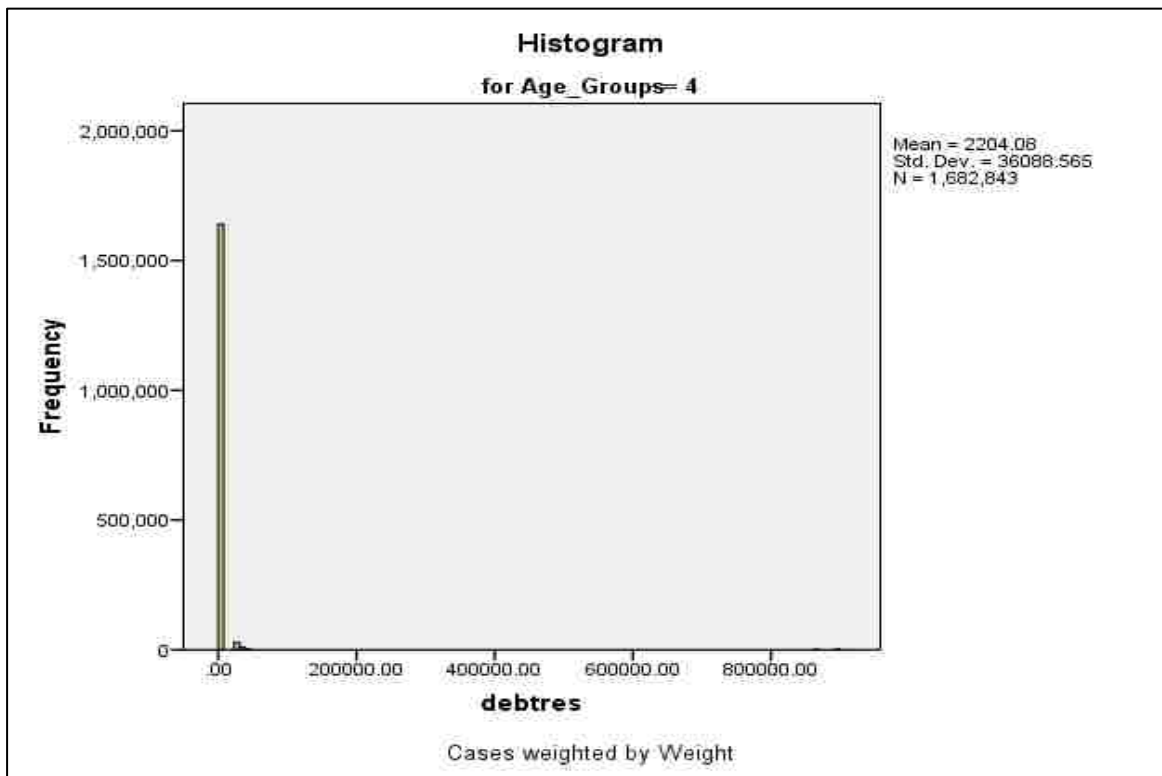
Histogram: Mortgage loans: Age group 25-34



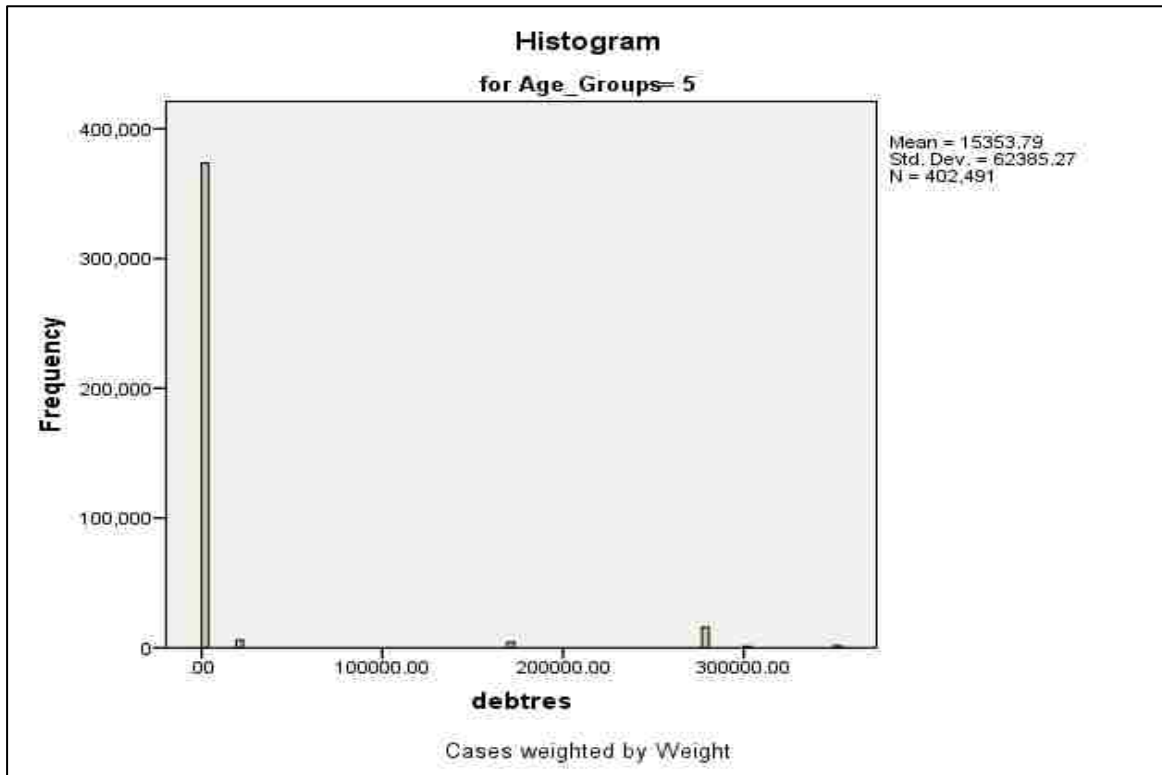
Histogram: Mortgage loans: Age group 35-49



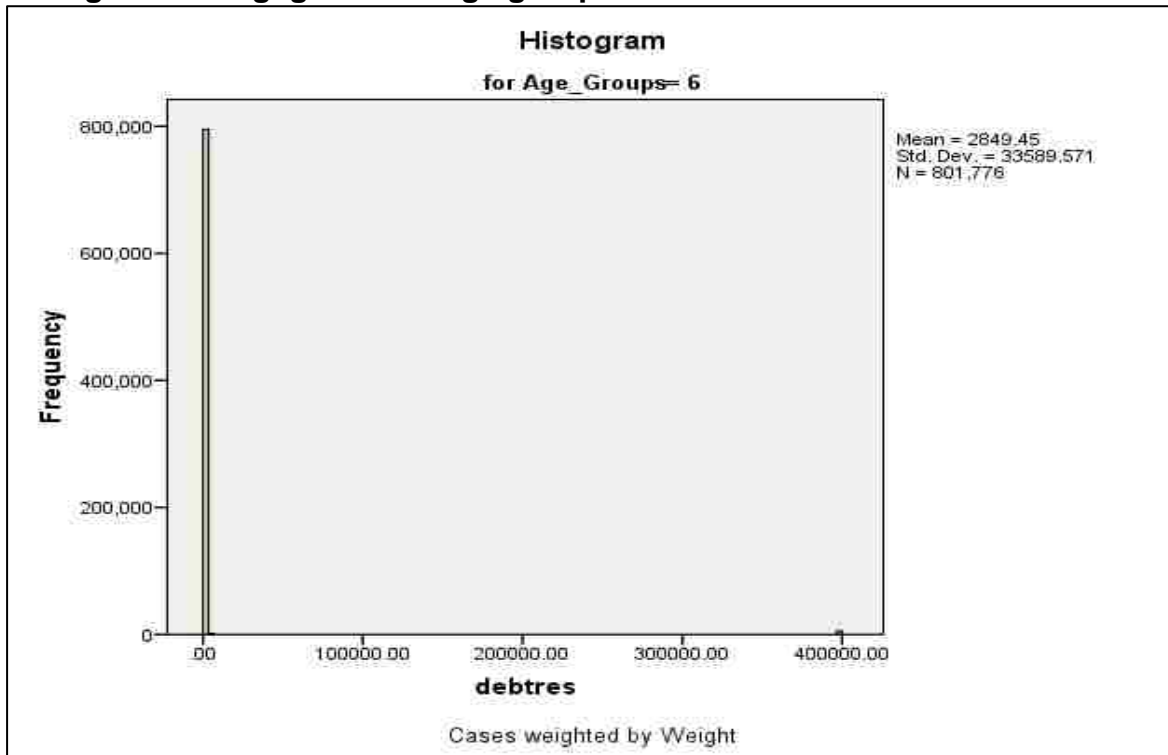
Histogram: Mortgage loans: Age group 50-59



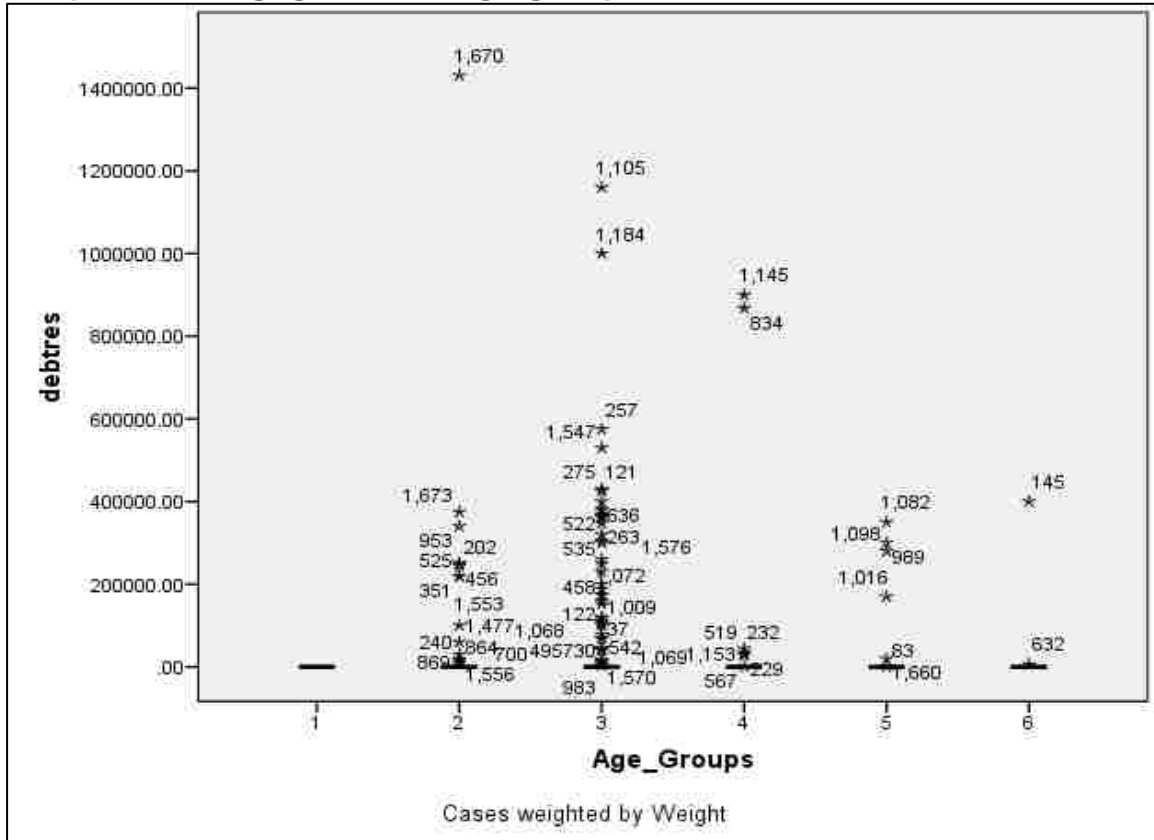
Histogram: Mortgage loans: Age group 60-64



Histogram: Mortgage loans: Age group 65+

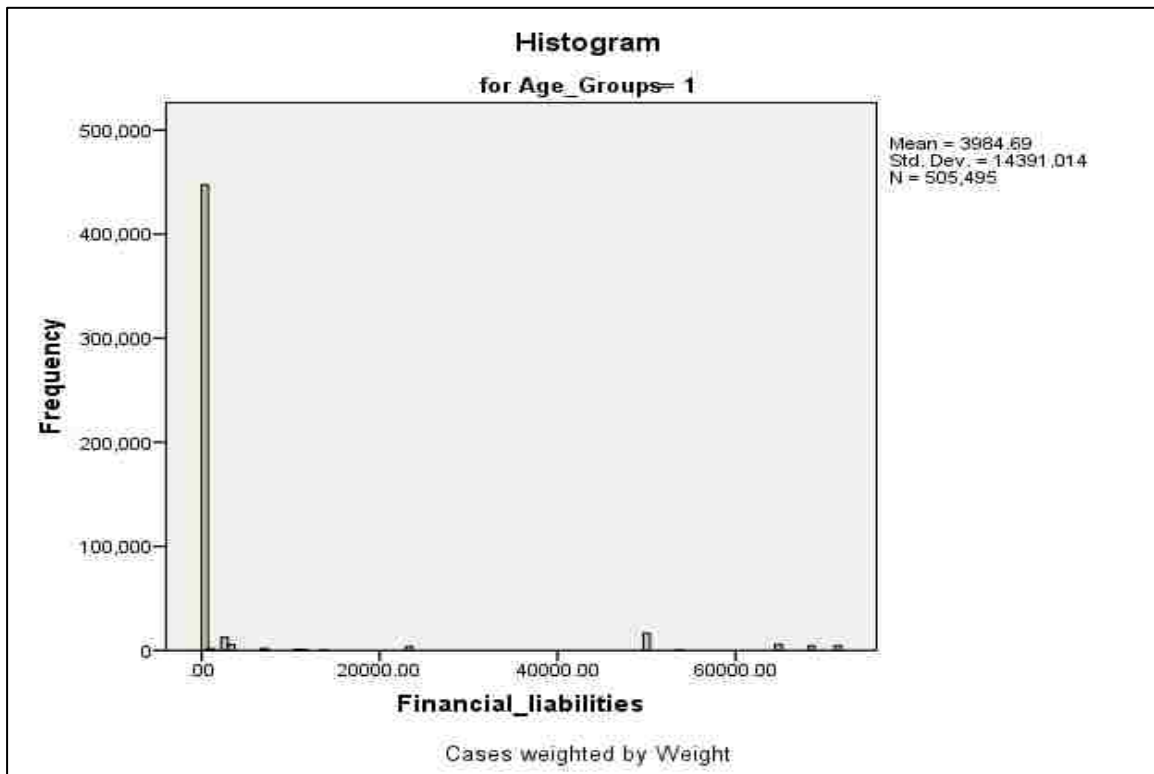


Boxplots: Mortgage loans: Age groups

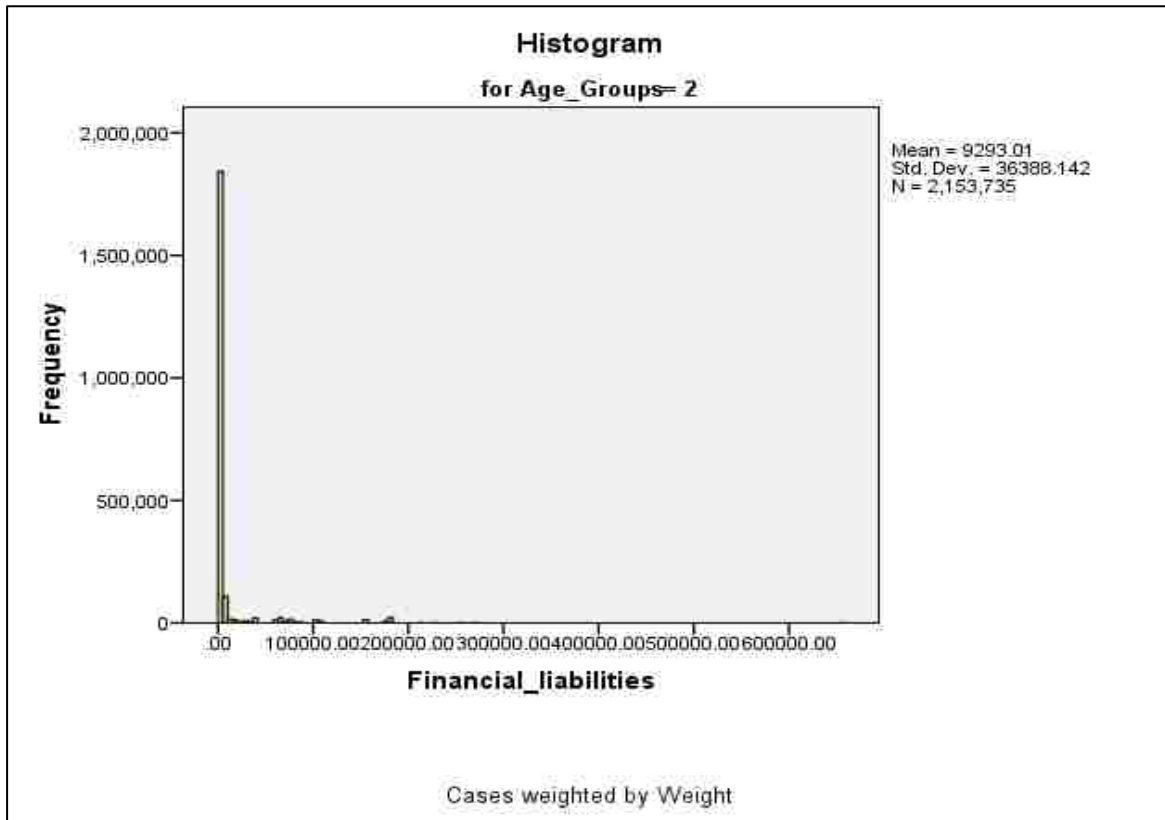


FINANCIAL LIABILITIES

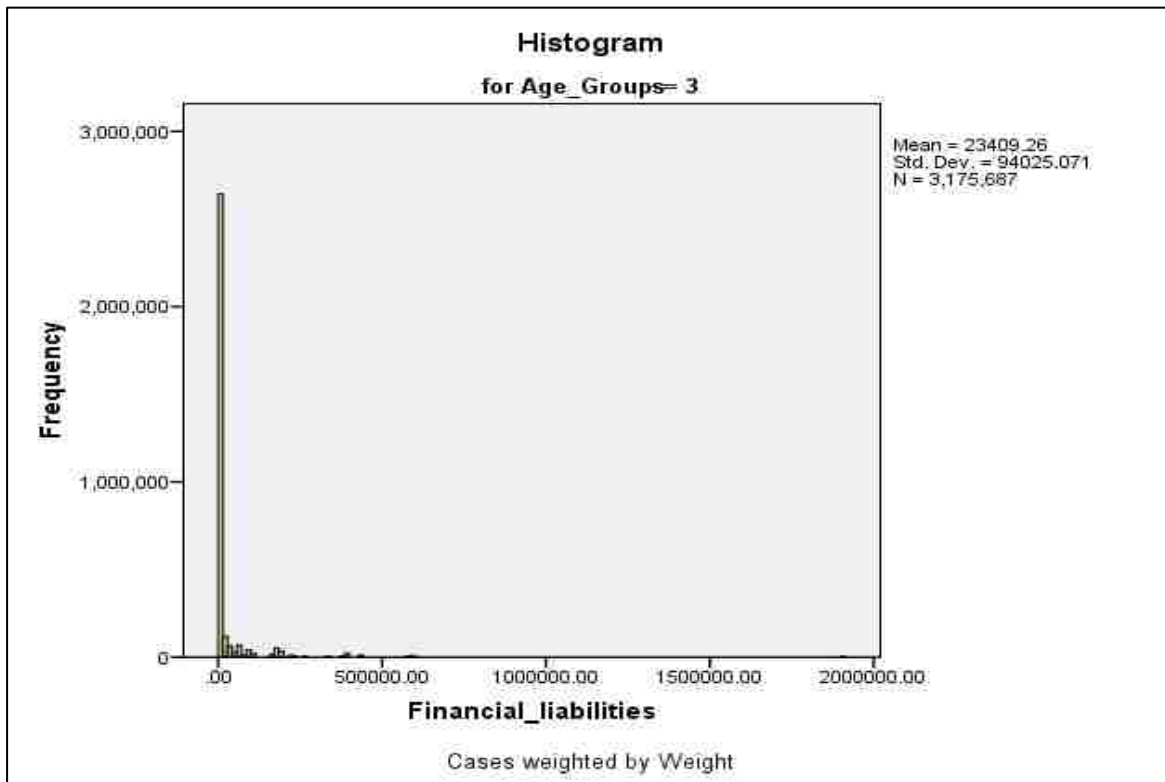
Histogram: Financial liabilities: Age group 17-24



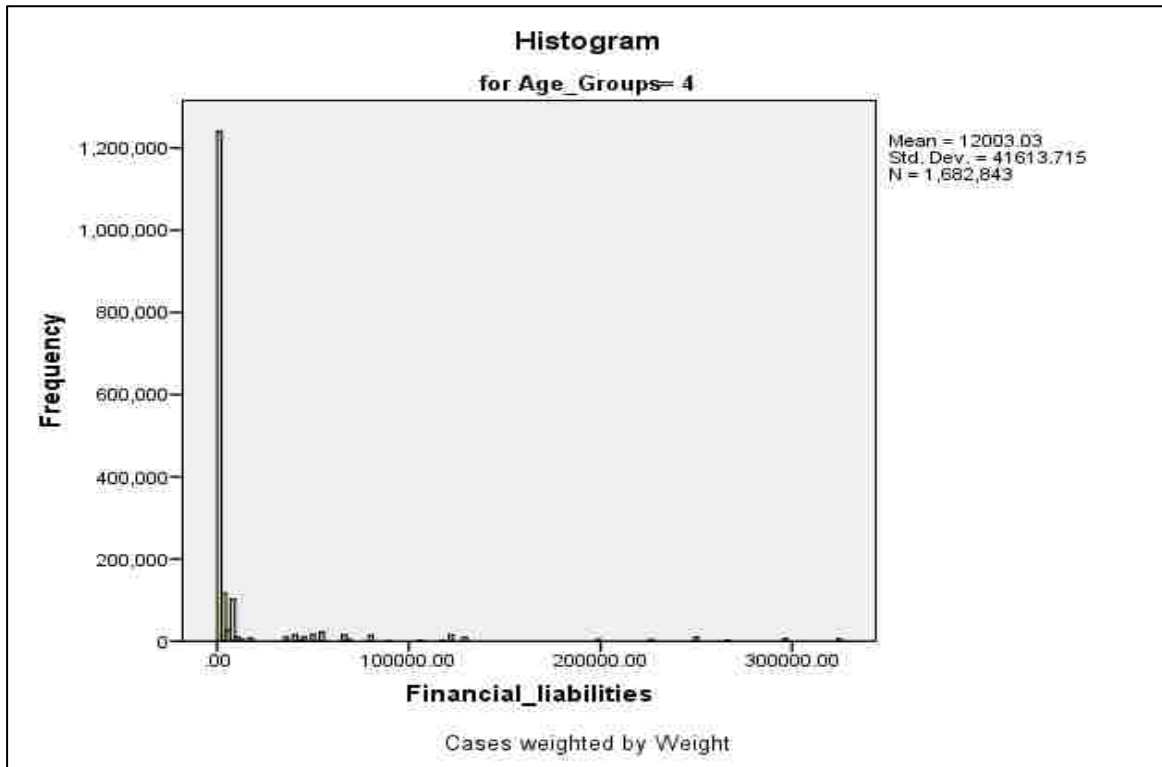
Histogram: Financial liabilities: Age group 25-34



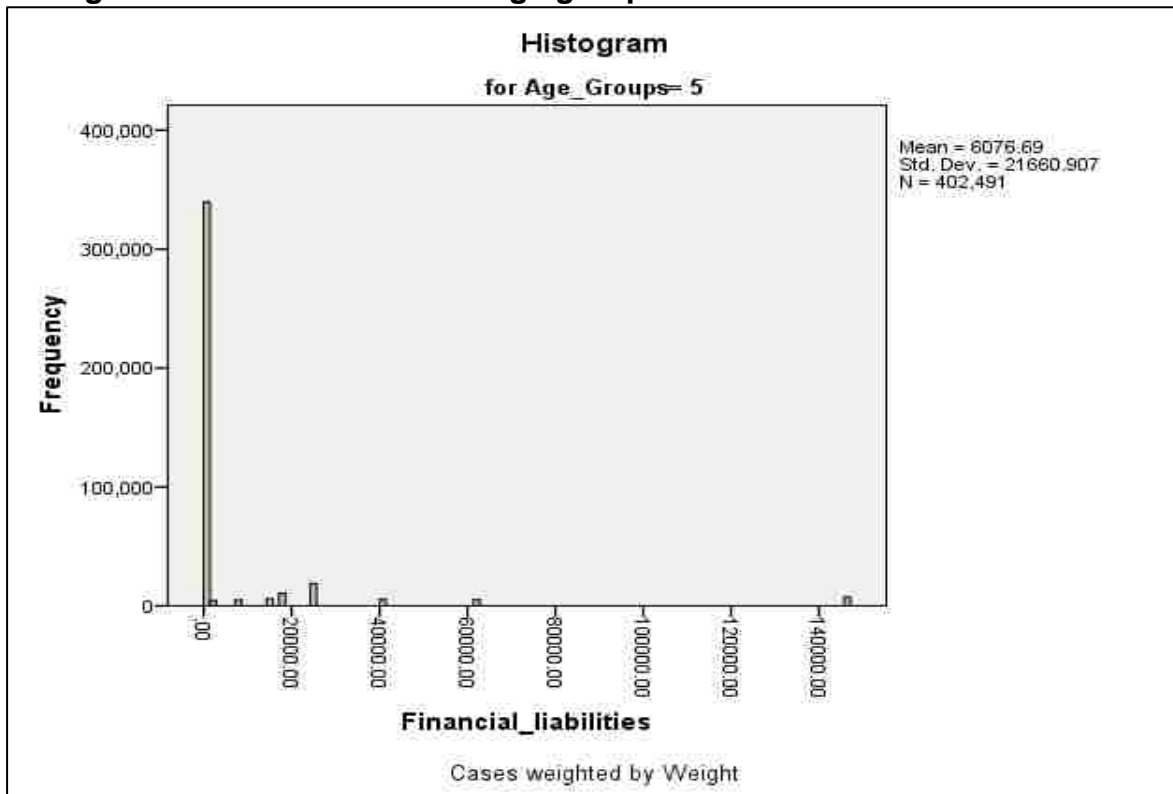
Histogram: Financial liabilities: Age group 35-49



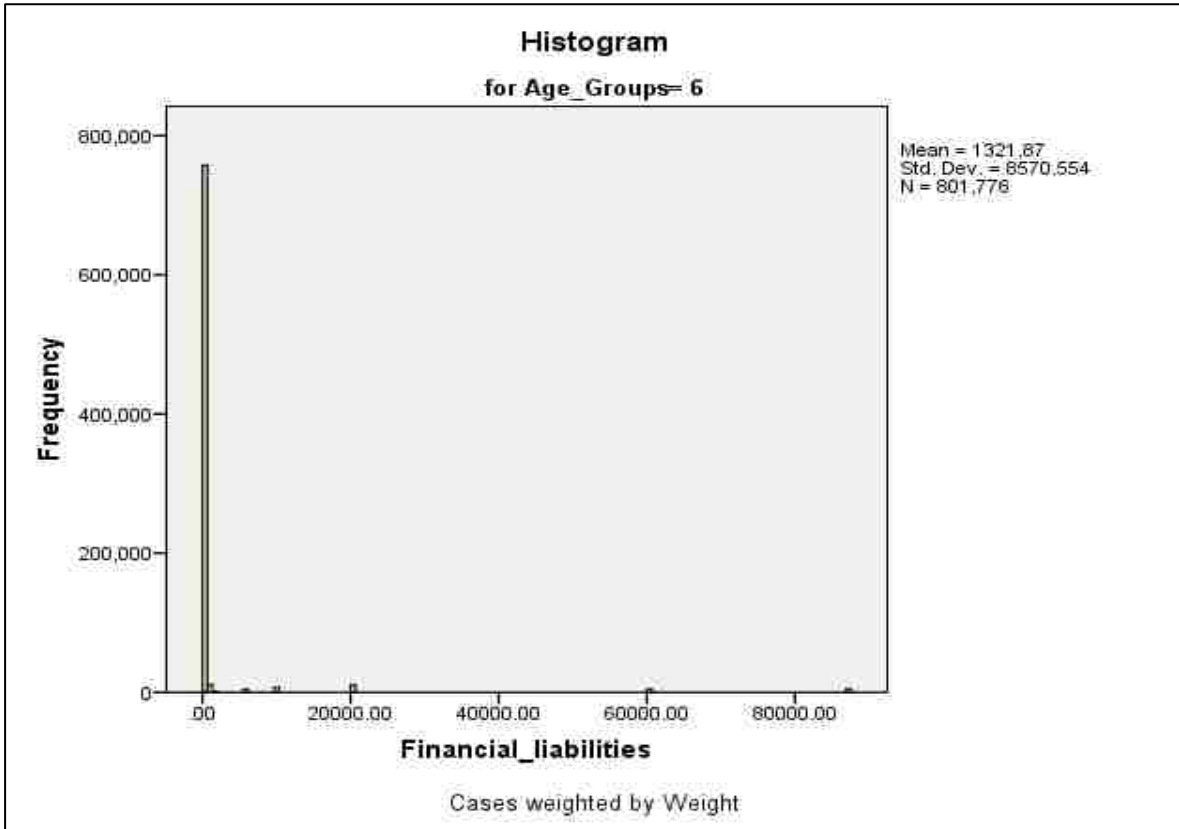
Histogram: Financial liabilities: Age group 50-59



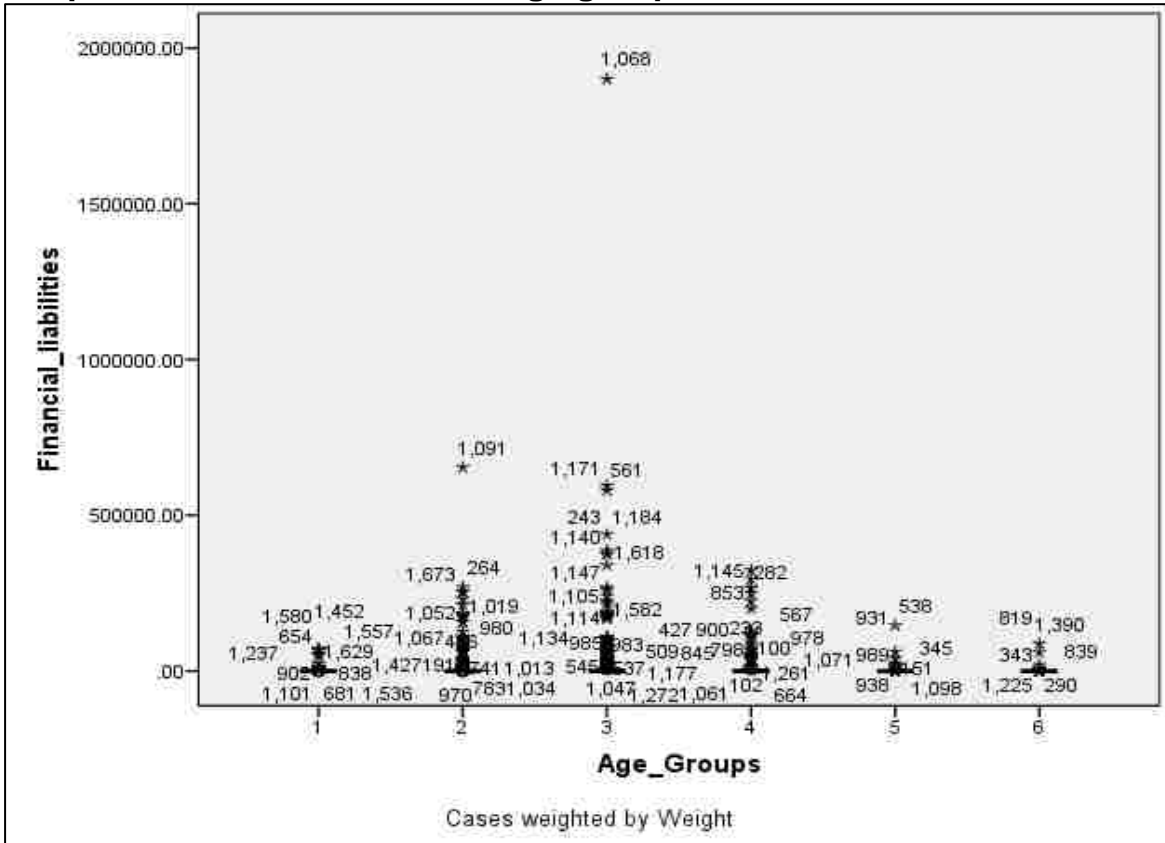
Histogram: Financial liabilities: Age group 60-64

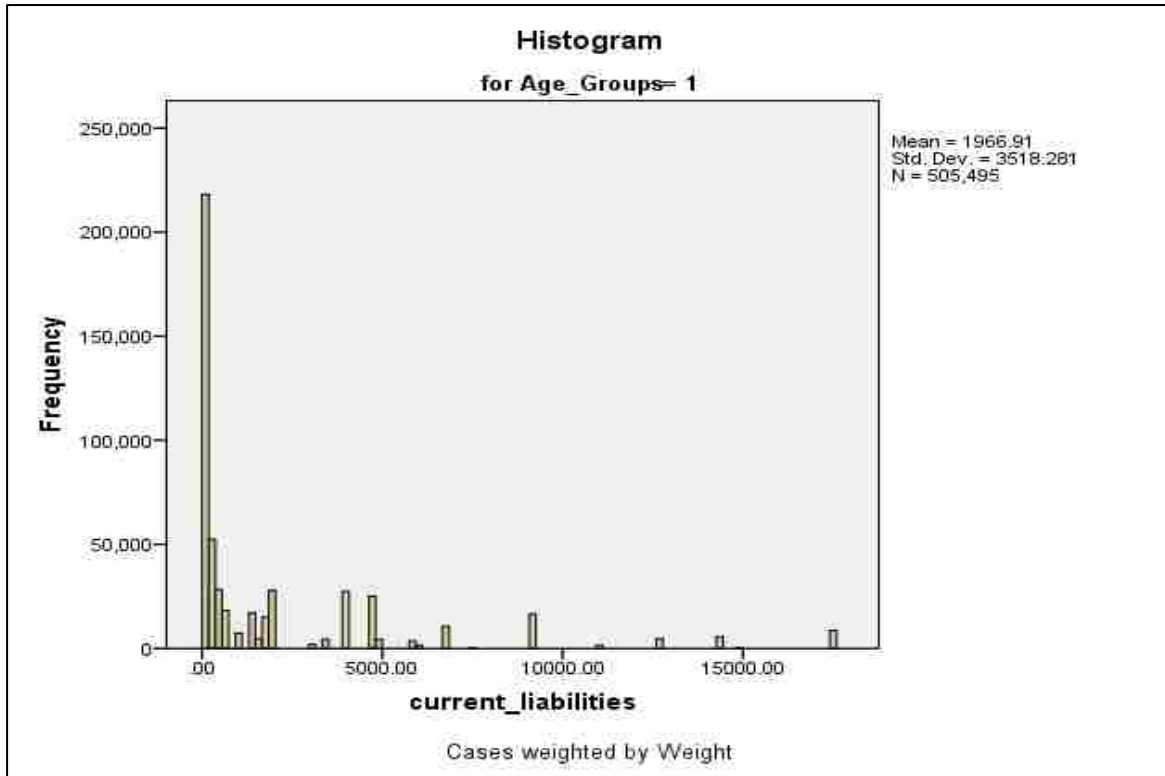
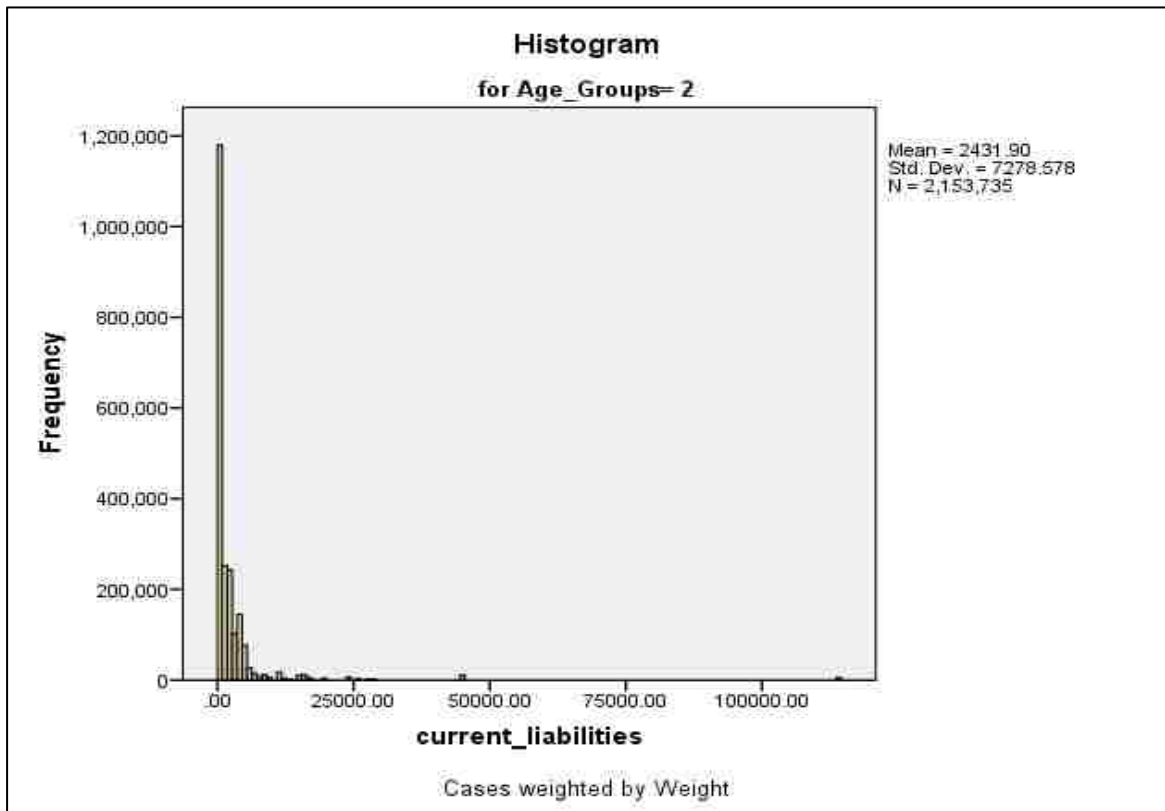


Histogram: Financial liabilities: Age group 65+

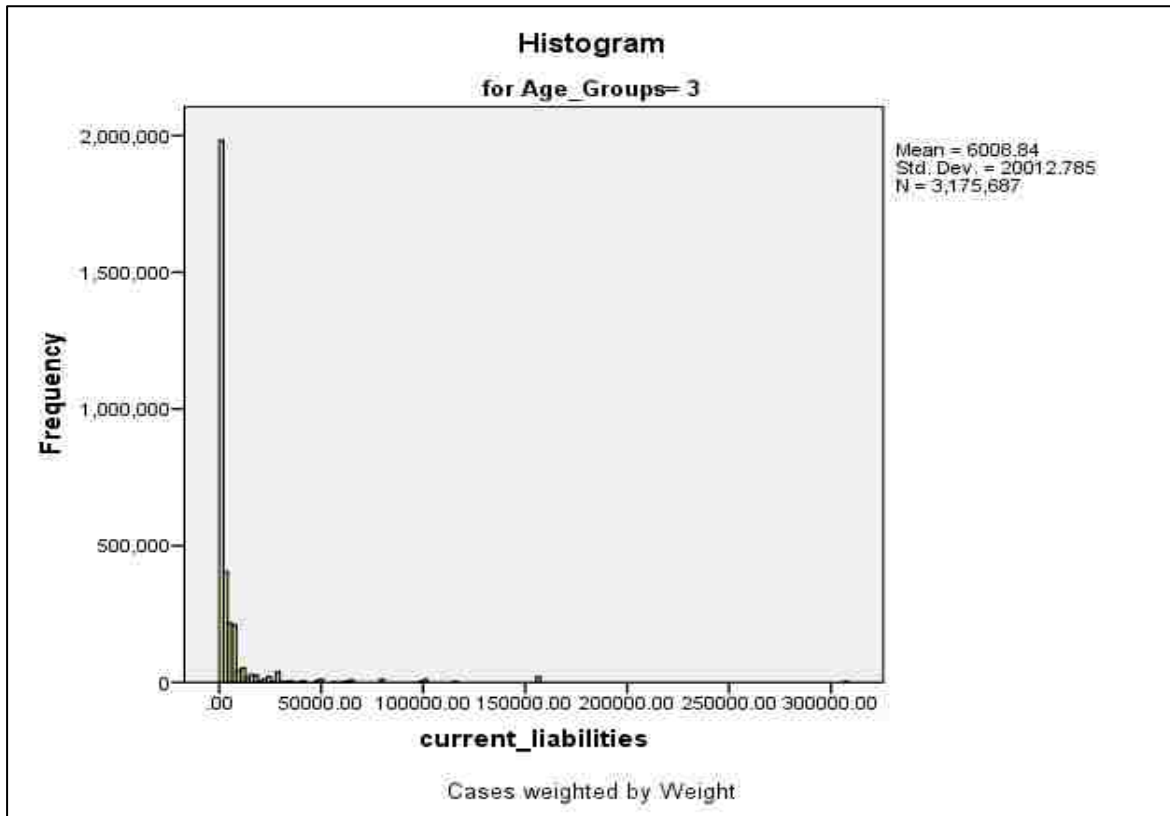


Boxplots: Financial liabilities: Age groups

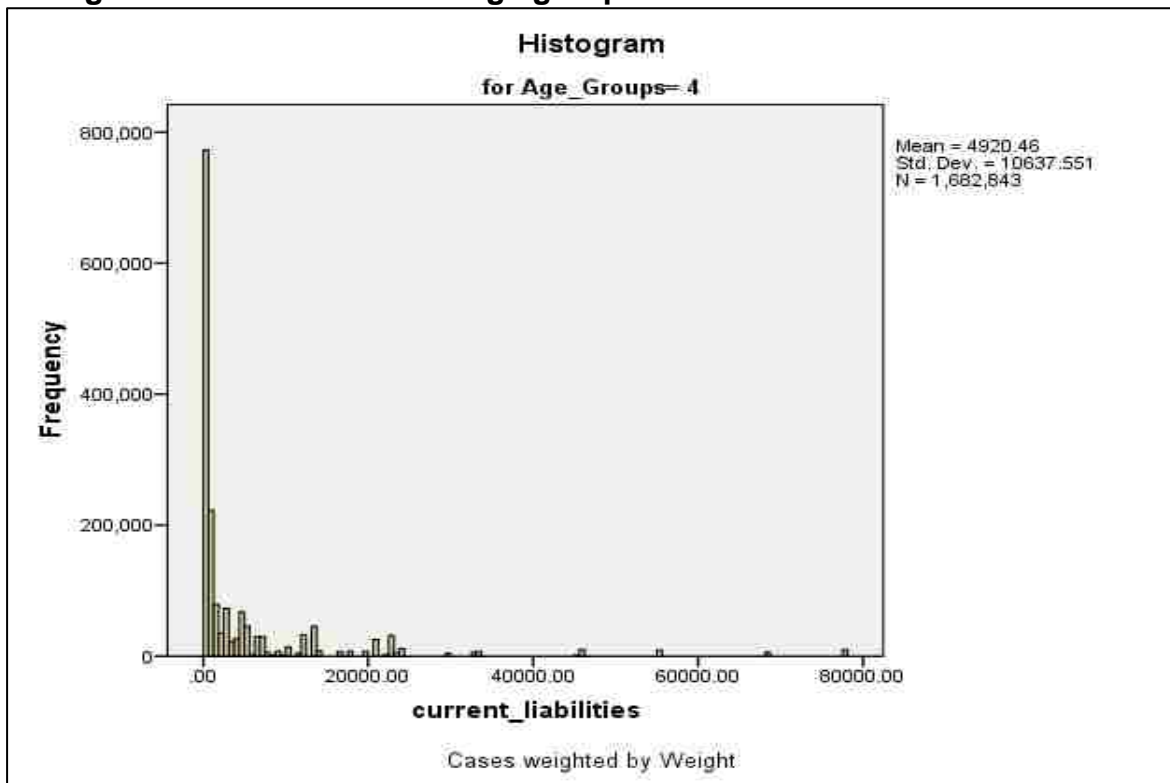


CURRENT LIABILITIES**Histogram: Current liabilities: Age group 17-24****Histogram: Current liabilities: Age group 25-34**

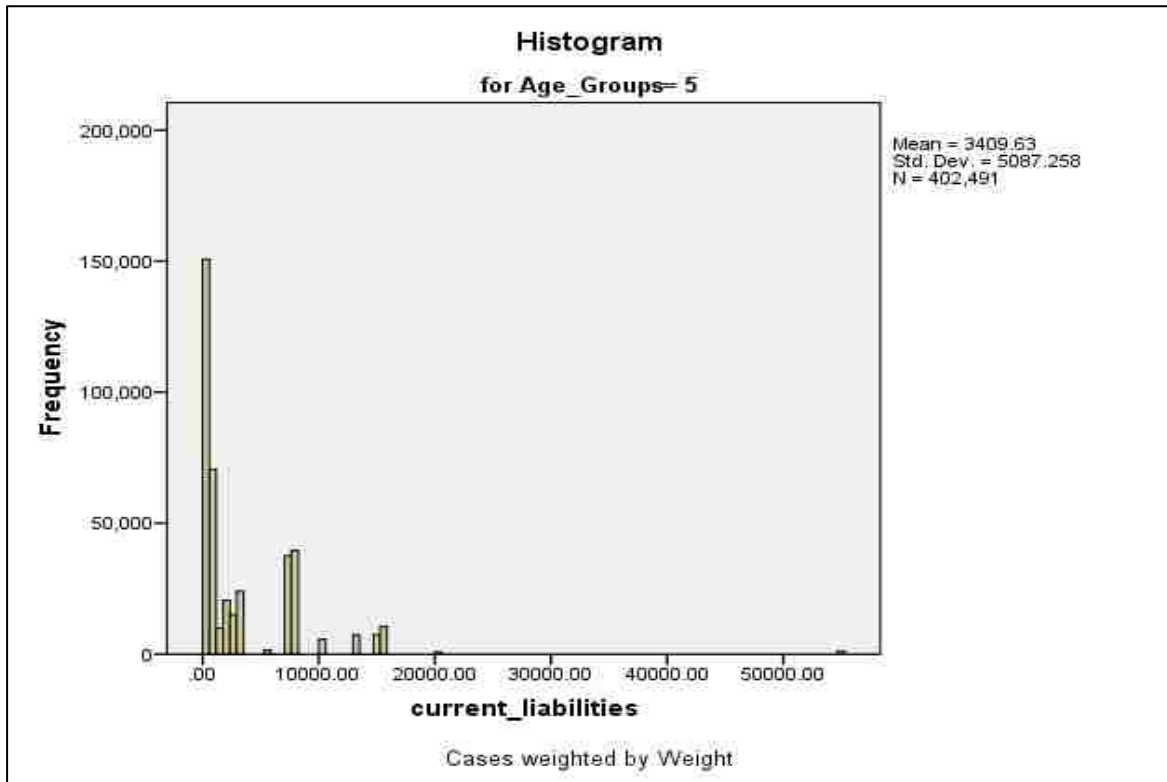
Histogram: Current liabilities: Age group 35-49



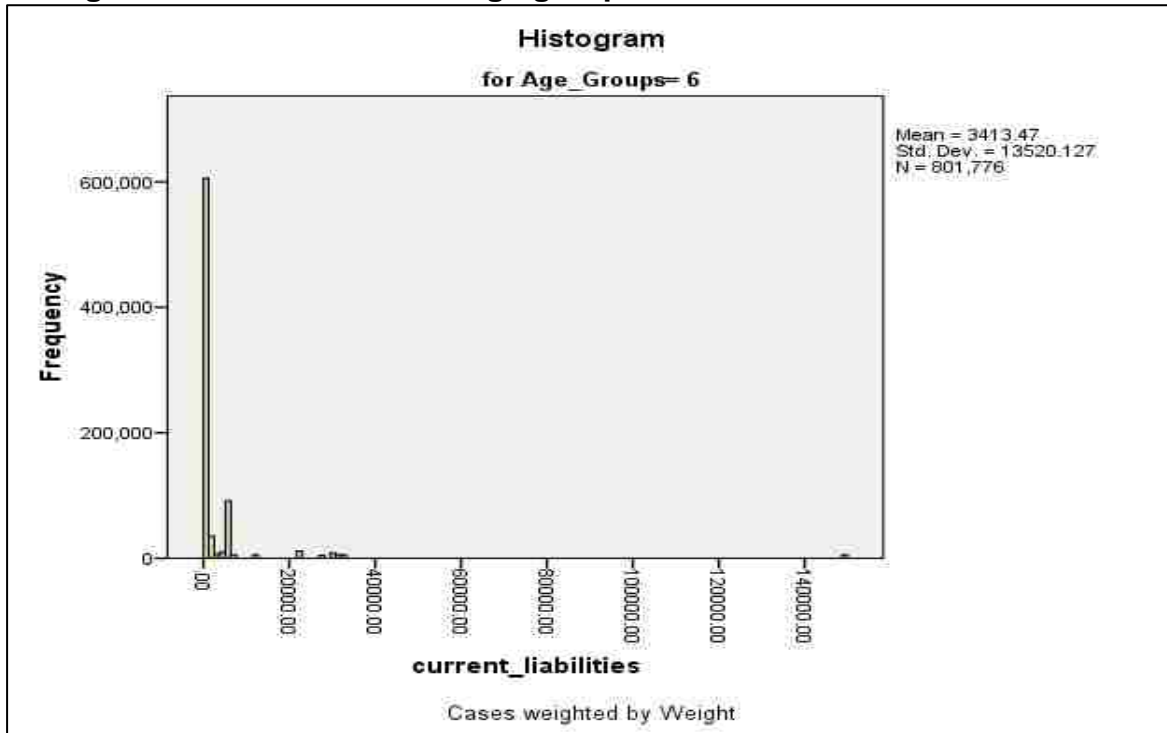
Histogram: Current liabilities: Age group 50-59



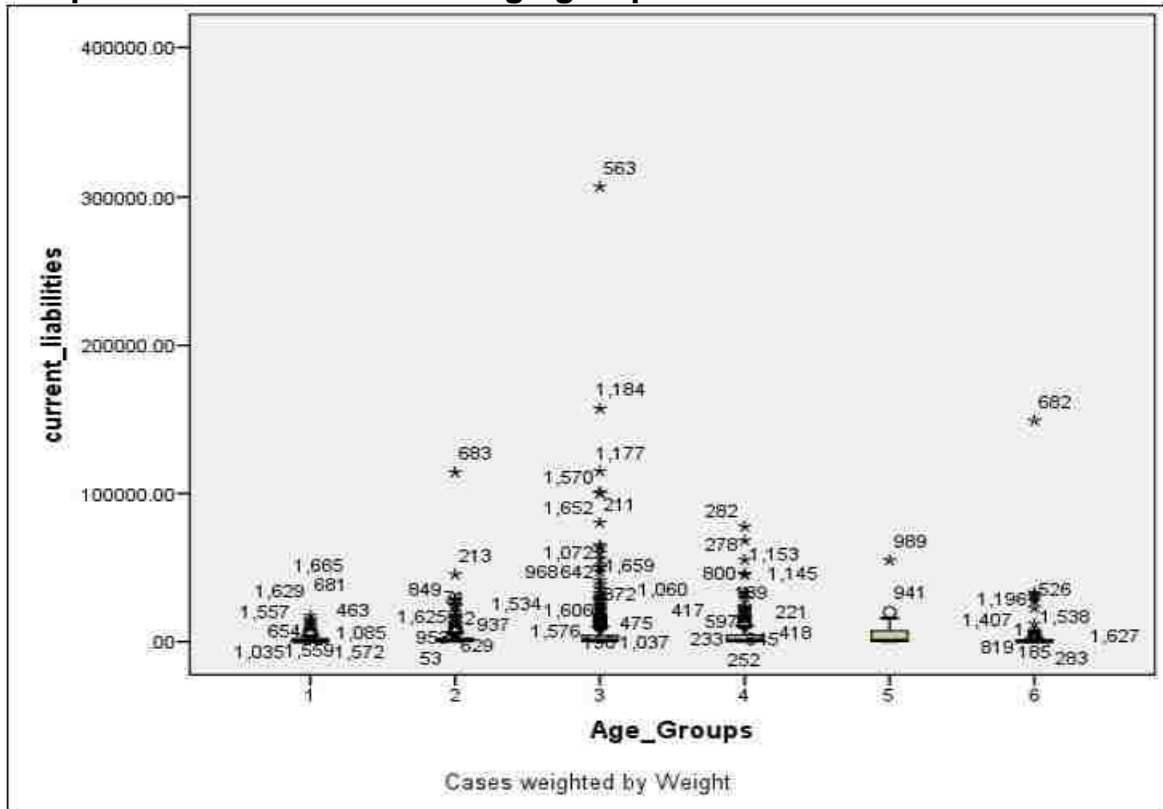
Histogram: Current liabilities: Age group 60-64



Histogram: Current liabilities: Age group 65+



Boxplots: Current liabilities: Age groups



DESCRIPTIVE STATISTICS

ASSET CLASS VARIABLES PER INCOME GROUP

| Descriptives | | | | | |
|---------------------|----------------------------------|----------------------------------|-------------------|------------------|------------|
| | INCGRP | | | Statistic | Std. Error |
| Non-current assets | LI | Mean | | 49212.4446 | 58.33535 |
| | | 95% Confidence Interval for Mean | Lower Bound | 49098.1094 | |
| | | | Upper Bound | 49326.7797 | |
| | | 5% Trimmed Mean | | 21054.5552 | |
| | | Median | | .0000 | |
| | | Variance | | 23076380708.665 | |
| | | Std. Deviation | | 151909.11990 | |
| | | Minimum | | .00 | |
| | | Maximum | | 1.50E+006 | |
| | | Range | | 1500000.00 | |
| | | Interquartile Range | | 30000.00 | |
| | | Skewness | | 5.514 | .001 |
| | | Kurtosis | | 37.381 | .002 |
| | LEMC | Mean | | 132112.7222 | 176.30722 |
| | | 95% Confidence Interval for Mean | Lower Bound | 131767.1664 | |
| | | | Upper Bound | 132458.2780 | |
| | | 5% Trimmed Mean | | 71250.0987 | |
| | | Median | | .0000 | |
| | | Variance | | 125373500384.984 | |
| | | Std. Deviation | | 354081.20592 | |
| | | Minimum | | .00 | |
| | | Maximum | | 3.81E+006 | |
| | | Range | | 3814025.00 | |
| | | Interquartile Range | | 100000.00 | |
| | | Skewness | | 5.580 | .001 |
| | | Kurtosis | | 40.925 | .002 |
| | EMC | Mean | | 401593.8169 | 434.58836 |
| | | 95% Confidence Interval for Mean | Lower Bound | 400742.0391 | |
| | | | Upper Bound | 402445.5947 | |
| | | 5% Trimmed Mean | | 321196.6742 | |
| | | Median | | 200000.0000 | |
| | | Variance | | 363788143651.520 | |
| | | Std. Deviation | | 603148.52537 | |
| | | Minimum | | .00 | |
| | | Maximum | | 7.20E+006 | |
| | | Range | | 7200000.00 | |
| | | Interquartile Range | | 600000.00 | |
| | | Skewness | | 4.147 | .002 |
| | | Kurtosis | | 33.268 | .004 |
| | RMC | Mean | | 868586.9220 | 941.97519 |
| | | 95% Confidence Interval for Mean | Lower Bound | 866740.6818 | |
| | | | Upper Bound | 870433.1622 | |
| | | 5% Trimmed Mean | | 797713.1494 | |
| Median | | 800000.0000 | | | |
| Variance | | 600560262197.213 | | | |
| Std. Deviation | | 774958.23255 | | | |
| Minimum | | .00 | | | |
| Maximum | | 4.67E+006 | | | |
| Range | | 4670000.00 | | | |
| Interquartile Range | | 901542.00 | | | |
| Skewness | | 1.671 | .003 | | |
| Kurtosis | | 5.463 | .006 | | |
| UMC | Mean | | 1748294.8413 | 3297.64439 | |
| | 95% Confidence Interval for Mean | Lower Bound | 1741831.5418 | | |
| | | Upper Bound | 1754758.1407 | | |
| | 5% Trimmed Mean | | 1682827.6014 | | |
| | Median | | 1300000.0000 | | |
| | Variance | | 2282547348521.818 | | |
| | Std. Deviation | | 1510810.16297 | | |
| | Minimum | | .00 | | |
| | Maximum | | 4.68E+006 | | |

| Descriptives | | | | | |
|----------------------------------|----------------------------------|----------------------------------|--------------|-------------------|--------------|
| | INCGRP | | Statistic | Std. Error | |
| Other non-financial assets | | Range | 4675000.00 | | |
| | | Interquartile Range | 2498315.00 | | |
| | | Skewness | .535 | .005 | |
| | | Kurtosis | -.997 | .011 | |
| | EA | Mean | | 1031842.3755 | 2017.80798 |
| | | 95% Confidence Interval for Mean | Lower Bound | 1027887.5150 | |
| | | | Upper Bound | 1035797.2360 | |
| | | 5% Trimmed Mean | | 997994.3615 | |
| | | Median | | 888141.0000 | |
| | | Variance | | 633312933526.940 | |
| | | Std. Deviation | | 795809.60884 | |
| | | Minimum | | .00 | |
| | | Maximum | | 2.71E+006 | |
| | | Range | | 2707850.00 | |
| | | Interquartile Range | | 950000.00 | |
| | | Skewness | | .737 | .006 |
| | | Kurtosis | | -.413 | .012 |
| | | AFF | Mean | | 2781118.7823 |
| | 95% Confidence Interval for Mean | | Lower Bound | 2760710.7071 | |
| | | | Upper Bound | 2801526.8575 | |
| | 5% Trimmed Mean | | | 2717909.7581 | |
| | Median | | | 1000000.0000 | |
| | Variance | | | 7364624481574.218 | |
| | Std. Deviation | | | 2713784.16267 | |
| | Minimum | | | .00 | |
| | Maximum | | | 6.70E+006 | |
| | Range | | | 6700000.00 | |
| | Interquartile Range | | | 5850000.00 | |
| | Skewness | | | .640 | .009 |
| | Kurtosis | | | -1.403 | .019 |
| | Other non-financial assets | | LI | Mean | 21668.3239 |
| | | 95% Confidence Interval for Mean | | Lower Bound | 21595.3414 |
| Upper Bound | | | | 21741.3064 | |
| 5% Trimmed Mean | | | | 11668.0330 | |
| Median | | | | 5000.0000 | |
| Variance | | | | 9402554063.340 | |
| Std. Deviation | | | | 96966.76783 | |
| Minimum | | | | .00 | |
| Maximum | | | | 3.00E+006 | |
| Range | | | | 3000000.00 | |
| Interquartile Range | | | | 20000.00 | |
| Skewness | | | | 21.717 | .001 |
| Kurtosis | | | | 617.676 | .002 |
| LEMC | | Mean | | | 41393.2085 |
| | | 95% Confidence Interval for Mean | Lower Bound | 41303.9444 | |
| | | | Upper Bound | 41482.4726 | |
| | | 5% Trimmed Mean | | 27919.1138 | |
| | | Median | | 15000.0000 | |
| | | Variance | | 8366105502.141 | |
| | | Std. Deviation | | 91466.41735 | |
| | | Minimum | | .00 | |
| | | Maximum | | 1.05E+006 | |
| | | Range | | 1050000.00 | |
| | | Interquartile Range | | 45000.00 | |
| | | Skewness | | 6.708 | .001 |
| | | Kurtosis | | 59.960 | .002 |
| | | EMC | Mean | | 188677.6580 |
| 95% Confidence Interval for Mean | | | Lower Bound | 188025.9285 | |
| | | | Upper Bound | 189329.3876 | |
| 5% Trimmed Mean | | | | 118504.3281 | |
| Median | | | | 82000.0000 | |
| Variance | | | | 212976033011.057 | |
| Std. Deviation | | | 461493.26432 | | |
| Minimum | | | .00 | | |
| Maximum | | | 8.10E+006 | | |

| Descriptives | | | | |
|------------------|--------|----------------------------------|-------------------|------------|
| | INCGRP | | Statistic | Std. Error |
| | | Range | 8100000.00 | |
| | | Interquartile Range | 156000.00 | |
| | | Skewness | 10.218 | .002 |
| | | Kurtosis | 153.171 | .004 |
| | RMC | Mean | 342321.5061 | 484.95788 |
| | | 95% Confidence Interval for Mean | | |
| | | Lower Bound | 341371.0047 | |
| | | Upper Bound | 343272.0075 | |
| | | 5% Trimmed Mean | 290728.1624 | |
| | | Median | 258750.0000 | |
| | | Variance | 159178974483.718 | |
| | | Std. Deviation | 398972.39815 | |
| | | Minimum | .00 | |
| | | Maximum | 4.69E+006 | |
| | | Range | 4690000.00 | |
| | | Interquartile Range | 305000.00 | |
| | | Skewness | 5.120 | .003 |
| | | Kurtosis | 45.185 | .006 |
| | UMC | Mean | 262415.5824 | 738.36306 |
| | | 95% Confidence Interval for Mean | | |
| | | Lower Bound | 260968.4095 | |
| | | Upper Bound | 263862.7553 | |
| | | 5% Trimmed Mean | 213216.8697 | |
| | | Median | 133000.0000 | |
| | | Variance | 114433207676.041 | |
| | | Std. Deviation | 338279.77722 | |
| | | Minimum | 20000.00 | |
| | | Maximum | 3.16E+006 | |
| | | Range | 3138300.00 | |
| | | Interquartile Range | 165000.00 | |
| | | Skewness | 4.179 | .005 |
| | | Kurtosis | 22.011 | .011 |
| | EA | Mean | 352038.0012 | 601.39112 |
| | | 95% Confidence Interval for Mean | | |
| | | Lower Bound | 350859.2875 | |
| | | Upper Bound | 353216.7150 | |
| | | 5% Trimmed Mean | 333745.0575 | |
| | | Median | 282000.0000 | |
| | | Variance | 56256498840.490 | |
| | | Std. Deviation | 237184.52488 | |
| | | Minimum | .00 | |
| | | Maximum | 2.25E+006 | |
| | | Range | 2250000.00 | |
| | | Interquartile Range | 225000.00 | |
| | | Skewness | 3.606 | .006 |
| | | Kurtosis | 24.735 | .012 |
| | AFF | Mean | 1889605.2213 | 9145.70106 |
| | | 95% Confidence Interval for Mean | | |
| | | Lower Bound | 1871679.6628 | |
| | | Upper Bound | 1907530.7797 | |
| | | 5% Trimmed Mean | 1789996.7934 | |
| | | Median | 470000.0000 | |
| | | Variance | 5681877978166.214 | |
| | | Std. Deviation | 2383669.01607 | |
| | | Minimum | .00 | |
| | | Maximum | 5.48E+006 | |
| | | Range | 5475000.00 | |
| | | Interquartile Range | 5245000.00 | |
| | | Skewness | .831 | .009 |
| | | Kurtosis | -1.292 | .019 |
| Financial assets | LI | Mean | 5801.5987 | 7.10159 |
| | | 95% Confidence Interval for Mean | | |
| | | Lower Bound | 5787.6799 | |
| | | Upper Bound | 5815.5176 | |
| | | 5% Trimmed Mean | 3016.0030 | |
| | | Median | 70.0000 | |
| | | Variance | 341991288.439 | |
| | | Std. Deviation | 18493.00647 | |
| | | Minimum | .00 | |
| | | Maximum | 300000.00 | |

| Descriptives | | | | |
|--------------|--------|----------------------------------|----------------------------|----------------------------|
| | INCGRP | | Statistic | Std. Error |
| | | Range | 300000.00 | |
| | | Interquartile Range | 5000.00 | |
| | | Skewness | 8.053 | .001 |
| | | Kurtosis | 88.892 | .002 |
| | LEMC | Mean | 26328.9481 | 48.94453 |
| | | 95% Confidence Interval for Mean | Lower Bound Upper Bound | 26233.0186 26424.8777 |
| | | 5% Trimmed Mean | 8074.8439 | |
| | | Median | 300.0000 | |
| | | Variance | 9662152905.955 | |
| | | Std. Deviation | 98296.25072 | |
| | | Minimum | .00 | |
| | | Maximum | 1.00E+006 | |
| | | Range | 1000000.00 | |
| | | Interquartile Range | 10000.00 | |
| | | Skewness | 6.120 | .001 |
| | | Kurtosis | 42.785 | .002 |
| | EMC | Mean | 115629.8849 | 231.35189 |
| | | 95% Confidence Interval for Mean | Lower Bound Upper Bound | 115176.4433 116083.3264 |
| | | 5% Trimmed Mean | 59811.5871 | |
| | | Median | 2050.0000 | |
| | | Variance | 103095202571.873 | |
| | | Std. Deviation | 321084.41658 | |
| | | Minimum | .00 | |
| | | Maximum | 3.21E+006 | |
| | | Range | 3212500.00 | |
| | | Interquartile Range | 45000.00 | |
| | | Skewness | 5.208 | .002 |
| | | Kurtosis | 37.341 | .004 |
| | RMC | Mean | 458970.8531 | 3269.93156 |
| | | 95% Confidence Interval for Mean | Lower Bound Upper Bound | 452561.8956 465379.8106 |
| | | 5% Trimmed Mean | 118124.1608 | |
| | | Median | 20000.0000 | |
| | | Variance | 7236940210603.244 | |
| | | Std. Deviation | 2690156.16844 | |
| | | Minimum | .00 | |
| | | Maximum | 2.50E+007 | |
| | | Range | 25035000.00 | |
| | | Interquartile Range | 358750.00 | |
| | | Skewness | 8.865 | .003 |
| | | Kurtosis | 77.955 | .006 |
| | UMC | Mean | 766445.6800 | 2786.51092 |
| | | 95% Confidence Interval for Mean | Lower Bound Upper Bound | 760984.1892 771907.1708 |
| | | 5% Trimmed Mean | 658550.7555 | |
| | | Median | 24000.0000 | |
| | | Variance | 1629797518275.634 | |
| | | Std. Deviation | 1276635.23305 | |
| | | Minimum | .00 | |
| | | Maximum | 3.48E+006 | |
| | | Range | 3475000.00 | |
| | | Interquartile Range | 940000.00 | |
| | | Skewness | 1.542 | .005 |
| | | Kurtosis | .601 | .011 |
| | EF | Mean | 394394.5850 | 1882.43566 |
| | | 95% Confidence Interval for Mean | Lower Bound Upper Bound | 390705.0514 398084.1187 |
| | | 5% Trimmed Mean | 271549.5389 | |
| | | Median | 1668.0000 | |
| | | Variance | 551187003672.402 | |
| | | Std. Deviation | 742419.69510 | |
| | | Minimum | .00 | |
| | | Maximum | 3.00E+006 | |

| Descriptives | | | | | | |
|----------------------------------|----------------------------------|----------------------------------|-------------------|----------------------------------|-------------|-----------|
| | INCRP | | Statistic | Std. Error | | |
| | | Range | 3000000.00 | | | |
| | | Interquartile Range | 767500.00 | | | |
| | | Skewness | 2.518 | .006 | | |
| | | Kurtosis | 6.060 | .012 | | |
| | AFF | Mean | 1249983.6659 | 9013.57440 | | |
| | | 95% Confidence Interval for Mean | Lower Bound | 1232317.0755 | | |
| | | | Upper Bound | 1267650.2563 | | |
| | | 5% Trimmed Mean | 1013384.6288 | | | |
| | | Median | 100000.0000 | | | |
| | | Variance | 5518893258920.902 | | | |
| | | Std. Deviation | 2349232.48294 | | | |
| | | Minimum | .00 | | | |
| | | Maximum | 6.76E+006 | | | |
| | | Range | 6758750.00 | | | |
| | | Interquartile Range | 900000.00 | | | |
| | | Skewness | 1.852 | .009 | | |
| | | Kurtosis | 1.586 | .019 | | |
| | | Current assets | LI | Mean | 3963.0979 | 8.39288 |
| | | | | 95% Confidence Interval for Mean | Lower Bound | 3946.6482 |
| Upper Bound | 3979.5476 | | | | | |
| 5% Trimmed Mean | 944.2575 | | | | | |
| Median | .0000 | | | | | |
| Variance | 477667562.391 | | | | | |
| Std. Deviation | 21855.60712 | | | | | |
| Minimum | .00 | | | | | |
| Maximum | 404000.00 | | | | | |
| Range | 404000.00 | | | | | |
| Interquartile Range | 1200.00 | | | | | |
| Skewness | 12.970 | | | .001 | | |
| Kurtosis | 214.157 | | | .002 | | |
| LEMC | Mean | | | 4375.2794 | 7.97445 | |
| | 95% Confidence Interval for Mean | | Lower Bound | 4359.6498 | | |
| | | | Upper Bound | 4390.9091 | | |
| | 5% Trimmed Mean | | 2478.1217 | | | |
| | Median | | 500.0000 | | | |
| | Variance | | 256488122.472 | | | |
| | Std. Deviation | | 16015.24656 | | | |
| | Minimum | | .00 | | | |
| | Maximum | | 756250.00 | | | |
| | Range | | 756250.00 | | | |
| | Interquartile Range | | 4100.00 | | | |
| | Skewness | | 30.719 | .001 | | |
| | Kurtosis | | 1391.833 | .002 | | |
| | EMC | | Mean | 29523.6078 | 75.58229 | |
| 95% Confidence Interval for Mean | | | Lower Bound | 29375.4692 | | |
| | | | Upper Bound | 29671.7465 | | |
| 5% Trimmed Mean | | | 11203.8233 | | | |
| Median | | | 2450.0000 | | | |
| Variance | | | 11003539247.503 | | | |
| Std. Deviation | | | 104897.75616 | | | |
| Minimum | | | .00 | | | |
| Maximum | | | 1.08E+006 | | | |
| Range | | | 1075000.00 | | | |
| Interquartile Range | | | 18000.00 | | | |
| Skewness | | | 6.724 | .002 | | |
| Kurtosis | | | 52.241 | .004 | | |
| RMC | | | Mean | 50561.5703 | 158.78755 | |
| | 95% Confidence Interval for Mean | | Lower Bound | 50250.3520 | | |
| | | | Upper Bound | 50872.7887 | | |
| | 5% Trimmed Mean | | 27326.0292 | | | |
| | Median | | 5000.0000 | | | |
| | Variance | | 17065167792.592 | | | |
| | Std. Deviation | | 130633.71614 | | | |
| | Minimum | | .00 | | | |
| | Maximum | 1.02E+006 | | | | |

| Descriptives | | | | | |
|--------------------|----------------------------------|----------------------------------|------------------|-------------------|-------------|
| | INCRP | | Statistic | Std. Error | |
| | | Range | 1025000.00 | | |
| | | Interquartile Range | 52000.00 | | |
| | | Skewness | 5.478 | .003 | |
| | | Kurtosis | 34.976 | .006 | |
| | UMC | Mean | | 762585.8716 | 2921.41980 |
| | | 95% Confidence Interval for Mean | Lower Bound | 756859.9628 | |
| | | | Upper Bound | 768311.7804 | |
| | | 5% Trimmed Mean | | 633150.9684 | |
| | | Median | | 8750.0000 | |
| | | Variance | | 1791431025012.539 | |
| | | Std. Deviation | | 1338443.50834 | |
| | | Minimum | | .00 | |
| | | Maximum | | 3.86E+006 | |
| | | Range | | 3855000.00 | |
| | | Interquartile Range | | 438500.00 | |
| | | Skewness | | 1.550 | .005 |
| | | Kurtosis | | .610 | .011 |
| | | EA | Mean | | 172360.9041 |
| | 95% Confidence Interval for Mean | | Lower Bound | 170596.3024 | |
| | | | Upper Bound | 174125.5058 | |
| | 5% Trimmed Mean | | 112345.4490 | | |
| | Median | | 30750.0000 | | |
| | Variance | | 126080925580.537 | | |
| | Std. Deviation | | 355078.75969 | | |
| | Minimum | | .00 | | |
| | Maximum | | 1.42E+006 | | |
| | Range | | 1425000.00 | | |
| | Interquartile Range | | 160000.00 | | |
| | Skewness | | 2.863 | .006 | |
| | Kurtosis | | 7.180 | .012 | |
| | AFF | | Mean | | 875471.2658 |
| | | 95% Confidence Interval for Mean | Lower Bound | 866995.6237 | |
| | | | Upper Bound | 883946.9078 | |
| | | 5% Trimmed Mean | | 829495.6977 | |
| | | Median | | 212500.0000 | |
| | | Variance | | 1270257389420.280 | |
| | | Std. Deviation | | 1127056.95926 | |
| | | Minimum | | .00 | |
| | | Maximum | | 2.57E+006 | |
| | | Range | | 2570000.00 | |
| | | Interquartile Range | | 2520000.00 | |
| | | Skewness | | .828 | .009 |
| Kurtosis | | -1.292 | .019 | | |
| Retirement funding | | LI | Mean | | 12175.92 |
| | 95% Confidence Interval for Mean | | Lower Bound | 12121.82 | |
| | | | Upper Bound | 12230.02 | |
| | 5% Trimmed Mean | | 897.69 | | |
| | Median | | .00 | | |
| | Variance | | 5165693786.147 | | |
| | Std. Deviation | | 71872.761 | | |
| | Minimum | | 0 | | |
| | Maximum | | 1461000 | | |
| | Range | | 1461000 | | |
| | Interquartile Range | | 0 | | |
| | Skewness | | 9.856 | .001 | |
| | Kurtosis | | 137.719 | .002 | |
| | LEMC | | Mean | | 36544.86 |
| | | 95% Confidence Interval for Mean | Lower Bound | 36336.91 | |
| | | | Upper Bound | 36752.80 | |
| | | 5% Trimmed Mean | | 9797.60 | |
| | | Median | | .00 | |
| | | Variance | | 45399265224.597 | |
| | | Std. Deviation | | 213071.033 | |
| | | Minimum | | 0 | |
| | | Maximum | | 7700000 | |

| Descriptives | | | | |
|--------------|---------|----------------------------------|--------------------|------------|
| | INCGRP | | Statistic | Std. Error |
| | | Range | 7700000 | |
| | | Interquartile Range | 0 | |
| | | Skewness | 23.814 | .001 |
| | | Kurtosis | 800.520 | .002 |
| | EMC | Mean | 141449.34 | 314.685 |
| | | 95% Confidence Interval for Mean | Lower Bound | 140832.57 |
| | | | Upper Bound | 142066.12 |
| | | 5% Trimmed Mean | 65879.00 | |
| | | Median | .00 | |
| | | Variance | 190740676917.974 | |
| | | Std. Deviation | 436738.683 | |
| | | Minimum | 0 | |
| | | Maximum | 6175000 | |
| | | Range | 6175000 | |
| | | Interquartile Range | 50000 | |
| | | Skewness | 6.389 | .002 |
| | | Kurtosis | 60.257 | .004 |
| | RMC | Mean | 340426.27 | 984.225 |
| | | 95% Confidence Interval for Mean | Lower Bound | 338497.23 |
| | | | Upper Bound | 342355.32 |
| | | 5% Trimmed Mean | 198258.99 | |
| | | Median | .00 | |
| | | Variance | 655641187092.797 | |
| | | Std. Deviation | 809716.733 | |
| | | Minimum | 0 | |
| | | Maximum | 5000000 | |
| | | Range | 5000000 | |
| | | Interquartile Range | 190000 | |
| | | Skewness | 3.037 | .003 |
| | | Kurtosis | 9.653 | .006 |
| | UMC | Mean | 2559203.29 | 8618.100 |
| | | 95% Confidence Interval for Mean | Lower Bound | 2542312.04 |
| | | | Upper Bound | 2576094.55 |
| | | 5% Trimmed Mean | 1879533.46 | |
| | | Median | 1500000.00 | |
| | | Variance | 15589609121348.545 | |
| | | Std. Deviation | 3948367.906 | |
| | | Minimum | 0 | |
| | | Maximum | 19500000 | |
| | | Range | 19500000 | |
| | | Interquartile Range | 3487500 | |
| | | Skewness | 3.270 | .005 |
| | | Kurtosis | 11.403 | .011 |
| | EA | Mean | 767810.80 | 2731.782 |
| | | 95% Confidence Interval for Mean | Lower Bound | 762456.57 |
| | | | Upper Bound | 773165.04 |
| | | 5% Trimmed Mean | 631685.56 | |
| | | Median | 300000.00 | |
| | | Variance | 1160782081115.508 | |
| | | Std. Deviation | 1077395.972 | |
| | | Minimum | 0 | |
| | | Maximum | 6800000 | |
| | | Range | 6800000 | |
| | | Interquartile Range | 1000000 | |
| | | Skewness | 2.308 | .006 |
| | | Kurtosis | 6.774 | .012 |
| | AFF | Mean | 2950230.99 | 17705.252 |
| | | 95% Confidence Interval for Mean | Lower Bound | 2915528.73 |
| | | | Upper Bound | 2984933.26 |
| | | 5% Trimmed Mean | 2528034.44 | |
| | | Median | .00 | |
| | | Variance | 21294239424486.777 | |
| | | Std. Deviation | 4614568.173 | |
| | | Minimum | 0 | |
| | Maximum | 13500000 | | |

| Descriptives | | | |
|--------------|--------|---------------------|----------|
| | INCGRP | | |
| | | Range | 13500000 |
| | | Interquartile Range | 2900000 |
| | | Skewness | 1.658 |
| | | Kurtosis | 1.190 |
| | | | .009 |
| | | | .019 |

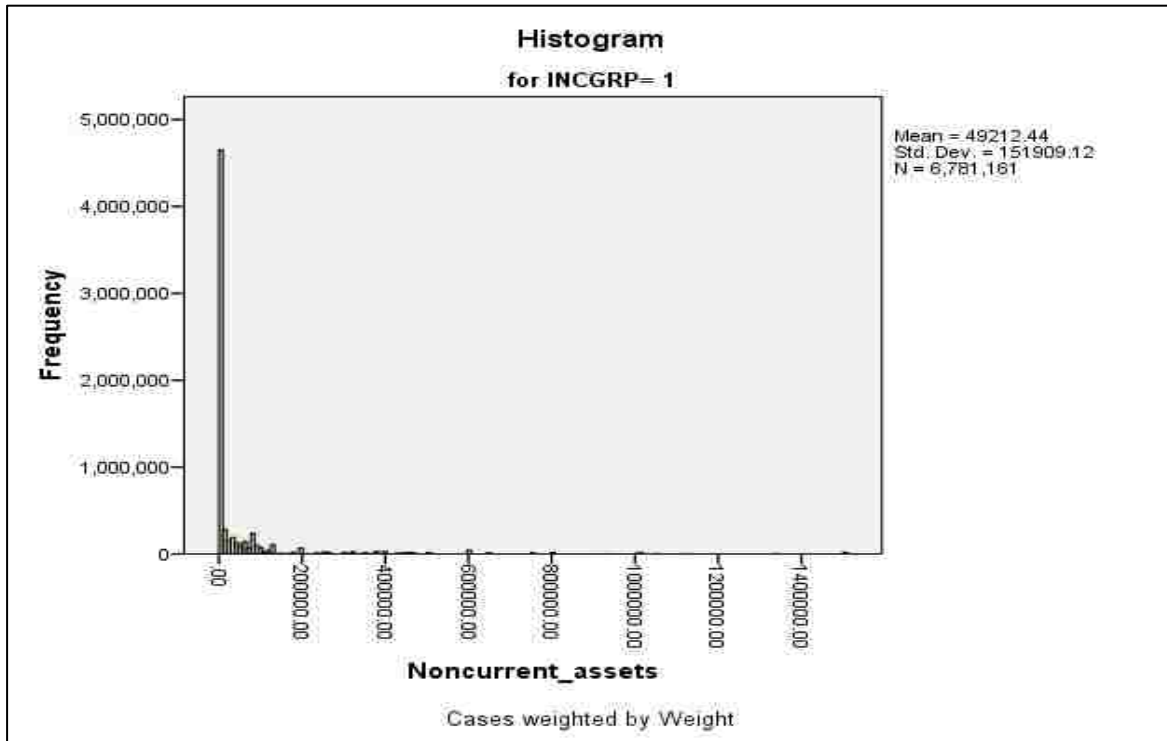
HISTOGRAMS AND BOXPLOTS: ASSET CLASS VARIABLES PER INCOME GROUP

Note:

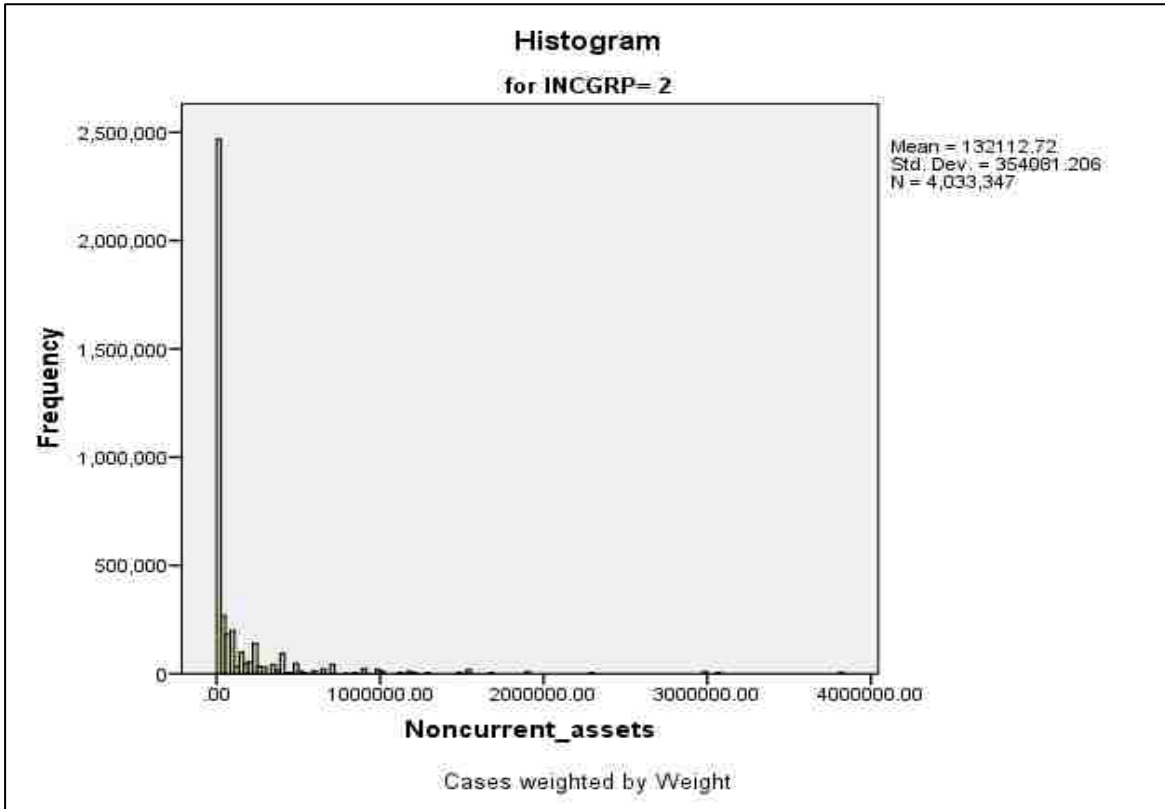
| | |
|----------------|--------|
| Income group 1 | = LI |
| Income group 2 | = LEMC |
| Income group 3 | = EMC |
| Income group 4 | = RMC |
| Income group 5 | = UMC |
| Income group 6 | = EA |
| Income group 7 | = AFF |

NON-CURRENT ASSETS

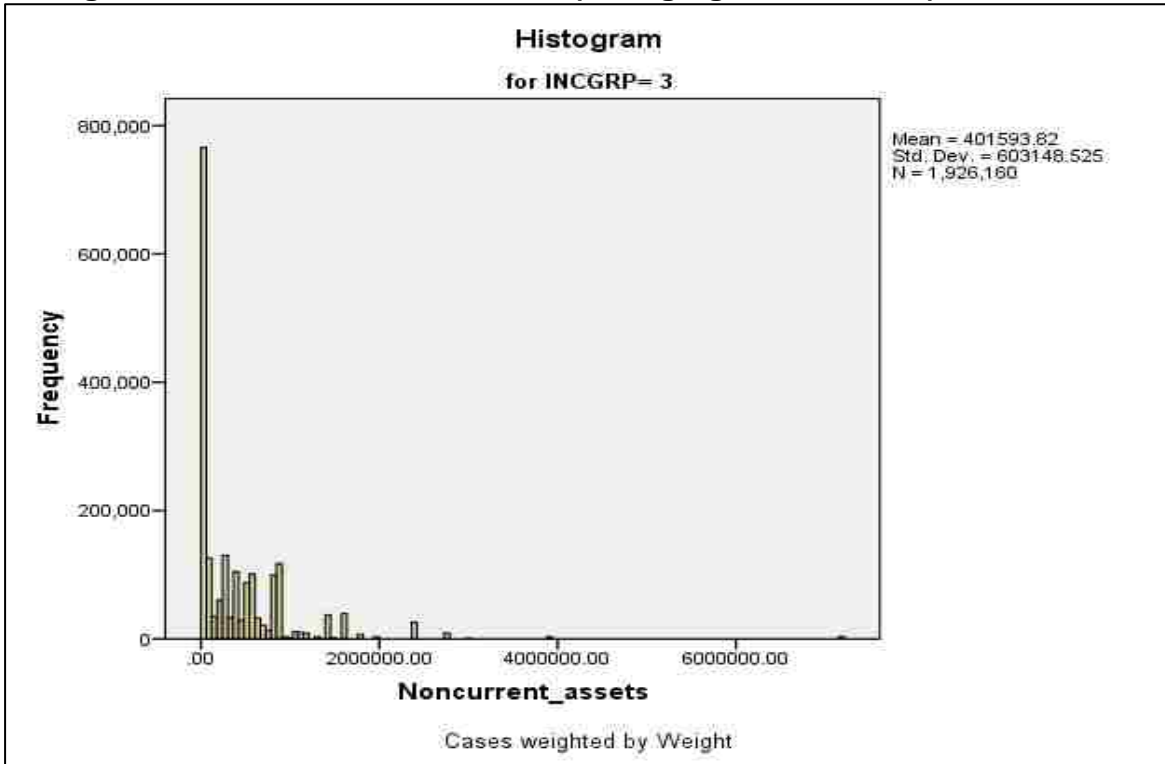
Histogram: Non-current assets: LI (low income)



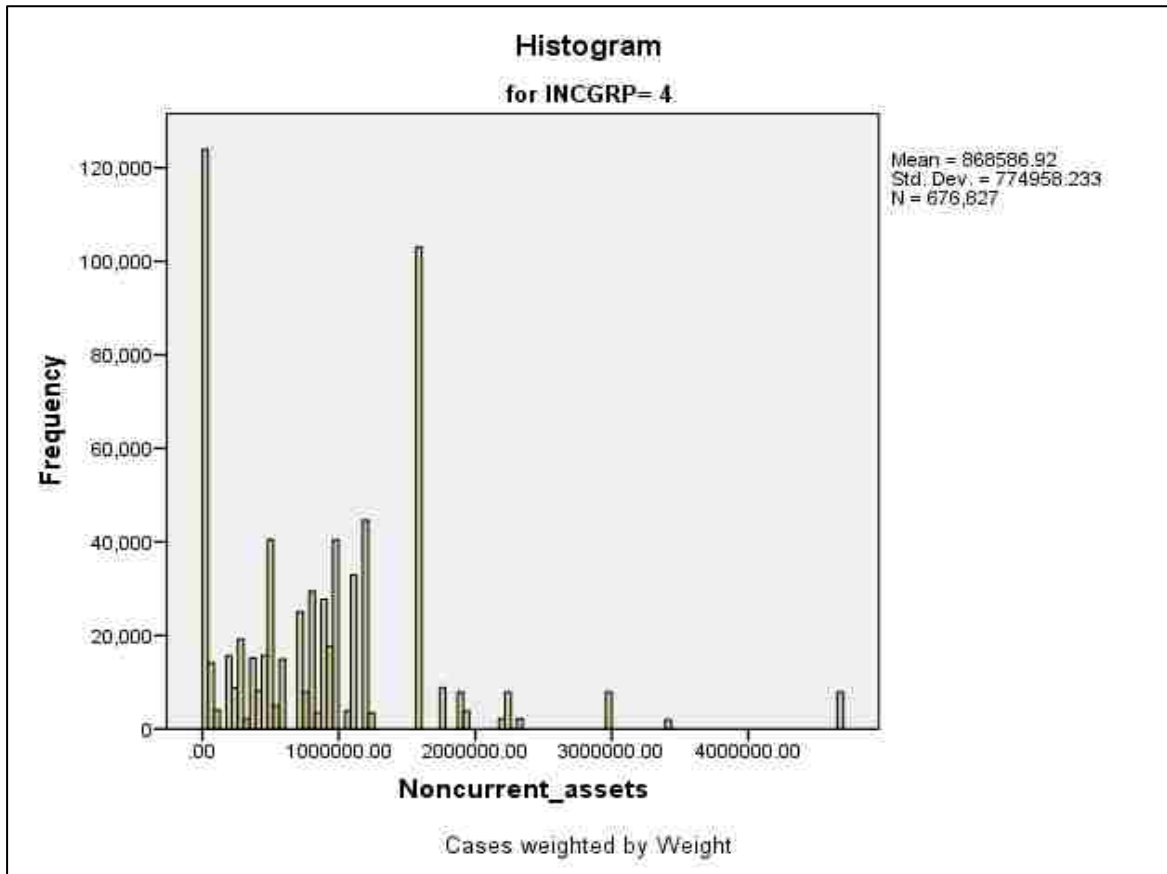
Histogram: Non-current assets: LEMC (low emerging middle class)



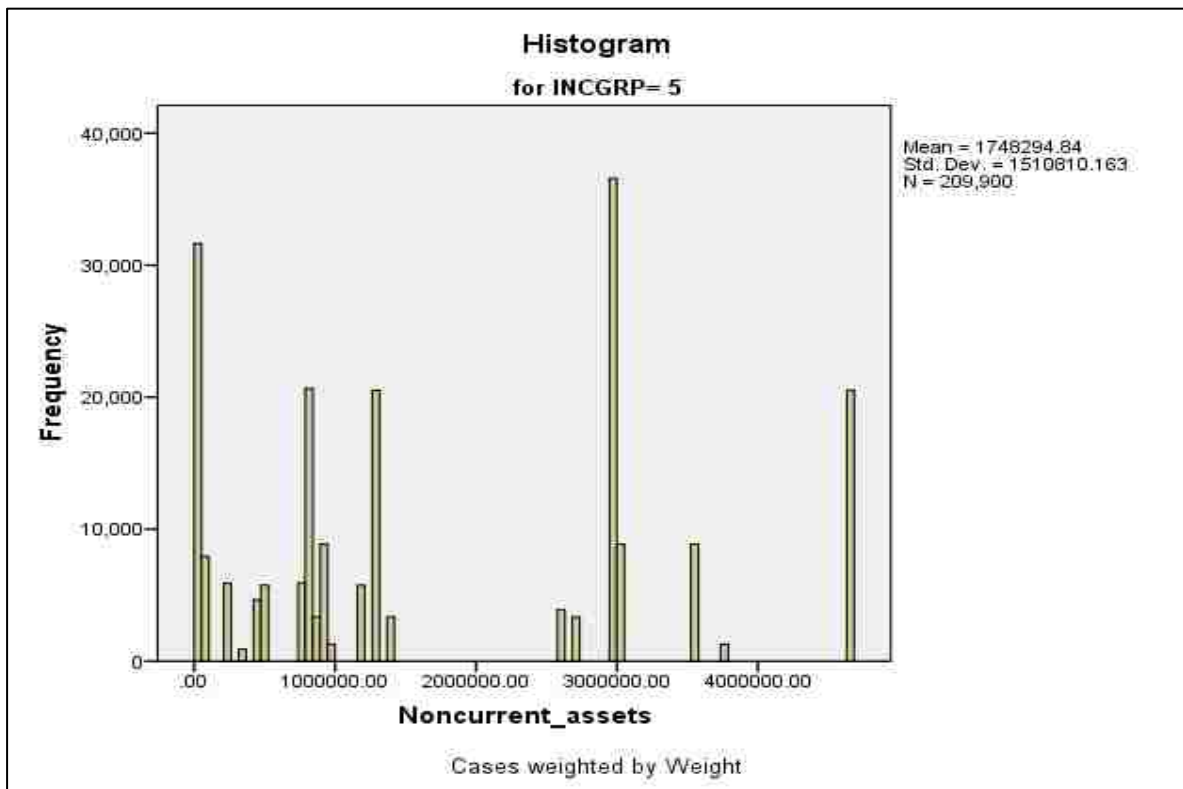
Histogram: Non-current assets: EMC (emerging middle class)



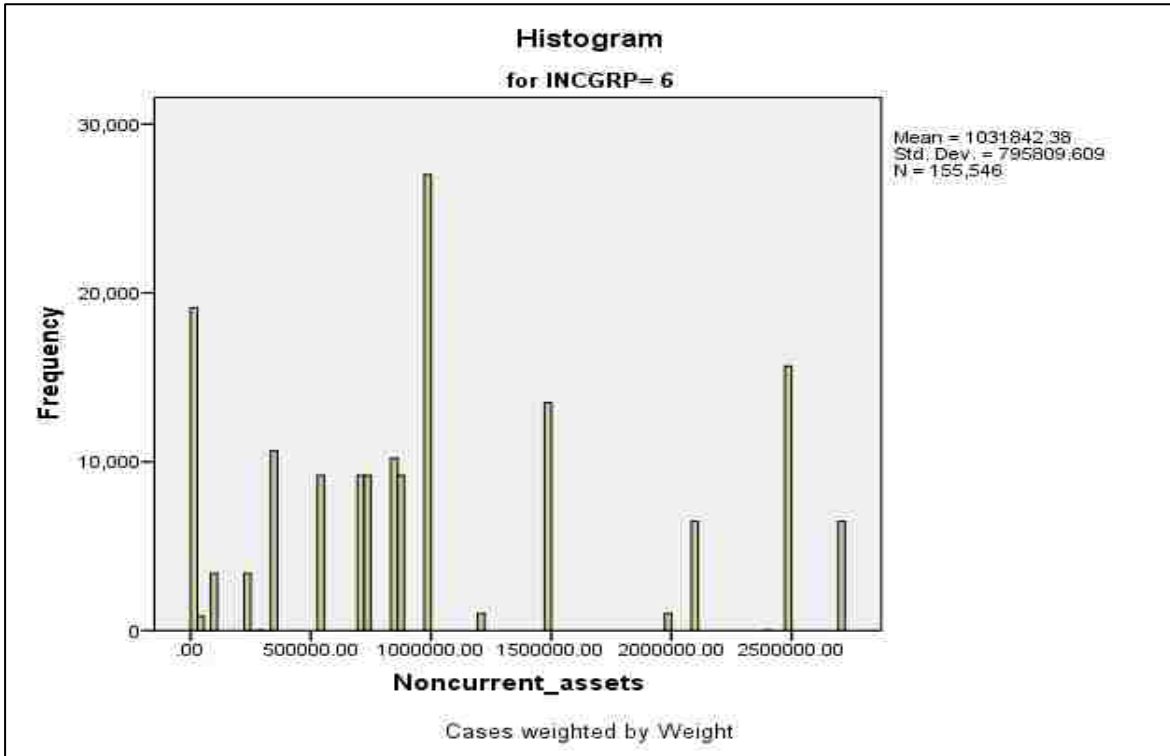
Histogram: Non-current assets: RMC (realised middle class)



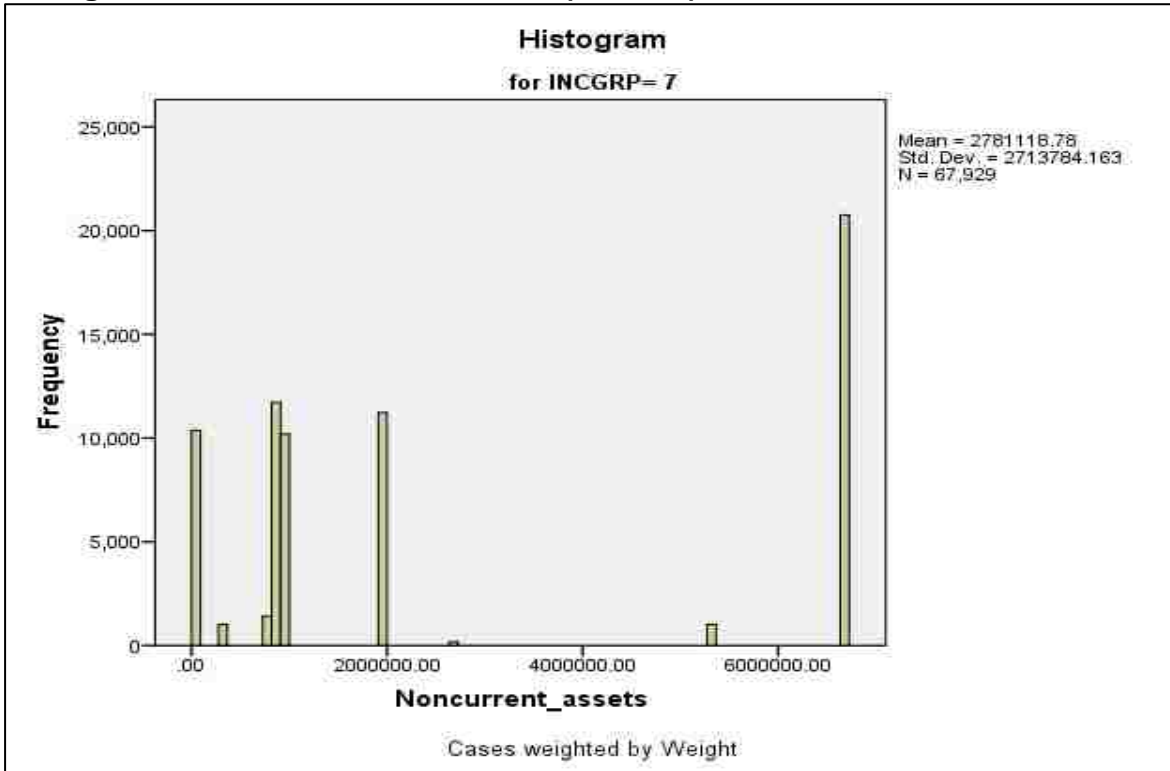
Histogram: Non-current assets: UMC (upper middle class)



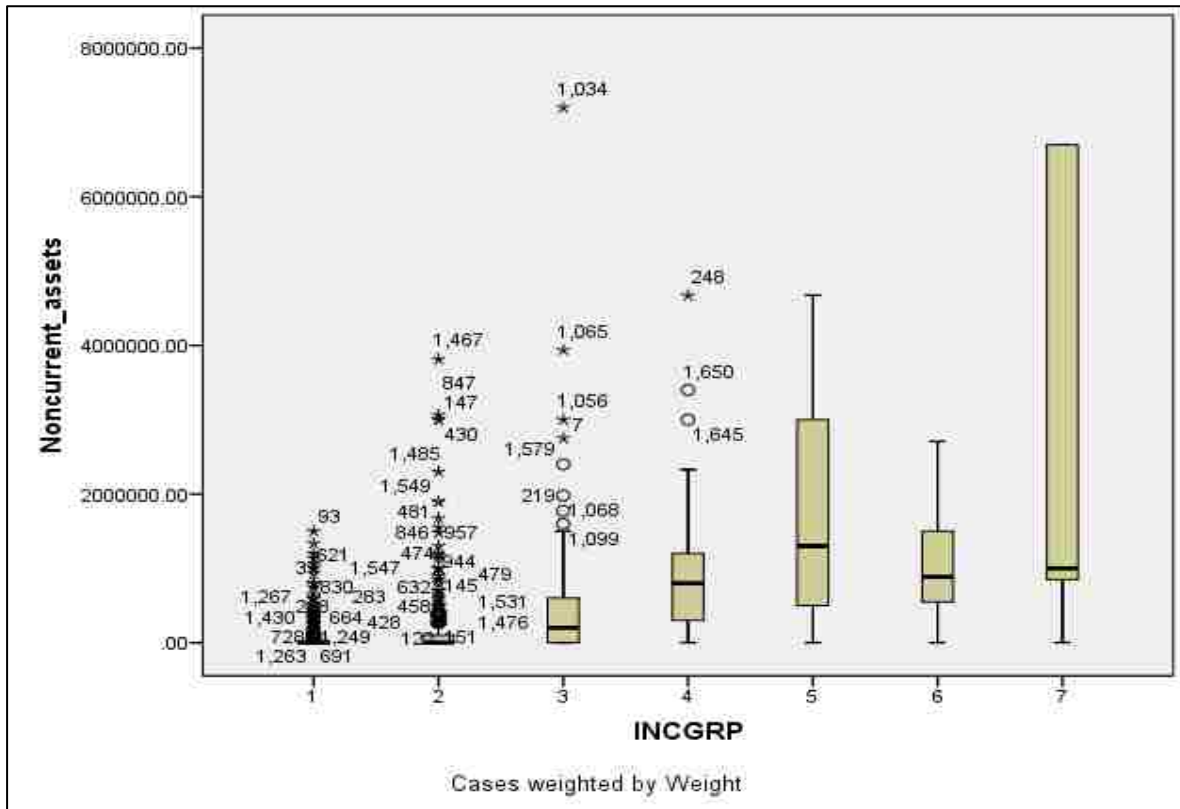
Histogram: Non-current assets: EAF (emerging affluent)



Histogram: Non-current assets: AFF (affluent)

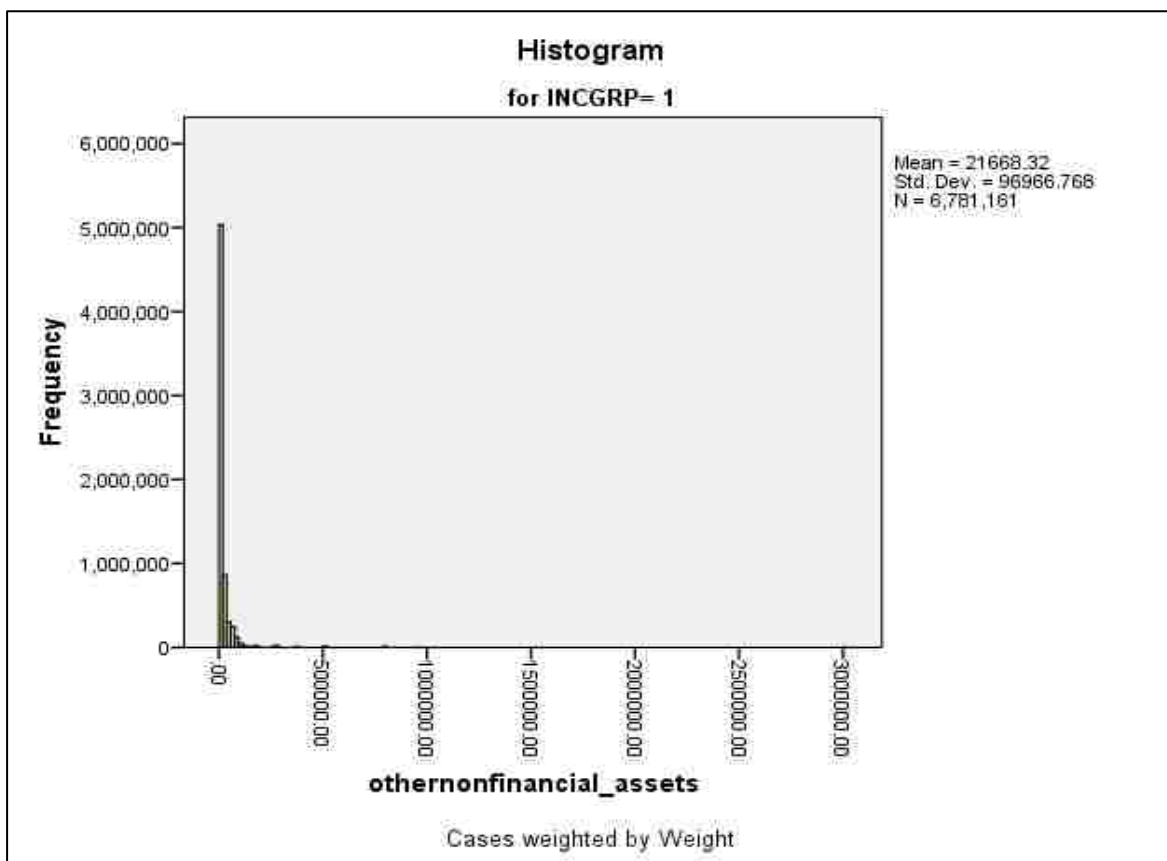


Boxplots: Non-current assets: Income groups

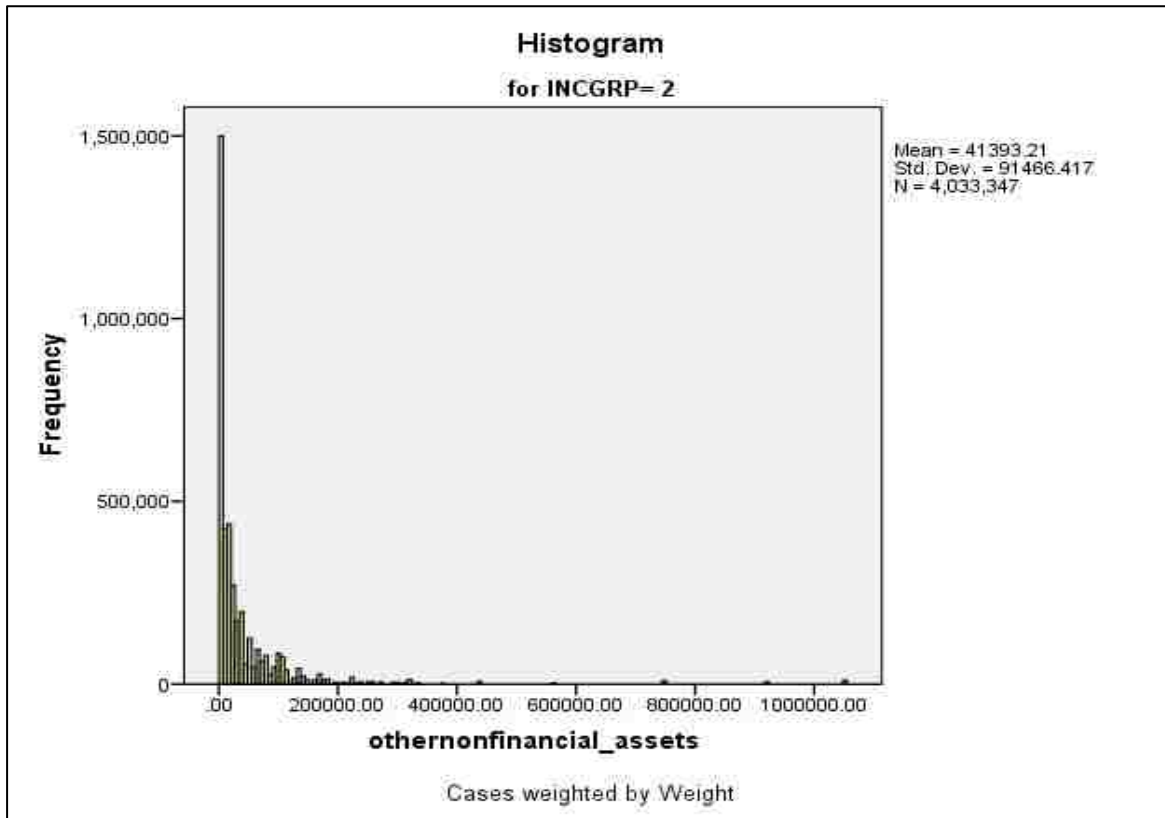


OTHER NON-FINANCIAL ASSETS

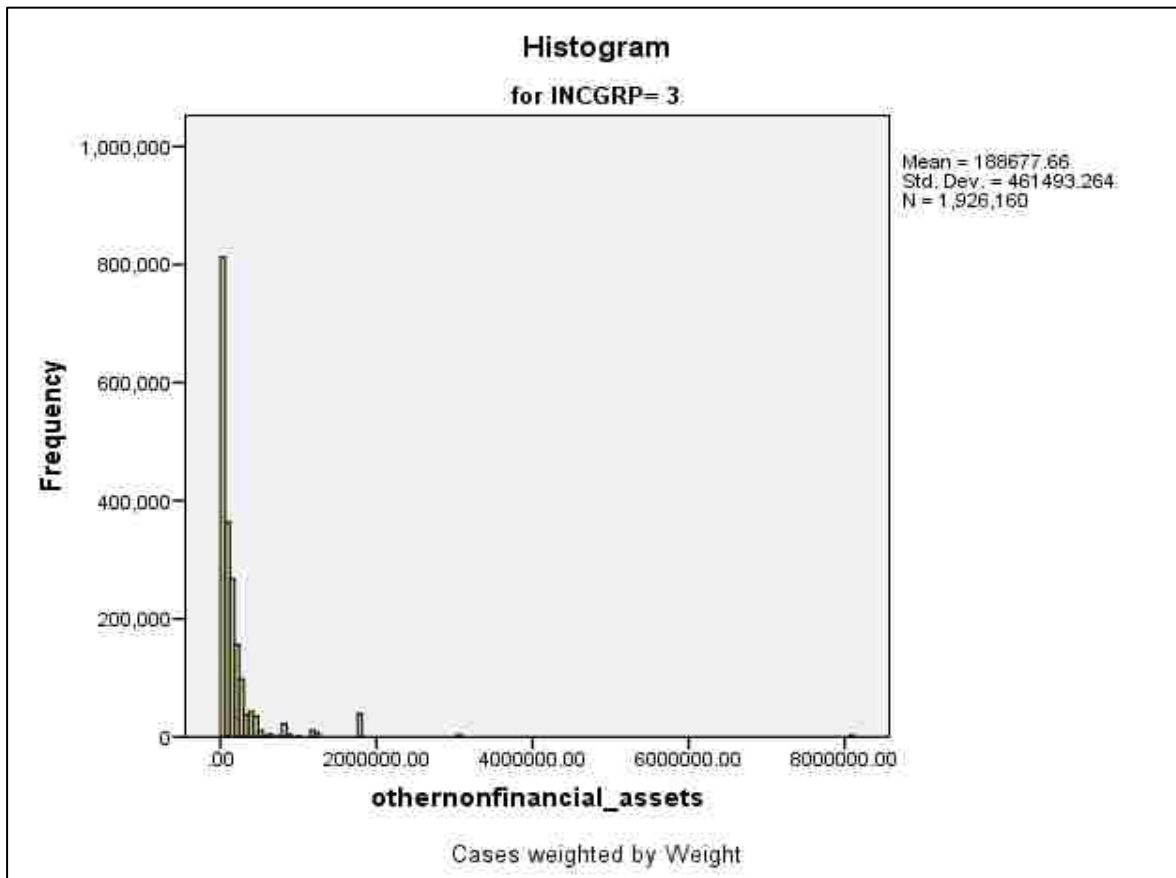
Histogram: Other non-financial assets: LI (low income)



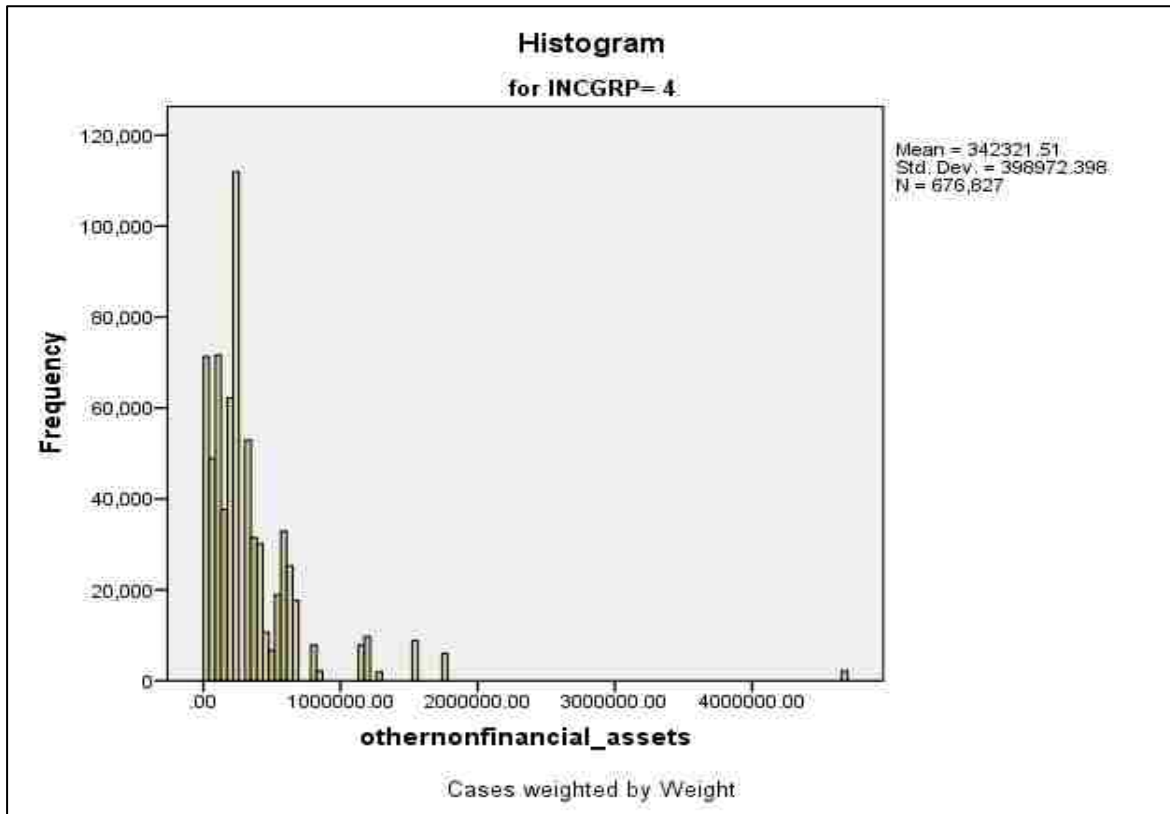
Histogram: Other non-financial assets: LEMC (low emerging middle class)



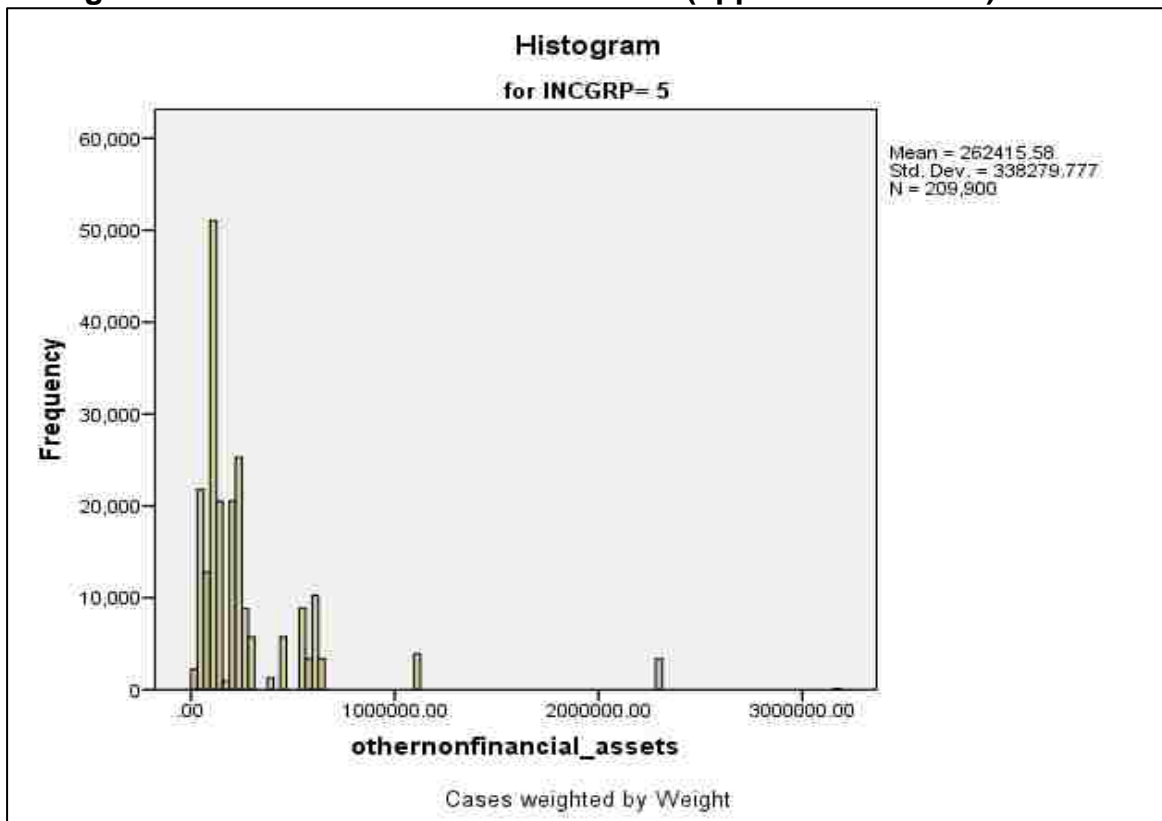
Histogram: Other non-financial assets: EMC (emerging middle class)



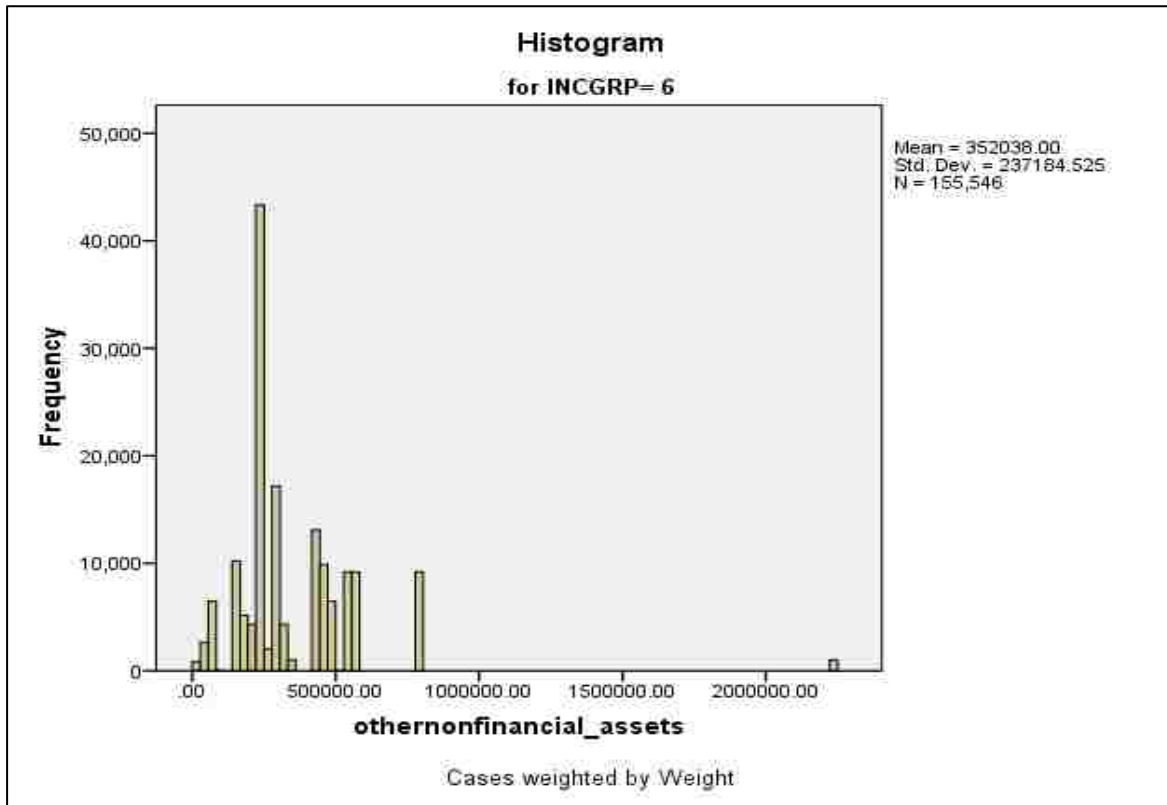
Histogram: Other non-financial assets: RMC (realised middle class)



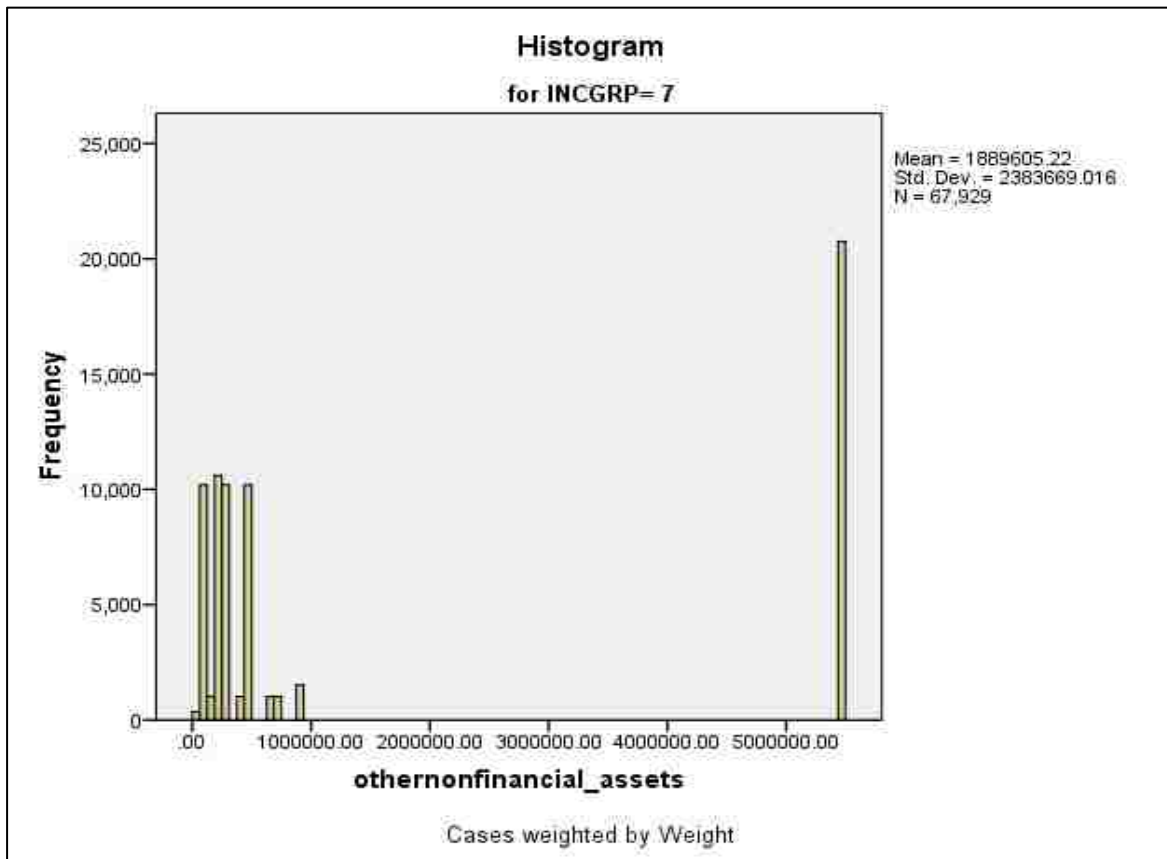
Histogram: Other non-financial assets: UMC (upper middle class)



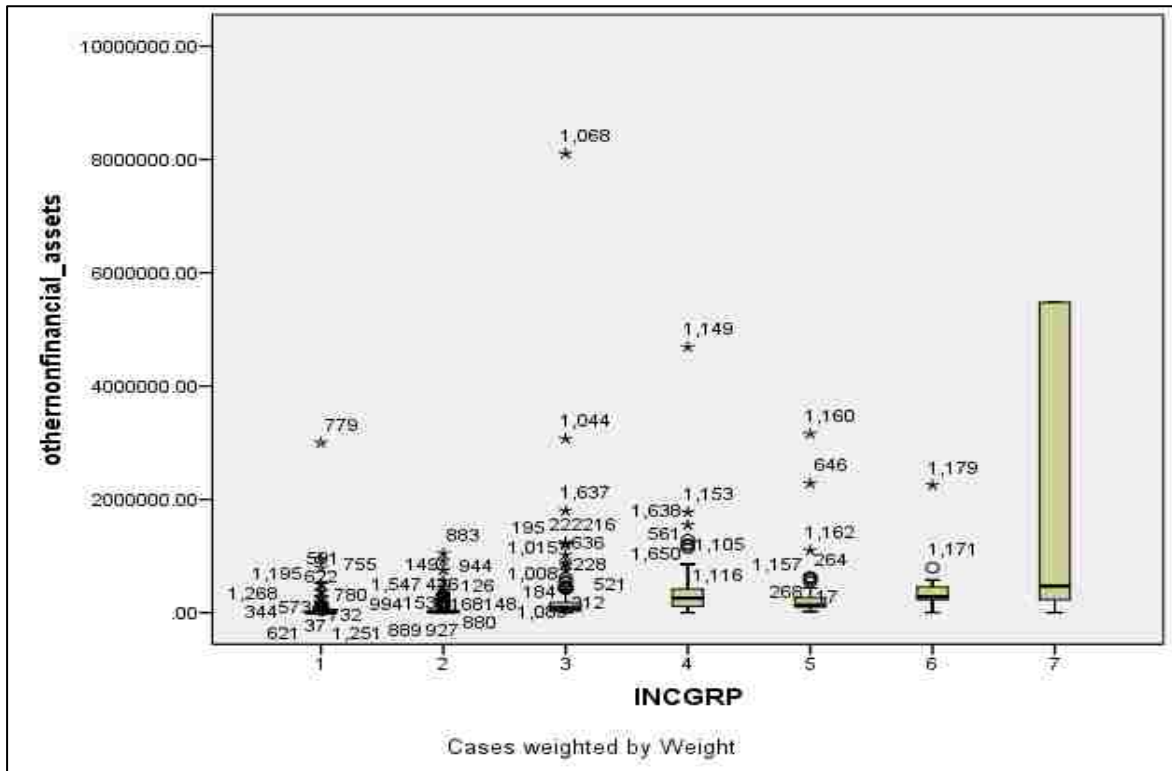
Histogram: Other non-financial assets: EAF (emerging affluent)



Histogram: Other non-financial assets: EAF (emerging affluent)

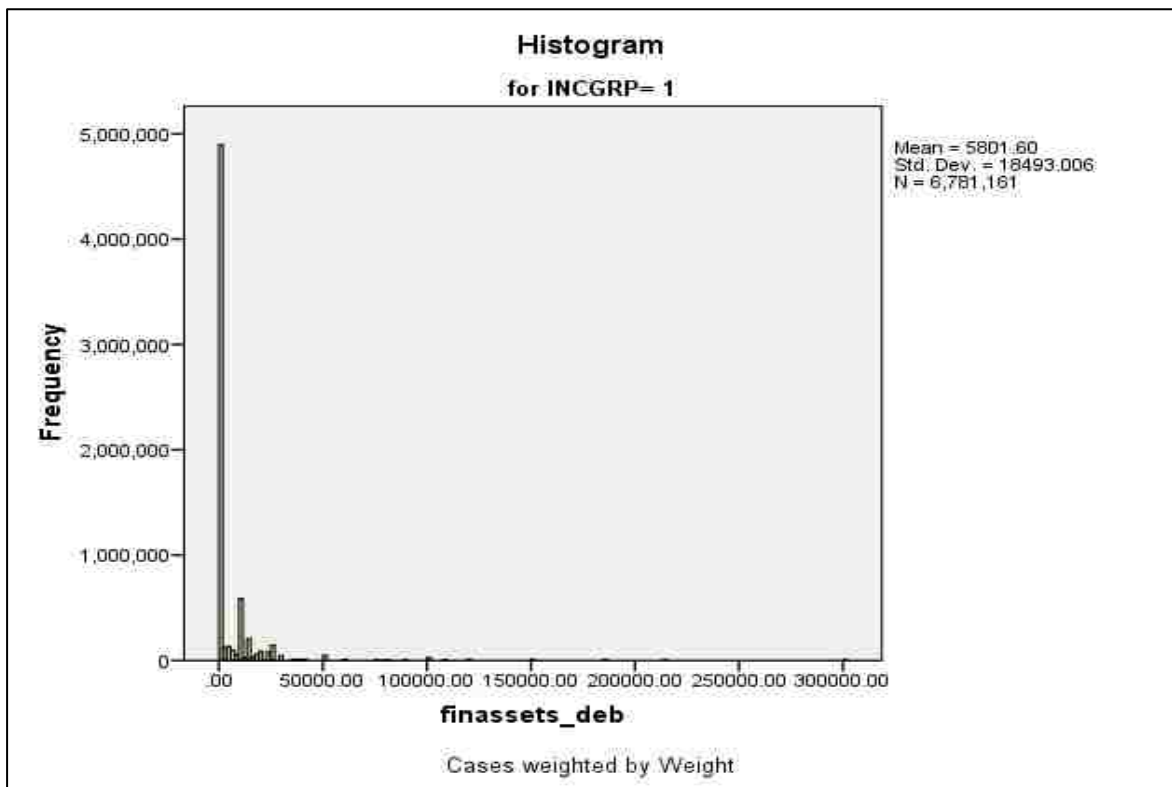


Boxplots: Other non-financial assets: Income groups

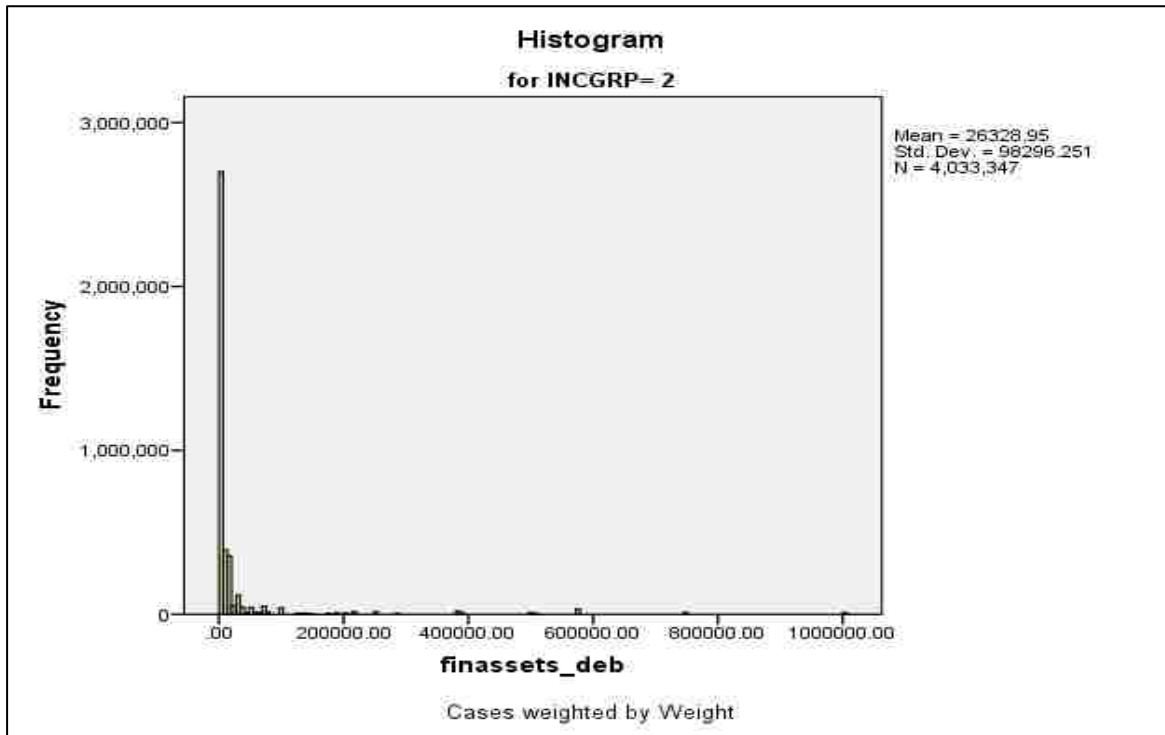


FINANCIAL ASSETS

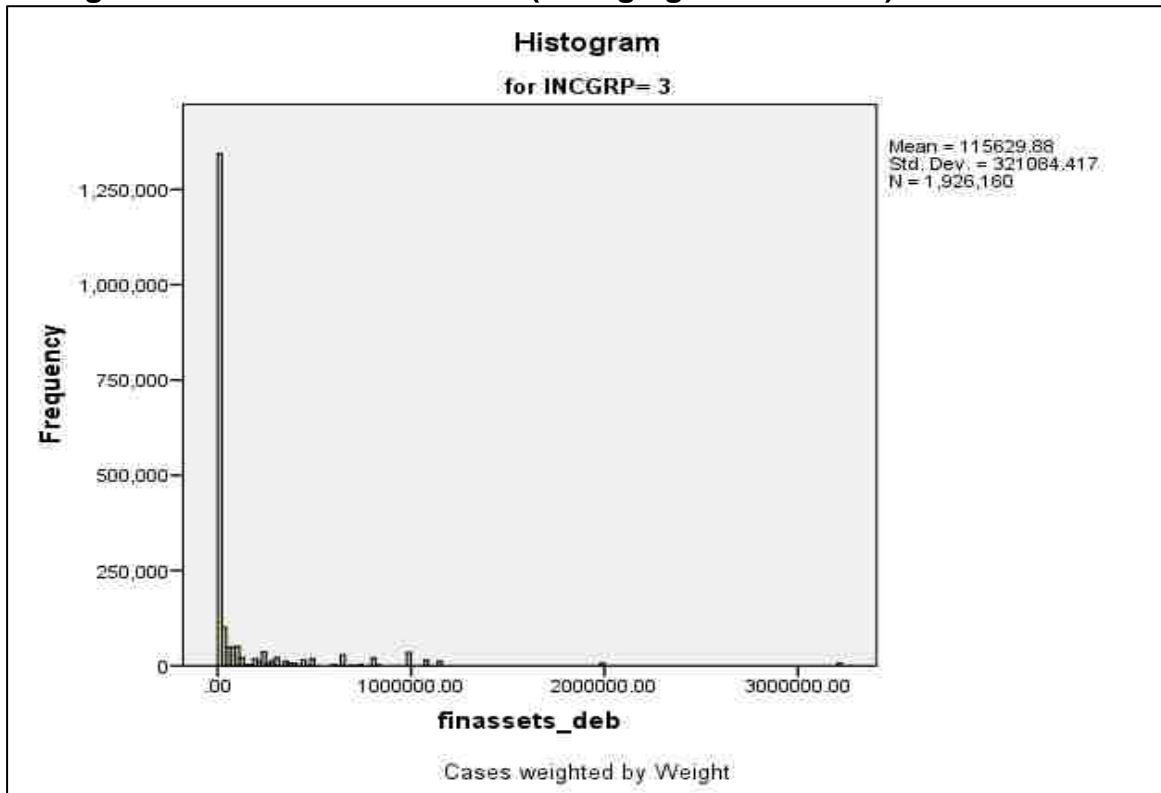
Histogram: Financial assets: LI (low income)



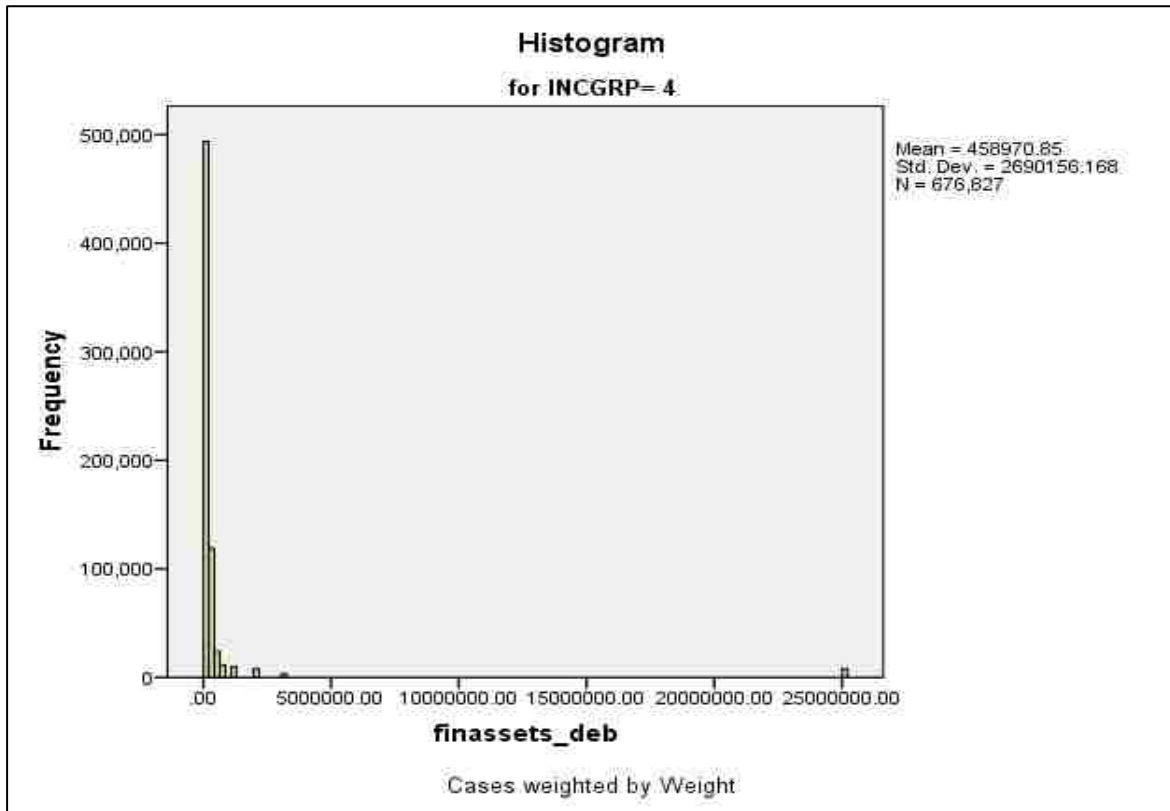
Histogram: Financial assets: LEMC (low emerging middle class)



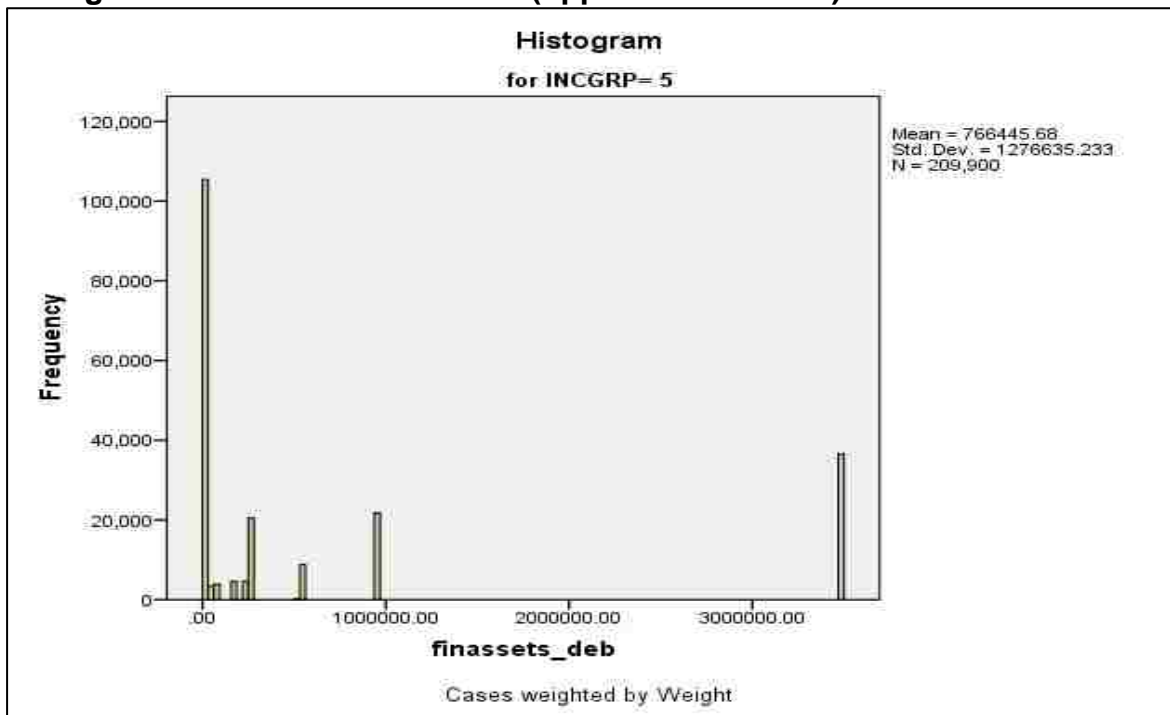
Histogram: Financial assets: EMC (emerging middle class)



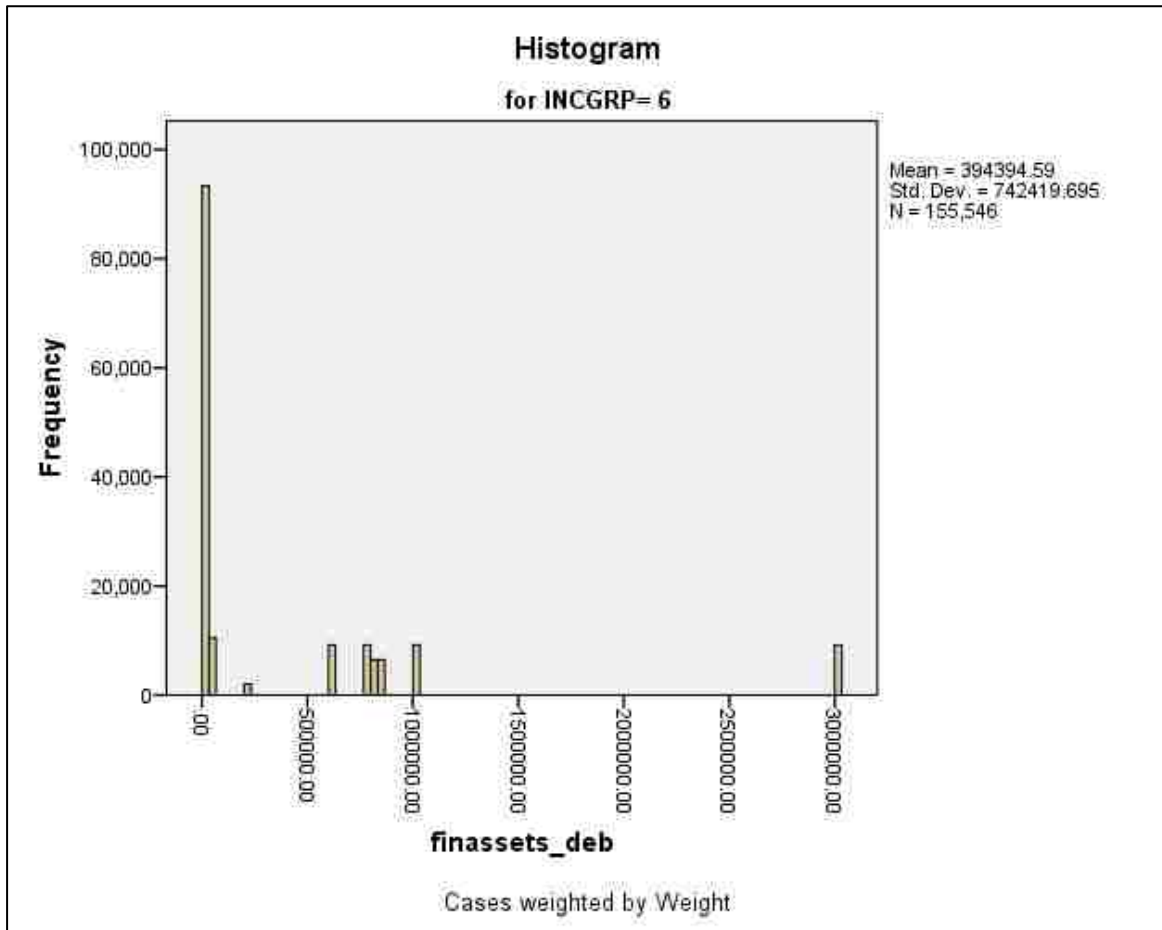
Histogram: Financial assets: RMC (realized middle class)



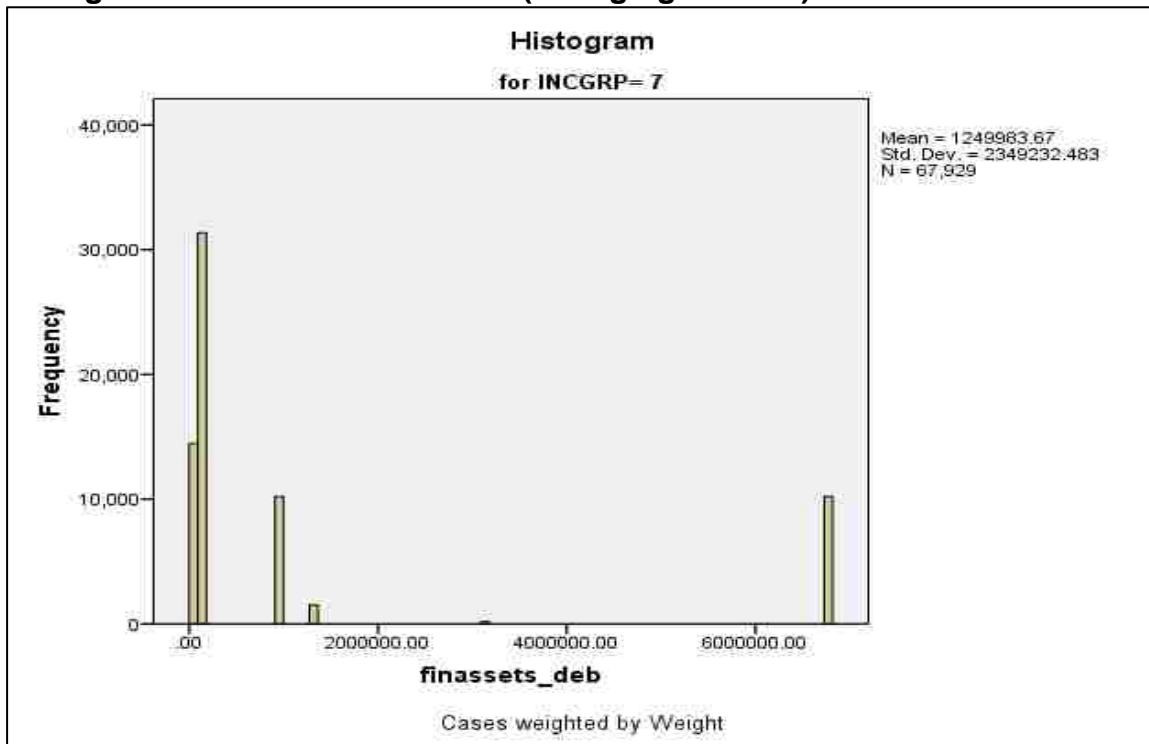
Histogram: Financial assets: UMC (upper middle class)



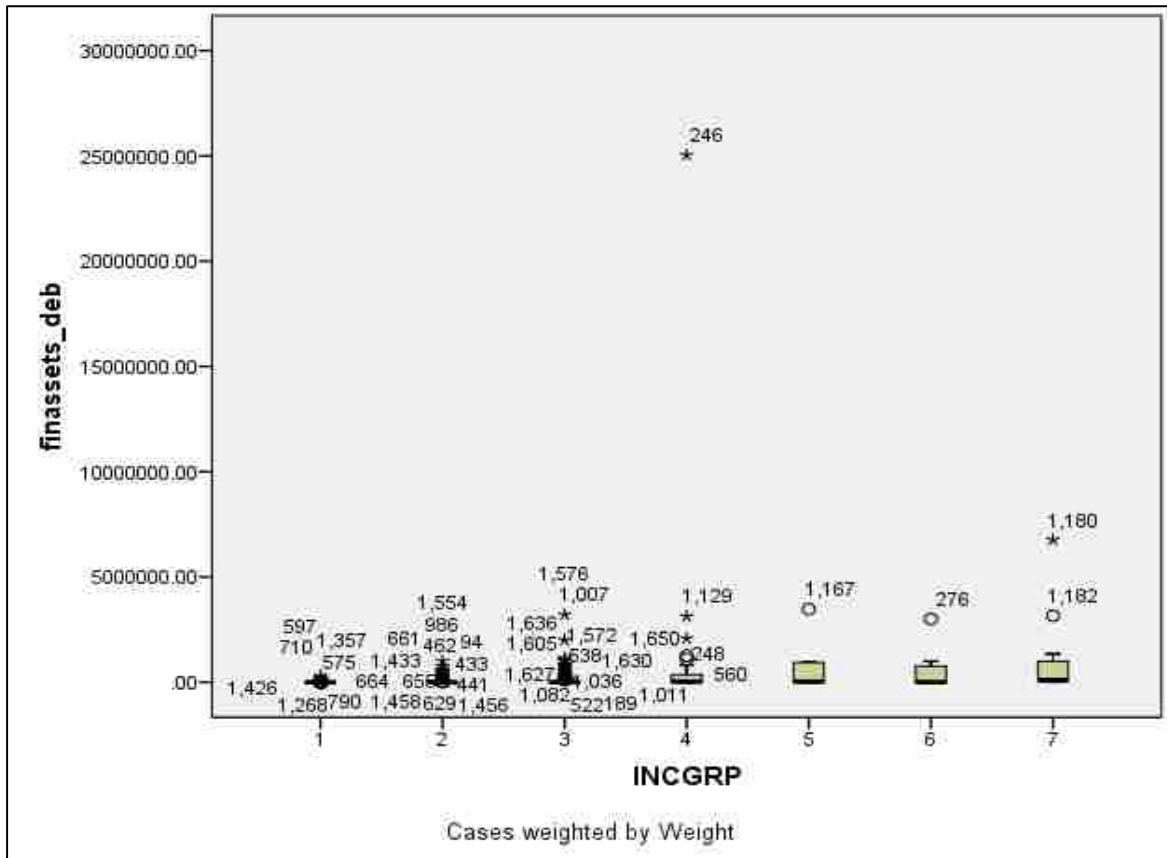
Histogram: Financial assets: UMC (upper middle class)



Histogram: Financial assets: EAF (emerging affluent)

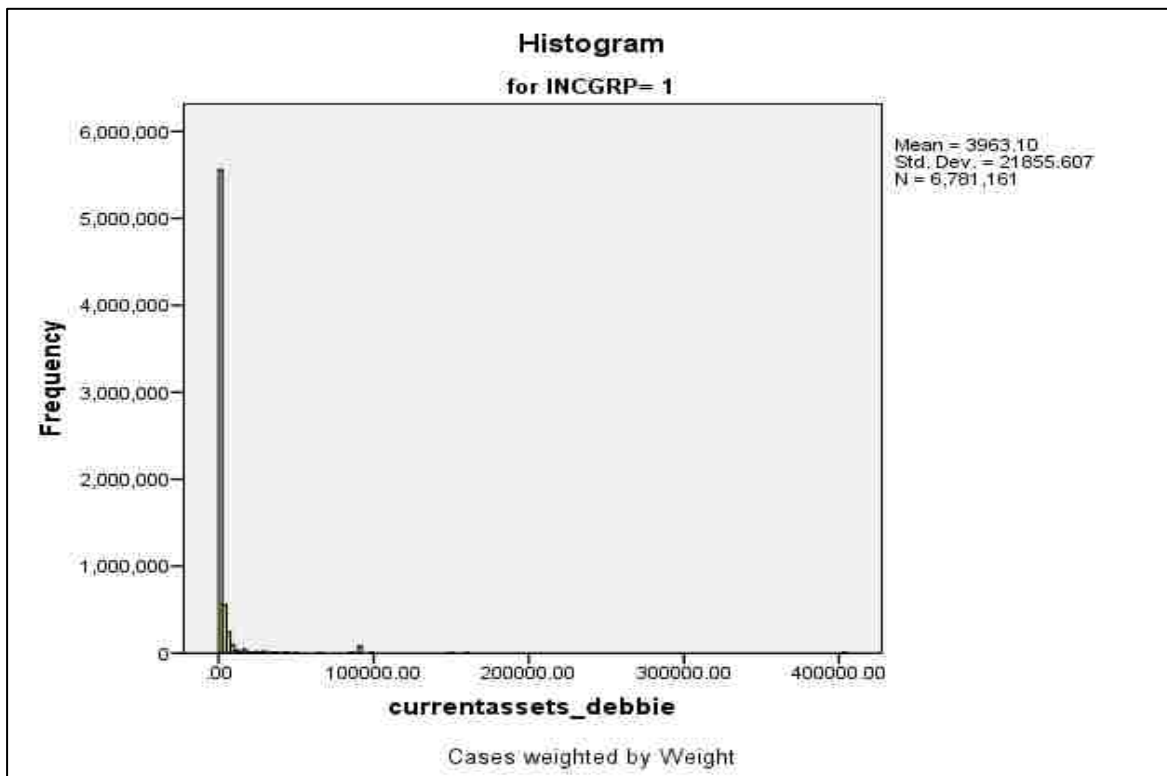


Boxplots: Financial assets: Income groups

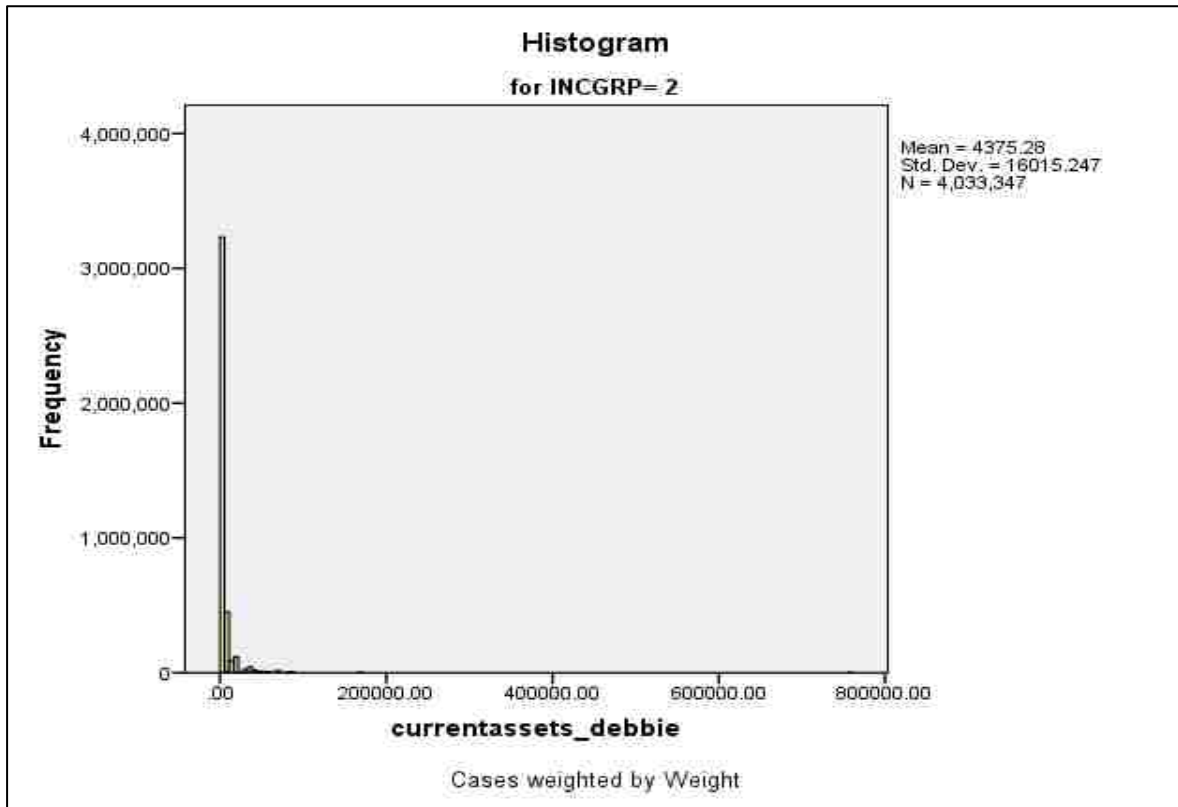


CURRENT ASSETS

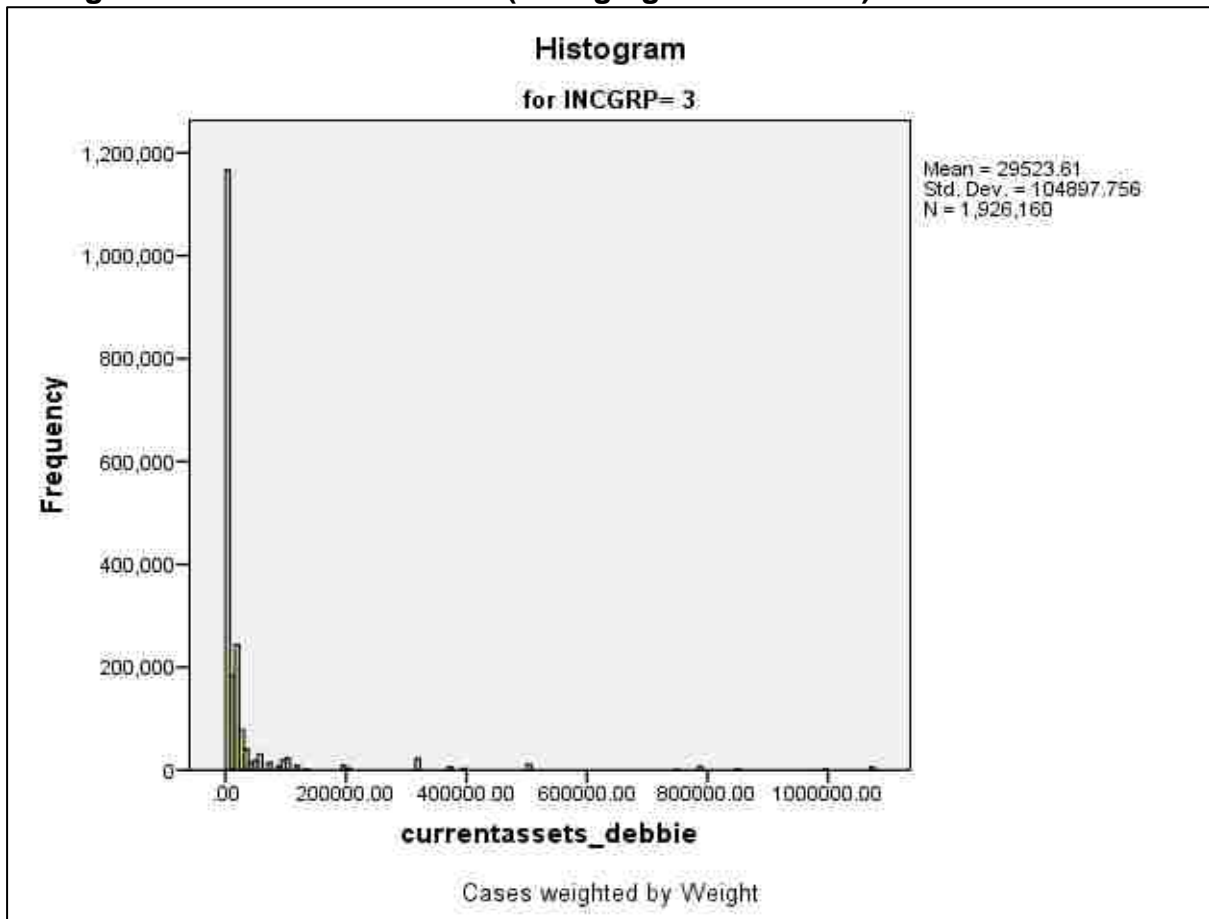
Histogram: Current assets: LI (low income)



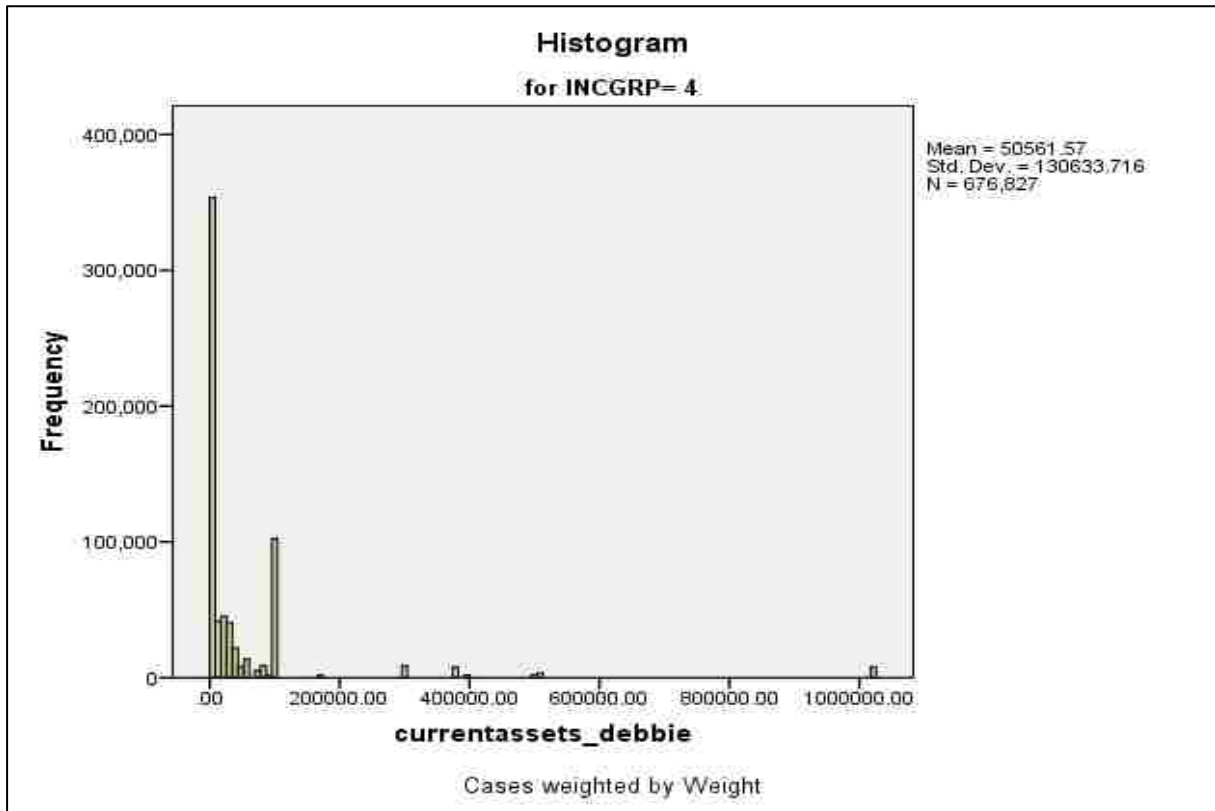
Histogram: Current assets: LEMC (low emerging middle class)



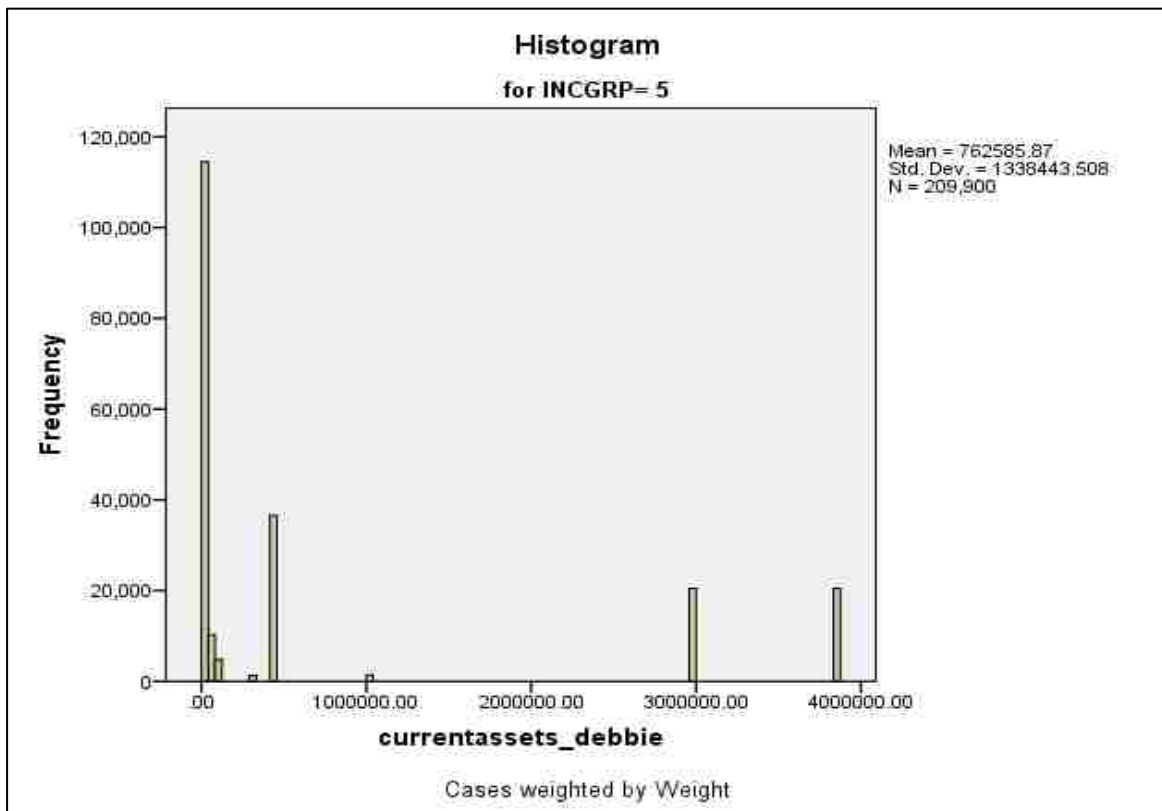
Histogram: Current assets: EMC (emerging middle class)



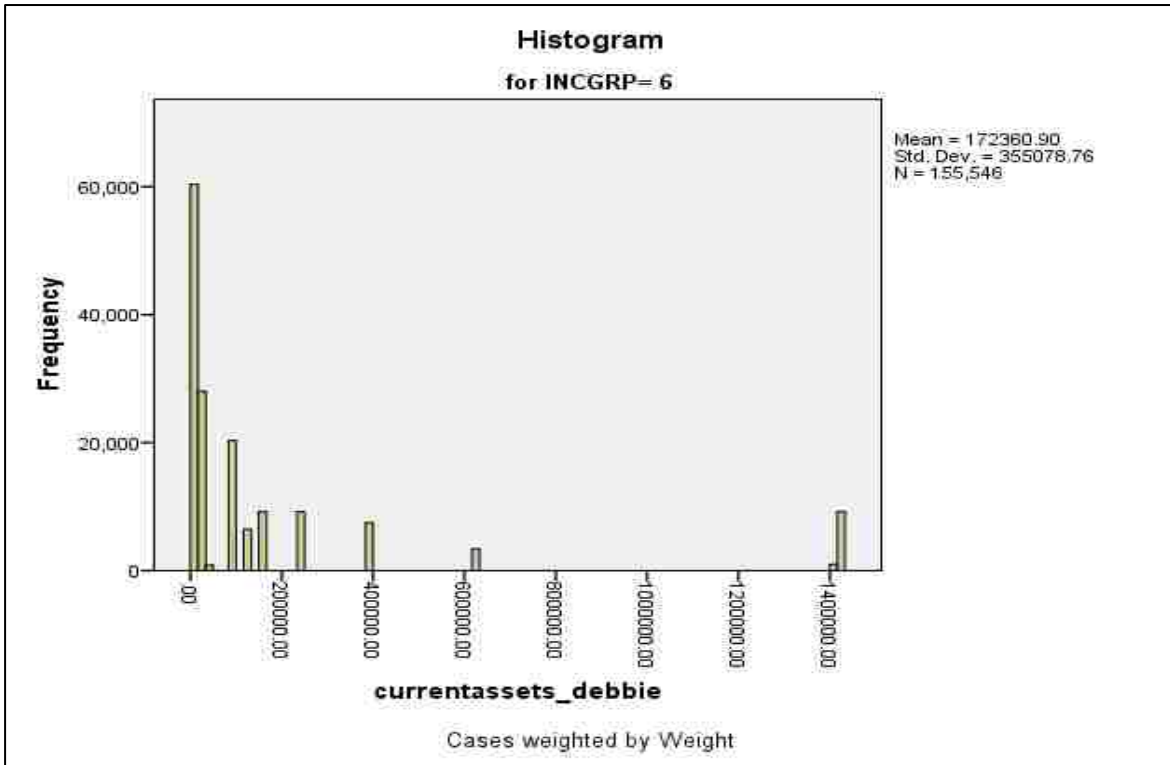
Histogram: Current assets: RMC (realised middle class)



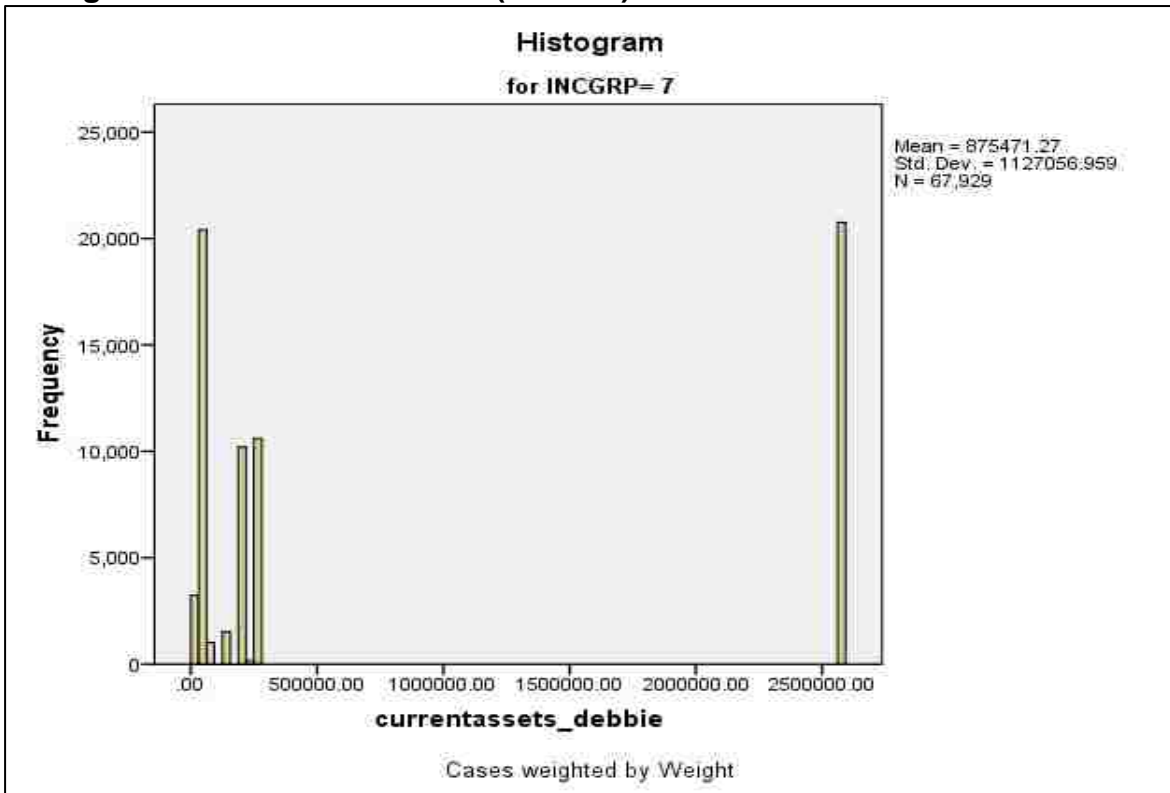
Histogram: Current assets: UMC (upper middle class)



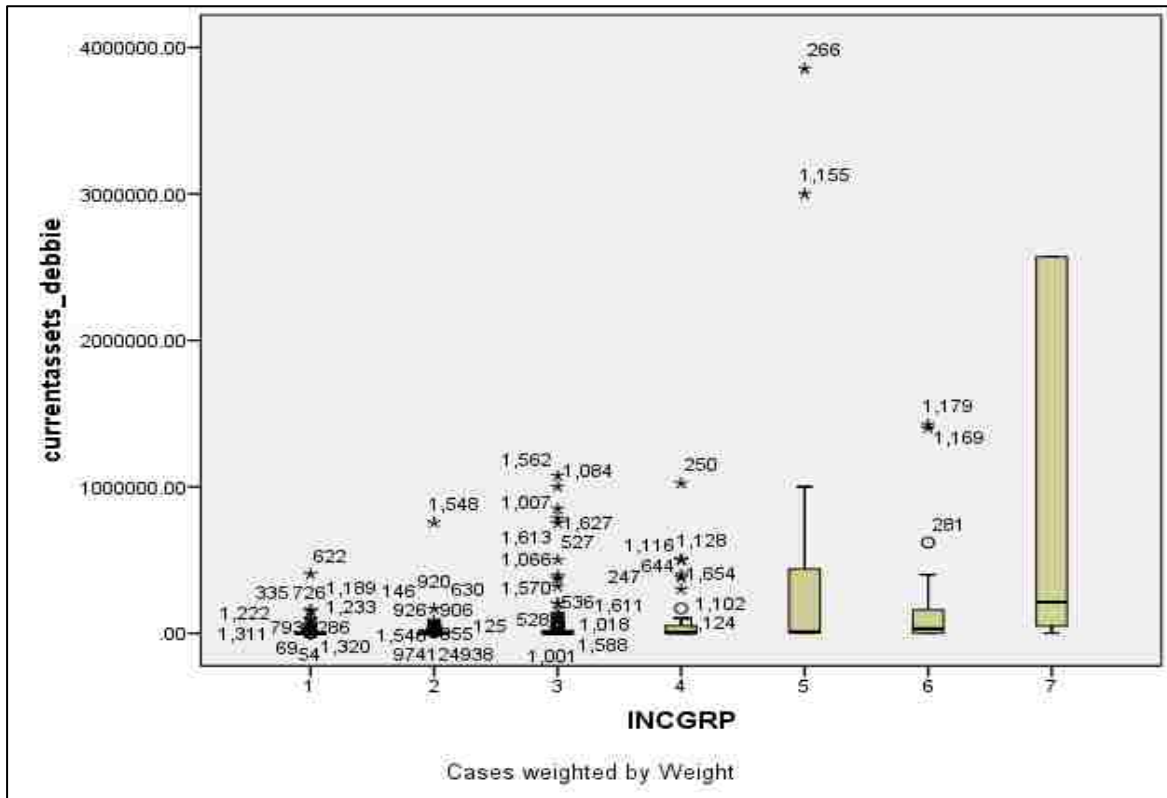
Histogram: Current assets: EAF (emerging affluent)



Histogram: Current assets: AFF (affluent)

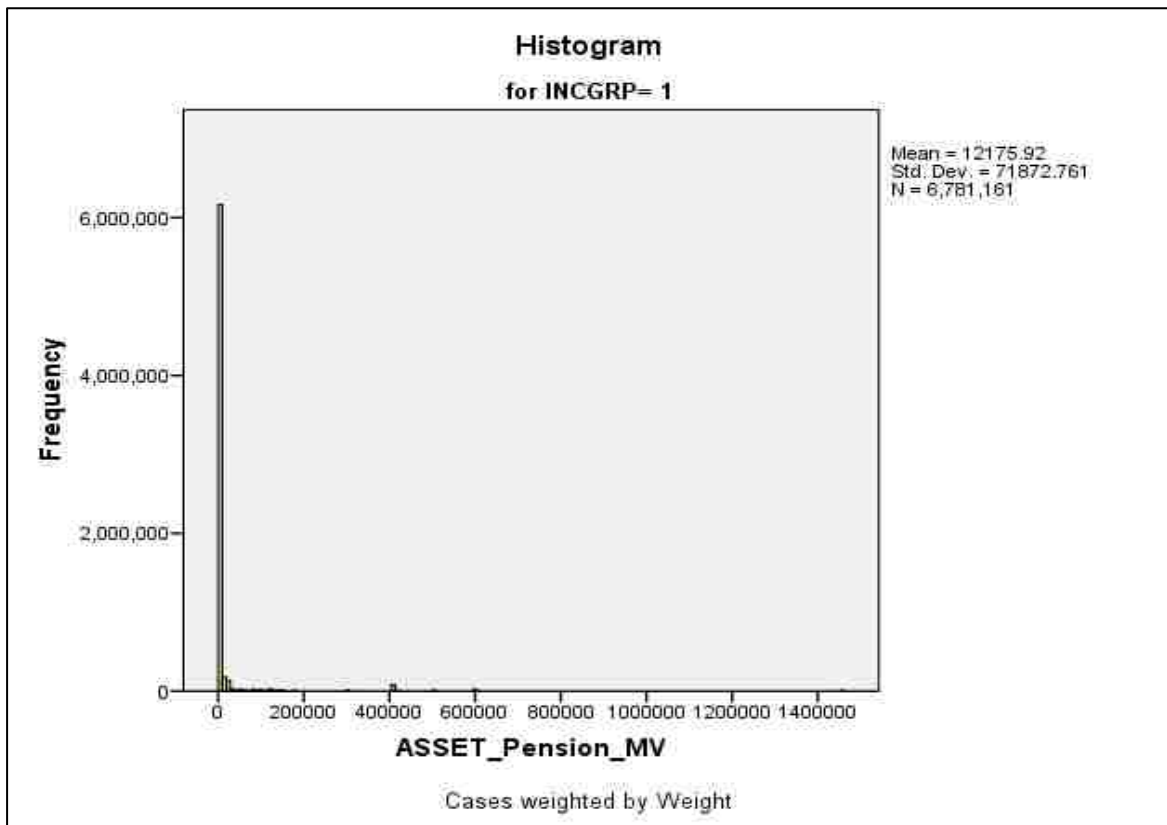


Boxplots: Current assets: Income groups

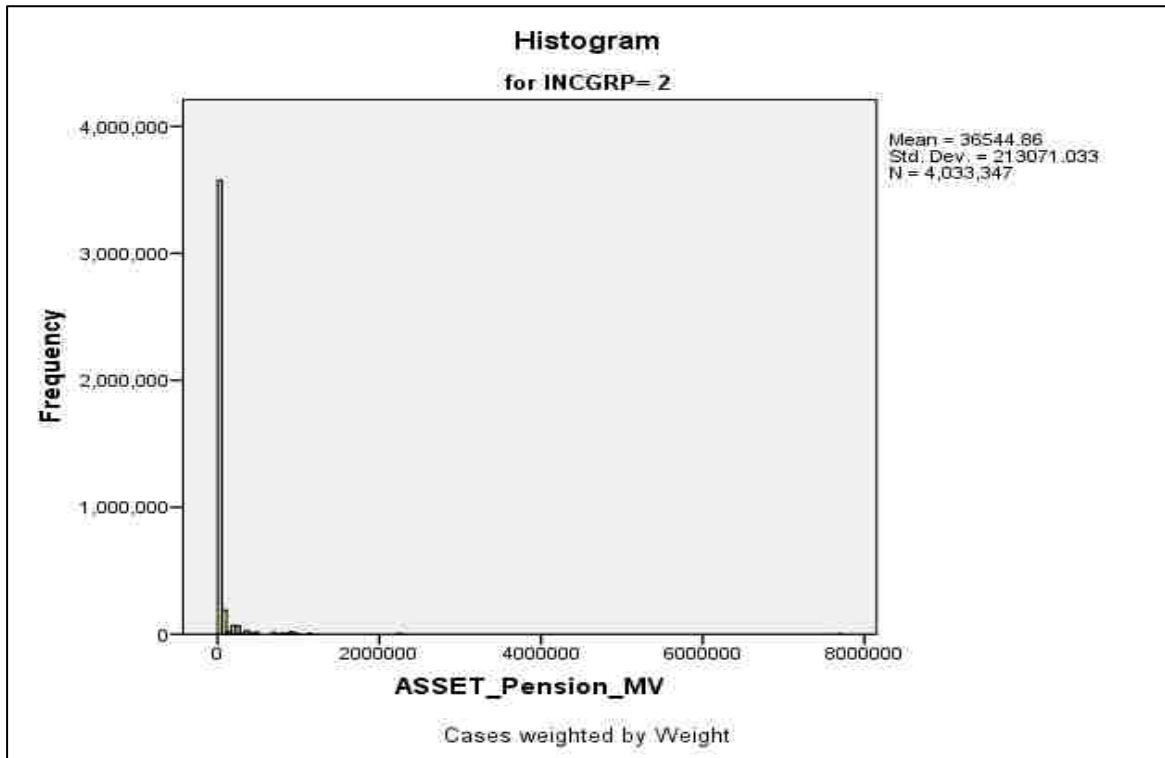


RETIREMENT FUNDING

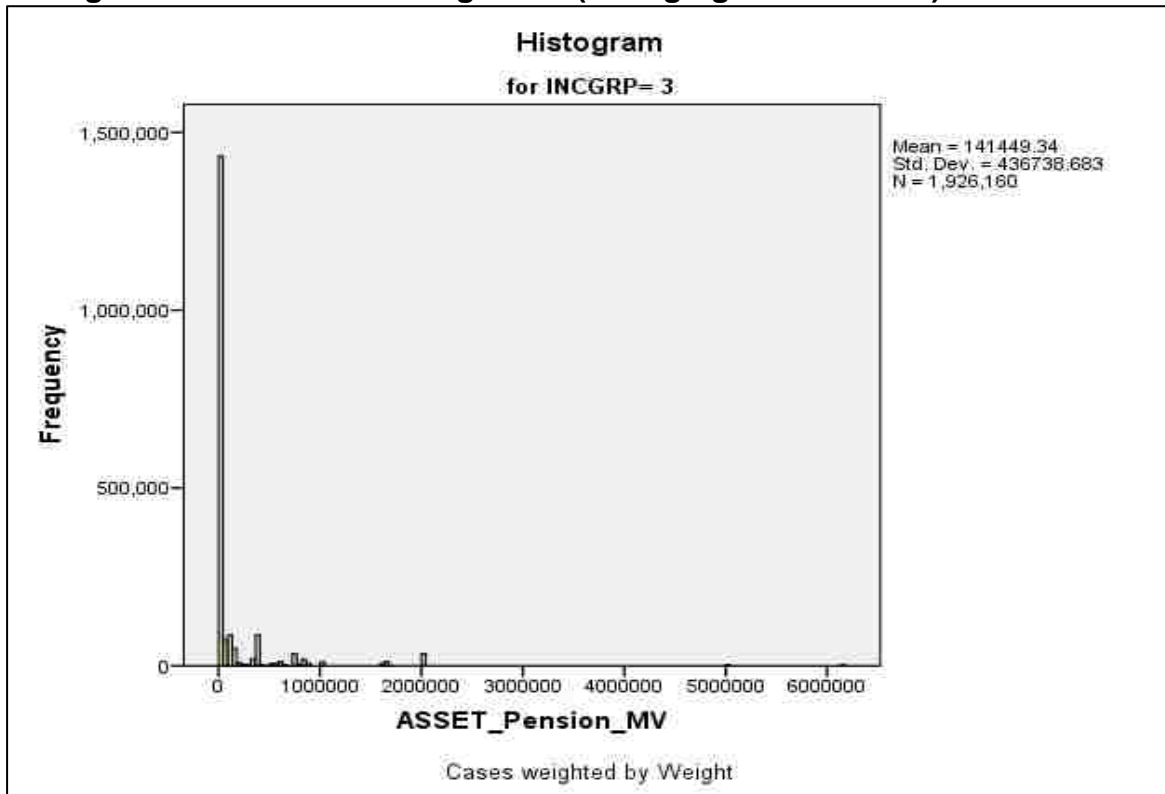
Histogram: Retirement funding: LI (low income)



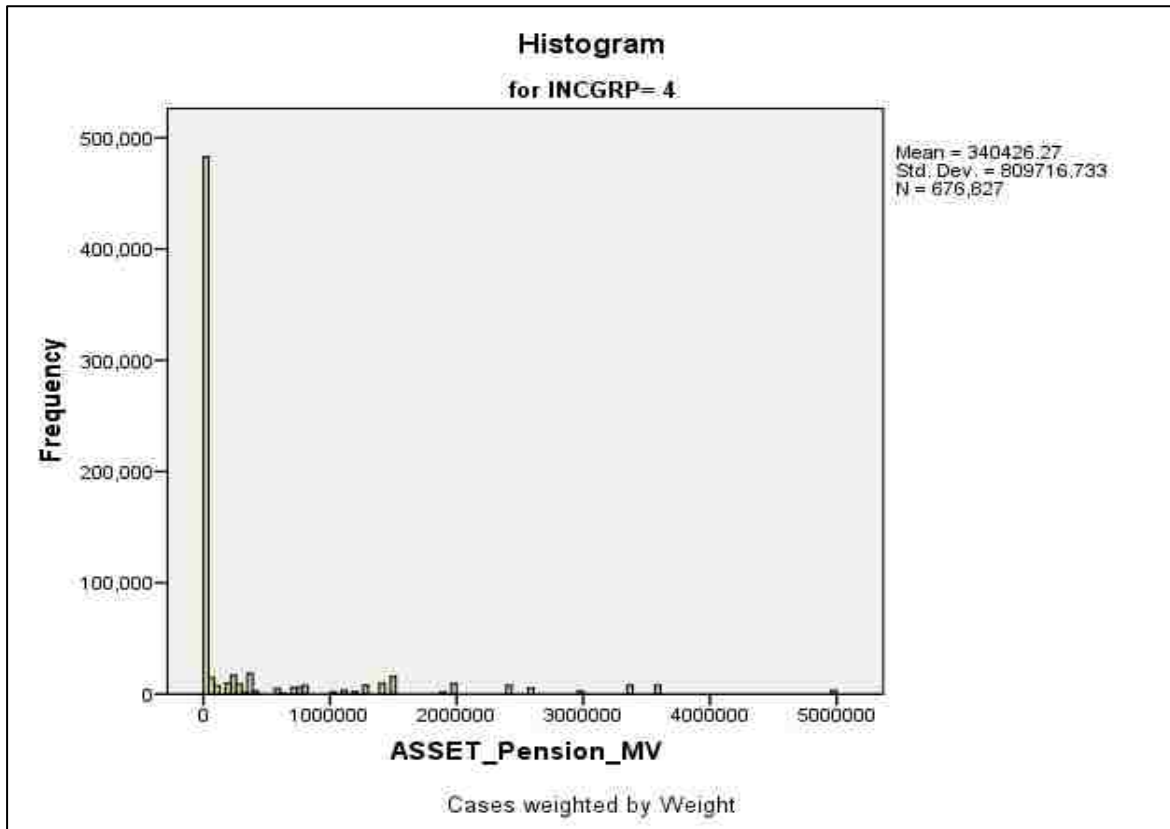
Histogram: Retirement funding: LEMC (low emerging middle class)



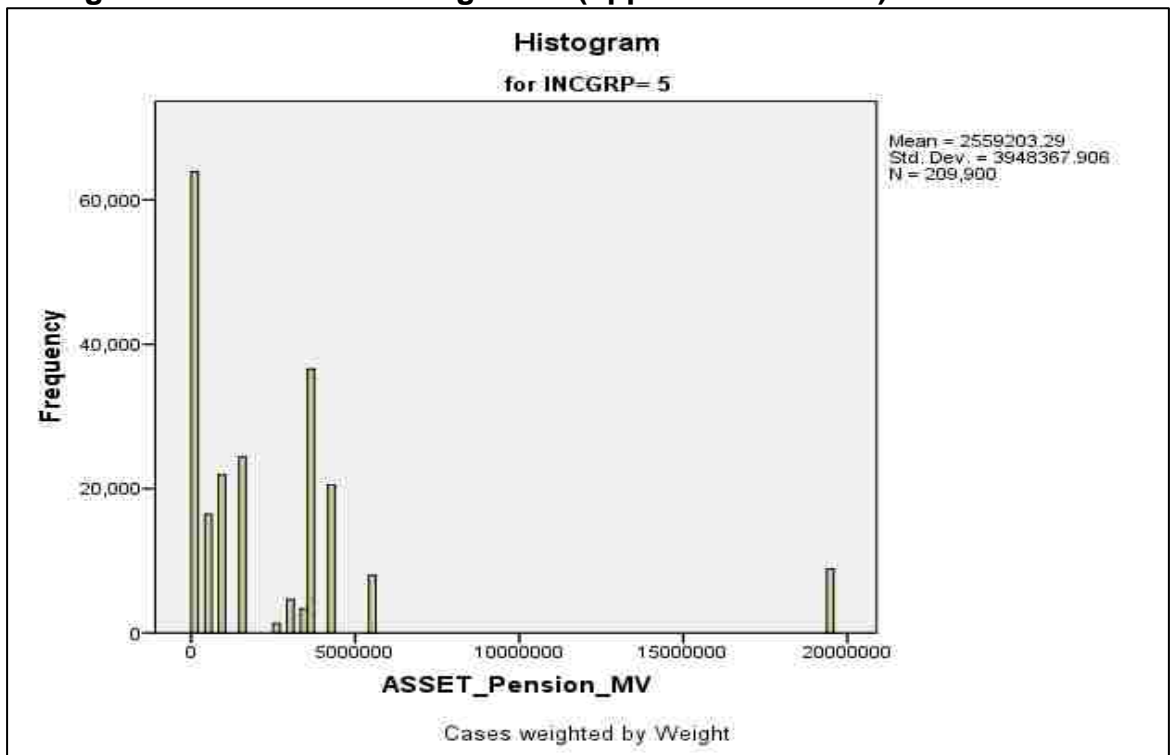
Histogram: Retirement funding: EMC (emerging middle class)



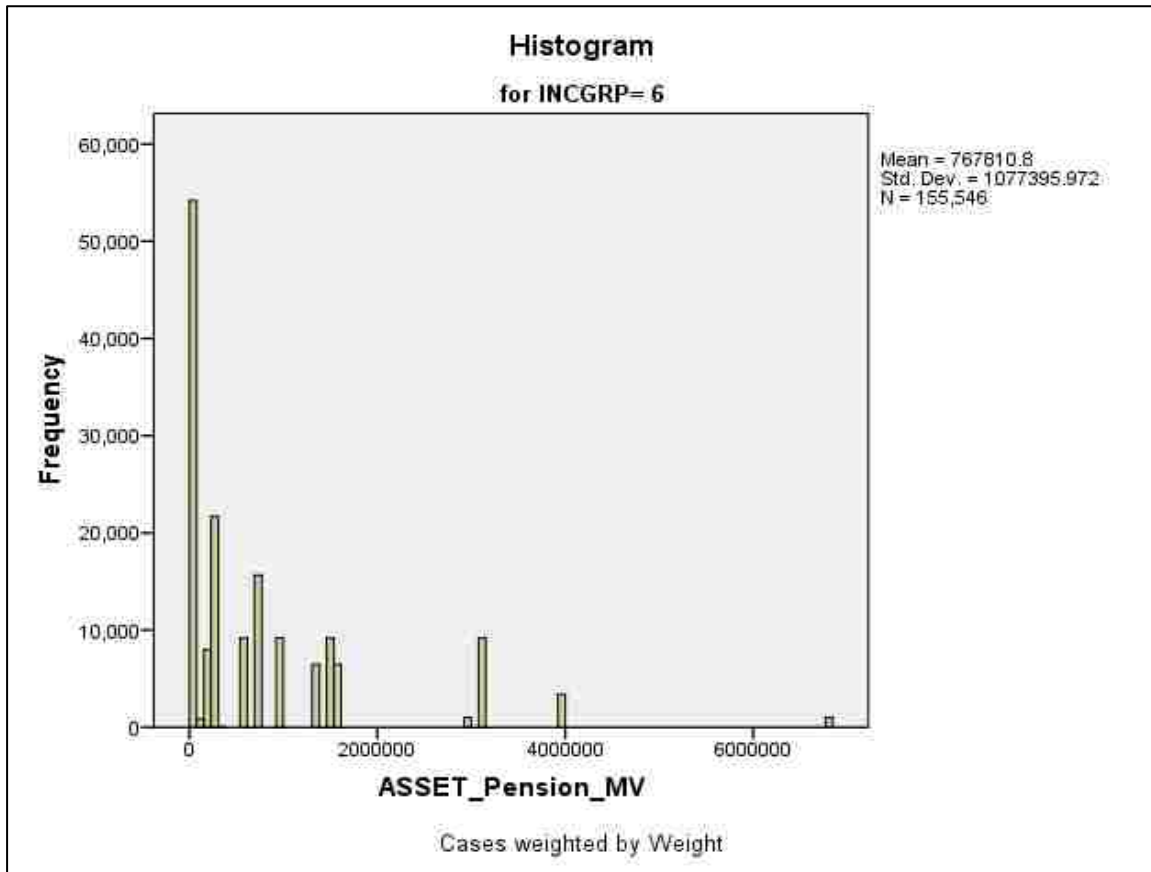
Histogram: Retirement funding: RMC (realised middle class)



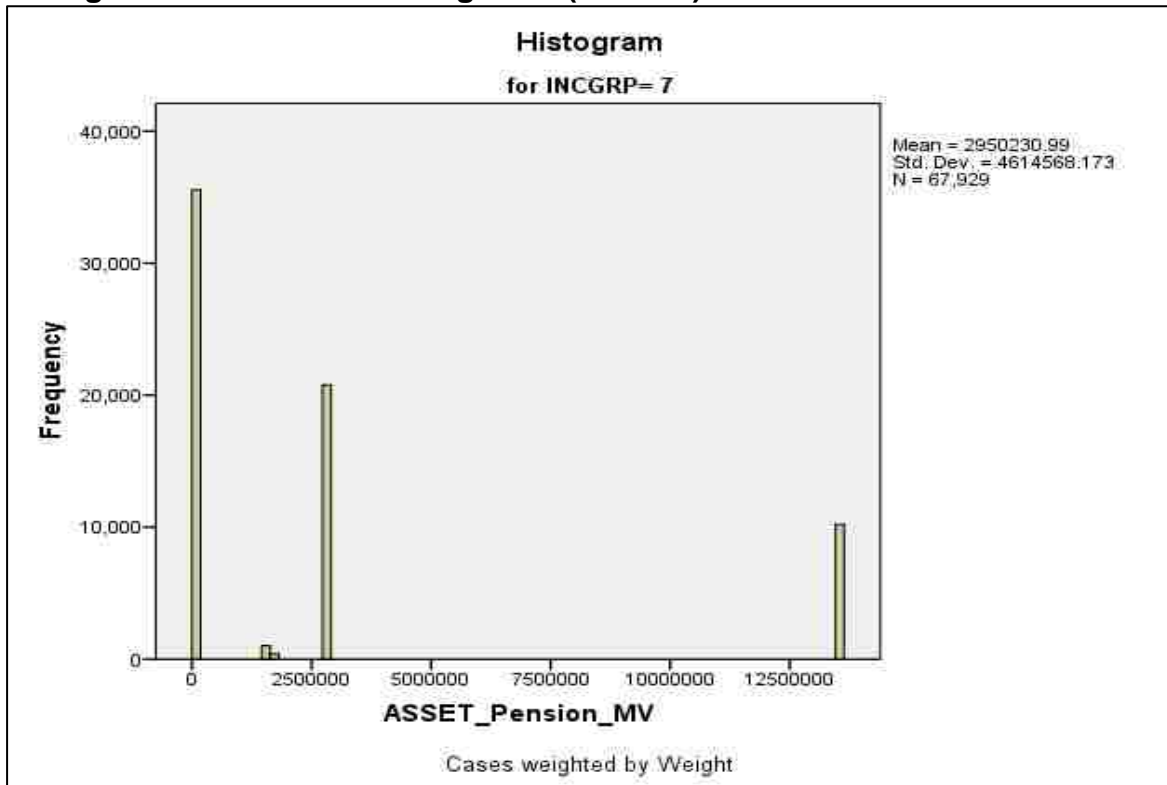
Histogram: Retirement funding: UMC (upper middle class)



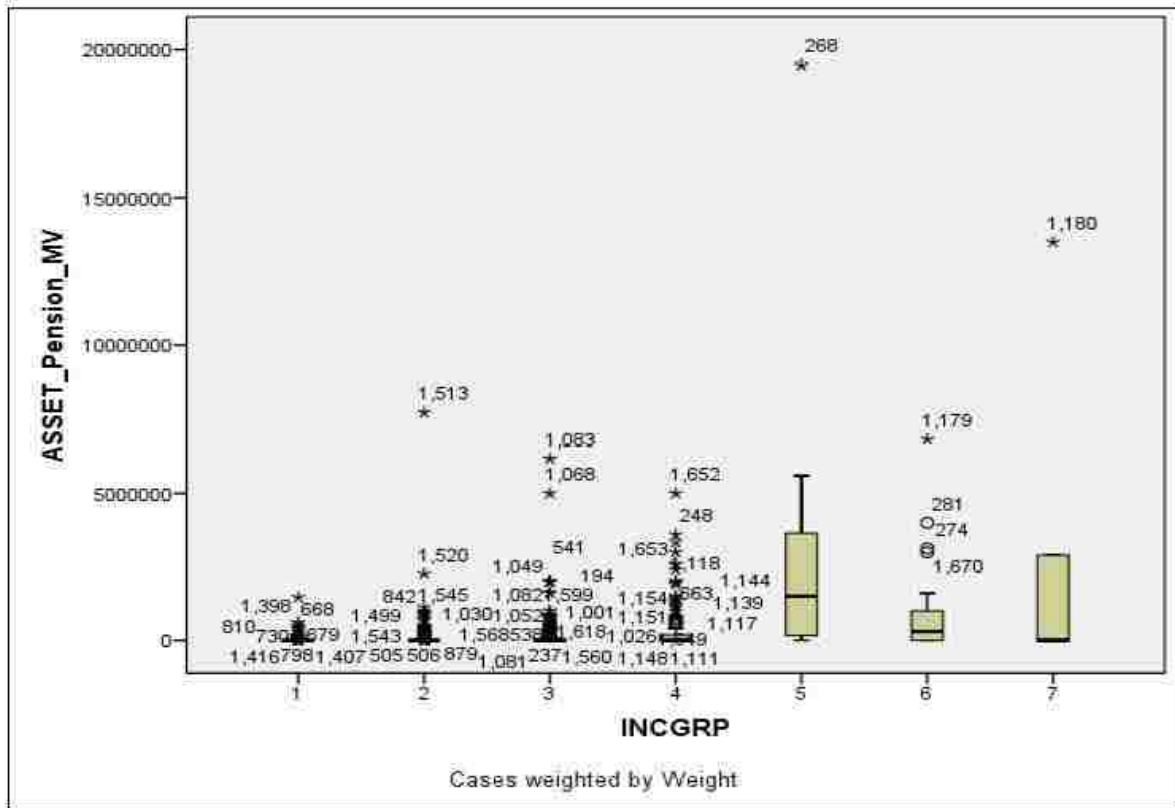
Histogram: Retirement funding: EAF (emerging affluent)



Histogram: Retirement funding: AFF (affluent)



Boxplots: Retirement funding: Income groups



DESCRIPTIVE STATISTICS LIABILITY CLASS VARIABLES PER INCOME GROUP

| Descriptives | | | | | |
|---------------------|----------------------------------|----------------------------------|-----------------|------------|--|
| | INCGRP | | Statistic | Std. Error | |
| Mortgage loans | LI | Mean | 586.4308 | 6.34101 | |
| | | 95% Confidence Interval for Mean | Lower Bound | 574.0026 | |
| | | | Upper Bound | 598.8589 | |
| | | 5% Trimmed Mean | .0000 | | |
| | | Median | .0000 | | |
| | | Variance | 183255588.691 | | |
| | | Std. Deviation | 13537.19279 | | |
| | | Minimum | .00 | | |
| | | Maximum | 868100.00 | | |
| | | Range | 868100.00 | | |
| | | Interquartile Range | .00 | | |
| | | Skewness | 39.651 | .001 | |
| | | Kurtosis | 2153.072 | .002 | |
| | LEMC | Mean | 7791.2245 | 27.31834 | |
| | | 95% Confidence Interval for Mean | Lower Bound | 7737.6816 | |
| | | | Upper Bound | 7844.7675 | |
| | | 5% Trimmed Mean | 65.1424 | | |
| | | Median | .0000 | | |
| | | Variance | 2042993492.484 | | |
| | | Std. Deviation | 45199.48553 | | |
| | | Minimum | .00 | | |
| | | Maximum | 530000.00 | | |
| | | Range | 530000.00 | | |
| | | Interquartile Range | .00 | | |
| | | Skewness | 7.241 | .001 | |
| | | Kurtosis | 57.035 | .003 | |
| | EMC | Mean | 34505.8850 | 83.62760 | |
| | | 95% Confidence Interval for Mean | Lower Bound | 34341.9778 | |
| | | | Upper Bound | 34669.7922 | |
| | | 5% Trimmed Mean | 20810.1238 | | |
| | | Median | .0000 | | |
| | | Variance | 7469835196.110 | | |
| | | Std. Deviation | 86428.20834 | | |
| | | Minimum | .00 | | |
| | | Maximum | 400000.00 | | |
| | | Range | 400000.00 | | |
| | | Interquartile Range | .00 | | |
| | | Skewness | 2.490 | .002 | |
| | | Kurtosis | 4.880 | .005 | |
| | RMC | Mean | 89898.1822 | 498.94472 | |
| | | 95% Confidence Interval for Mean | Lower Bound | 88920.2638 | |
| | | | Upper Bound | 90876.1006 | |
| | | 5% Trimmed Mean | 42945.6999 | | |
| | | Median | .0000 | | |
| | | Variance | 58668157943.311 | | |
| | | Std. Deviation | 242215.10676 | | |
| | | Minimum | .00 | | |
| Maximum | | 1.16E+006 | | | |
| Range | | 1160000.00 | | | |
| Interquartile Range | | 20000.00 | | | |
| Skewness | | 3.391 | .005 | | |
| Kurtosis | | 11.221 | .010 | | |
| UMC | Mean | 111995.3304 | 1215.91712 | | |
| | 95% Confidence Interval for Mean | Lower Bound | 109612.0148 | | |
| | | Upper Bound | 114378.6459 | | |
| | 5% Trimmed Mean | 105141.7560 | | | |
| | Median | .0000 | | | |
| | Variance | 26360662412.803 | | | |
| | Std. Deviation | 162359.66991 | | | |
| | Minimum | .00 | | | |
| Maximum | 347355.00 | | | | |

| Descriptives | | | | | |
|---------------------|-----------------------|----------------------------------|----------------------------------|------------------|------------|
| | INCGRP | | Statistic | Std. Error | |
| | | Range | 347355.00 | | |
| | | Interquartile Range | 347355.00 | | |
| | | Skewness | .760 | .018 | |
| | | Kurtosis | -1.423 | .037 | |
| | EAF | Mean | | 115010.0148 | 837.86131 |
| | | 95% Confidence Interval for Mean | Lower Bound | 113367.8088 | |
| | | | Upper Bound | 116652.2209 | |
| | | 5% Trimmed Mean | | 87693.3497 | |
| | | Median | | .0000 | |
| | | Variance | | 48814035083.355 | |
| | | Std. Deviation | | 220938.98498 | |
| | | Minimum | | .00 | |
| | | Maximum | | 1.43E+006 | |
| | | Range | | 1430687.00 | |
| | | Interquartile Range | | 230000.00 | |
| | | Skewness | | 3.386 | .009 |
| | | Kurtosis | | 15.927 | .019 |
| | AFF | Mean | | 597114.5308 | 2540.46976 |
| | | 95% Confidence Interval for Mean | Lower Bound | 592135.1345 | |
| | | | Upper Bound | 602093.9272 | |
| | | 5% Trimmed Mean | | 607905.0343 | |
| | | Median | | 1000000.0000 | |
| | | Variance | | 230584924800.094 | |
| | | Std. Deviation | | 480192.59136 | |
| | | Minimum | | .00 | |
| | | Maximum | | 1.00E+006 | |
| | | Range | | 1000000.00 | |
| | | Interquartile Range | | 1000000.00 | |
| | | Skewness | | -.384 | .013 |
| | | Kurtosis | | -1.811 | .026 |
| | Financial liabilities | LI | Mean | 1552.8854 | 4.66214 |
| | | | 95% Confidence Interval for Mean | Lower Bound | 1543.7478 |
| | | | | Upper Bound | 1562.0230 |
| | | | 5% Trimmed Mean | | 275.7455 |
| Median | | | | .0000 | |
| Variance | | | | 99062828.137 | |
| Std. Deviation | | | | 9953.03110 | |
| Minimum | | | | .00 | |
| Maximum | | | | 175000.00 | |
| Range | | | | 175000.00 | |
| Interquartile Range | | | | .00 | |
| Skewness | | | | 12.541 | .001 |
| Kurtosis | | | | 189.315 | .002 |
| LEMC | | Mean | | 6680.0772 | 13.96492 |
| | | 95% Confidence Interval for Mean | Lower Bound | 6652.7064 | |
| | | | Upper Bound | 6707.4479 | |
| | | 5% Trimmed Mean | | 2947.1531 | |
| | | Median | | .0000 | |
| | | Variance | | 533869380.354 | |
| | | Std. Deviation | | 23105.61361 | |
| | | Minimum | | .00 | |
| | | Maximum | | 324000.00 | |
| | | Range | | 324000.00 | |
| | | Interquartile Range | | 1600.00 | |
| | | Skewness | | 7.965 | .001 |
| | | Kurtosis | | 87.647 | .003 |
| EMC | | Mean | | 40553.6137 | 118.13658 |
| | | 95% Confidence Interval for Mean | Lower Bound | 40322.0701 | |
| | | | Upper Bound | 40785.1574 | |
| | | 5% Trimmed Mean | | 26738.2402 | |
| | | Median | | 369.0000 | |
| | | Variance | | 14906667870.618 | |
| | | Std. Deviation | | 122092.86576 | |
| | | Minimum | | .00 | |
| | Maximum | | 1.90E+006 | | |

| Descriptives | | | | |
|---------------------|-------|----------------------------------|----------------------------|----------------------------|
| | INCRP | | Statistic | Std. Error |
| | | Range | 1900315.00 | |
| | | Interquartile Range | 55240.00 | |
| | | Skewness | 11.457 | .002 |
| | | Kurtosis | 166.871 | .005 |
| | RMC | Mean | 133982.6852 | 293.59411 |
| | | 95% Confidence Interval for Mean | Lower Bound Upper Bound | 133407.2486 134558.1219 |
| | | 5% Trimmed Mean | 119255.4483 | |
| | | Median | 101450.0000 | |
| | | Variance | 20313851865.508 | |
| | | Std. Deviation | 142526.67072 | |
| | | Minimum | .00 | |
| | | Maximum | 579900.00 | |
| | | Range | 579900.00 | |
| | | Interquartile Range | 183445.00 | |
| | | Skewness | 1.343 | .005 |
| | | Kurtosis | 1.570 | .010 |
| | UMC | Mean | 105323.6624 | 544.73767 |
| | | 95% Confidence Interval for Mean | Lower Bound Upper Bound | 104255.9237 106391.4011 |
| | | 5% Trimmed Mean | 105248.5138 | |
| | | Median | 71200.0000 | |
| | | Variance | 5290822442.768 | |
| | | Std. Deviation | 72738.03986 | |
| | | Minimum | .00 | |
| | | Maximum | 212000.00 | |
| | | Range | 212000.00 | |
| | | Interquartile Range | 121000.00 | |
| | | Skewness | .009 | .018 |
| | | Kurtosis | -1.450 | .037 |
| | EAF | Mean | 100052.4060 | 762.26051 |
| | | 95% Confidence Interval for Mean | Lower Bound Upper Bound | 98558.3773 101546.4347 |
| | | 5% Trimmed Mean | 78113.7844 | |
| | | Median | 500.0000 | |
| | | Variance | 40402411183.918 | |
| | | Std. Deviation | 201003.51038 | |
| | | Minimum | .00 | |
| | | Maximum | 595000.00 | |
| | | Range | 595000.00 | |
| | | Interquartile Range | 62320.00 | |
| | | Skewness | 1.905 | .009 |
| | | Kurtosis | 1.913 | .019 |
| | AFF | Mean | 307448.2925 | 606.63953 |
| | | 95% Confidence Interval for Mean | Lower Bound Upper Bound | 306259.2609 308637.3240 |
| | | 5% Trimmed Mean | 320050.7573 | |
| | | Median | 387000.0000 | |
| | | Variance | 13148138205.318 | |
| | | Std. Deviation | 114665.33131 | |
| | | Minimum | 300.00 | |
| | | Maximum | 387000.00 | |
| | | Range | 386700.00 | |
| | | Interquartile Range | 137000.00 | |
| | | Skewness | -1.546 | .013 |
| | | Kurtosis | 1.672 | .026 |
| Current liabilities | LI | Mean | 2107.6129 | 3.61764 |
| | | 95% Confidence Interval for Mean | Lower Bound Upper Bound | 2100.5225 2114.7034 |
| | | 5% Trimmed Mean | 1106.9535 | |
| | | Median | 400.0000 | |
| | | Variance | 59647416.769 | |
| | | Std. Deviation | 7723.17401 | |
| | | Minimum | .00 | |
| | | Maximum | 149125.00 | |

| Descriptives | | | | |
|--------------|--------|----------------------------------|----------------------------|--------------------------|
| | INCGRP | | Statistic | Std. Error |
| | | Range | 149125.00 | |
| | | Interquartile Range | 1586.00 | |
| | | Skewness | 12.925 | .001 |
| | | Kurtosis | 213.153 | .002 |
| | LEMC | Mean | 3268.0959 | 3.54709 |
| | | 95% Confidence Interval for Mean | Lower Bound Upper Bound | 3261.1437 3275.0480 |
| | | 5% Trimmed Mean | 2323.5641 | |
| | | Median | 1095.0000 | |
| | | Variance | 34443194.515 | |
| | | Std. Deviation | 5868.83247 | |
| | | Minimum | .00 | |
| | | Maximum | 55000.00 | |
| | | Range | 55000.00 | |
| | | Interquartile Range | 3500.00 | |
| | | Skewness | 4.073 | .001 |
| | | Kurtosis | 22.386 | .003 |
| | EMC | Mean | 8290.8906 | 14.70582 |
| | | 95% Confidence Interval for Mean | Lower Bound Upper Bound | 8262.0677 8319.7135 |
| | | 5% Trimmed Mean | 5748.5602 | |
| | | Median | 3000.0000 | |
| | | Variance | 230988420.896 | |
| | | Std. Deviation | 15198.30322 | |
| | | Minimum | .00 | |
| | | Maximum | 100700.00 | |
| | | Range | 100700.00 | |
| | | Interquartile Range | 7841.00 | |
| | | Skewness | 3.944 | .002 |
| | | Kurtosis | 18.288 | .005 |
| | RMC | Mean | 17178.7206 | 85.35163 |
| | | 95% Confidence Interval for Mean | Lower Bound Upper Bound | 17011.4337 17346.0075 |
| | | 5% Trimmed Mean | 10480.1371 | |
| | | Median | 5000.0000 | |
| | | Variance | 1716805981.631 | |
| | | Std. Deviation | 41434.35750 | |
| | | Minimum | .00 | |
| | | Maximum | 307040.00 | |
| | | Range | 307040.00 | |
| | | Interquartile Range | 16050.00 | |
| | | Skewness | 5.707 | .005 |
| | | Kurtosis | 36.233 | .010 |
| | UMC | Mean | 7573.4103 | 98.81275 |
| | | 95% Confidence Interval for Mean | Lower Bound Upper Bound | 7379.7277 7767.0929 |
| | | 5% Trimmed Mean | 5097.6781 | |
| | | Median | 1500.0000 | |
| | | Variance | 174090225.560 | |
| | | Std. Deviation | 13194.32551 | |
| | | Minimum | .00 | |
| | | Maximum | 59710.00 | |
| | | Range | 59710.00 | |
| | | Interquartile Range | 11210.00 | |
| | | Skewness | 3.124 | .018 |
| | | Kurtosis | 9.614 | .037 |
| | EAF | Mean | 27857.3746 | 125.72421 |
| | | 95% Confidence Interval for Mean | Lower Bound Upper Bound | 27610.9555 28103.7938 |
| | | 5% Trimmed Mean | 24823.2069 | |
| | | Median | 6400.0000 | |
| | | Variance | 1099102687.152 | |
| | | Std. Deviation | 33152.71764 | |
| | | Minimum | .00 | |
| | | Maximum | 115000.00 | |

| Descriptives | | | | |
|--------------|--------|----------------------------------|----------------|------------|
| | INCGRP | | Statistic | Std. Error |
| | | Range | 115000.00 | |
| | | Interquartile Range | 55250.00 | |
| | | Skewness | .871 | .009 |
| | | Kurtosis | -.246 | .019 |
| | AFF | Mean | 116867.2580 | 267.59308 |
| | | 95% Confidence Interval for Mean | | |
| | | Lower Bound | 116342.7676 | |
| | | Upper Bound | 117391.7484 | |
| | | 5% Trimmed Mean | 120741.4941 | |
| | | Median | 157200.0000 | |
| | | Variance | 2558306652.591 | |
| | | Std. Deviation | 50579.70594 | |
| | | Minimum | 4610.00 | |
| | | Maximum | 157200.00 | |
| | | Range | 152590.00 | |
| | | Interquartile Range | 79450.00 | |
| | | Skewness | -.737 | .013 |
| | | Kurtosis | -.861 | .026 |

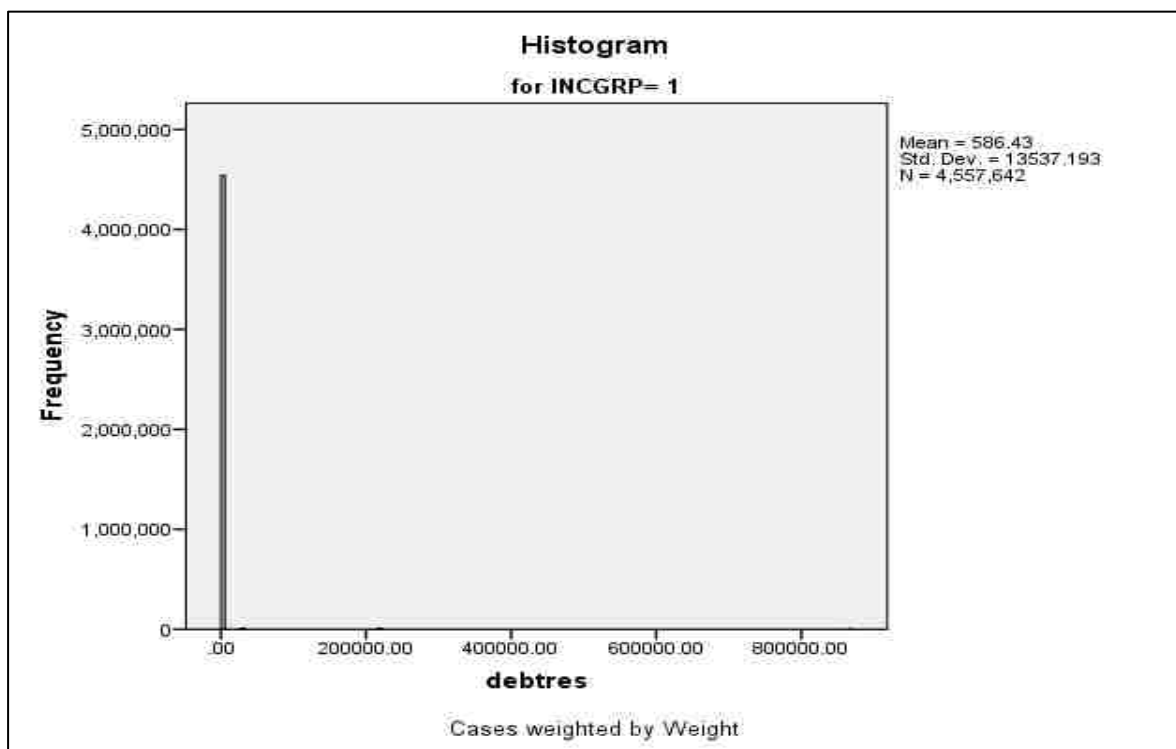
HISTOGRAMS AND BOXPLOTS: LIABILITY CLASS VARIABLES PER INCOME GROUP

Note:

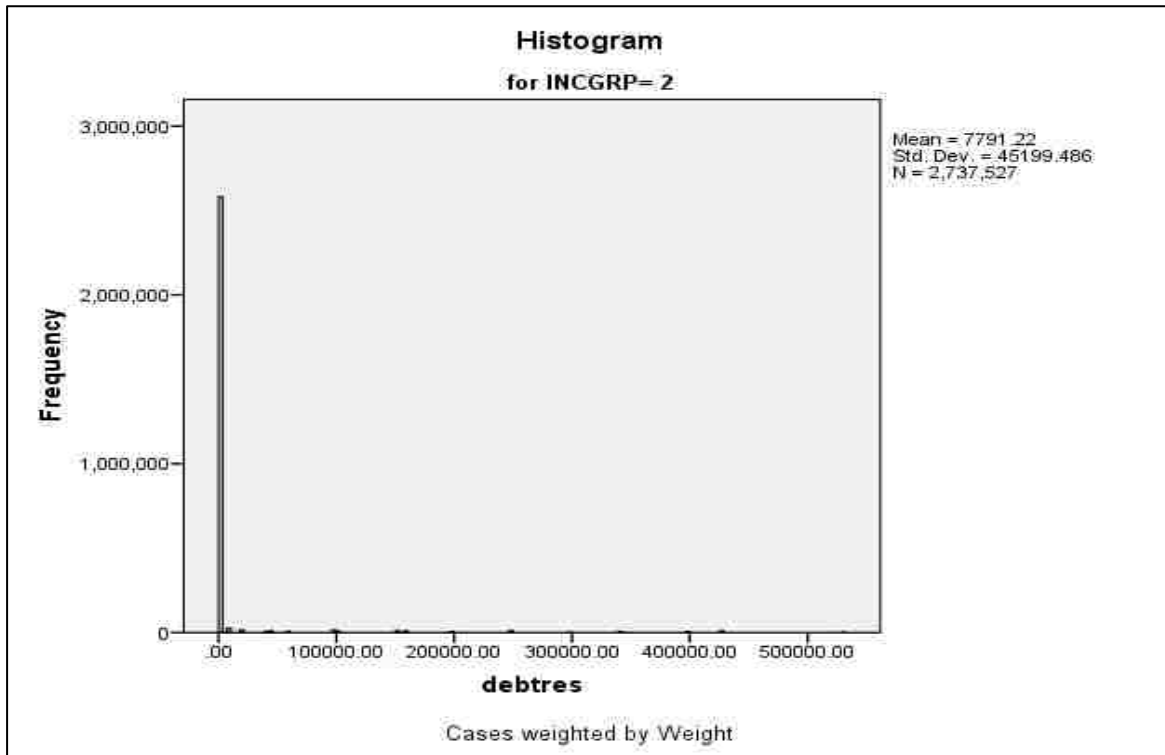
| | |
|----------------|--------|
| Income group 1 | = LI |
| Income group 2 | = LEMC |
| Income group 3 | = EMC |
| Income group 4 | = RMC |
| Income group 5 | = UMC |
| Income group 6 | = EA |
| Income group 7 | = AFF |

MORTGAGE LOANS

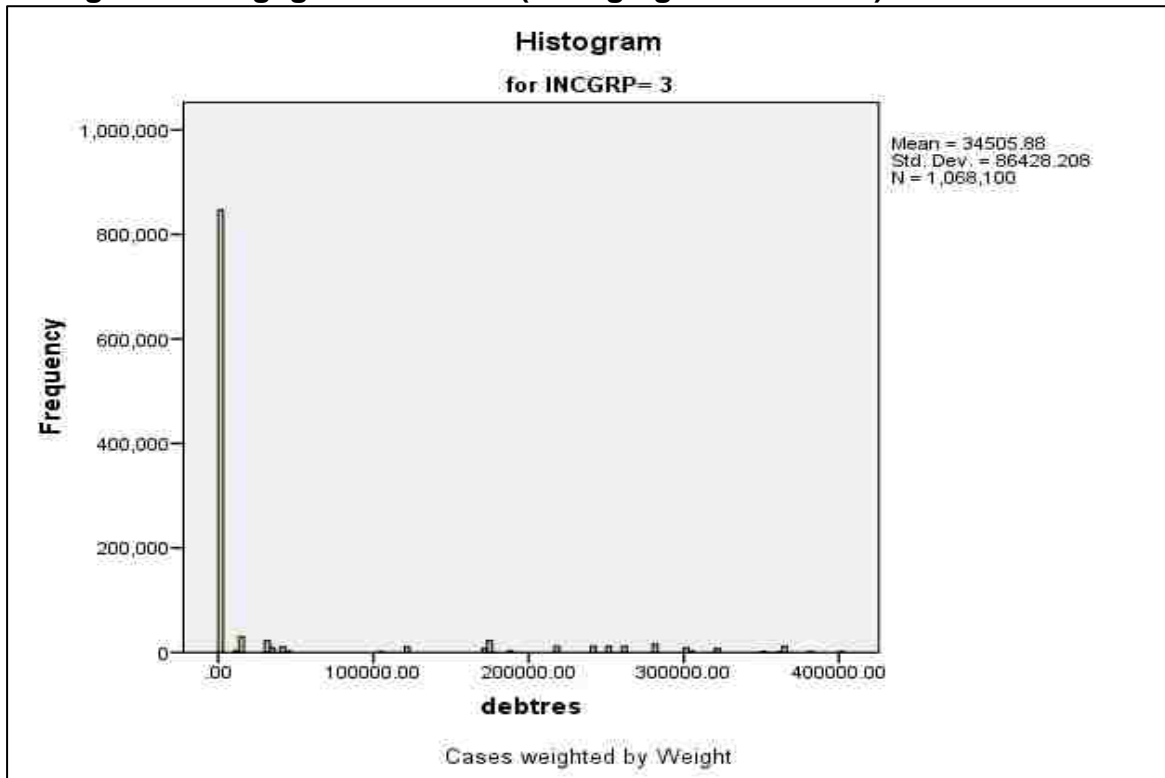
Histogram: Mortgage loans: LI (low income)



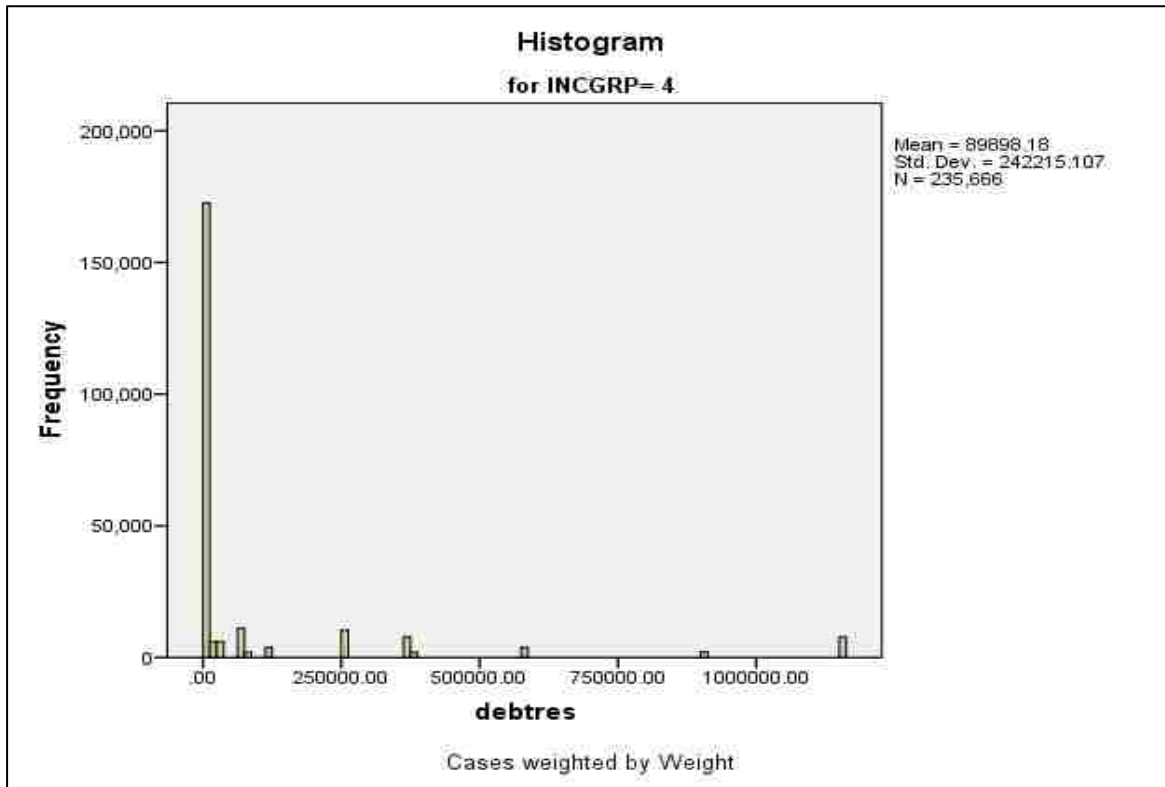
Histogram: Mortgage loans: LEMC (low emerging middle class)



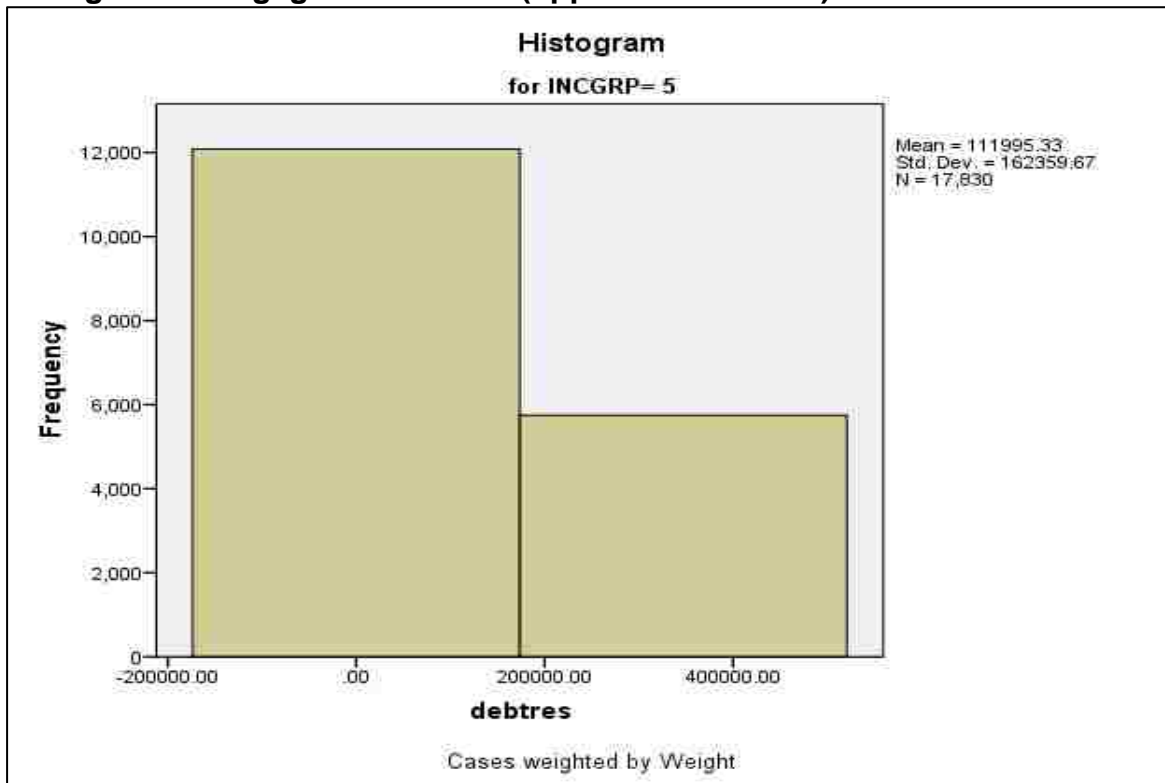
Histogram: Mortgage loans: EMC (emerging middle class)



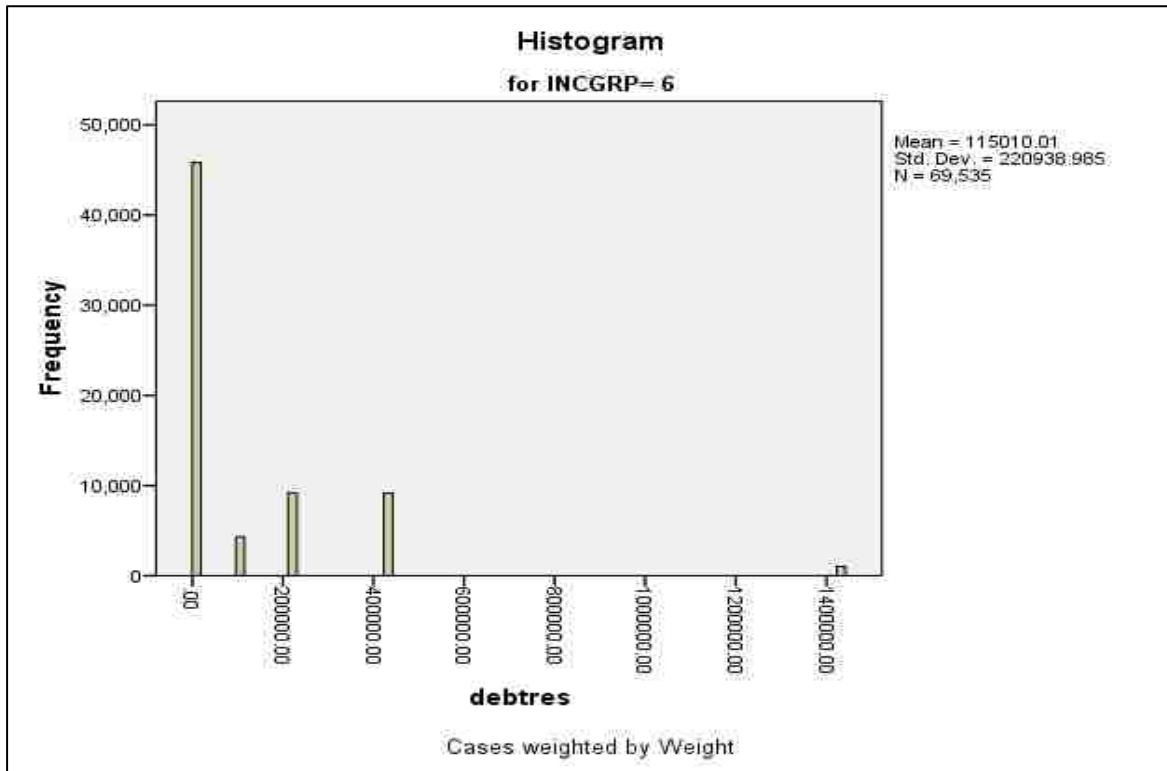
Histogram: Mortgage loans: RMC (realised middle class)



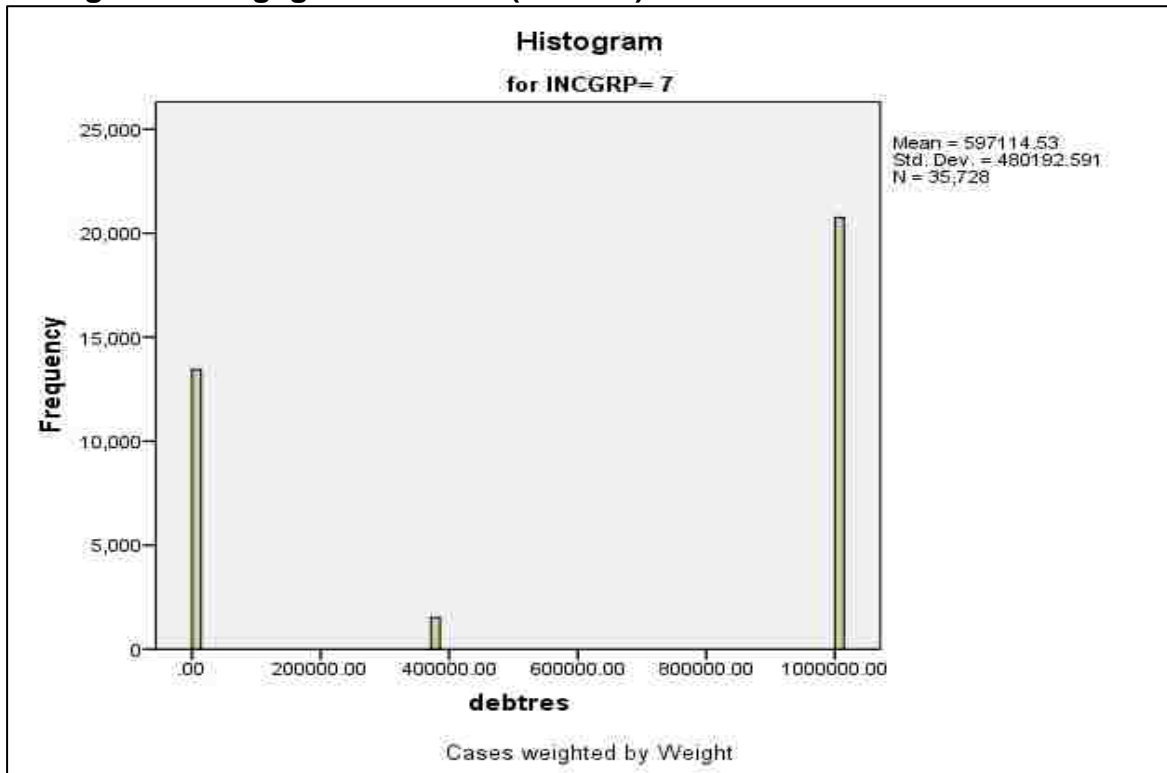
Histogram: Mortgage loans: UMC (upper middle class)



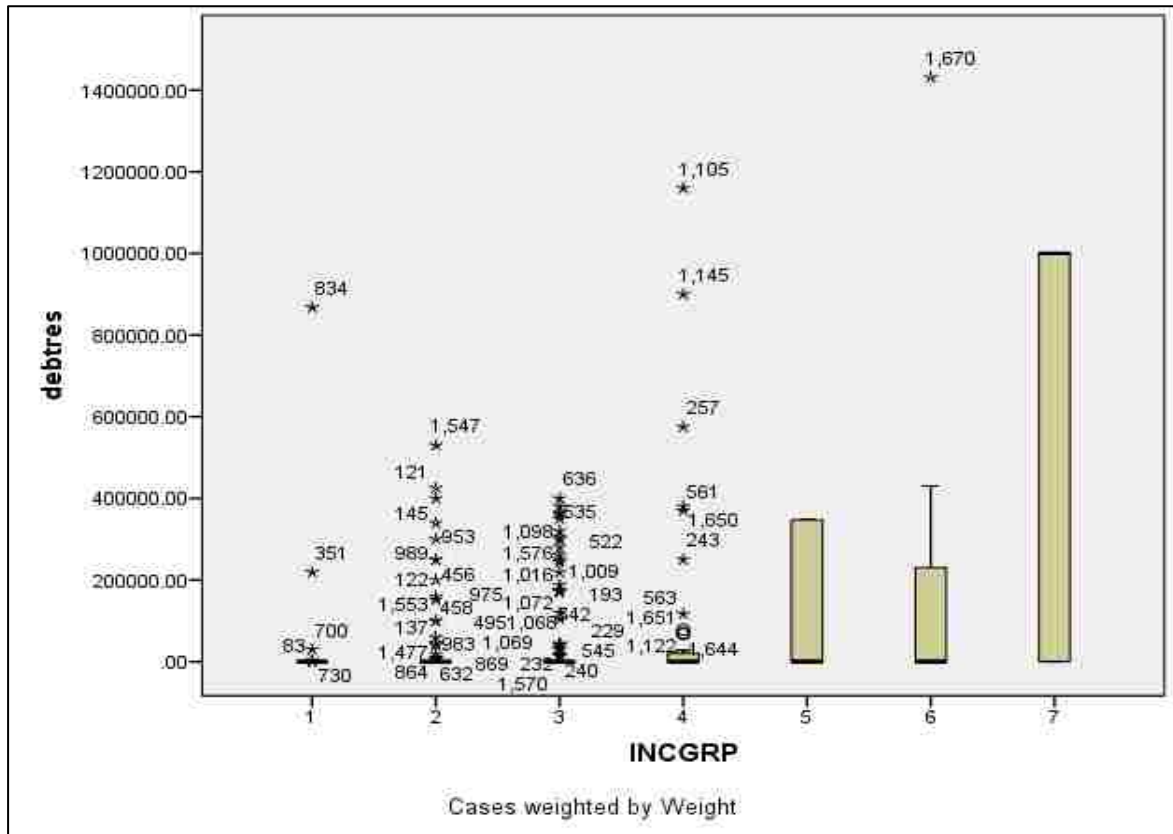
Histogram: Mortgage loans: EAF (emerging affluent)



Histogram: Mortgage loans: AFF (affluent)

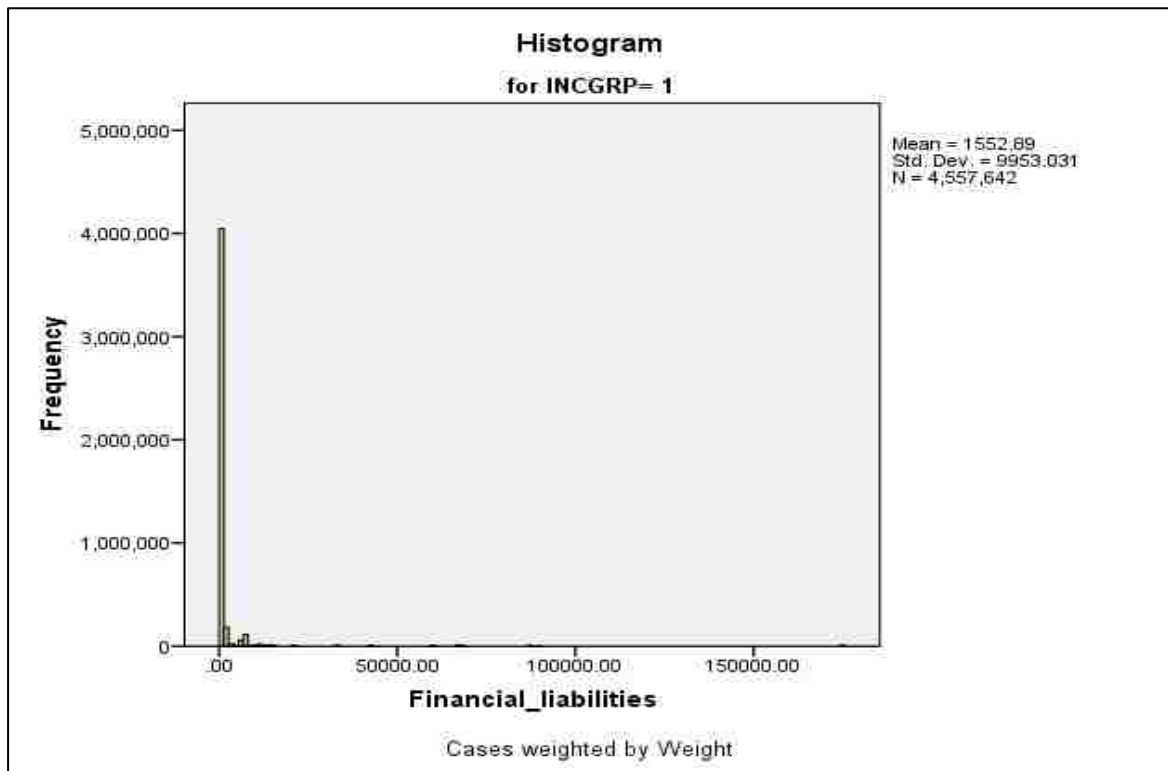


Boxplots: Mortgage loans: Income groups

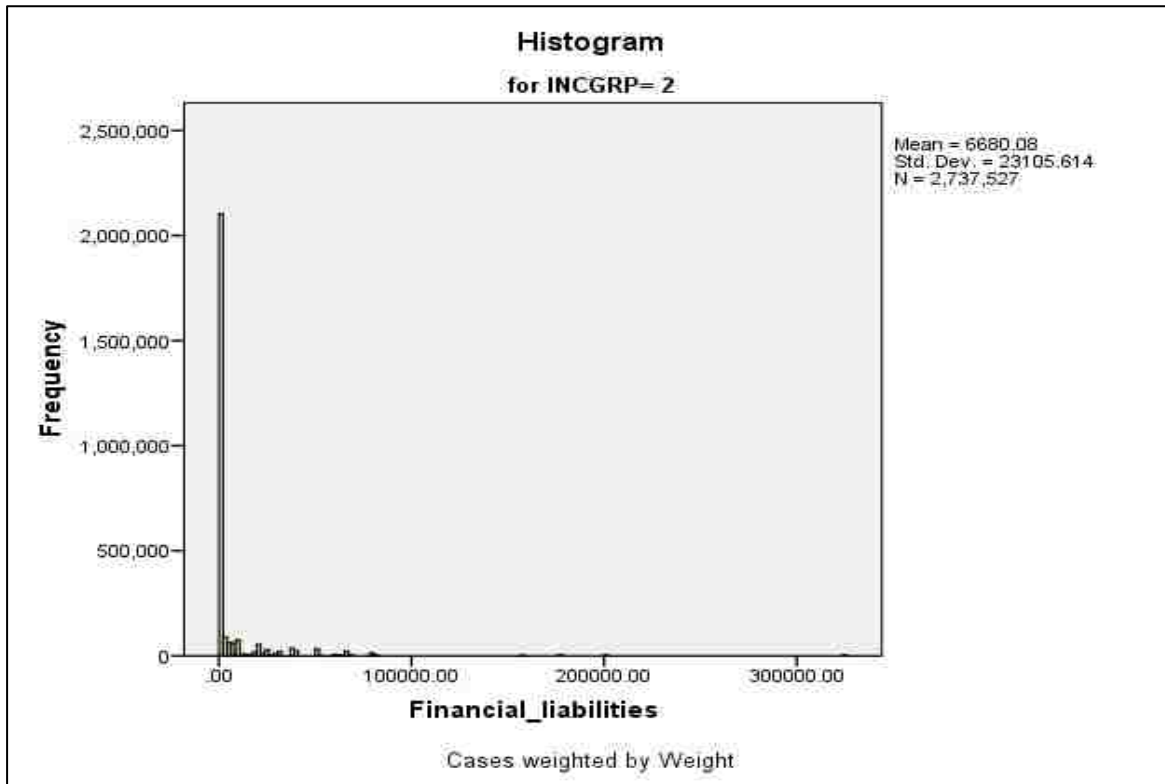


FINANCIAL LIABILITIES

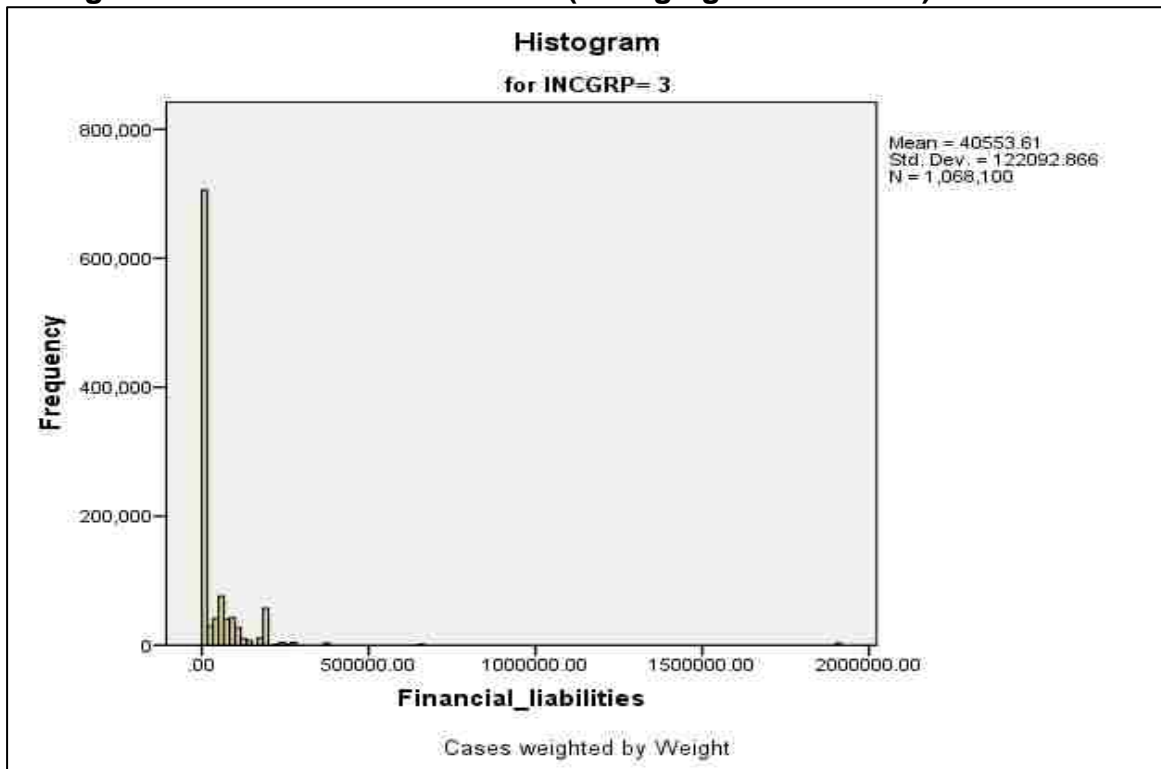
Histogram: Financial liabilities: LI (low income)



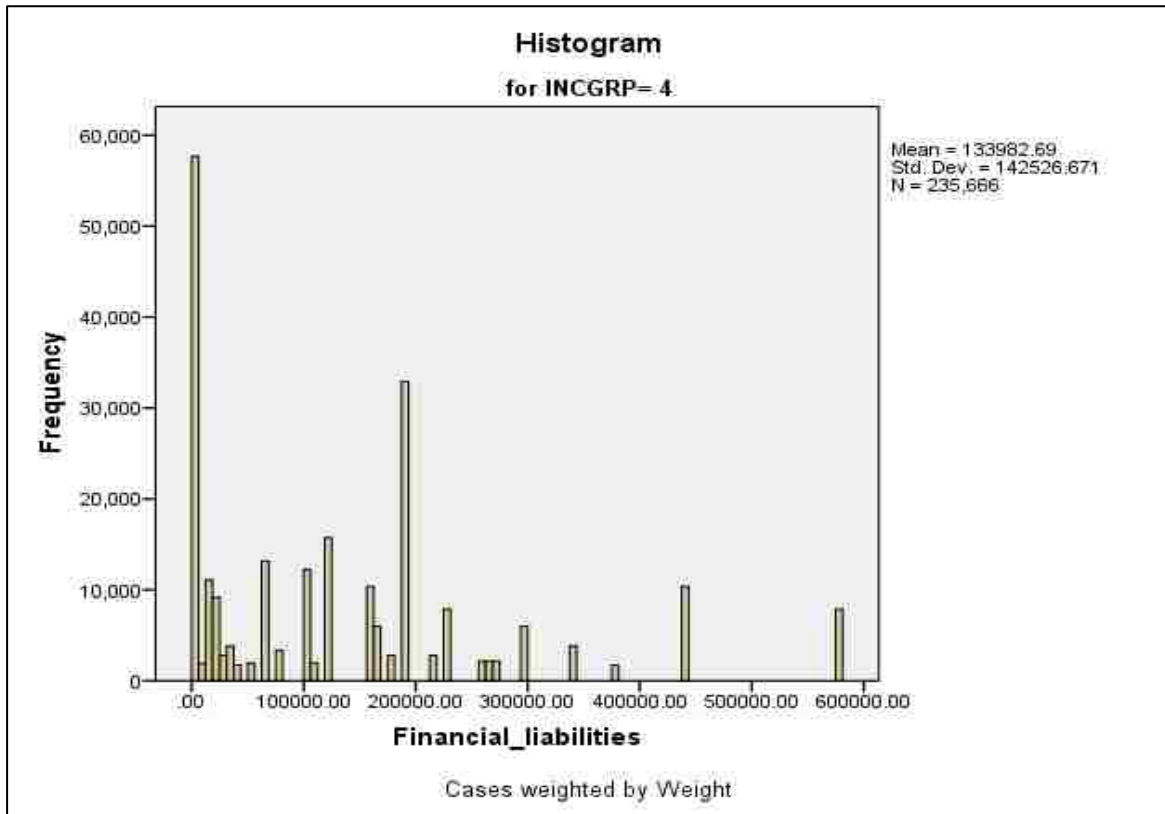
Histogram: Financial liabilities: LEMC (low emerging middle class)



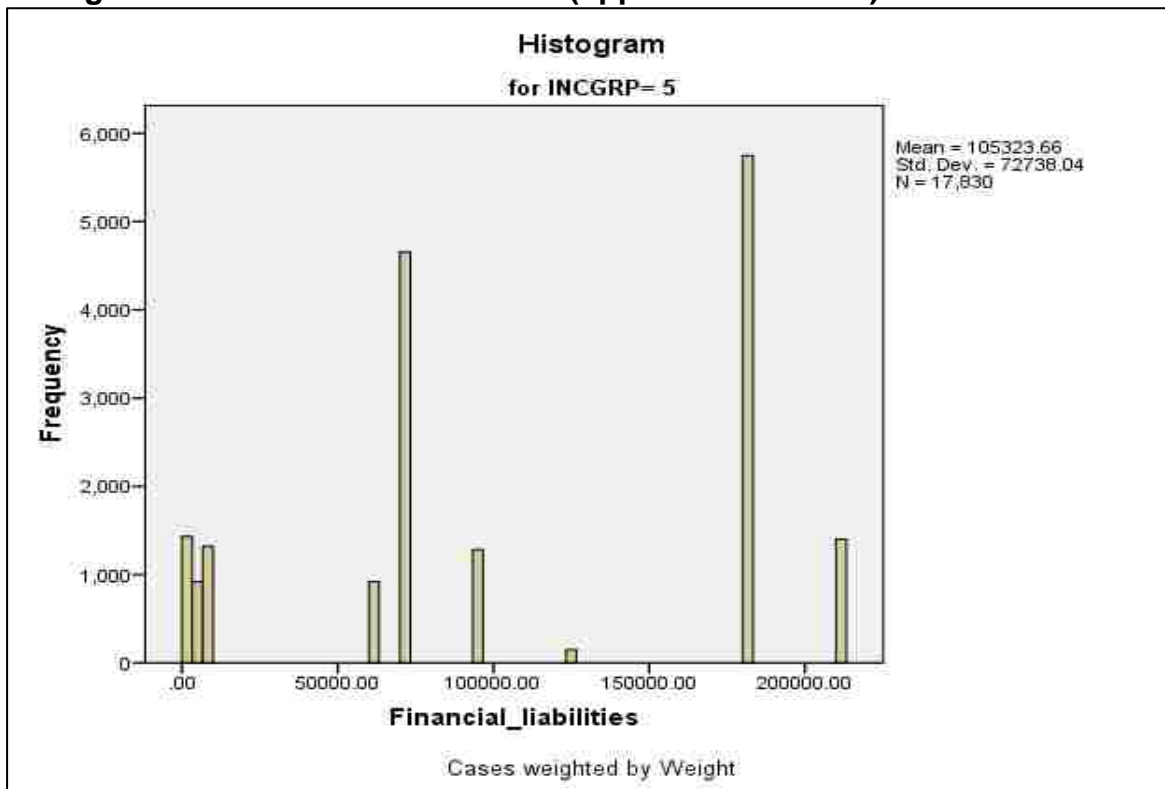
Histogram: Financial liabilities: EMC (emerging middle class)



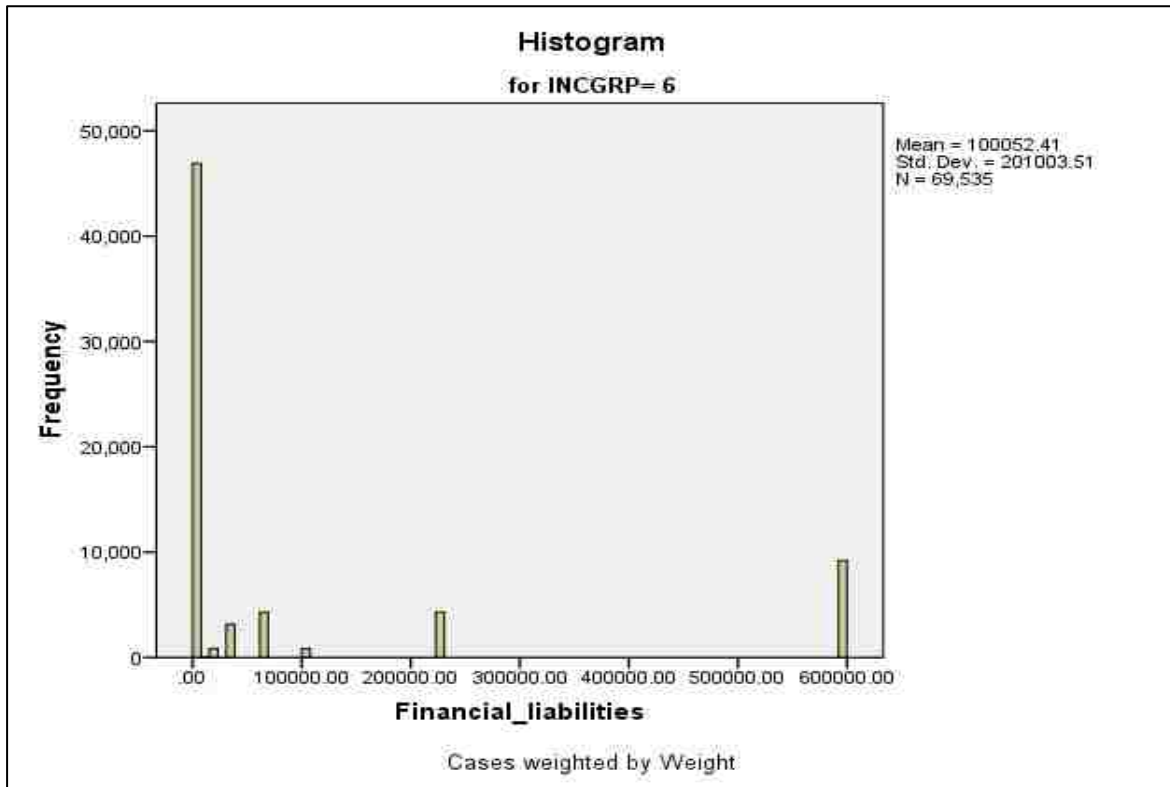
Histogram: Financial liabilities: RMC (realised middle class)



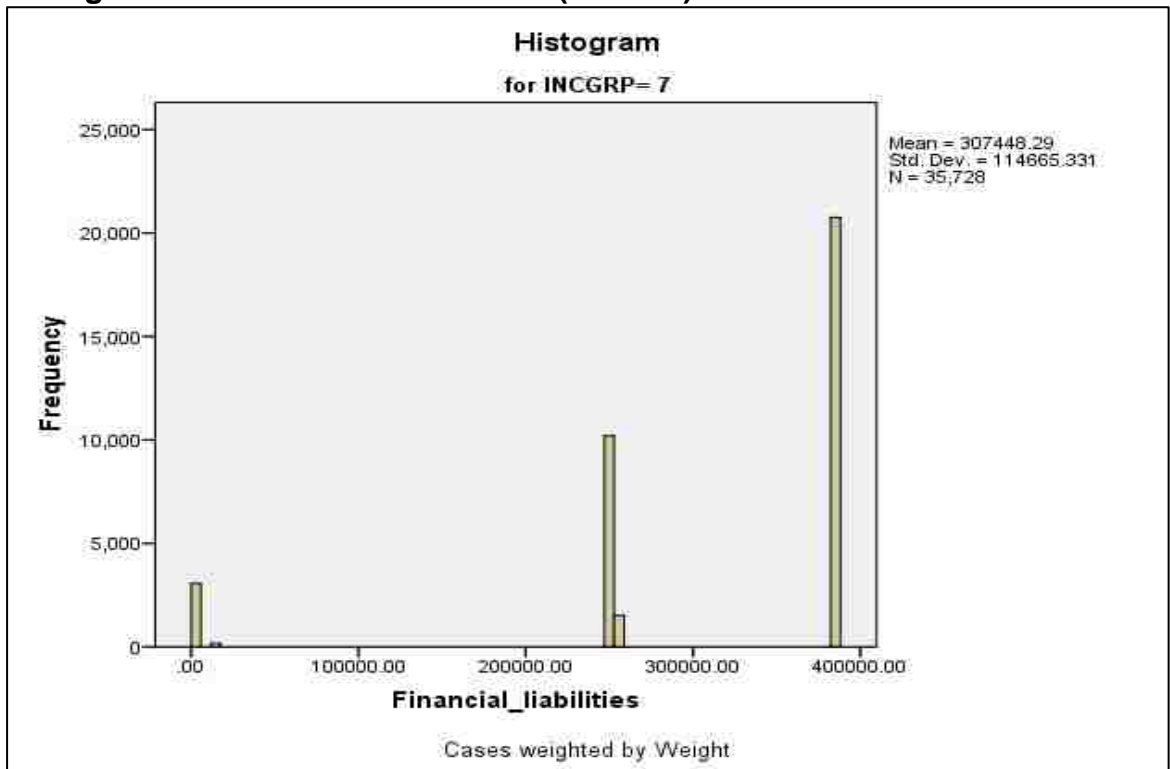
Histogram: Financial liabilities: UMC (upper middle class)



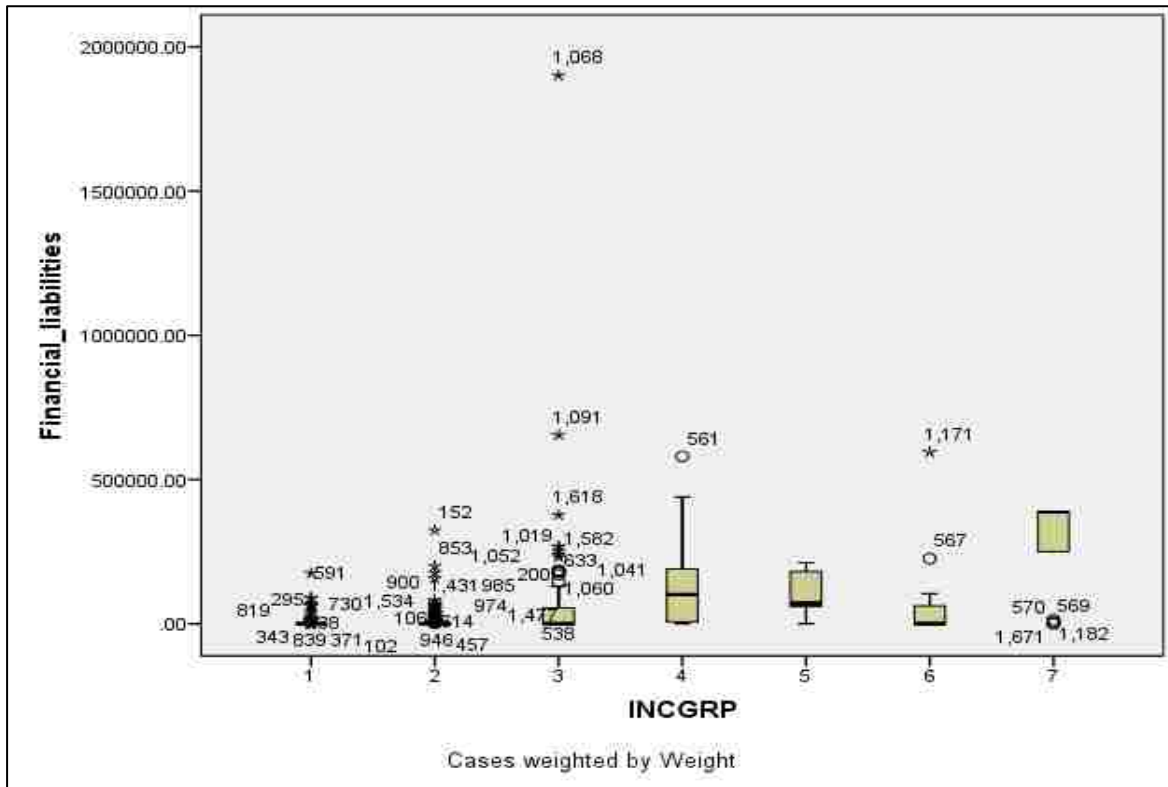
Histogram: Financial liabilities: EAF (emerging affluent)



Histogram: Financial liabilities: AFF (affluent)

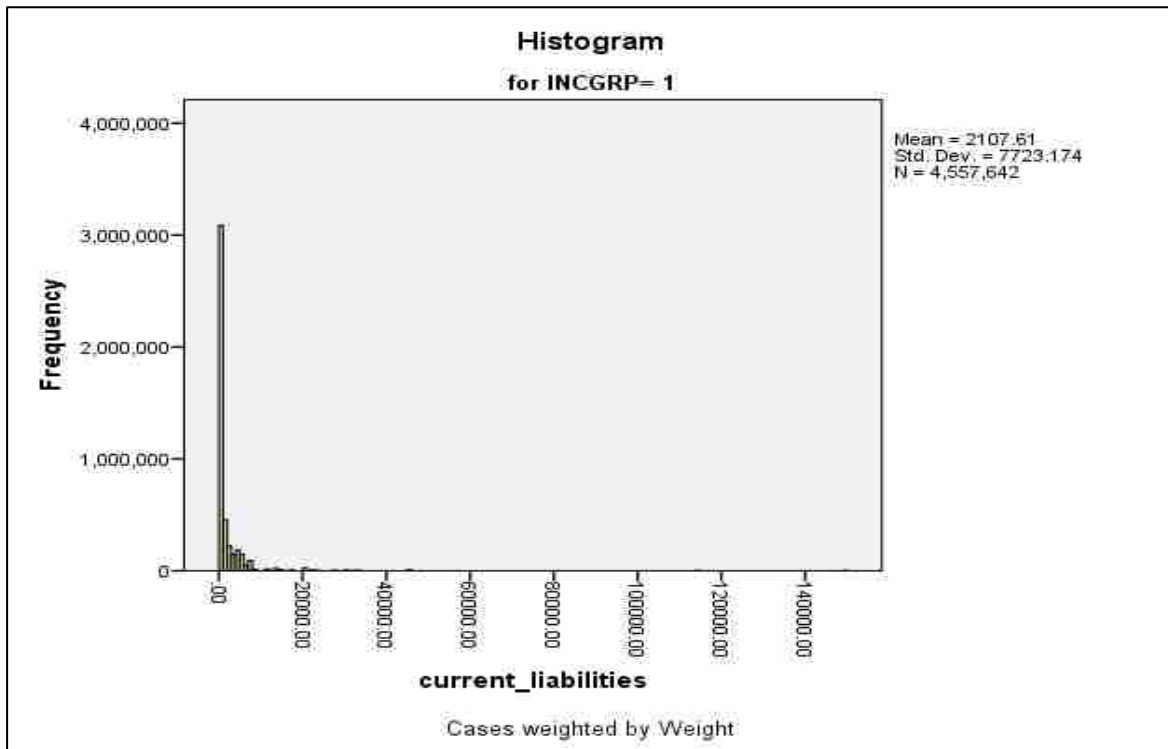


Boxplots: Financial liabilities: Income groups

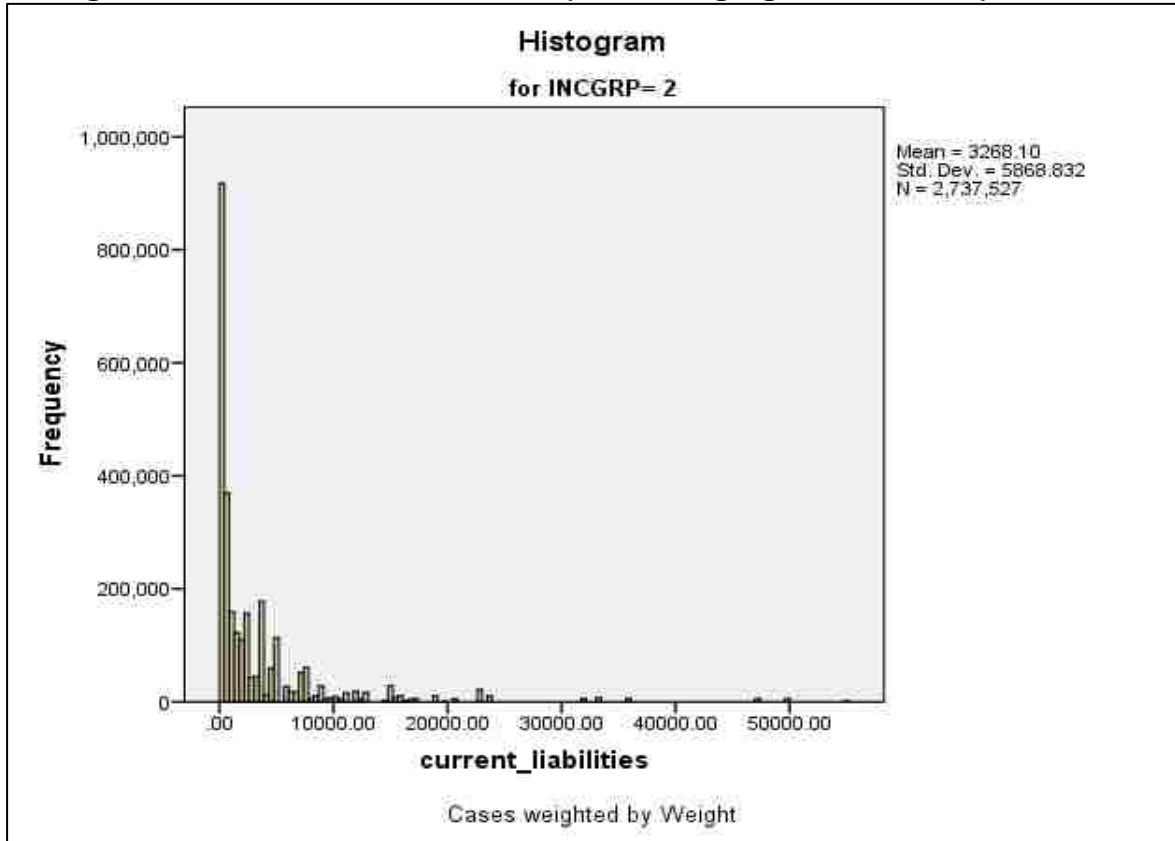


CURRENT LIABILITIES

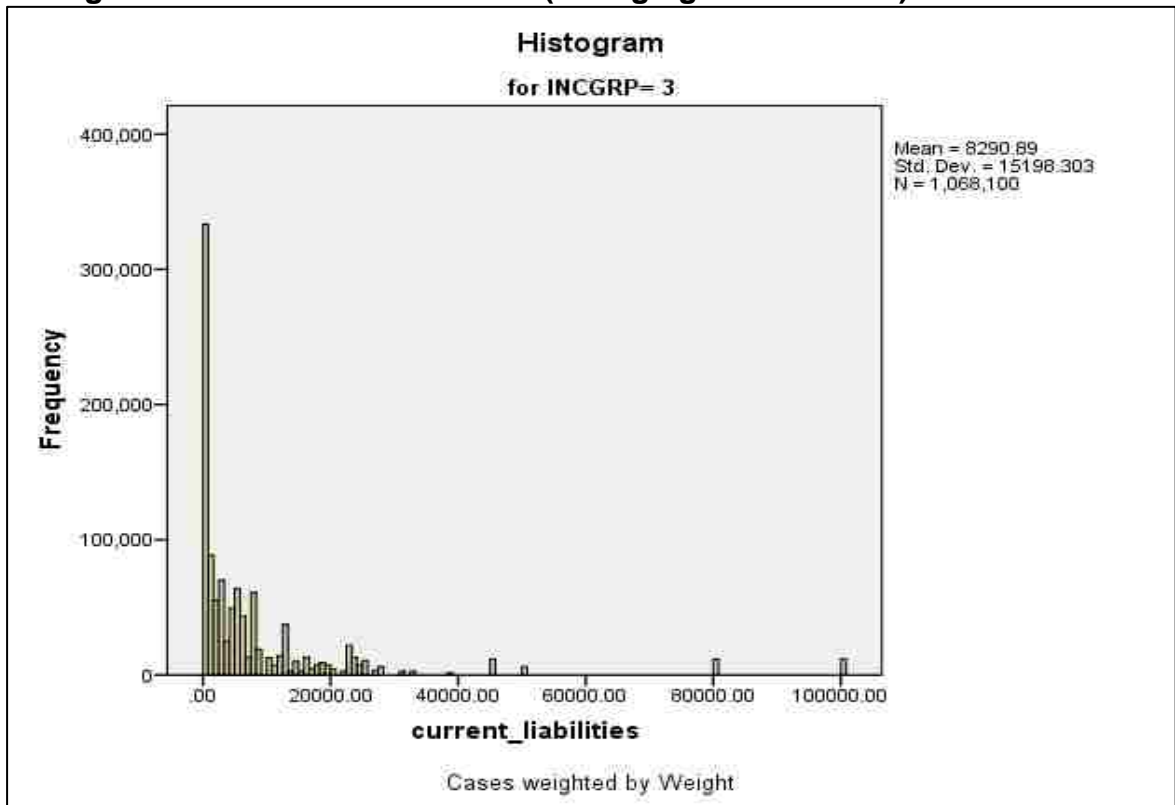
Histogram: Current liabilities: LI (low income)



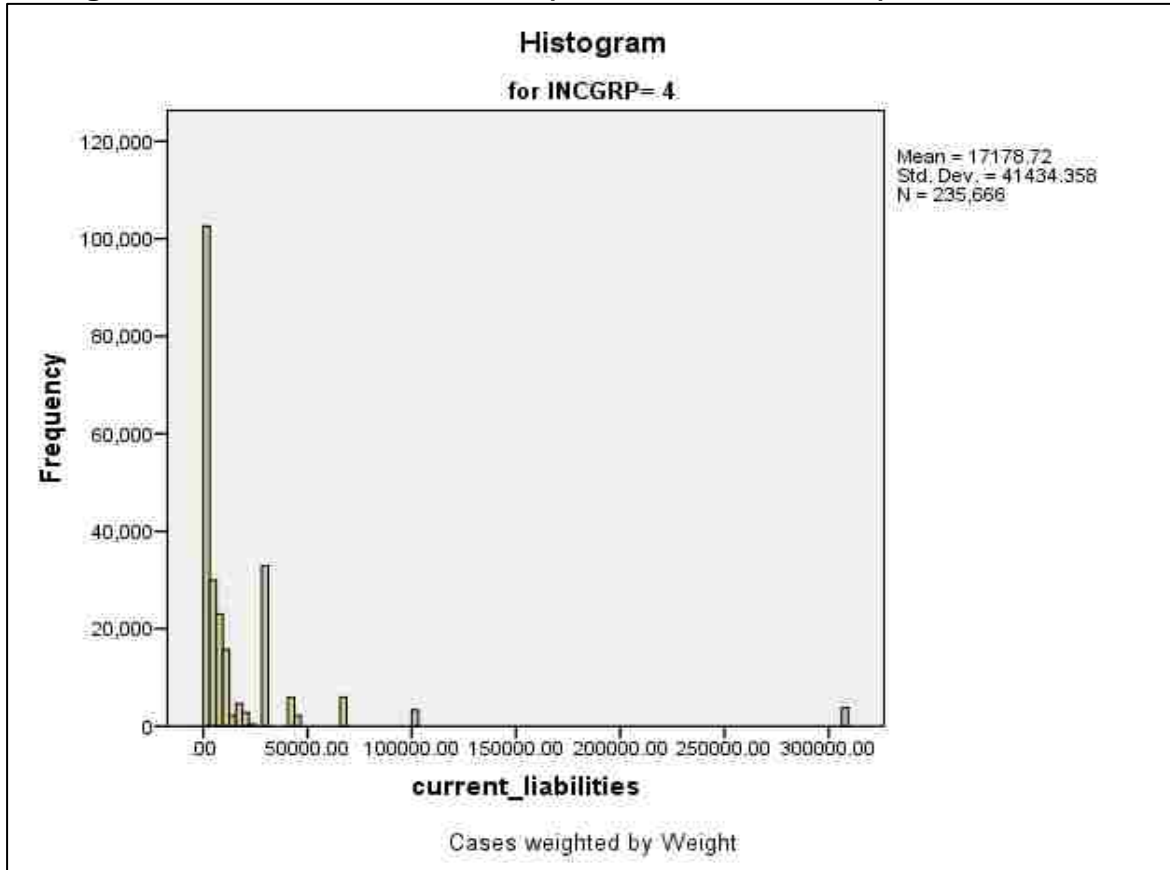
Histogram: Current liabilities: LEMC (low emerging middle class)



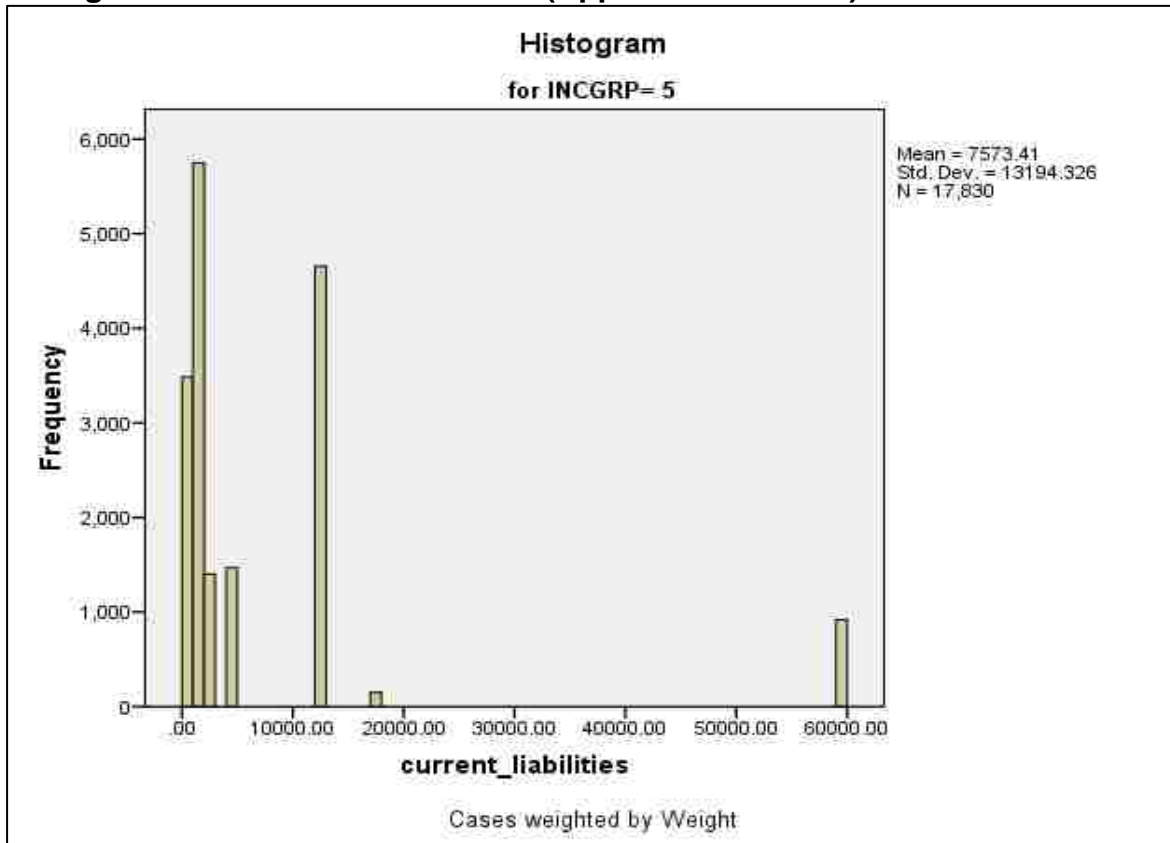
Histogram: Current liabilities: EMC (emerging middle class)



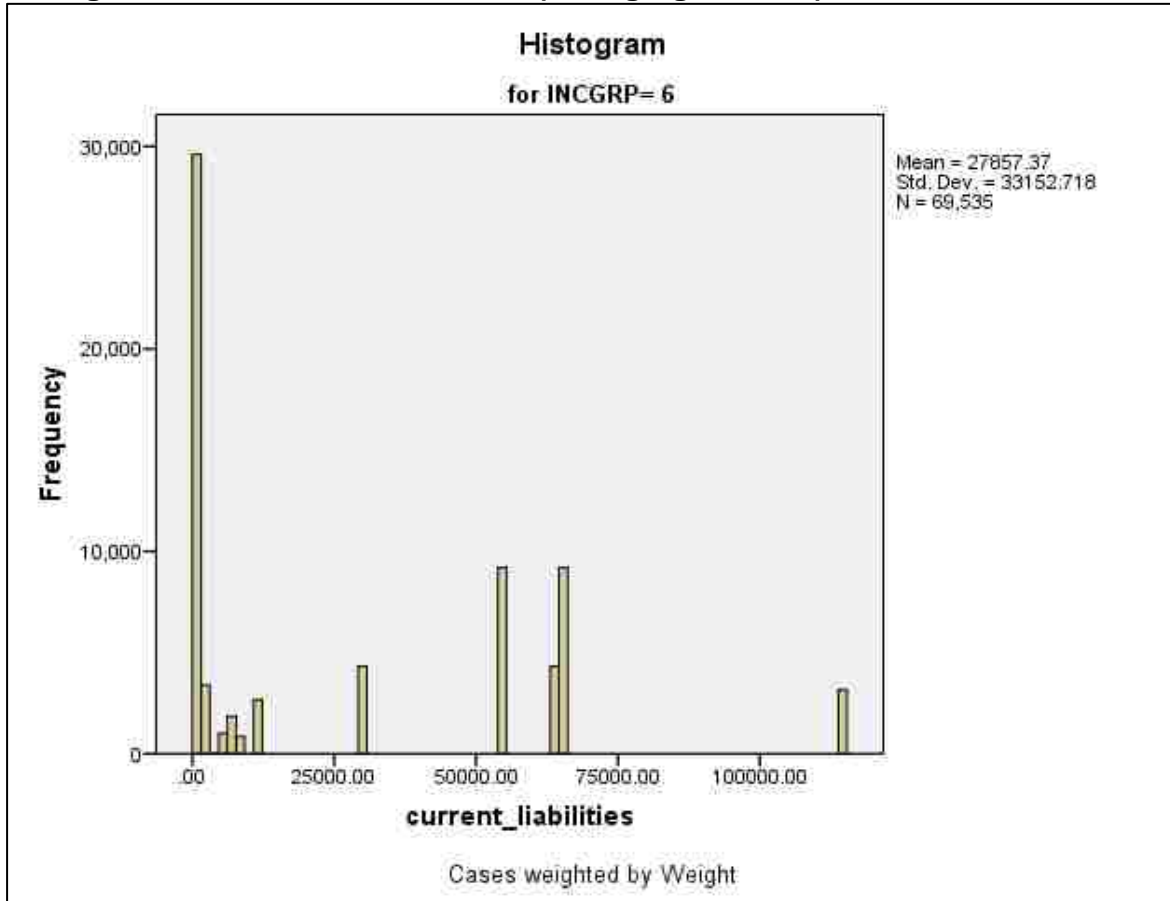
Histogram: Current liabilities: RMC (realised middle class)



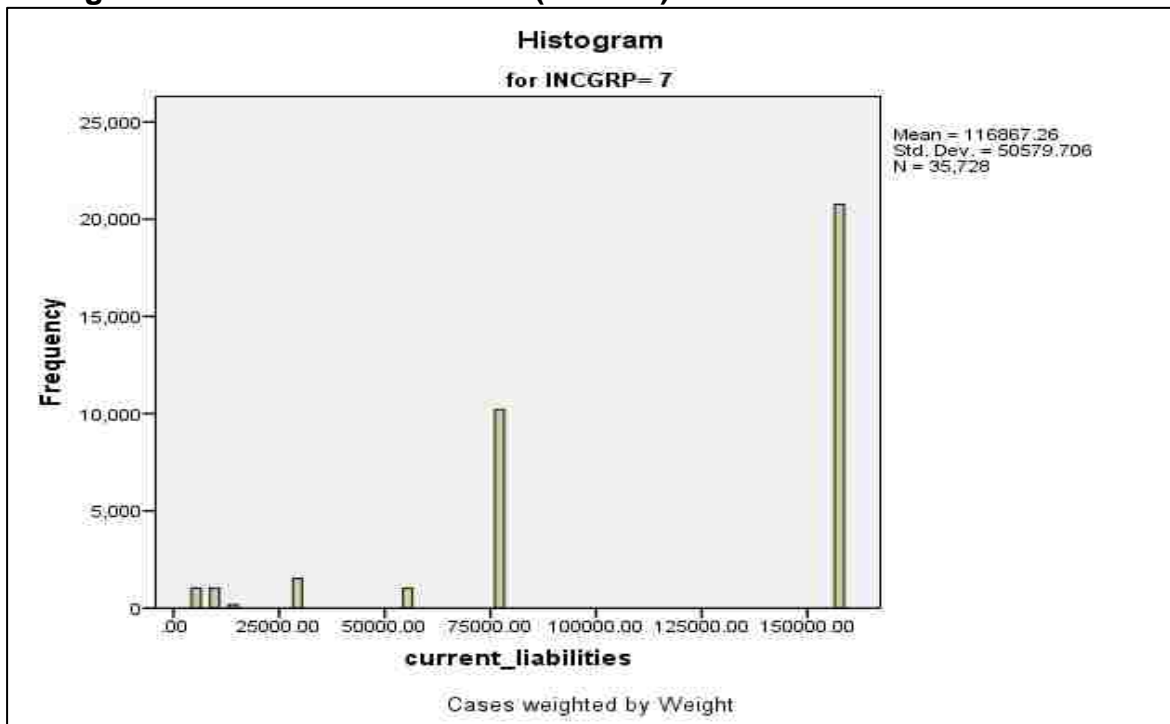
Histogram: Current liabilities: UMC (Upper middle class)



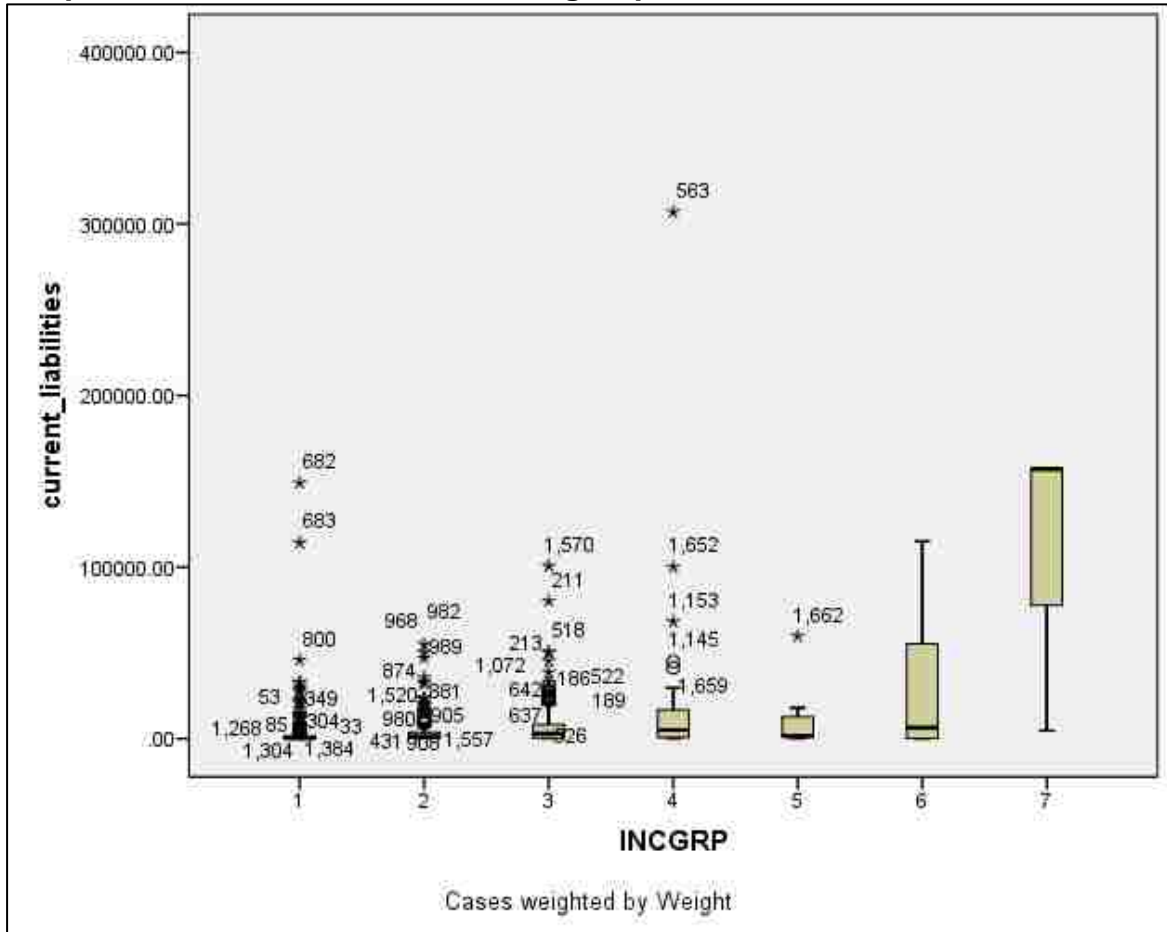
Histogram: Current liabilities: EAF (emerging affluent)



Histogram: Current liabilities: AFF (affluent)



Boxplots: Current liabilities: Income groups



**INFERENCEAL DATA ANALYSIS - MANOVA RESULTS
DEPENDANT VARIABLES: ASSETS**

Section 7.9.3.1 Excluding the area variable

| Box's Test of Equality of Covariance Matrices ^a | |
|--|------------------|
| Box's M | 164896935.930 |
| F | 261735.504 |
| df1 | 630 |
| df2 | 874101077620.133 |
| Sig. | .000 |

| Effect | | Value | F | Sig. | Partial Eta Squared |
|------------------|--------------------|-------|------------------------|------|---------------------|
| Intercept | Pillai's Trace | .031 | 79645.724 ^b | .000 | .031 |
| | Wilks' Lambda | .969 | 79645.724 ^b | .000 | .031 |
| | Hotelling's Trace | .032 | 79645.724 ^b | .000 | .031 |
| | Roy's Largest Root | .032 | 79645.724 ^b | .000 | .031 |
| Education_groups | Pillai's Trace | .020 | 16759.627 | .000 | .007 |

| Effect | | Value | F | Sig. | Partial Eta Squared |
|--|--------------------|-------|-------------------------|------|---------------------|
| | Wilks' Lambda | .980 | 16840.479 | .000 | .007 |
| | Hotelling's Trace | .020 | 16911.851 | .000 | .007 |
| | Roy's Largest Root | .018 | 44593.943 ^c | .000 | .017 |
| Labour_Market_Status | Pillai's Trace | .006 | 7399.301 | .000 | .003 |
| | Wilks' Lambda | .994 | 7409.370 ^b | .000 | .003 |
| | Hotelling's Trace | .006 | 7419.439 | .000 | .003 |
| | Roy's Largest Root | .006 | 14550.293 ^c | .000 | .006 |
| Age_Groups | Pillai's Trace | .057 | 28893.495 | .000 | .011 |
| | Wilks' Lambda | .944 | 29321.177 | .000 | .011 |
| | Hotelling's Trace | .059 | 29637.544 | .000 | .012 |
| | Roy's Largest Root | .046 | 116793.265 ^c | .000 | .044 |
| INCGRP | Pillai's Trace | .064 | 27410.045 | .000 | .013 |
| | Wilks' Lambda | .936 | 27850.108 | .000 | .013 |
| | Hotelling's Trace | .067 | 28205.525 | .000 | .013 |
| | Roy's Largest Root | .053 | 110274.897 ^c | .000 | .050 |
| Education_groups * Labour_Market_Status | Pillai's Trace | .021 | 8924.403 | .000 | .004 |
| | Wilks' Lambda | .979 | 8961.387 | .000 | .004 |
| | Hotelling's Trace | .021 | 8988.938 | .000 | .004 |
| | Roy's Largest Root | .014 | 30134.374 ^c | .000 | .014 |
| Education_groups * Age_Groups | Pillai's Trace | .056 | 9509.083 | .000 | .011 |
| | Wilks' Lambda | .945 | 9572.275 | .000 | .011 |
| | Hotelling's Trace | .057 | 9631.267 | .000 | .011 |
| | Roy's Largest Root | .035 | 29137.891 ^c | .000 | .034 |
| Education_groups * INCGRP | Pillai's Trace | .134 | 24842.262 | .000 | .027 |
| | Wilks' Lambda | .871 | 25139.311 | .000 | .027 |
| | Hotelling's Trace | .141 | 25405.639 | .000 | .027 |
| | Roy's Largest Root | .074 | 66757.526 ^c | .000 | .069 |
| Labour_Market_Status * Age_Groups | Pillai's Trace | .082 | 21090.913 | .000 | .016 |
| | Wilks' Lambda | .918 | 21606.407 | .000 | .017 |
| | Hotelling's Trace | .088 | 22100.220 | .000 | .017 |
| | Roy's Largest Root | .075 | 94901.093 ^c | .000 | .070 |
| Labour_Market_Status * INCGRP | Pillai's Trace | .075 | 27328.675 | .000 | .015 |
| | Wilks' Lambda | .925 | 28101.600 | .000 | .015 |
| | Hotelling's Trace | .080 | 28813.671 | .000 | .016 |
| | Roy's Largest Root | .075 | 135149.885 ^c | .000 | .070 |
| Age_Groups * INCGRP | Pillai's Trace | .410 | 44963.293 | .000 | .082 |
| | Wilks' Lambda | .637 | 47531.821 | .000 | .086 |
| | Hotelling's Trace | .499 | 50240.821 | .000 | .091 |
| | Roy's Largest Root | .318 | 160140.476 ^c | .000 | .241 |
| Education_groups * Labour_Market_Status * | Pillai's Trace | .032 | 4835.944 | .000 | .006 |
| | Wilks' Lambda | .968 | 4877.871 | .000 | .007 |

| Effect | | Value | F | Sig. | Partial Eta Squared |
|---|--------------------|--------------------|------------------------|------------------------|---------------------|
| Age_Groups | Hotelling's Trace | .033 | 4919.110 | .000 | .007 |
| | Roy's Largest Root | .028 | 20555.497 ^c | .000 | .027 |
| Education_groups * | Pillai's Trace | .016 | 5170.609 | .000 | .003 |
| | Wilks' Lambda | .984 | 5186.808 | .000 | .003 |
| Labour_Market_Status * | Hotelling's Trace | .017 | 5200.553 | .000 | .003 |
| | INCGRP | Roy's Largest Root | .012 | 18558.850 ^c | .000 |
| Education_groups * Age_Groups * INCGRP | Pillai's Trace | .313 | 27133.667 | .000 | .063 |
| | Wilks' Lambda | .720 | 27534.971 | .000 | .063 |
| | Hotelling's Trace | .344 | 27919.621 | .000 | .064 |
| | Roy's Largest Root | .140 | 56942.068 ^c | .000 | .123 |
| Labour_Market_Status * Age_Groups * INCGRP | Pillai's Trace | .083 | 11811.428 | .000 | .017 |
| | Wilks' Lambda | .919 | 11960.841 | .000 | .017 |
| | Hotelling's Trace | .087 | 12105.525 | .000 | .017 |
| | Roy's Largest Root | .053 | 36869.837 ^c | .000 | .050 |
| Education_groups * Labour_Market_Status * Age_Groups * INCGRP | Pillai's Trace | .006 | 2357.331 | .000 | .001 |
| | Wilks' Lambda | .994 | 2362.107 | .000 | .001 |
| | Hotelling's Trace | .006 | 2366.227 | .000 | .001 |
| | Roy's Largest Root | .005 | 11010.092 ^c | .000 | .005 |

Univariate test results

| Source | Dependent Variable | F | Sig. | Partial Eta Squared |
|----------------------|--------------------------|------------|------|---------------------|
| Corrected Model | Noncurrent_assets | 178601.813 | .000 | .724 |
| | othernonfinancial_assets | 147377.446 | .000 | .684 |
| | finassets_deb | 29946.230 | .000 | .306 |
| | currentassets_debbie | 66591.764 | .000 | .495 |
| | ASSET_Pension_MV | 36116.741 | .000 | .347 |
| Intercept | Noncurrent_assets | 259367.848 | .000 | .020 |
| | othernonfinancial_assets | 157696.234 | .000 | .012 |
| | finassets_deb | 7559.313 | .000 | .001 |
| | currentassets_debbie | 24241.531 | .000 | .002 |
| | ASSET_Pension_MV | 36537.672 | .000 | .003 |
| Education_groups | Noncurrent_assets | 37148.341 | .000 | .009 |
| | othernonfinancial_assets | 11285.278 | .000 | .003 |
| | finassets_deb | 8297.274 | .000 | .002 |
| | currentassets_debbie | 34714.771 | .000 | .008 |
| | ASSET_Pension_MV | 7998.426 | .000 | .002 |
| Labour_Market_Status | Noncurrent_assets | 675.474 | .000 | .000 |
| | othernonfinancial_assets | 27524.801 | .000 | .004 |
| | finassets_deb | 4803.651 | .000 | .001 |
| | currentassets_debbie | 143.242 | .000 | .000 |
| | ASSET_Pension_MV | 3792.894 | .000 | .001 |

| Source | Dependent Variable | F | Sig. | Partial Eta Squared |
|--|--------------------------|------------|------|---------------------|
| Age_Groups | Noncurrent_assets | 70423.695 | .000 | .027 |
| | othernonfinancial_assets | 68108.405 | .000 | .026 |
| | finassets_deb | 1087.403 | .000 | .000 |
| | currentassets_debbie | 20138.310 | .000 | .008 |
| | ASSET_Pension_MV | 4746.864 | .000 | .002 |
| INCGRP | Noncurrent_assets | 74586.226 | .000 | .034 |
| | othernonfinancial_assets | 58667.017 | .000 | .027 |
| | finassets_deb | 3770.744 | .000 | .002 |
| | currentassets_debbie | 7014.022 | .000 | .003 |
| | ASSET_Pension_MV | 9414.225 | .000 | .004 |
| Education_groups * Labour_Market_Status | Noncurrent_assets | 27397.256 | .000 | .013 |
| | othernonfinancial_assets | 13661.128 | .000 | .006 |
| | finassets_deb | 749.970 | .000 | .000 |
| | currentassets_debbie | 80.988 | .000 | .000 |
| | ASSET_Pension_MV | 862.164 | .000 | .000 |
| Education_groups * Age_Groups | Noncurrent_assets | 28192.136 | .000 | .033 |
| | othernonfinancial_assets | 5655.991 | .000 | .007 |
| | finassets_deb | 9035.033 | .000 | .011 |
| | currentassets_debbie | 1882.195 | .000 | .002 |
| | ASSET_Pension_MV | 3353.725 | .000 | .004 |
| Education_groups * INCGRP | Noncurrent_assets | 37241.689 | .000 | .040 |
| | othernonfinancial_assets | 38581.260 | .000 | .041 |
| | finassets_deb | 9853.767 | .000 | .011 |
| | currentassets_debbie | 41569.511 | .000 | .044 |
| | ASSET_Pension_MV | 11273.337 | .000 | .012 |
| Labour_Market_Status * Age_Groups | Noncurrent_assets | 13284.452 | .000 | .010 |
| | othernonfinancial_assets | 80814.534 | .000 | .060 |
| | finassets_deb | 14935.773 | .000 | .012 |
| | currentassets_debbie | 891.908 | .000 | .001 |
| | ASSET_Pension_MV | 2433.907 | .000 | .002 |
| Labour_Market_Status * INCGRP | Noncurrent_assets | 5849.603 | .000 | .003 |
| | othernonfinancial_assets | 118988.282 | .000 | .062 |
| | finassets_deb | 16523.353 | .000 | .009 |
| | currentassets_debbie | 598.970 | .000 | .000 |
| | ASSET_Pension_MV | 2152.778 | .000 | .001 |
| Age_Groups * INCGRP | Noncurrent_assets | 78730.760 | .000 | .135 |
| | othernonfinancial_assets | 121757.963 | .000 | .195 |
| | finassets_deb | 5769.454 | .000 | .011 |
| | currentassets_debbie | 45579.738 | .000 | .083 |
| | ASSET_Pension_MV | 14554.208 | .000 | .028 |
| Education_groups * | Noncurrent_assets | 19449.615 | .000 | .026 |

| Source | Dependent Variable | F | Sig. | Partial Eta Squared |
|---|--------------------------|-----------|------|---------------------|
| Labour_Market_Status * Age_Groups | othernonfinancial_assets | 3379.429 | .000 | .005 |
| | finassets_deb | 7.334 | .000 | .000 |
| | currentassets_debbie | 145.820 | .000 | .000 |
| | ASSET_Pension_MV | 619.568 | .000 | .001 |
| Education_groups * Labour_Market_Status * INCGRP | Noncurrent_assets | 17685.774 | .000 | .011 |
| | othernonfinancial_assets | 4174.782 | .000 | .003 |
| | finassets_deb | 1556.583 | .000 | .001 |
| | currentassets_debbie | 312.030 | .000 | .000 |
| Education_groups * Age_Groups * INCGRP | ASSET_Pension_MV | 1742.247 | .000 | .001 |
| | Noncurrent_assets | 36347.574 | .000 | .082 |
| | othernonfinancial_assets | 22960.749 | .000 | .054 |
| | finassets_deb | 50435.692 | .000 | .110 |
| | currentassets_debbie | 12742.132 | .000 | .030 |
| Labour_Market_Status * Age_Groups * INCGRP | ASSET_Pension_MV | 13165.165 | .000 | .031 |
| | Noncurrent_assets | 31715.032 | .000 | .043 |
| | othernonfinancial_assets | 24346.351 | .000 | .034 |
| | finassets_deb | 4180.750 | .000 | .006 |
| | currentassets_debbie | 253.302 | .000 | .000 |
| Education_groups * Labour_Market_Status * Age_Groups * INCGRP | ASSET_Pension_MV | 2116.780 | .000 | .003 |
| | Noncurrent_assets | 9758.011 | .000 | .005 |
| | othernonfinancial_assets | 337.112 | .000 | .000 |
| | finassets_deb | 6.515 | .000 | .000 |
| | currentassets_debbie | 40.371 | .000 | .000 |
| | ASSET_Pension_MV | 648.498 | .000 | .000 |

7.9.3.2 Including the area variable

| Box's Test of Equality of Covariance Matrices ^a | |
|--|------------------|
| Box's M | 125878267.262 |
| F | 171258.811 |
| df1 | 735 |
| df2 | 654358238590.566 |
| Sig. | .000 |

| Effect | | Value | F | Sig. | Partial Eta Squared |
|-----------|--------------------|-------|-------------------------|------|---------------------|
| Intercept | Pillai's Trace | .074 | 201835.838 ^b | .000 | .074 |
| | Wilks' Lambda | .926 | 201835.838 ^b | .000 | .074 |
| | Hotelling's Trace | .080 | 201835.838 ^b | .000 | .074 |
| | Roy's Largest Root | .080 | 201835.838 ^b | .000 | .074 |

| Effect | | Value | F | Sig. | Partial Eta Squared |
|--|--------------------|-------|-------------------------|------|---------------------|
| Education_groups | Pillai's Trace | .056 | 47587.484 | .000 | .019 |
| | Wilks' Lambda | .945 | 48328.427 | .000 | .019 |
| | Hotelling's Trace | .058 | 48997.359 | .000 | .019 |
| | Roy's Largest Root | .053 | 134621.727 ^c | .000 | .051 |
| Labour_Market_Status | Pillai's Trace | .009 | 11980.098 | .000 | .005 |
| | Wilks' Lambda | .991 | 12003.180 ^b | .000 | .005 |
| | Hotelling's Trace | .010 | 12026.262 | .000 | .005 |
| | Roy's Largest Root | .009 | 22832.534 ^c | .000 | .009 |
| Age_Groups | Pillai's Trace | .113 | 58221.086 | .000 | .023 |
| | Wilks' Lambda | .890 | 59735.160 | .000 | .023 |
| | Hotelling's Trace | .121 | 60801.891 | .000 | .024 |
| | Roy's Largest Root | .089 | 223490.594 ^c | .000 | .082 |
| INCGRP | Pillai's Trace | .143 | 61835.580 | .000 | .029 |
| | Wilks' Lambda | .862 | 63363.958 | .000 | .029 |
| | Hotelling's Trace | .154 | 64446.043 | .000 | .030 |
| | Roy's Largest Root | .094 | 197836.016 ^c | .000 | .086 |
| Metro_NonMetro | Pillai's Trace | .022 | 57602.904 ^b | .000 | .022 |
| | Wilks' Lambda | .978 | 57602.904 ^b | .000 | .022 |
| | Hotelling's Trace | .023 | 57602.904 ^b | .000 | .022 |
| | Roy's Largest Root | .023 | 57602.904 ^b | .000 | .022 |
| Education_groups * Labour_Market_Status | Pillai's Trace | .013 | 5607.376 | .000 | .003 |
| | Wilks' Lambda | .987 | 5616.600 | .000 | .003 |
| | Hotelling's Trace | .013 | 5622.077 | .000 | .003 |
| | Roy's Largest Root | .007 | 13941.063 ^c | .000 | .007 |
| Education_groups * Age_Groups | Pillai's Trace | .151 | 26159.033 | .000 | .030 |
| | Wilks' Lambda | .855 | 26758.267 | .000 | .031 |
| | Hotelling's Trace | .163 | 27334.432 | .000 | .032 |
| | Roy's Largest Root | .103 | 86247.680 ^c | .000 | .093 |
| Education_groups * INCGRP | Pillai's Trace | .372 | 72174.064 | .000 | .074 |
| | Wilks' Lambda | .661 | 77845.541 | .000 | .080 |
| | Hotelling's Trace | .466 | 83780.366 | .000 | .085 |
| | Roy's Largest Root | .343 | 308813.143 ^c | .000 | .256 |
| Education_groups * Metro_NonMetro | Pillai's Trace | .049 | 41692.996 | .000 | .016 |
| | Wilks' Lambda | .951 | 42267.456 | .000 | .017 |
| | Hotelling's Trace | .051 | 42786.052 | .000 | .017 |
| | Roy's Largest Root | .047 | 117900.491 ^c | .000 | .045 |
| Labour_Market_Status * Age_Groups | Pillai's Trace | .089 | 22891.075 | .000 | .018 |
| | Wilks' Lambda | .912 | 23310.360 | .000 | .018 |
| | Hotelling's Trace | .094 | 23695.963 | .000 | .018 |
| | Roy's Largest Root | .067 | 84855.717 ^c | .000 | .063 |
| Labour_Market_Status * INCGRP | Pillai's Trace | .067 | 24497.194 | .000 | .013 |

| Effect | | Value | F | Sig. | Partial Eta Squared |
|--|--------------------|-------|-------------------------|------|---------------------|
| | Wilks' Lambda | .934 | 24939.969 | .000 | .014 |
| | Hotelling's Trace | .070 | 25326.332 | .000 | .014 |
| | Roy's Largest Root | .057 | 103324.259 ^c | .000 | .054 |
| Labour_Market_Status * Metro_NonMetro | Pillai's Trace | .001 | 956.036 | .000 | .000 |
| | Wilks' Lambda | .999 | 956.081 ^b | .000 | .000 |
| | Hotelling's Trace | .001 | 956.125 | .000 | .000 |
| Age_Groups * INCGRP | Roy's Largest Root | .001 | 1430.221 ^c | .000 | .001 |
| | Pillai's Trace | .633 | 72959.811 | .000 | .127 |
| | Wilks' Lambda | .477 | 80462.745 | .000 | .138 |
| | Hotelling's Trace | .883 | 88962.502 | .000 | .150 |
| Age_Groups * Metro_NonMetro | Roy's Largest Root | .594 | 299206.662 ^c | .000 | .373 |
| | Pillai's Trace | .270 | 143483.376 | .000 | .054 |
| | Wilks' Lambda | .742 | 156096.673 | .000 | .058 |
| | Hotelling's Trace | .331 | 166521.008 | .000 | .062 |
| INCGRP * Metro_NonMetro | Roy's Largest Root | .275 | 691514.964 ^c | .000 | .215 |
| | Pillai's Trace | .252 | 111211.947 | .000 | .050 |
| | Wilks' Lambda | .763 | 117569.369 | .000 | .053 |
| | Hotelling's Trace | .292 | 122668.110 | .000 | .055 |
| Education_groups * Labour_Market_Status * Age_Groups | Roy's Largest Root | .211 | 442174.233 ^c | .000 | .174 |
| | Pillai's Trace | .032 | 6786.972 | .000 | .006 |
| | Wilks' Lambda | .968 | 6862.602 | .000 | .006 |
| | Hotelling's Trace | .033 | 6936.085 | .000 | .007 |
| Education_groups * Labour_Market_Status * INCGRP | Roy's Largest Root | .031 | 32240.122 ^c | .000 | .030 |
| | Pillai's Trace | .023 | 11450.237 | .000 | .005 |
| | Wilks' Lambda | .977 | 11539.066 | .000 | .005 |
| | Hotelling's Trace | .023 | 11610.267 | .000 | .005 |
| Education_groups * Labour_Market_Status * Metro_NonMetro | Roy's Largest Root | .021 | 51855.064 ^c | .000 | .020 |
| | Pillai's Trace | .006 | 3554.756 | .000 | .001 |
| | Wilks' Lambda | .994 | 3562.504 | .000 | .001 |
| | Hotelling's Trace | .006 | 3569.228 | .000 | .001 |
| Education_groups * Age_Groups * INCGRP | Roy's Largest Root | .006 | 14045.168 ^c | .000 | .006 |
| | Pillai's Trace | .460 | 45544.174 | .000 | .092 |
| | Wilks' Lambda | .610 | 46707.524 | .000 | .094 |
| | Hotelling's Trace | .532 | 47846.544 | .000 | .096 |
| Education_groups * Age_Groups * Metro_NonMetro | Roy's Largest Root | .239 | 107451.107 ^c | .000 | .193 |
| | Pillai's Trace | .038 | 8735.209 | .000 | .008 |
| | Wilks' Lambda | .962 | 8790.738 | .000 | .008 |
| | Hotelling's Trace | .039 | 8841.318 | .000 | .008 |
| Education_groups * INCGRP * Metro_NonMetro | Roy's Largest Root | .027 | 30561.029 ^c | .000 | .026 |
| | Pillai's Trace | .278 | 92482.624 | .000 | .056 |
| | Wilks' Lambda | .731 | 102272.782 | .000 | .061 |

| Effect | | Value | F | Sig. | Partial Eta Squared |
|---------------------------------|--------------------|-------|--------------------------|------|---------------------|
| | Hotelling's Trace | .357 | 112220.684 | .000 | .067 |
| | Roy's Largest Root | .322 | 506466.065 ^c | .000 | .244 |
| Labour_Market_Status * | Pillai's Trace | .100 | 16053.158 | .000 | .020 |
| | Wilks' Lambda | .901 | 16616.558 | .000 | .021 |
| Age_Groups * INCGRP | Hotelling's Trace | .109 | 17188.126 | .000 | .021 |
| | Roy's Largest Root | .101 | 79270.025 ^c | .000 | .092 |
| Labour_Market_Status * | Pillai's Trace | .075 | 21342.306 | .000 | .015 |
| | Wilks' Lambda | .925 | 21965.535 | .000 | .015 |
| Age_Groups * Metro_NonMetro | Hotelling's Trace | .081 | 22566.579 | .000 | .016 |
| | Roy's Largest Root | .077 | 107794.570 ^c | .000 | .072 |
| Labour_Market_Status * INCGRP | Pillai's Trace | .057 | 36439.506 | .000 | .014 |
| | Wilks' Lambda | .943 | 37230.018 | .000 | .015 |
| * Metro_NonMetro | Hotelling's Trace | .060 | 37921.799 | .000 | .015 |
| | Roy's Largest Root | .058 | 145979.536 ^c | .000 | .055 |
| Age_Groups * INCGRP * | Pillai's Trace | 1.050 | 196771.504 | .000 | .210 |
| | Wilks' Lambda | .171 | 315817.049 | .000 | .298 |
| Metro_NonMetro | Hotelling's Trace | 3.677 | 544473.492 | .000 | .424 |
| | Roy's Largest Root | 3.371 | 2495995.663 ^c | .000 | .771 |
| Education_groups * | Pillai's Trace | .019 | 12025.614 | .000 | .005 |
| | Wilks' Lambda | .981 | 12114.310 | .000 | .005 |
| Labour_Market_Status * | Hotelling's Trace | .019 | 12191.541 | .000 | .005 |
| Age_Groups * INCGRP | Roy's Largest Root | .019 | 47841.161 ^c | .000 | .019 |
| Education_groups * | Pillai's Trace | .001 | 680.991 | .000 | .000 |
| | Wilks' Lambda | .999 | 681.149 | .000 | .000 |
| Labour_Market_Status * | Hotelling's Trace | .001 | 681.270 | .000 | .000 |
| Age_Groups * Metro_NonMetro | Roy's Largest Root | .001 | 2088.726 ^c | .000 | .001 |
| Education_groups * | Pillai's Trace | .004 | 10070.277 ^b | .000 | .004 |
| | Wilks' Lambda | .996 | 10070.277 ^b | .000 | .004 |
| Labour_Market_Status * INCGRP | Hotelling's Trace | .004 | 10070.277 ^b | .000 | .004 |
| * Metro_NonMetro | Roy's Largest Root | .004 | 10070.277 ^b | .000 | .004 |
| Education_groups * Age_Groups * | Pillai's Trace | .064 | 13662.568 | .000 | .013 |
| | Wilks' Lambda | .937 | 13778.322 | .000 | .013 |
| INCGRP * Metro_NonMetro | Hotelling's Trace | .066 | 13883.309 | .000 | .013 |
| | Roy's Largest Root | .042 | 44163.552 ^c | .000 | .040 |
| Labour_Market_Status * | Pillai's Trace | .009 | 23964.071 ^b | .000 | .009 |
| | Wilks' Lambda | .991 | 23964.071 ^b | .000 | .009 |
| Age_Groups * INCGRP * | Hotelling's Trace | .010 | 23964.071 ^b | .000 | .009 |
| Metro_NonMetro | Roy's Largest Root | .010 | 23964.071 ^b | .000 | .009 |
| Education_groups * | Pillai's Trace | .000 | . ^b | . | . |
| Labour_Market_Status * | Wilks' Lambda | 1.000 | . ^b | . | . |
| Age_Groups * INCGRP * | Hotelling's Trace | .000 | . ^b | . | . |

| Effect | | Value | F | Sig. | Partial Eta Squared |
|----------------|--------------------|-------|-------------------|-------|---------------------|
| Metro_NonMetro | Roy's Largest Root | .000 | .000 ^b | 1.000 | .000 |

Univariate test results

| Source | Dependent Variable | F | Sig. | Partial Eta Squared |
|----------------------|--------------------------|------------|------|---------------------|
| Corrected Model | Noncurrent_assets | 186326.786 | .000 | .806 |
| | othernonfinancial_assets | 115420.050 | .000 | .720 |
| | finassets_deb | 31678.375 | .000 | .414 |
| | currentassets_debbie | 483469.392 | .000 | .915 |
| | ASSET_Pension_MV | 57230.676 | .000 | .561 |
| Intercept | Noncurrent_assets | 693062.817 | .000 | .052 |
| | othernonfinancial_assets | 189112.914 | .000 | .015 |
| | finassets_deb | 11184.419 | .000 | .001 |
| | currentassets_debbie | 228100.737 | .000 | .018 |
| | ASSET_Pension_MV | 55421.948 | .000 | .004 |
| Education_groups | Noncurrent_assets | 62613.372 | .000 | .015 |
| | othernonfinancial_assets | 11526.088 | .000 | .003 |
| | finassets_deb | 25965.768 | .000 | .006 |
| | currentassets_debbie | 149231.197 | .000 | .034 |
| | ASSET_Pension_MV | 33546.567 | .000 | .008 |
| Labour_Market_Status | Noncurrent_assets | 6384.777 | .000 | .001 |
| | othernonfinancial_assets | 39674.873 | .000 | .006 |
| | finassets_deb | 2280.703 | .000 | .000 |
| | currentassets_debbie | 2293.385 | .000 | .000 |
| | ASSET_Pension_MV | 7426.040 | .000 | .001 |
| Age_Groups | Noncurrent_assets | 131122.684 | .000 | .050 |
| | othernonfinancial_assets | 47761.007 | .000 | .019 |
| | finassets_deb | 4023.688 | .000 | .002 |
| | currentassets_debbie | 132133.694 | .000 | .050 |
| | ASSET_Pension_MV | 13076.329 | .000 | .005 |
| INCGRP | Noncurrent_assets | 110803.120 | .000 | .050 |
| | othernonfinancial_assets | 70840.729 | .000 | .033 |
| | finassets_deb | 9458.534 | .000 | .004 |
| | currentassets_debbie | 142474.581 | .000 | .064 |
| | ASSET_Pension_MV | 14111.492 | .000 | .007 |
| Metro_NonMetro | Noncurrent_assets | 144149.158 | .000 | .011 |
| | othernonfinancial_assets | 88087.265 | .000 | .007 |
| | finassets_deb | 5161.912 | .000 | .000 |
| | currentassets_debbie | 2008.908 | .000 | .000 |
| | ASSET_Pension_MV | 2938.241 | .000 | .000 |
| Education_groups * | Noncurrent_assets | 12600.638 | .000 | .006 |
| Labour_Market_Status | othernonfinancial_assets | 10524.348 | .000 | .005 |

| Source | Dependent Variable | F | Sig. | Partial Eta Squared |
|---------------------------------------|--------------------------|------------|------|---------------------|
| | finassets_deb | 571.684 | .000 | .000 |
| | currentassets_debbie | 929.633 | .000 | .000 |
| | ASSET_Pension_MV | 3563.817 | .000 | .002 |
| Education_groups * Age_Groups | Noncurrent_assets | 56000.560 | .000 | .063 |
| | othernonfinancial_assets | 8041.291 | .000 | .009 |
| | finassets_deb | 11653.695 | .000 | .014 |
| | currentassets_debbie | 40793.410 | .000 | .046 |
| | ASSET_Pension_MV | 15452.647 | .000 | .018 |
| Education_groups * INCGRP | Noncurrent_assets | 61365.313 | .000 | .064 |
| | othernonfinancial_assets | 49781.870 | .000 | .052 |
| | finassets_deb | 19557.906 | .000 | .021 |
| | currentassets_debbie | 275304.147 | .000 | .234 |
| | ASSET_Pension_MV | 44813.281 | .000 | .047 |
| Education_groups * Metro_NonMetro | Noncurrent_assets | 8686.354 | .000 | .002 |
| | othernonfinancial_assets | 7978.199 | .000 | .002 |
| | finassets_deb | 13672.935 | .000 | .003 |
| | currentassets_debbie | 152149.815 | .000 | .035 |
| | ASSET_Pension_MV | 21249.504 | .000 | .005 |
| Labour_Market_Status * Age_Groups | Noncurrent_assets | 34684.375 | .000 | .027 |
| | othernonfinancial_assets | 77184.915 | .000 | .058 |
| | finassets_deb | 366.583 | .000 | .000 |
| | currentassets_debbie | 7080.645 | .000 | .006 |
| | ASSET_Pension_MV | 2729.795 | .000 | .002 |
| Labour_Market_Status * INCGRP | Noncurrent_assets | 20757.551 | .000 | .011 |
| | othernonfinancial_assets | 88711.255 | .000 | .047 |
| | finassets_deb | 1143.064 | .000 | .001 |
| | currentassets_debbie | 2447.010 | .000 | .001 |
| | ASSET_Pension_MV | 9553.642 | .000 | .005 |
| Labour_Market_Status * Metro_NonMetro | Noncurrent_assets | 1301.082 | .000 | .000 |
| | othernonfinancial_assets | 483.482 | .000 | .000 |
| | finassets_deb | 81.658 | .000 | .000 |
| | currentassets_debbie | 1022.700 | .000 | .000 |
| | ASSET_Pension_MV | 2174.750 | .000 | .000 |
| Age_Groups * INCGRP | Noncurrent_assets | 98748.454 | .000 | .164 |
| | othernonfinancial_assets | 41000.934 | .000 | .075 |
| | finassets_deb | 6743.847 | .000 | .013 |
| | currentassets_debbie | 278744.736 | .000 | .356 |
| | ASSET_Pension_MV | 23765.257 | .000 | .045 |
| Age_Groups * Metro_NonMetro | Noncurrent_assets | 91122.165 | .000 | .035 |
| | othernonfinancial_assets | 42052.300 | .000 | .016 |
| | finassets_deb | 8779.670 | .000 | .003 |

| Source | Dependent Variable | F | Sig. | Partial Eta Squared |
|---|--------------------------|------------|------|---------------------|
| | currentassets_debbie | 606734.078 | .000 | .194 |
| | ASSET_Pension_MV | 84846.581 | .000 | .033 |
| INCGRP * Metro_NonMetro | Noncurrent_assets | 65440.482 | .000 | .030 |
| | othernonfinancial_assets | 115750.708 | .000 | .052 |
| | finassets_deb | 47611.594 | .000 | .022 |
| | currentassets_debbie | 324723.981 | .000 | .134 |
| | ASSET_Pension_MV | 96596.164 | .000 | .044 |
| Education_groups * | Noncurrent_assets | 30533.734 | .000 | .028 |
| Labour_Market_Status * | othernonfinancial_assets | 1064.326 | .000 | .001 |
| Age_Groups | finassets_deb | 11.083 | .000 | .000 |
| | currentassets_debbie | 1153.914 | .000 | .001 |
| | ASSET_Pension_MV | 266.836 | .000 | .000 |
| Education_groups * | Noncurrent_assets | 50499.242 | .000 | .020 |
| Labour_Market_Status * INCGRP | othernonfinancial_assets | 4984.865 | .000 | .002 |
| | finassets_deb | 1539.700 | .000 | .001 |
| | currentassets_debbie | 58.586 | .000 | .000 |
| | ASSET_Pension_MV | 329.786 | .000 | .000 |
| Education_groups * | Noncurrent_assets | 17069.970 | .000 | .005 |
| Labour_Market_Status * | othernonfinancial_assets | 325.642 | .000 | .000 |
| Metro_NonMetro | finassets_deb | 7.305 | .000 | .000 |
| | currentassets_debbie | 14.893 | .000 | .000 |
| | ASSET_Pension_MV | 13.923 | .000 | .000 |
| Education_groups * Age_Groups * INCGRP | Noncurrent_assets | 62759.052 | .000 | .123 |
| | othernonfinancial_assets | 22436.968 | .000 | .048 |
| | finassets_deb | 23584.948 | .000 | .050 |
| | currentassets_debbie | 92556.772 | .000 | .171 |
| | ASSET_Pension_MV | 35463.927 | .000 | .073 |
| Education_groups * Age_Groups * Metro_NonMetro | Noncurrent_assets | 12632.107 | .000 | .011 |
| | othernonfinancial_assets | 4311.888 | .000 | .004 |
| | finassets_deb | 17615.172 | .000 | .015 |
| | currentassets_debbie | 5804.643 | .000 | .005 |
| | ASSET_Pension_MV | 627.848 | .000 | .001 |
| Education_groups * INCGRP * Metro_NonMetro | Noncurrent_assets | 24227.850 | .000 | .015 |
| | othernonfinancial_assets | 8226.505 | .000 | .005 |
| | finassets_deb | 25059.340 | .000 | .016 |
| | currentassets_debbie | 444192.217 | .000 | .220 |
| | ASSET_Pension_MV | 50213.345 | .000 | .031 |
| Labour_Market_Status * Age_Groups * INCGRP | Noncurrent_assets | 77979.940 | .000 | .090 |
| | othernonfinancial_assets | 2295.295 | .000 | .003 |
| | finassets_deb | 268.915 | .000 | .000 |
| | currentassets_debbie | 2333.863 | .000 | .003 |

| Source | Dependent Variable | F | Sig. | Partial Eta Squared |
|---|--------------------------|-------------|------|---------------------|
| | ASSET_Pension_MV | 2966.755 | .000 | .004 |
| Labour_Market_Status * Age_Groups * Metro_NonMetro | Noncurrent_assets | 104447.844 | .000 | .069 |
| | othernonfinancial_assets | 774.100 | .000 | .001 |
| | finassets_deb | 158.868 | .000 | .000 |
| | currentassets_debbie | 2910.510 | .000 | .002 |
| | ASSET_Pension_MV | 1734.569 | .000 | .001 |
| Labour_Market_Status * INCGRP * Metro_NonMetro | Noncurrent_assets | 174086.674 | .000 | .052 |
| | othernonfinancial_assets | 3088.230 | .000 | .001 |
| | finassets_deb | 693.773 | .000 | .000 |
| | currentassets_debbie | 2563.225 | .000 | .001 |
| | ASSET_Pension_MV | 2014.893 | .000 | .001 |
| Age_Groups * INCGRP * Metro_NonMetro | Noncurrent_assets | 78514.693 | .000 | .096 |
| | othernonfinancial_assets | 57604.599 | .000 | .072 |
| | finassets_deb | 55818.185 | .000 | .070 |
| | currentassets_debbie | 2383449.634 | .000 | .763 |
| | ASSET_Pension_MV | 84888.144 | .000 | .103 |
| Education_groups * Labour_Market_Status * Age_Groups * INCGRP | Noncurrent_assets | 55413.432 | .000 | .017 |
| | othernonfinancial_assets | 377.159 | .000 | .000 |
| | finassets_deb | 4.456 | .001 | .000 |
| | currentassets_debbie | 266.207 | .000 | .000 |
| | ASSET_Pension_MV | 867.643 | .000 | .000 |
| Education_groups * Labour_Market_Status * Age_Groups * Metro_NonMetro | Noncurrent_assets | 2484.130 | .000 | .001 |
| | othernonfinancial_assets | 685.942 | .000 | .000 |
| | finassets_deb | 25.541 | .000 | .000 |
| | currentassets_debbie | 173.545 | .000 | .000 |
| | ASSET_Pension_MV | 55.145 | .000 | .000 |
| Education_groups * Labour_Market_Status * INCGRP * Metro_NonMetro | Noncurrent_assets | 46941.443 | .000 | .004 |
| | othernonfinancial_assets | 69.397 | .000 | .000 |
| | finassets_deb | 34.608 | .000 | .000 |
| | currentassets_debbie | 131.771 | .000 | .000 |
| | ASSET_Pension_MV | 28.680 | .000 | .000 |
| Education_groups * Age_Groups * INCGRP * Metro_NonMetro | Noncurrent_assets | 10716.462 | .000 | .010 |
| | othernonfinancial_assets | 6306.385 | .000 | .006 |
| | finassets_deb | 32136.867 | .000 | .030 |
| | currentassets_debbie | 10220.985 | .000 | .010 |
| | ASSET_Pension_MV | 4852.906 | .000 | .005 |
| Labour_Market_Status * Age_Groups * INCGRP * Metro_NonMetro | Noncurrent_assets | 112002.813 | .000 | .009 |
| | othernonfinancial_assets | 470.698 | .000 | .000 |
| | finassets_deb | 87.325 | .000 | .000 |
| | currentassets_debbie | 22.088 | .000 | .000 |
| | ASSET_Pension_MV | 62.862 | .000 | .000 |

| Source | Dependent Variable | F | Sig. | Partial Eta Squared |
|------------------------|--------------------------|---|------|---------------------|
| Education_groups * | Noncurrent_assets | . | . | .000 |
| | othernonfinancial_assets | . | . | .000 |
| Labour_Market_Status * | finassets_deb | . | . | .000 |
| Age_Groups * INCGRP * | currentassets_debbie | . | . | .000 |
| Metro_NonMetro | ASSET_Pension_MV | . | . | .000 |

7.9.3.3 Custom model

| Box's Test of Equality of Covariance Matrices ^a | |
|--|------------------|
| Box's M | 125878267.262 |
| F | 171258.811 |
| df1 | 735 |
| df2 | 654358238590.566 |
| Sig. | .000 |

| Effect | | Value | F | Sig. | Partial Eta Squared |
|--|--------------------|-------|--------------------------|------|---------------------|
| Intercept | Pillai's Trace | .058 | 156294.677 ^b | .000 | .058 |
| | Wilks' Lambda | .942 | 156294.677 ^b | .000 | .058 |
| | Hotelling's Trace | .062 | 156294.677 ^b | .000 | .058 |
| | Roy's Largest Root | .062 | 156294.677 ^b | .000 | .058 |
| Age_Groups * INCGRP | Pillai's Trace | .585 | 53759.539 | .000 | .117 |
| | Wilks' Lambda | .498 | 60748.256 | .000 | .130 |
| | Hotelling's Trace | .850 | 69060.513 | .000 | .145 |
| | Roy's Largest Root | .643 | 261272.922 ^c | .000 | .392 |
| Education_groups * INCGRP | Pillai's Trace | .388 | 62371.293 | .000 | .078 |
| | Wilks' Lambda | .644 | 68347.646 | .000 | .084 |
| | Hotelling's Trace | .506 | 74892.795 | .000 | .092 |
| | Roy's Largest Root | .396 | 293496.243 ^c | .000 | .284 |
| Education_groups * Age_Groups * INCGRP | Pillai's Trace | .453 | 26126.661 | .000 | .091 |
| | Wilks' Lambda | .613 | 27002.028 | .000 | .093 |
| | Hotelling's Trace | .532 | 27912.212 | .000 | .096 |
| | Roy's Largest Root | .275 | 72056.486 ^c | .000 | .216 |
| Age_Groups * INCGRP * Metro_NonMetro | Pillai's Trace | 1.305 | 143422.541 | .000 | .261 |
| | Wilks' Lambda | .123 | 211926.320 | .000 | .342 |
| | Hotelling's Trace | 4.172 | 338776.856 | .000 | .455 |
| | Roy's Largest Root | 3.502 | 1421802.048 ^c | .000 | .778 |

Univariate test results

| Source | Dependent Variable | F | Sig. | Partial Eta Squared |
|--------|--------------------|---|------|---------------------|
|--------|--------------------|---|------|---------------------|

| Source | Dependent Variable | F | Sig. | Partial Eta Squared |
|--|--------------------------|-------------|------|---------------------|
| Corrected Model | Noncurrent_assets | 220910.787 | .000 | .702 |
| | othernonfinancial_assets | 188596.432 | .000 | .668 |
| | finassets_deb | 54193.297 | .000 | .366 |
| | currentassets_debbie | 721861.718 | .000 | .885 |
| | ASSET_Pension_MV | 101460.567 | .000 | .519 |
| Intercept | Noncurrent_assets | 522232.050 | .000 | .040 |
| | othernonfinancial_assets | 141957.660 | .000 | .011 |
| | finassets_deb | 12550.898 | .000 | .001 |
| | currentassets_debbie | 166460.116 | .000 | .013 |
| | ASSET_Pension_MV | 22226.698 | .000 | .002 |
| Age_Groups * INCGRP | Noncurrent_assets | 51105.071 | .000 | .112 |
| | othernonfinancial_assets | 17712.551 | .000 | .042 |
| | finassets_deb | 20810.274 | .000 | .049 |
| | currentassets_debbie | 235152.938 | .000 | .367 |
| | ASSET_Pension_MV | 21445.748 | .000 | .050 |
| Education_groups * INCGRP | Noncurrent_assets | 41170.650 | .000 | .053 |
| | othernonfinancial_assets | 35648.867 | .000 | .046 |
| | finassets_deb | 16530.455 | .000 | .022 |
| | currentassets_debbie | 259406.430 | .000 | .259 |
| | ASSET_Pension_MV | 33181.848 | .000 | .043 |
| Education_groups * Age_Groups * INCGRP | Noncurrent_assets | 19385.455 | .000 | .069 |
| | othernonfinancial_assets | 15233.582 | .000 | .055 |
| | finassets_deb | 31574.018 | .000 | .107 |
| | currentassets_debbie | 52204.958 | .000 | .166 |
| | ASSET_Pension_MV | 15457.265 | .000 | .056 |
| Age_Groups * INCGRP * Metro_NonMetro | Noncurrent_assets | 56706.221 | .000 | .123 |
| | othernonfinancial_assets | 41737.555 | .000 | .093 |
| | finassets_deb | 51007.544 | .000 | .112 |
| | currentassets_debbie | 1383535.923 | .000 | .773 |
| | ASSET_Pension_MV | 158414.924 | .000 | .281 |

DEPENDANT VARIABLES: LIABILITIES

7.9.4.1 Excluding the area variable

| Box's Test of Equality of Covariance Matrices ^a | |
|--|------------------|
| Box's M | 29763820.441 |
| F | 248026.914 |
| df1 | 120 |
| df2 | 200350015075.114 |

| | |
|------|------|
| Sig. | .000 |
|------|------|

| Effect | | Value | F | Sig. | Partial Eta Squared |
|--|--------------------|-------|-------------------------|------|---------------------|
| Intercept | Pillai's Trace | .042 | 127592.474 ^b | .000 | .042 |
| | Wilks' Lambda | .958 | 127592.474 ^b | .000 | .042 |
| | Hotelling's Trace | .044 | 127592.474 ^b | .000 | .042 |
| | Roy's Largest Root | .044 | 127592.474 ^b | .000 | .042 |
| Education_groups | Pillai's Trace | .009 | 8575.531 | .000 | .003 |
| | Wilks' Lambda | .991 | 8596.200 | .000 | .003 |
| | Hotelling's Trace | .009 | 8610.988 | .000 | .003 |
| | Roy's Largest Root | .008 | 22962.836 ^c | .000 | .008 |
| Labour_Market_Status | Pillai's Trace | .121 | 186489.387 | .000 | .060 |
| | Wilks' Lambda | .879 | 192777.561 ^b | .000 | .062 |
| | Hotelling's Trace | .137 | 199078.524 | .000 | .064 |
| | Roy's Largest Root | .137 | 396758.696 ^c | .000 | .120 |
| Age_Groups | Pillai's Trace | .046 | 27170.758 | .000 | .015 |
| | Wilks' Lambda | .954 | 27415.793 | .000 | .015 |
| | Hotelling's Trace | .048 | 27625.139 | .000 | .016 |
| | Roy's Largest Root | .039 | 67258.818 ^c | .000 | .037 |
| INCGRP | Pillai's Trace | .041 | 20346.311 | .000 | .014 |
| | Wilks' Lambda | .959 | 20455.441 | .000 | .014 |
| | Hotelling's Trace | .042 | 20547.306 | .000 | .014 |
| | Roy's Largest Root | .029 | 42447.946 ^c | .000 | .028 |
| Education_groups * Labour_Market_Status | Pillai's Trace | .003 | 1641.627 | .000 | .001 |
| | Wilks' Lambda | .997 | 1641.971 | .000 | .001 |
| | Hotelling's Trace | .003 | 1642.204 | .000 | .001 |
| | Roy's Largest Root | .002 | 2807.421 ^c | .000 | .002 |
| Education_groups * Age_Groups | Pillai's Trace | .047 | 9174.581 | .000 | .016 |
| | Wilks' Lambda | .954 | 9256.058 | .000 | .016 |
| | Hotelling's Trace | .048 | 9336.705 | .000 | .016 |
| | Roy's Largest Root | .040 | 23177.123 ^c | .000 | .038 |
| Education_groups * INCGRP | Pillai's Trace | .074 | 20124.362 | .000 | .025 |
| | Wilks' Lambda | .927 | 20275.282 | .000 | .025 |
| | Hotelling's Trace | .077 | 20417.432 | .000 | .025 |
| | Roy's Largest Root | .052 | 40907.372 ^c | .000 | .049 |
| Labour_Market_Status * Age_Groups | Pillai's Trace | .019 | 5468.639 | .000 | .006 |
| | Wilks' Lambda | .981 | 5479.638 | .000 | .006 |
| | Hotelling's Trace | .019 | 5489.894 | .000 | .006 |
| | Roy's Largest Root | .013 | 11331.502 ^c | .000 | .013 |
| Labour_Market_Status * INCGRP | Pillai's Trace | .041 | 24437.738 | .000 | .014 |
| | Wilks' Lambda | .959 | 24621.902 | .000 | .014 |
| | Hotelling's Trace | .043 | 24777.146 | .000 | .014 |

| Effect | | Value | F | Sig. | Partial Eta Squared |
|---|--------------------|-------|-------------------------|------|---------------------|
| | Roy's Largest Root | .034 | 59435.683 ^c | .000 | .033 |
| Age_Groups * INCGRP | Pillai's Trace | .324 | 50296.569 | .000 | .108 |
| | Wilks' Lambda | .696 | 53404.691 | .000 | .114 |
| | Hotelling's Trace | .410 | 56655.060 | .000 | .120 |
| | Roy's Largest Root | .328 | 136158.540 ^c | .000 | .247 |
| | Pillai's Trace | .004 | 972.440 | .000 | .001 |
| Education_groups * Labour_Market_Status * Age_Groups | Wilks' Lambda | .996 | 973.040 | .000 | .001 |
| | Hotelling's Trace | .004 | 973.619 | .000 | .001 |
| | Roy's Largest Root | .003 | 2298.977 ^c | .000 | .003 |
| | Pillai's Trace | .002 | 1148.043 | .000 | .001 |
| Education_groups * Labour_Market_Status * INCGRP | Wilks' Lambda | .998 | 1148.369 | .000 | .001 |
| | Hotelling's Trace | .002 | 1148.640 | .000 | .001 |
| | Roy's Largest Root | .002 | 2436.348 ^c | .000 | .002 |
| | Pillai's Trace | .172 | 26578.359 | .000 | .057 |
| Education_groups * Age_Groups * INCGRP | Wilks' Lambda | .835 | 26947.655 | .000 | .058 |
| | Hotelling's Trace | .188 | 27310.247 | .000 | .059 |
| | Roy's Largest Root | .118 | 51308.968 ^c | .000 | .105 |
| | Pillai's Trace | .032 | 7938.577 | .000 | .011 |
| Labour_Market_Status * Age_Groups * INCGRP | Wilks' Lambda | .968 | 7987.049 | .000 | .011 |
| | Hotelling's Trace | .033 | 8034.434 | .000 | .011 |
| | Roy's Largest Root | .027 | 19931.183 ^c | .000 | .027 |
| | Pillai's Trace | .001 | 403.145 | .000 | .000 |
| Education_groups * Labour_Market_Status * Age_Groups * INCGRP | Wilks' Lambda | .999 | 403.204 | .000 | .000 |
| | Hotelling's Trace | .001 | 403.255 | .000 | .000 |
| | Roy's Largest Root | .001 | 1020.085 ^c | .000 | .001 |
| | Pillai's Trace | .001 | 403.145 | .000 | .000 |

Univariate test results

| Source | Dependent Variable | F | Sig. | Partial Eta Squared |
|----------------------|-----------------------|------------|------|---------------------|
| Corrected Model | debtres | 71066.688 | .000 | .550 |
| | Financial_liabilities | 57738.368 | .000 | .498 |
| | current_liabilities | 89256.169 | .000 | .606 |
| Intercept | debtres | 72514.402 | .000 | .008 |
| | Financial_liabilities | 35232.778 | .000 | .004 |
| | current_liabilities | 270287.694 | .000 | .030 |
| Education_groups | debtres | 22569.644 | .000 | .008 |
| | Financial_liabilities | 2235.556 | .000 | .001 |
| | current_liabilities | 934.479 | .000 | .000 |
| Labour_Market_Status | debtres | 126.518 | .000 | .000 |
| | Financial_liabilities | 15719.490 | .000 | .004 |
| | current_liabilities | 592230.376 | .000 | .120 |
| Age_Groups | debtres | 60145.966 | .000 | .033 |

| Source | Dependent Variable | F | Sig. | Partial Eta Squared |
|---|-----------------------|------------|------|---------------------|
| | Financial_liabilities | 11838.357 | .000 | .007 |
| | current_liabilities | 16647.323 | .000 | .009 |
| INCGRP | debtres | 33415.280 | .000 | .022 |
| | Financial_liabilities | 11139.097 | .000 | .008 |
| | current_liabilities | 8577.710 | .000 | .006 |
| Education_groups * Labour_Market_Status | debtres | 905.550 | .000 | .001 |
| | Financial_liabilities | 1678.048 | .000 | .001 |
| | current_liabilities | 1824.186 | .000 | .001 |
| Education_groups * Age_Groups | debtres | 17512.018 | .000 | .029 |
| | Financial_liabilities | 4623.522 | .000 | .008 |
| | current_liabilities | 1794.893 | .000 | .003 |
| Education_groups * INCGRP | debtres | 40300.615 | .000 | .048 |
| | Financial_liabilities | 13070.725 | .000 | .016 |
| | current_liabilities | 10021.549 | .000 | .012 |
| Labour_Market_Status * Age_Groups | debtres | 10118.198 | .000 | .011 |
| | Financial_liabilities | 1089.016 | .000 | .001 |
| | current_liabilities | 4355.129 | .000 | .005 |
| Labour_Market_Status * INCGRP | debtres | 53491.524 | .000 | .030 |
| | Financial_liabilities | 20781.754 | .000 | .012 |
| | current_liabilities | 6987.614 | .000 | .004 |
| Age_Groups * INCGRP | debtres | 106985.812 | .000 | .205 |
| | Financial_liabilities | 16146.269 | .000 | .037 |
| | current_liabilities | 42534.955 | .000 | .093 |
| Education_groups * Labour_Market_Status * Age_Groups | debtres | 20.861 | .000 | .000 |
| | Financial_liabilities | 568.766 | .000 | .001 |
| | current_liabilities | 2217.925 | .000 | .003 |
| Education_groups * Labour_Market_Status * INCGRP | debtres | 745.245 | .000 | .001 |
| | Financial_liabilities | 1077.278 | .000 | .001 |
| | current_liabilities | 1502.563 | .000 | .001 |
| Education_groups * Age_Groups * INCGRP | debtres | 38042.579 | .000 | .080 |
| | Financial_liabilities | 19998.854 | .000 | .044 |
| | current_liabilities | 14370.742 | .000 | .032 |
| Labour_Market_Status * Age_Groups * INCGRP | debtres | 16583.735 | .000 | .022 |
| | Financial_liabilities | 1969.850 | .000 | .003 |
| | current_liabilities | 2758.246 | .000 | .004 |
| Education_groups * Labour_Market_Status * Age_Groups * INCGRP | debtres | 53.372 | .000 | .000 |
| | Financial_liabilities | 341.036 | .000 | .000 |
| | current_liabilities | 678.734 | .000 | .000 |

7.9.4.2 Including the area variable

| Box's Test of Equality of Covariance Matrices ^a | |
|--|------------------|
| Box's M | 23847439.185 |
| F | 189260.724 |
| df1 | 126 |
| df2 | 118589624212.742 |
| Sig. | .000 |

| Effect | | Value | F | Sig. | Partial Eta Squared |
|--|--------------------|-------|-------------------------|------|---------------------|
| Intercept | Pillai's Trace | .057 | 174540.082 ^b | .000 | .057 |
| | Wilks' Lambda | .943 | 174540.082 ^b | .000 | .057 |
| | Hotelling's Trace | .060 | 174540.082 ^b | .000 | .057 |
| | Roy's Largest Root | .060 | 174540.082 ^b | .000 | .057 |
| Education_groups | Pillai's Trace | .017 | 16116.111 | .000 | .006 |
| | Wilks' Lambda | .984 | 16153.282 | .000 | .006 |
| | Hotelling's Trace | .017 | 16169.618 | .000 | .006 |
| | Roy's Largest Root | .011 | 31818.243 ^c | .000 | .011 |
| Labour_Market_Status | Pillai's Trace | .104 | 159492.731 | .000 | .052 |
| | Wilks' Lambda | .896 | 163967.642 ^b | .000 | .053 |
| | Hotelling's Trace | .116 | 168449.087 | .000 | .055 |
| | Roy's Largest Root | .115 | 334360.319 ^c | .000 | .103 |
| Age_Groups | Pillai's Trace | .036 | 21165.454 | .000 | .012 |
| | Wilks' Lambda | .964 | 21313.389 | .000 | .012 |
| | Hotelling's Trace | .037 | 21439.455 | .000 | .012 |
| | Roy's Largest Root | .030 | 51820.880 ^c | .000 | .029 |
| INCGRP | Pillai's Trace | .056 | 27475.339 | .000 | .019 |
| | Wilks' Lambda | .945 | 27675.090 | .000 | .019 |
| | Hotelling's Trace | .058 | 27843.853 | .000 | .019 |
| | Roy's Largest Root | .041 | 59233.087 ^c | .000 | .039 |
| Metro_NonMetro | Pillai's Trace | .011 | 33127.644 ^b | .000 | .011 |
| | Wilks' Lambda | .989 | 33127.644 ^b | .000 | .011 |
| | Hotelling's Trace | .011 | 33127.644 ^b | .000 | .011 |
| | Roy's Largest Root | .011 | 33127.644 ^b | .000 | .011 |
| Education_groups * Labour_Market_Status | Pillai's Trace | .007 | 3556.880 | .000 | .002 |
| | Wilks' Lambda | .993 | 3558.192 | .000 | .002 |
| | Hotelling's Trace | .007 | 3558.976 | .000 | .002 |
| | Roy's Largest Root | .004 | 6020.171 ^c | .000 | .004 |
| Education_groups * Age_Groups | Pillai's Trace | .031 | 6083.547 | .000 | .010 |
| | Wilks' Lambda | .969 | 6094.544 | .000 | .010 |
| | Hotelling's Trace | .032 | 6104.940 | .000 | .010 |

| Effect | | Value | F | Sig. | Partial Eta Squared |
|--|--------------------|-------|-------------------------|------|---------------------|
| | Roy's Largest Root | .019 | 11047.933 ^c | .000 | .019 |
| Education_groups * INCGRP | Pillai's Trace | .053 | 17490.866 | .000 | .018 |
| | Wilks' Lambda | .947 | 17611.192 | .000 | .018 |
| | Hotelling's Trace | .055 | 17723.443 | .000 | .018 |
| | Roy's Largest Root | .040 | 38442.976 ^c | .000 | .038 |
| Education_groups * Metro_NonMetro | Pillai's Trace | .026 | 25534.228 | .000 | .009 |
| | Wilks' Lambda | .974 | 25687.402 | .000 | .009 |
| | Hotelling's Trace | .027 | 25788.480 | .000 | .009 |
| | Roy's Largest Root | .022 | 64220.661 ^c | .000 | .022 |
| Labour_Market_Status * Age_Groups | Pillai's Trace | .019 | 5660.173 | .000 | .006 |
| | Wilks' Lambda | .981 | 5677.256 | .000 | .006 |
| | Hotelling's Trace | .020 | 5693.567 | .000 | .006 |
| | Roy's Largest Root | .015 | 13245.601 ^c | .000 | .015 |
| Labour_Market_Status * INCGRP | Pillai's Trace | .044 | 26005.993 | .000 | .015 |
| | Wilks' Lambda | .956 | 26320.087 | .000 | .015 |
| | Hotelling's Trace | .046 | 26602.522 | .000 | .015 |
| | Roy's Largest Root | .042 | 72807.926 ^c | .000 | .040 |
| Labour_Market_Status * Metro_NonMetro | Pillai's Trace | .004 | 6524.346 | .000 | .002 |
| | Wilks' Lambda | .996 | 6528.889 ^b | .000 | .002 |
| | Hotelling's Trace | .004 | 6533.431 | .000 | .002 |
| | Roy's Largest Root | .004 | 11677.032 ^c | .000 | .004 |
| Age_Groups * INCGRP | Pillai's Trace | .225 | 35362.395 | .000 | .075 |
| | Wilks' Lambda | .789 | 35761.387 | .000 | .076 |
| | Hotelling's Trace | .249 | 36143.132 | .000 | .077 |
| | Roy's Largest Root | .135 | 58673.862 ^c | .000 | .119 |
| Age_Groups * Metro_NonMetro | Pillai's Trace | .019 | 11116.433 | .000 | .006 |
| | Wilks' Lambda | .981 | 11131.478 | .000 | .006 |
| | Hotelling's Trace | .019 | 11140.359 | .000 | .006 |
| | Roy's Largest Root | .010 | 17874.794 ^c | .000 | .010 |
| INCGRP * Metro_NonMetro | Pillai's Trace | .114 | 57181.266 | .000 | .038 |
| | Wilks' Lambda | .889 | 58042.483 | .000 | .038 |
| | Hotelling's Trace | .121 | 58773.185 | .000 | .039 |
| | Roy's Largest Root | .087 | 125802.560 ^c | .000 | .080 |
| Education_groups * Labour_Market_Status * Age_Groups | Pillai's Trace | .003 | 763.332 | .000 | .001 |
| | Wilks' Lambda | .997 | 763.582 | .000 | .001 |
| | Hotelling's Trace | .003 | 763.818 | .000 | .001 |
| | Roy's Largest Root | .002 | 1536.230 ^c | .000 | .002 |
| Education_groups * Labour_Market_Status * INCGRP | Pillai's Trace | .003 | 2275.072 | .000 | .001 |
| | Wilks' Lambda | .997 | 2276.671 | .000 | .001 |
| | Hotelling's Trace | .003 | 2277.953 | .000 | .001 |
| | Roy's Largest Root | .003 | 5785.088 ^c | .000 | .003 |

| Effect | | Value | F | Sig. | Partial Eta Squared |
|---|--------------------|-------|------------------------|------|---------------------|
| Education_groups * Labour_Market_Status * Metro_NonMetro | Pillai's Trace | .001 | 626.142 | .000 | .000 |
| | Wilks' Lambda | .999 | 626.245 | .000 | .000 |
| | Hotelling's Trace | .001 | 626.317 | .000 | .000 |
| | Roy's Largest Root | .001 | 1632.723 ^c | .000 | .001 |
| Education_groups * Age_Groups * INCGRP | Pillai's Trace | .087 | 14448.176 | .000 | .029 |
| | Wilks' Lambda | .915 | 14526.677 | .000 | .029 |
| | Hotelling's Trace | .090 | 14602.629 | .000 | .029 |
| | Roy's Largest Root | .055 | 26510.026 ^c | .000 | .052 |
| Education_groups * Age_Groups * Metro_NonMetro | Pillai's Trace | .016 | 4670.273 | .000 | .005 |
| | Wilks' Lambda | .984 | 4678.452 | .000 | .005 |
| | Hotelling's Trace | .016 | 4686.081 | .000 | .005 |
| | Roy's Largest Root | .011 | 9484.374 ^c | .000 | .011 |
| Education_groups * INCGRP * Metro_NonMetro | Pillai's Trace | .030 | 12636.388 | .000 | .010 |
| | Wilks' Lambda | .970 | 12662.991 | .000 | .010 |
| | Hotelling's Trace | .031 | 12683.876 | .000 | .010 |
| | Roy's Largest Root | .018 | 22798.456 ^c | .000 | .018 |
| Labour_Market_Status * Age_Groups * INCGRP | Pillai's Trace | .034 | 8419.749 | .000 | .011 |
| | Wilks' Lambda | .966 | 8466.942 | .000 | .012 |
| | Hotelling's Trace | .035 | 8512.861 | .000 | .012 |
| | Roy's Largest Root | .028 | 20181.028 ^c | .000 | .027 |
| Labour_Market_Status * Age_Groups * Metro_NonMetro | Pillai's Trace | .007 | 2712.035 | .000 | .002 |
| | Wilks' Lambda | .993 | 2715.586 | .000 | .002 |
| | Hotelling's Trace | .007 | 2718.875 | .000 | .002 |
| | Roy's Largest Root | .005 | 6777.260 ^c | .000 | .005 |
| Labour_Market_Status * INCGRP * Metro_NonMetro | Pillai's Trace | .026 | 18747.151 | .000 | .009 |
| | Wilks' Lambda | .974 | 18853.612 | .000 | .009 |
| | Hotelling's Trace | .026 | 18938.673 | .000 | .009 |
| | Roy's Largest Root | .022 | 47563.587 ^c | .000 | .021 |
| Age_Groups * INCGRP * Metro_NonMetro | Pillai's Trace | .075 | 18656.368 | .000 | .025 |
| | Wilks' Lambda | .926 | 18772.898 | .000 | .025 |
| | Hotelling's Trace | .078 | 18882.427 | .000 | .025 |
| | Roy's Largest Root | .050 | 35962.659 ^c | .000 | .047 |
| Education_groups * Labour_Market_Status * Age_Groups * INCGRP | Pillai's Trace | .000 | 460.485 | .000 | .000 |
| | Wilks' Lambda | 1.000 | 460.555 | .000 | .000 |
| | Hotelling's Trace | .000 | 460.609 | .000 | .000 |
| | Roy's Largest Root | .000 | 1311.003 ^c | .000 | .000 |
| Education_groups * Labour_Market_Status * Age_Groups * Metro_NonMetro | Pillai's Trace | .000 | 237.237 | .000 | .000 |
| | Wilks' Lambda | 1.000 | 237.261 | .000 | .000 |
| | Hotelling's Trace | .000 | 237.281 | .000 | .000 |
| | Roy's Largest Root | .000 | 670.734 ^c | .000 | .000 |
| Education_groups * | Pillai's Trace | .000 | . | . | . |

| Effect | | Value | F | Sig. | Partial Eta Squared |
|---|--------------------|-------|------------------------|-------|---------------------|
| Labour_Market_Status * INCGRP * Metro_NonMetro | Wilks' Lambda | 1.000 | . ^b | . | . |
| | Hotelling's Trace | .000 | . ^b | . | . |
| | Roy's Largest Root | .000 | .000 ^b | 1.000 | .000 |
| Education_groups * Age_Groups * INCGRP * Metro_NonMetro | Pillai's Trace | .018 | 7583.728 | .000 | .006 |
| | Wilks' Lambda | .982 | 7603.159 | .000 | .006 |
| | Hotelling's Trace | .018 | 7620.558 | .000 | .006 |
| | Roy's Largest Root | .014 | 17129.581 ^c | .000 | .014 |
| Labour_Market_Status * Age_Groups * INCGRP * Metro_NonMetro | Pillai's Trace | .000 | . ^b | . | . |
| | Wilks' Lambda | 1.000 | . ^b | . | . |
| | Hotelling's Trace | .000 | . ^b | . | . |
| | Roy's Largest Root | .000 | .000 ^b | 1.000 | .000 |
| Education_groups * Labour_Market_Status * Age_Groups * INCGRP * Metro_NonMetro | Pillai's Trace | .000 | . ^b | . | . |
| | Wilks' Lambda | 1.000 | . ^b | . | . |
| | Hotelling's Trace | .000 | . ^b | . | . |
| | Roy's Largest Root | .000 | .000 ^b | 1.000 | .000 |

Univariate test results

| Source | Dependent Variable | F | Sig. | Partial Eta Squared |
|--|-----------------------|------------|------|---------------------|
| Corrected Model | debtres | 63142.286 | .000 | .621 |
| | Financial_liabilities | 56888.928 | .000 | .596 |
| | current_liabilities | 67018.052 | .000 | .635 |
| Intercept | debtres | 83146.684 | .000 | .009 |
| | Financial_liabilities | 45392.250 | .000 | .005 |
| | current_liabilities | 391747.677 | .000 | .043 |
| Education_groups | debtres | 25669.506 | .000 | .009 |
| | Financial_liabilities | 4388.040 | .000 | .002 |
| | current_liabilities | 13083.757 | .000 | .004 |
| Labour_Market_Status | debtres | 4975.302 | .000 | .001 |
| | Financial_liabilities | 58413.264 | .000 | .013 |
| | current_liabilities | 460497.606 | .000 | .096 |
| Age_Groups | debtres | 37308.896 | .000 | .021 |
| | Financial_liabilities | 18240.247 | .000 | .010 |
| | current_liabilities | 16449.926 | .000 | .009 |
| INCGRP | debtres | 25904.772 | .000 | .018 |
| | Financial_liabilities | 32498.029 | .000 | .022 |
| | current_liabilities | 11206.573 | .000 | .008 |
| Metro_NonMetro | debtres | 49909.772 | .000 | .006 |
| | Financial_liabilities | 64653.976 | .000 | .007 |
| | current_liabilities | 5372.756 | .000 | .001 |
| Education_groups * Labour_Market_Status | debtres | 2559.949 | .000 | .002 |
| | Financial_liabilities | 3010.585 | .000 | .002 |

| Source | Dependent Variable | F | Sig. | Partial Eta Squared |
|--|-----------------------|-----------|------|---------------------|
| | current_liabilities | 4573.584 | .000 | .003 |
| Education_groups * Age_Groups | debtres | 3559.112 | .000 | .006 |
| | Financial_liabilities | 7733.497 | .000 | .013 |
| | current_liabilities | 6271.157 | .000 | .011 |
| Education_groups * INCGRP | debtres | 9698.257 | .000 | .010 |
| | Financial_liabilities | 27086.551 | .000 | .027 |
| | current_liabilities | 12063.639 | .000 | .012 |
| Education_groups * Metro_NonMetro | debtres | 63375.416 | .000 | .021 |
| | Financial_liabilities | 13329.050 | .000 | .005 |
| | current_liabilities | 8869.766 | .000 | .003 |
| Labour_Market_Status * Age_Groups | debtres | 12303.234 | .000 | .014 |
| | Financial_liabilities | 883.072 | .000 | .001 |
| | current_liabilities | 3437.246 | .000 | .004 |
| Labour_Market_Status * INCGRP | debtres | 65911.660 | .000 | .036 |
| | Financial_liabilities | 5732.418 | .000 | .003 |
| | current_liabilities | 6548.665 | .000 | .004 |
| Labour_Market_Status * Metro_NonMetro | debtres | 14645.887 | .000 | .003 |
| | Financial_liabilities | 1251.782 | .000 | .000 |
| | current_liabilities | 1375.055 | .000 | .000 |
| Age_Groups * INCGRP | debtres | 50338.065 | .000 | .104 |
| | Financial_liabilities | 34215.108 | .000 | .073 |
| | current_liabilities | 21658.308 | .000 | .047 |
| Age_Groups * Metro_NonMetro | debtres | 12360.394 | .000 | .007 |
| | Financial_liabilities | 14997.705 | .000 | .009 |
| | current_liabilities | 6365.618 | .000 | .004 |
| INCGRP * Metro_NonMetro | debtres | 87464.858 | .000 | .057 |
| | Financial_liabilities | 79444.420 | .000 | .052 |
| | current_liabilities | 26553.673 | .000 | .018 |
| Education_groups * Labour_Market_Status * Age_Groups | debtres | 23.447 | .000 | .000 |
| | Financial_liabilities | 657.704 | .000 | .001 |
| | current_liabilities | 1528.477 | .000 | .002 |
| Education_groups * Labour_Market_Status * INCGRP | debtres | 5488.361 | .000 | .003 |
| | Financial_liabilities | 95.263 | .000 | .000 |
| | current_liabilities | 978.771 | .000 | .000 |
| Education_groups * Labour_Market_Status * Metro_NonMetro | debtres | 134.138 | .000 | .000 |
| | Financial_liabilities | 134.306 | .000 | .000 |
| | current_liabilities | 1554.896 | .000 | .001 |
| Education_groups * Age_Groups * INCGRP | debtres | 11510.971 | .000 | .023 |
| | Financial_liabilities | 19659.786 | .000 | .039 |
| | current_liabilities | 9898.891 | .000 | .020 |
| Education_groups * Age_Groups * | debtres | 3006.930 | .000 | .003 |

| Source | Dependent Variable | F | Sig. | Partial Eta Squared |
|--|-----------------------|-----------|------|---------------------|
| Metro_NonMetro | Financial_liabilities | 7160.566 | .000 | .008 |
| | current_liabilities | 5930.407 | .000 | .007 |
| Education_groups * INCGRP * Metro_NonMetro | debtres | 15088.798 | .000 | .012 |
| | Financial_liabilities | 20748.540 | .000 | .016 |
| | current_liabilities | 5266.304 | .000 | .004 |
| Labour_Market_Status * Age_Groups * INCGRP | debtres | 17748.860 | .000 | .024 |
| | Financial_liabilities | 1661.931 | .000 | .002 |
| | current_liabilities | 4728.859 | .000 | .006 |
| Labour_Market_Status * Age_Groups * Metro_NonMetro | debtres | 7.004 | .000 | .000 |
| | Financial_liabilities | 1259.692 | .000 | .001 |
| | current_liabilities | 6702.695 | .000 | .005 |
| Labour_Market_Status * INCGRP * Metro_NonMetro | debtres | 38247.538 | .000 | .017 |
| | Financial_liabilities | 1192.894 | .000 | .001 |
| | current_liabilities | 10426.931 | .000 | .005 |
| Age_Groups * INCGRP * Metro_NonMetro | debtres | 19911.601 | .000 | .027 |
| | Financial_liabilities | 25170.546 | .000 | .033 |
| | current_liabilities | 6576.024 | .000 | .009 |
| Education_groups * Labour_Market_Status * Age_Groups * INCGRP | debtres | 105.693 | .000 | .000 |
| | Financial_liabilities | 737.942 | .000 | .000 |
| | current_liabilities | 418.208 | .000 | .000 |
| Education_groups * Labour_Market_Status * Age_Groups * Metro_NonMetro | debtres | 20.781 | .000 | .000 |
| | Financial_liabilities | 280.366 | .000 | .000 |
| | current_liabilities | 366.375 | .000 | .000 |
| Education_groups * Labour_Market_Status * INCGRP * Metro_NonMetro | debtres | . | . | .000 |
| | Financial_liabilities | . | . | .000 |
| | current_liabilities | . | . | .000 |
| Education_groups * Age_Groups * INCGRP * Metro_NonMetro | debtres | 10744.922 | .000 | .009 |
| | Financial_liabilities | 10430.843 | .000 | .008 |
| | current_liabilities | 5306.660 | .000 | .004 |
| Labour_Market_Status * Age_Groups * INCGRP * Metro_NonMetro | debtres | . | . | .000 |
| | Financial_liabilities | . | . | .000 |
| | current_liabilities | . | . | .000 |
| Education_groups * Labour_Market_Status * Age_Groups * INCGRP * Metro_NonMetro | debtres | . | . | .000 |
| | Financial_liabilities | . | . | .000 |
| | current_liabilities | . | . | .000 |

7.9.4.3 Custom model

| Box's Test of Equality of Covariance Matrices ^a | |
|---|--------------|
| Box's M | 52560731.159 |

| | |
|------|------------------|
| F | 584001.794 |
| df1 | 90 |
| df2 | 312890997876.369 |
| Sig. | .000 |

| Effect | | Value | F | Sig. | Partial Eta Squared |
|---------------------|--------------------|-------|-------------------------|------|---------------------|
| Intercept | Pillai's Trace | .037 | 124185.233 ^b | .000 | .037 |
| | Wilks' Lambda | .963 | 124185.233 ^b | .000 | .037 |
| | Hotelling's Trace | .039 | 124185.233 ^b | .000 | .037 |
| | Roy's Largest Root | .039 | 124185.233 ^b | .000 | .037 |
| Age_Groups * INCGRP | Pillai's Trace | .847 | 107953.818 | .000 | .282 |
| | Wilks' Lambda | .287 | 141747.022 | .000 | .341 |
| | Hotelling's Trace | 2.038 | 186299.594 | .000 | .404 |
| | Roy's Largest Root | 1.802 | 494307.192 ^c | .000 | .643 |

Univariate test results

| Source | Dependent Variable | F | Sig. | Partial Eta Squared |
|---------------------|-----------------------|------------|------|---------------------|
| Corrected Model | debtres | 220486.139 | .000 | .446 |
| | Financial_liabilities | 194853.894 | .000 | .415 |
| | current_liabilities | 173213.673 | .000 | .387 |
| Intercept | debtres | 110421.453 | .000 | .011 |
| | Financial_liabilities | 167395.332 | .000 | .017 |
| | current_liabilities | 120862.998 | .000 | .012 |
| Age_Groups * INCGRP | debtres | 220486.139 | .000 | .446 |
| | Financial_liabilities | 194853.894 | .000 | .415 |
| | current_liabilities | 173213.673 | .000 | .387 |

APPENDIX F

ETHICAL CLEARANCE

MEMO

To: Prof Debbie Scheepers (Student number:198 224 9)
From: Department of Taxation: Higher Degree committee
Date: 15 July 2011
Re: Ethical clearance: Household balance sheet study

Message

Prof Scheepers

Your application dated 12 May 2011 refers. The Higher Degrees committee of the Department of Taxation reviewed your application for ethical approval based on the guidelines provided in Unisa's Research Ethics policy.

The committee herewith provides approval of the application subject to the following provisions contained in the policy:

The student must submit in writing the following to the higher degrees committee:

- (i) Report of any adverse event (for example harm or injury suffered by participants that is attributable to the research such as physical harm, psychological or emotional stress, financial loss and social ostracism or stigma.) including a detailed description of the event, measures taken to address it and the outcomes. This report must be submitted as soon as possible, but not later than two weeks after occurrence of the event.
- (ii) Report of any ethical problems encountered including a description of how these were addressed. This report must be submitted every two months after commencement of the research.
- (iii) Any changes in the research design including methodology.

- (iv) A terminal report if there are changes in the actual procedures for taking informed consent and any other ethics-related procedures, including the steps taken to ensure that participants are informed of the findings and consulted on how the findings can benefit them or others.

We would like to take this opportunity to congratulate you on the work you have done thus far and wish you all the best for the remainder of your study. Please feel free to contact us if you need any specific assistance.

Regards

Prof. JMP Venter
Chairperson: Higher Degrees Committee
Department of Taxation.

4. **Self-completed web-based survey:** The survey can also be completed online. To access the survey, please enter the following link:
https://www.surveymonkey.com/s/pfru_household_well_being

How long will the survey take to complete?

Depending on the complexity of your financial situation, the survey may take between 20 minutes and an hour to complete. To help you answer some of the questions and speed up the process you might want to consult some financial records such as salary slips, pension statements, account balances, etc.

What happens if you agree to take part in the survey?

If you agree to take part, all you need to do is to allow the trained Unisa interviewers' access to the household to conduct the interview and complete the survey, or complete the survey yourself in your own time. Once you have agreed to take part in the survey you will still be able to withdraw your participation, terminate the interview/survey at any stage or continue with it at a later, more convenient time.

Very important information you need to know

Under NO circumstances will we ask you for account numbers or personal ID numbers. The information that you provide will be totally confidential and reported on anonymously. The information will NOT be provided to any third parties.

Your name is only needed for purposes of administering the study. A PFRU representative may contact you after the interview/completion of the survey but this would only be to verify that the interview was conducted in a proper and professional manner.

You can contact the PFRU research administrator (see details below) with questions or comments at any stage of the research process.

Thank you gift for participating households

Once the interview/survey is complete, as a token of our gratitude for your time, we would like to give you a Unisa T-shirt and, if you want one a household balance sheet that can help you with future financial planning. For this we would need to ask your postal address or email details but you are not obliged to provide these if you do not wish to do so.

Enquiries:

Mrs Marucka Nell
Personal Finance Research Unit
Bureau of Market Research
University of South Africa
PO Box 392
UNISA
0003

Tel (012) 429-3183

Fax (012) 429-3170

E-mail: pfru@unisa.ac.za

Personal Finance Research Unit (PFRU)



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management sciences

Are South African households income poor and asset rich?

This debate is currently ongoing between analysts and politicians. However, the truth is that no one really knows. Knowledge about household financial well-being is imperative as policy makers are formulating policies on a daily basis, which impact on the ability of households to earn an income and accumulate assets. To this end the Personal Finance Research Unit (PFRU) at the University of South Africa (Unisa) has embarked on the most comprehensive study of its kind to date to gain more knowledge about the financial well-being of South African households.

About the Personal Finance Research Unit

The PFRU at the Bureau of Market Research (BMR), Unisa, was established in 2010, specialising in research across all areas of personal finance, mainly from a consumer perspective. The PFRU is not affiliated with any financial institution or government body other than Unisa and aims to generate ethical, reliable and innovative research. It is anticipated that the work of the Unit will impact on government policies, as well as business strategies and academic knowledge creation.

More about the research

It is common knowledge that spending in the South African economy is driven by households. Although information about households' income and expenditure is available, very little is known about the way in which households use their income to acquire assets, and how such assets are financed. The primary objective of the research will be to construct a balance sheet of the assets and liabilities of South African households for the different income and age groups in the various provinces.

Why your household should participate in the survey

Prof Bernadene de Clercq, head of the PFRU, says the information obtained from the research will assist the country in many ways. It will assist policy makers in drafting the correct policies based on sound research, as well as to use the correct policy instruments to achieve a specific outcome. Currently, policies are drafted without taking into account the impact they may have on the assets and liabilities of households. For example, when the electricity tariff increases were determined, the regulator had no knowledge on the impact it would have on household finances generally, as well as the ability of households to save and acquire sufficient assets for

retirement. Likewise, when the government determines tax rates or introduces new taxes, this is done without being aware of the impact it may have on the retirement planning of households. This research provides the ideal opportunity for households to contribute towards their economic future.

How will the research be done?

Households can complete the survey in four ways:

1. **Home visits to households:** With the assistance of a PFRU interviewer, the financially knowledgeable person in the household can complete a paper-based survey.
2. **Self-completed paper-based survey:** Should the household prefer to complete the paper-based survey at their convenience, the PFRU interviewer will arrange for the collection of the completed survey or provide you with a self-addressed envelope in which to return it to the PFRU.
3. **Pre-arranged phone interview:** A PFRU interviewer can phone the household at a pre-arranged time and capture the answers directly via a computer-aided system.



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