Fiat money: from the current Islamic finance scholars' perspective

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Abstract

Purpose – This paper aims to discuss the opinions of current *Shariah* scholars on the concept of debt money in the present-day fiat money system.

Design/methodology/approach – Research design of this paper is a quantitative investigation of *Shariah* experts by distributing a questionnaire to them. As majority of *Shariah* scholars are also *Shariah* advisory of the current banking system, it is important to find out their level of knowledge on the issue of debt money created by the commercial banking system through the fractional-reserve banking (FRB) system.

Findings – Based on this investigation, most *Shariah* scholars are unaware of and confused about the mechanics underpinning the creation of money, especially with respect to FRB as it is practiced by the conventional and Islamic banking systems.

Originality/value – Based on this research, it is recommended that these scholars should improve their understanding of the operation of the fiat money system and its consequences. It is recommended that, in future, *Shariah* scholars should think "outside of the box" by creating Islamic financial instruments that do not resemble those of the conventional system.

Keywords Islamic finance, Fiat money, Fractional-reserve banking system (FRB)

Paper type Conceptual paper

1. Introduction

The aim of this paper is to examine the opinions of current Islamic finance scholars in Malaysia on the concepts underpinning the present-day fiat money system. The intention is to find out those *Shariah* scholars' viewpoints about credit money created by the fractional-reserve banking (FRB) system. It was expected that most of these scholars might not grasp the basic concept of fiat money fully, or understand its consequences. Keynes (1919) asserted that problems arose with fiat money because its management was almost too difficult to understand. Indeed, as Lord Keynes conjectured about the inflation, currency devaluation and pernicious redistributive effects sometimes created by the issuance of fiat money, "not one man in a million" would be able to understand it.

This paper begins with a discussion of the several stages of the money revolution. In the second part, an overview of the current fiat money system is given, which is followed by a

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presentation of the problems that arise from the contemporary system. In the third part, a discussion of the fiat money system viewed from the Muslim scholars' perspectives is offered and the results of the survey of current Muslim scholars' opinions on the issues of debt money in the current fiat money system through the FRB system will be presented. Finally, conclusions are drawn from the prior discussions.

2. The money revolution

2.1 The stages of money's development

Before the invention of money, societies exchanged things by bartering. Barter trading is the most primitive form of reciprocal exchange in a society. To barter is to exchange things between two parties and to leave no claim or obligation on either party (Riegel, 1949). Barter trade was the first method by which human civilizations exchanged goods and services. Unfortunately, this system could not work unless there was a coincidence of wants and needs on both sides of a potential trade. To overcome this limitation, money was introduced into markets (Lietaer, 2001). Thus, money can be considered as a "placeholder" (Riegel, 1949). Money enables buyers to acquire their needs in goods and services wherever and whenever is convenient for them in the market. Concomitantly, by accepting money, sellers can defer their needs and wants for goods and services elsewhere.

In the first stages of the money revolution, traders began to utilize useful commodities that were in general demand, which could be passed on easily as media of exchange to other sellers. Examples of commodities that have been used as money throughout history include barley, cocoa beans, salt bars, maize, tobacco, rice and other similar staples. The most widely recognized type of commodity money has been bimetallism – i.e. gold and silver. Usually these two metals have been molded in the form of coins. Both of these commodities are durable, portable and easy to divide into smaller amounts. For millennia, gold has been considered as an optimum instrument for preserving wealth by functioning as a store of value. Gold, being limited in quantity, has been inherently valuable. By contrast, silver has tended to be regarded as "liquid" money, and has usually been used for daily trading (Brown, 2007). This is because silver has been cheaper than gold and more abundant in quantity.

Owing to its preciousness and bulk, most users would have trusted goldsmiths to keep their gold coins for them, as they would have had the safest vaults in their communities. Thus, the safety vault came to be considered as a "money warehouse" (Rothbard, 2008). To smooth transfers between gold users, gold receipts were introduced by goldsmiths. Over time, communities came to accept the gold certificates introduced by goldsmiths as being as valuable as gold. Thus, "symbolic money" was invented as the second stage of the money revolution.

To increase their profits, goldsmiths decided to lend out the idle gold in their vaults to borrowers in their markets. Thus, goldsmiths began to become intermediaries between their depositors and potential borrowers in the market. The goldsmiths would go on to charge amounts of interest to borrowers and to pay their depositors lower interest rates for continuing to store their gold. Only small portions of gold (estimated to be around 15 per cent) were ever redeemed in any given year. Most of the gold (estimated at around 85 per cent) was kept in vaults. To generate higher profits, goldsmiths would go on to print out receipts for more gold (in the forms of IOUs) than they held as deposits, theoretically defrauding the members of the public with whom they dealt. Such fraudulent acts became the original instances of the creation of credit money (Rothbard, 2008).

In the modern world, the goldsmiths became bankers. The goldsmiths' act of lending more money (i.e. in the form of gold certificates) than there was available gold in their vaults was the origin of FRB. Nowadays, commercial banks do not back their deposits with gold kept in safety vaults, but accept and lend paper money that has been issued and declared to be "legal tender" by governments. In the next section, we will discuss the current fiat money system that is based on credit money in detail.

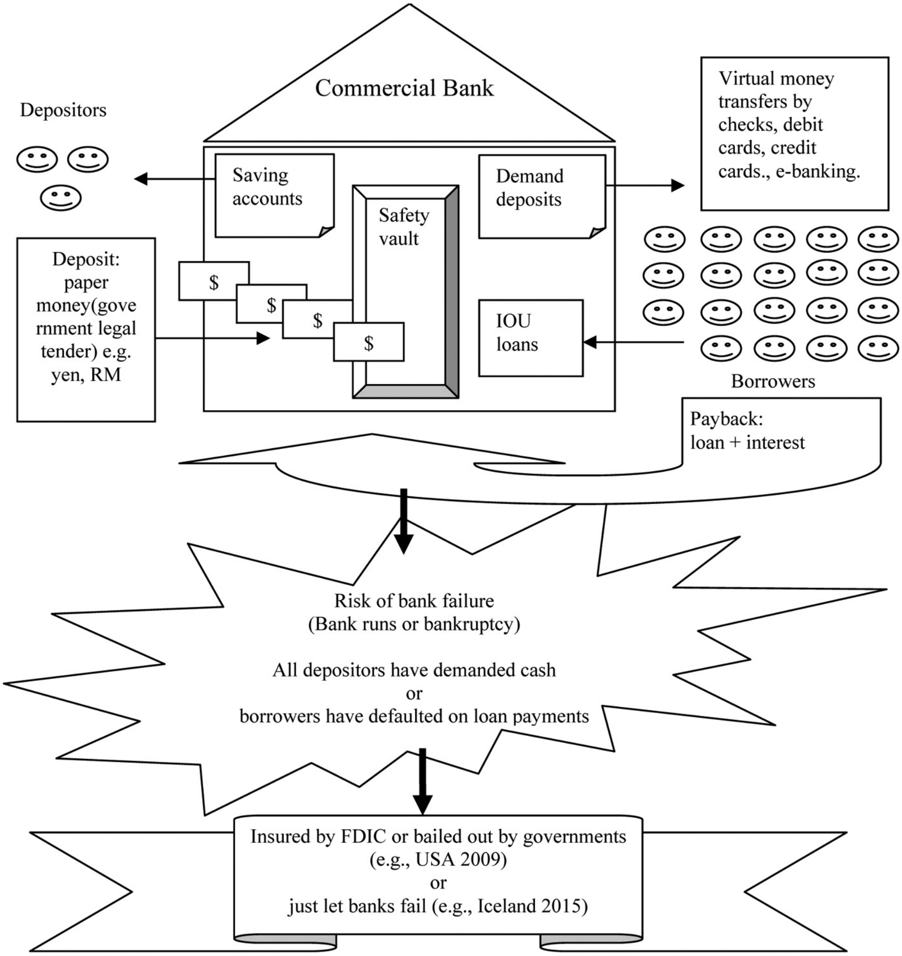
3. Fiat money currently and its consequences

3.1 Overview of the current fiat money system

Even though contemporary paper money is not backed by any commodity and has no intrinsic value, it is still accepted as a medium of exchange in markets. Ritter (1995) asserted that fiat money is still accepted because of its credibility, based on the legitimacy and stability of governments, silent social agreements between governments and citizens and, finally, the abilities of governments to limit the issuance of money. Currently, the issuance of fiat money is monopolized mainly by governments and commercial banks (Ib Ravn, 2015; McLeay *et al.*, 2014; Adams and Mouatt, 2009; Brown, 2007). Governments now issue a relatively small proportion of the money supplied in economies. Most of the money made available is supplied by commercial banks, not by lending money that is already in existence, but simply by creating new "credit" made available as money to borrowers in the banks' bookkeeping systems at the moment at which borrowers sign their IOUs (Huber, 2014; McLeay and Thomas, 2014; Tanweer, 2014; Brown, 2007). Thus, most money is created by the issuance of debt by commercial banks in the form of accounting figures held in their books digitally (Brown, 2007; Greco, 2009; Meera, 2004; Lietaer, 2001; Rowbotham, 1998; Bernstein, 2008). In consequence, the modern definition of money as a form of financial asset should define money as an "IOU" expressed as "a unit of account" (McLeay and Thomas, 2014; Doepke and Schneider, 2013). This is because 95 per cent of the money held by the public takes the form of deposits in the banking system and has no physical form (McLeay and Thomas, 2014; Tanweer, 2014; Collado, 2011; Brown, 2007; Rowbotham, 1998). Government currencies – i.e. paper money and coins in circulation – issued as IOUs by central banks, account for just 5 per cent of all money.

Currently, most money is created thanks to the monetization of debt, whether by governments or banking systems. This has provided an unlimited amount of debt in present-day markets (Duncan, 2005; Hulsmann, 2014). The Radcliffe Commission (1959) reported that paper money (MO) is really "the part of the national debt on which no interest is paid" (HMSO, 1959, p. 117). So, as a first stage, money is created by governments which print it as legal tenders. Then, this paper money is deposited in the banking system. Then, the commercial banking sector creates more money (in the form of demand deposits) by extending loans to the public based on the fractional-reserve ratio for the money multiplier. Heffernan (1995) mentioned that the "process of lending creates money" (refer to Figure 1 above).

According to McLeay *et al.* (2014), most users still believe that the banking system is composed of institutions that act as intermediaries between depositors and borrowers, as they have been traditionally represented in economics textbooks. However, in actual fact, saving does not increase the funds available to banks for lending, but rather commercial banks are now creators of new supplies of money. Bernstein (2008) refers to the commercial banking system's task as acting as a "midwife" to the financial system. This is because it is the place where most of the new money supplied is created during the processes of lending and investing. Most money exists today in the form of bank deposits (i.e. virtual money in digital forms), and only a very small portion of money exists as currency issued by governments – i.e. coins or paper money (McLeay and Thomas, 2014; Brown, 2007; Meera, 2004; Rowbotham, 1998). When a customer is given a loan by a commercial bank, such as a mortgage to buy a house, the bank does not give them any real paper money. Rather, banks



Sources: Authors' compilation

Figure 1. Money creation through the commercial banking system

will credit their accounts with a deposit amount (known as deposit money or a demand deposit) that is equal to the amount of the loan agreed (Rowbotham, 1998). Once the loan (as an IOU) is approved, new money is created. Brown (2007) has argued that contemporary banking is actually all about lending the "borrower's own credit". It was stated in "Modern Money Mechanics" (1963) by the Federal Reserve Bank of Chicago that:

> Of course, Banks do not really pay out loans from the money they receive as deposits. If they did this, no additional money would be created. What they do when they make loans is to accept promissory notes in exchange for credits to the borrowers' transactions accounts. Loans (assets) and deposits (liabilities) both rise by the same amount.

Some economists have referred to bank deposits as "fountain pen money" – i.e. money created at the stroke of bankers' pens when they approve loans (McLeay *et al.*, 2014).

Griffin (1998) asserted that the function of banks "is to convert debt into money". The case of the *First National Bank of Montgomery* v. *Daly* (Brown, 2007) is quite interesting. In that 1968 case, the defendant, who was also an attorney, defied the bank's foreclosure on his home mortgage loan. He claimed that there was "no consideration" – i.e. an exchange of things – by the bank when the mortgage was issued, as the loan was not backed by any real money. The bank's president, Mr Morgan, admitted that it was a normal procedure and standard practice by banks to create money "out of thin air" by making credit entries in bookkeeping money. By contrast, Elgin Groseclose, Director of the Institute for International Monetary Research, asserted in 1934 that the practice of banks creating money out of thin air was a "divine law" (Paterson, 2013). It is a trick that is similar to a magician's that allows bankers to pull money magically out of empty hats. Galbraith (1975) believed that "the process by which banks create money is so simple that the mind is repelled". Even though there is no physical money created as a result of bank deposits, money does exchange hands in markets by means of "negotiable instruments" such as checks and thanks to the invention of technologies such as credit cards, debit cards and e-banking.

Banks do not earn any profits from the new money supply in the form of deposit monies (IOUs). Their profits are earned from the interest revenue attached to the new money supply. If the public loses confidence or doubts that a bank will be able to redeem deposit accounts into cash, the risk of a "bank run" arises. The risk of a run will lead to a bank's collapse or bankruptcy. Furthermore, the original word "bankrupt" was created from the combination of two words: i.e. "bank" and "rupture". This word reflects how fragile the fiat money banking system can be and how easily it may collapse. However, this system has survived because it has been supported by governments. Almost all banking systems are backed by insurance. In the USA, this is provided by the Federal Deposit Insurance Corporation that is funded by levies paid by commercial banks and supported by credit lines provided by the US Department of the Treasury. Even though banking systems are inherently bankrupt because of the fractional-reserve model, this insurance promotes stability and public confidence in the financial system. The current amount of insurance in the USA is up to US $250,000 for each category of account.

In the event of a crisis, when various banking and other financial institutions have almost declared bankruptcy, some governments have bailed out those too-big-to-fail companies that have wavered. For example, in 2008, when the real estate bubble burst, the US Government bailed out financial intuitions with a US$700bn rescue plan. By contrast, the Government of Iceland could not afford to save its country's banking system because its debts were almost ten times bigger than the Icelandic economy. However, the Government of Iceland did guarantee the public's deposits by transferring accounts to a solvent bank (NYT, 2013).

3.2 Problems arising in the fiat money system

According to Rowbotham (1998), the system of commercial banks monopolizing the introduction of new money to the supply is perverse and dysfunctional. Even, Lietaer *et al.* (2012) believe that the current monetary system has destabilized economies, impoverished people around the world and wreaked havoc with the planet's natural capital. According to them, the system is profitable in its initial stages but, eventually, it is a cause of economic, social, environmental and political disasters. Rothbard (2008) asserted that the current monetary system is counterfeiting and fraudulent because it is inherently a "bankrupt system". Keynes (1919) said that the problems that arise from fiat money are difficult to understand based on his statement that "not one man in a million is able to diagnose the problem". Lietaer (2009) has written that:

> Henry Ford was right when he said that if the people of a nation understood how the banking and monetary system work, there [. . .] [would] [. . .] be a revolution [. . .] [before] [. . .] the next morning.

According to Ritter (1995), even though fiat money can be considered as a valueless commodity, it is still accepted for two main reasons. First, its value is dependent on the credibility of the issuer, and second, it is simple and easy to implement. According to Dowd (2000), fiat money is always accepted in the market owing to two main factors. First, it is accepted because, through history, what is currently known as fiat money was previously known as convertible currencies, and second, because interventions by the government have transformed it into unconvertible money (i.e. it is known as legal tender).

Under the present system, to create more money, new debt must be issued. When too much debt is issued in the market, there is inflation and asset price bubbles are created. Furthermore, in a system in which money comes into existence mostly owing to borrowing with interest, the system as a whole is always short of funds, and default cases become unavoidable because the portion that is interest does not exist in the form of money (Lietaer and Dunne, 2013; Mouatt, 2010; Greco, 2009; Brown, 2007; Meera, 2004; Shakespeare and Challen, 2002). The bankruptcies of companies, individuals and countries are almost inevitable with the current monetary system because the interest portion of loans does not exist in the form of money. According to the International Monetary Fund (IMF), between 1970 and 2010, there were 145 banking crises, 208 monetary crashes and 72 sovereign debt crises; a total of 425 crises, averaging more than ten cases per year (Lietaer *et al.*, 2012). Lietaer *et al.* (2009) claimed that the most recent financial crisis of 2008 has been considered the biggest and worst financial crisis in history.

Personal bankruptcy cases are also rising each year. In the USA, personal bankruptcies between 1980 and 2004 grew at an annual average rate of 7.6 per cent per year, compared to the first half of the twentieth century's averaged annual rate of 2.4 per cent (Garrett and Ott, 2005). Similarly, according to the American Bankruptcy Institute, consumer bankruptcy filings increased by almost 40 per cent in 2007, mainly owing to the mortgage crisis. Furthermore, Duncan (2005) showed that there is a correlation between rising amounts of consumer spending to service debts and the rise in bankruptcy. The current volatile economy, especially since the subprime mortgage crisis in the USA in 2007, Dubai's crisis in 2008 and the euro crisis in 2012, has led many to question whether the current fiat money system is failing to function soundly as a global monetary system (Lietaer *et al.*, 2012; Lietaer and Belgin, 2011; Sanchez, 2010).

The rise of inflation was almost inevitable after the abandonment of the gold-based standard of the Bretton Woods system (Friedman, 1978). This is because the supply of money in the contemporary system is not limited by the amount of gold reserves owned by central banks. As more money is chasing the same numbers of goods and services, the value of that money gets diluted and results in higher prices. For example, Figure 2 shows the relationship between inflation and money growth in the USA from January 1959 to December 2010 for price levels given at five-year intervals. Based on the graph, inflation and the money rate are closely related and the correlation between price changes and inflation is 0.65. Therefore, there is a correlation between money growth and inflation under the fiat money system (Rolnick and Weber, 1997; McCandless and Weber, 1995). Brown (2007) believes that inflation is not caused by governments' irresponsible printing of currencies, but it is caused by the commercial banking system's expansion of the money supply with

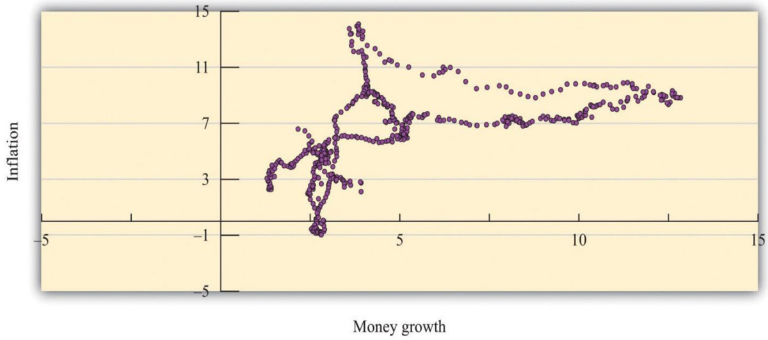


Figure 2. Inflation and money growth in the long run (US data 1959 to 2010)

Sources: Cooper and John (2012)

loans. Greenspan (1966) said that, since the absence of the gold standard, there has been no way to protect savings from confiscation by inflation because money has failed to function as a store of value. Inflation can be considered as a "silent tax" or a "hidden tax". Ronald Reagan once famously declared that inflation is a tax and Milton Friedman asserted that "inflation is a monetary phenomenon" (Greco, 2001).

As most fiat money is created by the commercial banking system through loan contracts, the system provides a legal means to obtain something for virtually nothing. The people who access new money easily are generally the rich, who enjoy almost unlimited influence over the economy. For example, Wolff (2010) described how the top 10 per cent in the USA control almost 85 to 90 per cent of stocks, bonds, trusts, business equities and non-home real estate. Over a period, the fiat currency system has caused wealth and property to be accumulated in the hands of those who enjoy the extraordinary privilege of creating the money; thus, wealth has increasingly become concentrated in the hands of a few in society (Hulsmann, 2013).

Consequently, the gap between rich and poor has grown wider (Collado, 2011; Reinert, 2008; Kopczuk and Saez, 2004). This fiat money system, by which governments and banks have the power to create money, benefits those closest to the issuance of money – i.e. those who get it first – at the expense of those furthest away – i.e. those who get it last (Hulsmann, 2013). Therefore, in the main, inequality may be attributable to fiat currencies (Baker, 2010), having generated massive profitability for those involved in the extant financial markets. The rich possess a lot of assets that will increase in value in inflationary periods, whereas the poor and middle classes have been left having a hard time as their savings values have decreased, and the cost of living has increased. Furthermore, it is expected that the middle class, who are mostly educated and hardworking, will gradually become a poorer class (Collado, 2011; Pew Research Center, 2016). According to Aristotle (2000, book 4, part IV), the best type of community is one where the middle class outnumbers all of the other classes. Collado (2011) also believed that the shrinking of the middle class has mainly been owing to financial and not social or political problems. Most of the time after an economic recession, asset prices usually crash and inflation skyrockets while the cost of fuel, food and education increases. For example, in the cases of bankruptcies, such as those of 2009, the US Government bailed out institutions such as Citigroup, the Bank of America and AIG that mostly belonged to the rich at the expense of the poor and middle-class taxpayers. The government did almost nothing to help with personal bankruptcy cases that were mostly experienced by the poor and middle classes during the economic recession.

There are some connections between the increasing numbers of criminal cases and fiat money. For example, in the period post the recession of 1980, the increasing number of crime cases has been identified as being because of the shrinking money supply in the market (Hall, 2012). The inequalities in concentrations of wealth, which have led to growing amounts of money remaining in the hands of a hardening minority, have increased the rate of poverty at the bottoms of societies. It has also generated social problems, such as crime, especially during recessions (Lietaer *et al.*, 2012).

Since the introduction of the fiat money system, individuals have become increasingly dependent on political and economic entities, leading to the disintegration of traditional social structures such as families, clans, tribes, villages and bioregional communities (Greco, 2001). These institutions have also lost their significance in the economy and have become politically and socially impotent. Hence, most wage earners' efforts are dedicated to their employers, i.e. either corporations or government bureaucracies. Such social disintegration has led to a loss of freedom and an inability to participate actively in the processes of decision-making that affect individual lives.

As the supply of fiat money is encumbered with interest charges, wealth is concentrated in the hands of the rich minority, and the poorer are taxed (Ammar, 2000; Hulsmann, 2014; Meera and Moussa, 2004; Meera, 2004; Lietaer, 2001). The wealthy have a low marginal propensity to consume (Carroll *et al.*, 2014; Rowlingson and McKay, 2012); therefore, wealth tends to continue to be concentrated in the hands of the already wealthy and, accordingly, less money circulates in the market (refer to Table I). Thus, there is a shortage of money, and socioeconomic problems consequently arise, such as unemployment, lost economic output and societal disruption (Lietaer *et al.*, 2012).

From a political point of view, the dollar as an international reserve currency has brought about American hegemony globally, as the superpower that has steered the direction of the world's economy and politics. Stivachtis (2012) and Hein and Stockhammer (2011) believe that US hegemony is owing to the dollar being the dominant global currency. In their view, America may be considered to be an "empire of debt" because America buys and imports almost everything from the rest of the world, using the dollar as a debt financer, and hence, the USA has become the biggest creditor in world trade (Bonner and Wiggin, 2006). According to Paul (2011), the dollar reserve standard has ushered in probably the world's biggest financial bubble in all of history. Today,

Year	Top one (%)	Total net worth Next 19 (%)	Bottom 80 (%)
1983	33.8	47.5	18.7
1989	37.4	46.2	16.5
1992	37.2	46.6	16.2
1995	38.5	45.4	16.1
1998	38.1	45.3	16.6
2001	33.4	51.0	15.6
2004	34.3	50.3	15.3
2007	34.6	50.5	15.0
2010	35.4	53.5	11.1

Source: Wolff (2010, Table III, p. 44)

Table I.
Distribution of net worth and financial wealth in the USA, 1983-2010

America boasts the biggest and the most advanced army in the world thanks to its dollar's power. However, American hegemony would not survive if the central banks of various countries abandoned the US dollar as the world's reserve currency (Bonner and Wiggin, 2006).

In the case of Malaysia, Meera (2013) has argued that the Malays, as the indigenous people of that country, have been gradually losing their socioeconomic and political power to immigrant minorities because of the interest-based fiat money banking system. Meera postulated that in its initial stages, the money and banking systems of Malaysia were unfair to the Malays because the system created money out of nothing. The Malays were mostly not the recipients of its benefits. They had to borrow money mostly from illegal moneylenders. However, minority immigrants, who were willing to borrow at higher interest rates, could easily and comfortably access the new money supply created by the commercial banking system. Malays dissociated themselves from commercial banking activities because its basis was established on charging interest (*riba*). Thus, the minority non-Muslim population in Malaysia enjoyed the seigniorage of money that derived its purchasing power from taxing the whole economy via inflation. This purchasing power endowed those who participated in the commercial banking sector with huge resources.

The current monetary system is not sustainable because the system is depleting the world's natural resources and polluting its ecosystem. The unsustainability of the global ecosystem is caused by the conflict between short-term financial interests and long-term sustainability (Lietaer, 2001). According to Soren (2010), the current infinite economic growth that is predicated on the fiat money system makes it difficult for human society to survive within the physical boundaries of this planet. For example, the United Nations (UN) has predicted that the population of the planet might exceed 9.6 billion by the year 2050 but, if business were to continue as usual, this would mean that human society would need almost 2.5 planets of "renewable resources" to support the huge quantities of production of non-renewable resources (Egan, 2010)

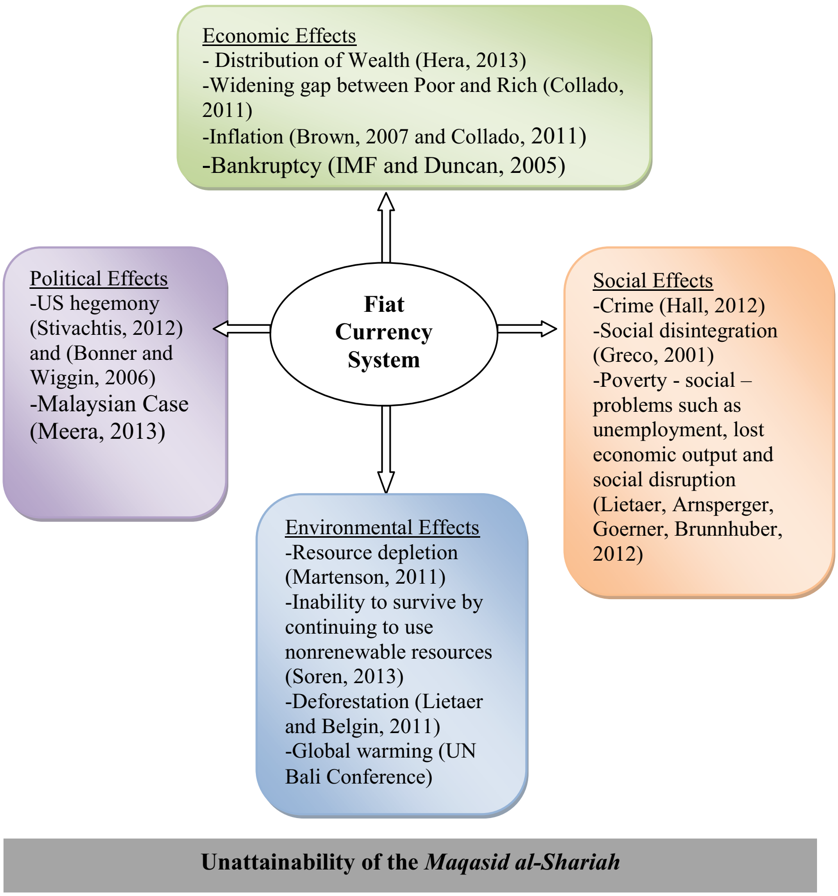
Deforestation activities usually affect poor and developing countries. Some academics have associated deforestation with the problem of fiat money. To survive, these countries borrow funds from international financial institutions such as the IMF and the World Bank. Therefore, the easiest way for these countries to serve the debt and its attached interest is to use their natural resources. For example, there is a high correlation between the top 20 deforested countries in the world and those nations with increased external debts (Meera, 2010). Lietaer and Belgin (2011) asserted that deforestation by developing and poor countries contributes to biodiversity loss, soil erosion and rising temperatures. According to the Food and Agriculture Organization of the UN (FAO), "Deforestation continues at an alarming rate of about 13 million hectares a year" (FAO, 2005), i.e. an area that is half the size of Great Britain. Furthermore, the UN Climate Change Conference in Bali in 2007 warned that deforestation would be one of the main reasons for future climate change (UNFCC, 2007).

4. The current fiat money system from Muslim scholars' perspectives and the results of the survey

4.1 The current fiat money system from Muslim scholars' perspectives

The creation of deposit money by the commercial banking sector has been condemned by certain scholars (Vadillo, 1991). The creation of money is similar to the debasement of money that is considered to be counterfeiting (Mahmood, 2012). Zubair (2008) has criticized current Islamic banking models because they resemble the conventional forms and create debt money from demand deposits. This becomes part of the money supply to the market. In the long run, Islamic banking systems should not follow conventional banking systems, but should formulate their own basic adjustments to provide interest-free financial instruments for depositors (Zubair, 2008). Qualitative analysis has demonstrated the wealth transfer mechanics of the FRB system (Adam, 2015).

From a *Shariah* perspective, the negative socioeconomic effects of the use of fiat money negate Muslims' requirements to attain *maqasid al-Shariah* (Meera and Larbani, 2009, p. 39). Meera and Larbani (2009) have argued that the creation of deposit money by commercial banks can be considered as *riba* (usury) in Islam. This is because the creation of fiat money by banks from multiple deposits creates money "out of thin air"; for some Muslim scholars, this is just like deceiving borrowers by giving them the impression that they are borrowing something tangible when it only exists in virtual form. According to Al-Ghazali, the objective of *Shariah* is to promote the welfare of the people by safeguarding their faith, lives, intellects, prosperity and wealth. All of the effects of fiat money (i.e. its economic, social, political and environmental effects) have been summarized in Figure 3, and are primarily



Sources: Authors' compilation

Figure 3. The unattainability of the *maqasid al-Shariah* owing to the problems arising from fiat money systems

functions of fiat money's failure to create any "store of value" in the money issued. Thus, it is viewable as failing to protect wealth. This is because the value of fiat money is eroded by inflation and has no function as a "store of value". These problems confirm that the current monetary system fails to fulfill the requirement for *maqasid al-Shariah* on the grounds of "preserving wealth" (i.e. *hafiz al-mal*). Furthermore, Taqi (2001), as a judge on the Shariat Appellate Bench of the Supreme Court of Pakistan, has referred to the current monetary system creating money out of nothing as being a form of "forgery and usurpation".

Even in Islam, debt is discouraged, unless someone is in really dire need. It was written that the Prophet Muhammad (peace be upon him) mentioned that he would refuse to pray for a corpse until all its debts were paid by its descendants (Sahih Bukhari Chapter 38, no. 491). Furthermore, Al-Ghazali (1993) asserted that "It is violence on the public to use counterfeit coins. The first man to use such coins will get the sins of every person who subsequently transfers them to other persons". Ibn Tamiyyah (728AH) affirmed that the debasement of money by a ruler is disallowed because it is considered to be an injustice (*zulm*) and against the common benefit (*maslahah 'ammah*).

For this paper, a survey of a number of *Shariah* Muslim scholars has been undertaken to find out their opinions on the issues of debt money created by commercial banks via fractional-reserve ratios. A discussion of the methodology adopted for this research follows.

4.2 Research methodology

The research methodology process was designed based on the objectives of this study – i.e. to find out the opinions of Islamic scholars concerning the concepts that underpin the current fiat money system from their Islamic points of view. The research methodology was divided into three sections: first, the research design; second, the population and study sample; and third, the research instruments.

The research design for this paper was a quantitative investigation of contemporary *Shariah* experts' opinions. Lists of *Shariah* scholars are accessible online (from the International Shariah Research Academy for Islamic Finance [ISRA], the Securities Commission [SC] and Bank Negara Malaysia). However, there are experts not noted by these websites who are experts in Islamic finance. Given this constraint, this study adopted purposive convenient sampling to identify experts in this area.

For this paper, *Shariah* scholars were the population of the study. One hundred *Shariah* scholars were chosen as respondents. Thirty responded but only 26 questionnaire booklets were reviewed, as four of them were rejected because of incomplete answers.

As a research instrument, this study used a questionnaire that consisted mostly of close-ended questions, with some voluntary, open-ended questions included to elicit comments. The close-ended types of questions specified limited alternatives. The interviewees were allowed to give their views and opinions as additional alternative answers to the close-ended questions. A discussion of the questionnaire follows.

The first question was designed to find out whether the respondents had knowledge about how most of the money in the market is created when commercial banks approve new loans. It was considered important to know whether *Shariah* advisors truly understood that most money only existed in non-physical accounting forms.

The second question discussed the issue of whether the current monetary system should move away from fiat money to a gold- and silver-based standard. Therefore, through this question, the researcher aimed to determine whether the current monetary system that consists of money without intrinsic value ought to be returned to the old system, i.e. money of mostly gold and silver with intrinsic value in the opinions of the respondents.

The third and fourth questions discussed the types of money that are acceptable from a *Shariah* point of view (i.e. choices of gold and silver, consumption commodities, representative money, electronic money and paper currencies). This is an important issue because, in the modern economy, money might come in different types and forms such as gold and silver in the physical form, or as commodities such as rice, or as representative money such as gold certificates or as fiat money, like electronic money and paper money that is not backed by gold or silver.

The fifth tried to find out whether fiat money (i.e. money not redeemable for any commodity) is acceptable in *Shariah*. Post the Bretton Woods system, money has no longer been backed by gold and it is merely an IOU issued by the banking system. Therefore, the aim of this question is to find out whether this type of money is acceptable from the *Shariah* point of view.

The sixth question was raised to find out whether the respondents agreed with the statement of some contemporary scholars that "fiat money in the present monetary system is unacceptable money". Some scholars, such as Meera (2010, 2004), Imran (2007) and Vadillo (1991), believe that the system is unacceptable in *Shariah* and therefore should be replaced with another fairer system. All of those scholars believe that the fractional-reserve system is unjust.

The seventh question examined the issue of whether interest charges are acceptable in Islam. The aim of this question was to find out whether interest charges can be considered as being similar to the "cost of borrowing" from a *Shariah* point of view.

The eighth question regarded the issue of whether interest rates can be used as a benchmark in Islamic finance. This is because most practitioners of Islamic finance refer to conventional interest rates as benchmarks in their field and, thus, they are considered to be very viable indices in markets.

The ninth question regarded the statement that interest charges are not *riba* from a *Shariah* perspective. The word "interest" is sometimes used interchangeably with "service charges" in current Islamic banking practices. The purpose of this question is to find out whether "service charges" are similar to interest charges.

Finally, the tenth question regarded the issue of whether FRB, as practiced by the current banking system, is acceptable in *Shariah*. Banking systems, whether conventional or Islamic, are based on the fractional-reserve system, which allows banks to issue amounts of loans that are greater than the amount of cash deposits made by their savers. Therefore, the purpose of this question was to find out whether Islamic scholars accepted the concept of a "fractional-reserve ratio" and whether it was acceptable in *Shariah*.

4.3 Results of the survey on the concept of money amongst Shariah scholars

To find out the opinions of the *Shariah* scholars on the concept underpinning the current monetary system, a survey was undertaken by the researcher. Ten questions were presented to those scholars addressing the concept behind current monetary questions. The results of the survey are discussed (Table II).

4.3.1 Question 1: Most money is created as debt money. Most of the money supply in the current market is created by commercial banks as debt money. Once a customer agrees to sign an IOU agreement, a loan will be released, and thus the money supply in the market is increased automatically. As mentioned earlier, 95 per cent of the money extant has been created as debt by the commercial banking system. Debt money created by commercial banks is also known as "money alchemy" or the "money multiplier". For example, Greco (2001, p. 5) asserted that "in order for money to come into circulation, someone must go into debt to a bank ([with] no bank debt, there would be virtually no money)". Therefore, in this

Questions	Results
Distribution of questionnaire:	*Respondents' opinions*:
i Most money is created as debt when commercial banks give out new loans	73.1% agreed; 3.8% disagreed; and 23.1% didn't know
ii We should move away from paper money to gold and silver as money	15.4% agreed; 15.4 disagreed; and 69.2 were neutral
iii Only gold and silver are money in Islam	19.2% agreed; and 80.8% disagreed
iv Types of money in Islam	50% – gold and silver, consumption commodities, representative money, electronic money and paper currency 15.4% – gold and silver, consumption commodities, representative money and paper currency 15.4% – gold and silver, consumption commodities and representative money 7.7% – gold and silver, consumption commodities and paper currency 3.8% – gold and silver, representative money and paper currency 3.8% – gold and silver, consumption commodities, representative money and electronic money 3.8% – gold and silver and consumption commodities
v Fiat money is acceptable in Islam	57.7% agreed; 11.5% disagreed; and 30.8% were neutral
vi Fiat money is forbidden (*haram*)	15.4% agreed; 76.9% disagreed; and 7.7% were neutral
vii Interest charges are acceptable in Islam	100% disagreed
viii Interest rates can be used as benchmarks in Islamic finance	32% agreed; 36% disagreed; and 32% were neutral
ix Interest charges are not riba in Islamic finance	92.3% disagree; 7.7% didn't know
x Fractional-reserve banking system practiced today is acceptable in Islam	19.2% agreed; 42.3% disagreed; and 38.55% didn't know

Table II.
Summary of results

section, the researcher will try to find out the contemporary *Shariah* scholars' opinions on the argument that "most money is created as debt whenever commercial banks give out new loans".

Most respondents were quite startled by this question, and somehow found it quite confusing. Some respondents even argued whether this question might contain some error because, in their opinions, money and loans are not directly interrelated at all. Some respondents even argued that this question should not be asked, as there is no such thing as commercial banks creating debts as money. This is because some of them still believe that the function of banking systems is mainly to act as intermediaries between depositors and borrowers. The result of this question was: 19 people (73 per cent) agreed, six people (26 per cent) disagreed and one respondent (4 per cent) did not know enough about the topic to answer.

Even though some respondents understood that "most of the money supply is created by commercial banks", they still believed that there was nothing wrong with the system. Surprisingly, two respondents acknowledged this issue; however, they argued that the issuance of fiat money should not be blamed as the main reason for economic turmoil. According to them, economic turmoil arose due to the regulation of financial systems, wars between nations and other valid reasons. Still, one respondent argued that without this system, there would be illiquidity in the market and not enough money. Furthermore, this system could be defended because it is very efficient and is easy to implement.

4.3.2 Question 2: Markets should move away from paper money to gold and silver as money. Owing to problems arising from paper money, some economists have argued that financial systems should move away from using fiat money. Hayek (1976) asserted that governments should not continue to monopolize the supply of money in economies and that other reliable institutions should also be allowed to issue money in the market. He believed that making different types of money available in the market would allow customers to choose the most suitable type of money for their needs. By contrast, according to some Muslim scholars, the use of the current single currencies should be replaced by physical metal currencies of gold and silver. Some Muslim scholars insist that Muslim society should revert to using *Sunnah* money (i.e. gold and silver money as used by the Prophet Muhammad).

For this question, only 15 per cent (four respondents) argued that we should move away from the current paper money to gold and silver. These respondents believed that there are a lot of problems that have arisen from the use of contemporary fiat money, such as lower purchasing power, unstable exchange rates and inflation. Whereas, metal money is much more valuable and its price is more stable.

Those who disagreed argued that, though paper money has some drawbacks, in their opinions, the current fiat money system created only minor problems. They still believed that the current paper currencies remained one of the best types of monetary systems. Therefore, it was not surprising to find that 15 per cent of the respondents disagreed that the current system should be replaced with a gold and silver money system. Some even argued that any transition from the current paper money to bimetallism would be just like asking consumers to change their means of transportation from cars to cow carts. They insisted that it would be costly and inconvenient. Even these respondents believed that gold and silver would not survive as prime money. They claimed that the collapse of the gold standard system established at the Bretton Woods Conference was mainly owing to the drawbacks of the system that created more problems than benefits. Furthermore, Gresham's law asserts that bad money (i.e. paper money) will chase away good money (i.e. commodities money such as gold) from the system because users prefer to hold on to valuable money such as gold to preserve their wealth – i.e. gold has an inherent function as a store of value which would result in its inevitable withdrawal from circulation.

Finally, most of the respondents marked their answers "neutral". Even though some of the respondents agreed that gold and silver are considered as prime money in Islamic economies, based on the *hadith* and the Quran, they acknowledged that modern consumers are used to the paper money system, as it is very convenient. Some respondents informed the researcher that gold and silver are considered as prime money in Islam. However if these two metals are hoarded, other consumer commodities such as rice, salt, dates and other staples could be used as means of exchange.

4.3.3 Question 3: Only gold and silver are money in Islam. With this question, the researcher was trying to find out whether *Shariah* scholars agreed with the statement that: "Only gold and silver are money in Islam". The result of this question was that 81 per cent did not agree.

In all, 81 per cent of *Shariah* scholars believed that money should not be limited to gold and silver. For them, there were many other types of consumption commodities that might be considered as money, such as rice, salt, dates and sugar. This would be true especially in times when there were shortages of supplies of gold and silver as money in the market.

Whereas 19 per cent of the scholars believed that only gold and silver could be considered as prime money in Islam, most asserted that gold and silver were more precious and valuable than paper money, especially as stores of value. For example, the main currencies for Muslims in history were the dinar (gold metal) and dirham (silver metal). It has been stated that these currencies lasted in their historic forms until the collapse of the Ottoman Empire.

4.3.4 Question 4: Types of money in Shariah. Inquiring about types of money in Islam, five choices were offered as follows: gold and silver, consumption commodities, representative money, electronic money or paper currency. The first type of money, gold and silver, referred to the metal gold and silver coins such as the dirham and dinar used in the period prior to the collapse of the Ottoman Empire. The second type of money referred to commodities that are consumed on a daily basis by most people, such as sugar, salt, dates, flour, rice and petroleum. The third type of money is representative money, such as certificates that can be redeemed for gold that were formerly issued by goldsmiths. Representative money could also take the form of wheat issued by warehouses to farmers (as has been the case in parts of Africa). The fourth money form, electronic money, is also known as e-money and is not backed by any commodities. According to Bank Negara Malaysia, this type of payment instrument contains a monetary value that is paid in advance by the user to the e-money issuer (BNM, 2016). Finally, paper currency, which is also known as fiat money, is the current monetary system, such as the US dollar, the ringgit and the baht, that are not backed by any commodities.

A majority of the respondents, 50 per cent (13 respondents), believed that all forms of money should be considered as money; i.e. gold and silver, consumption commodities, representative money, electronic money and paper currency.

Four respondents (15 per cent) argued that electronic money should not be included as money in Islam. This was because this category of money is created virtually and leads to *gharar*, *maysir* and *riba*. Another four people (15 per cent) argued that paper currency should also not be included as money in Islam. Those respondents believed that current economic turmoil was mainly owing to the existence of paper currencies. For example, the quest for unlimited growth by modern countries, the unequal distribution of wealth and wars between nations were blamed by these respondents on the invention of paper currency. One of the respondents even asserted that paper currencies today exist not only in paper forms but also in digital forms (i.e. in electronic banking accounts).

Only one respondent (4 per cent) believed that gold and silver, representative money and paper currencies, but not consumption commodities or electronic money, should be considered as money. In his opinion, electronic money should be considered as *gharar*, as it is virtual money created in digital form. Consumption commodities should be viewed as outdated money or as "orthodox" money. Furthermore, commodities' prices change constantly on global markets (even when assessed as baskets of commodities). As the prices of commodities change almost every day, such rapid changes would lead to commodities being considered as *gharar*.

Just one respondent (4 per cent) believed that all types of money could be considered as money, except paper money. Thus, gold and silver, consumption commodities, representative money and electronic money could be accepted as money. This was because paper money should not be considered as money mostly owing to its seigniorage problems. For example, there are no differences between printing $100 and $50 notes. Both use almost the same paper and accrue the same costs in ink and paper. Furthermore, paper currency is backed by debt that is associated with usury. In that scholar's opinion, it was proven from history that this type of money had created many economic problems. However, this type of money still exists because it is convenient, easy to handle and efficient.

Two respondents (8 per cent) believed that the entire list should be included, except electronic money and representative money. In their opinion, gold and silver, consumption commodities and paper currency should be considered as money. Whereas, electronic money was considered to be *gharar* and representative money might be manipulated by goldsmiths and warehouses. These institutions might issue more representative money than was reflected by the actual amount of commodities in their hands.

Finally, only one respondent believed that there were only two types of money permissible in Islam: bimetallism (gold and silver) and consumption commodities. This respondent argued that only bimetallism and consumption commodities could be considered to be *Sunnah* money as defined by the *hadith* (the tradition of the Prophet) and these were the only forms of money used throughout the history of Islam. This respondent claimed that this type of money has its own intrinsic value, i.e. the value of these forms of money is naturally valuable. For example, classical *Shariah* scholars such as al-Maqrizi, Ibn Khaldun, Ibn Qudamah and al-Ghazali insisted that only the dinar (gold) and the dirham (silver) were valid currencies in Islam (Adam, 2016). However, according to Muhammad and Barakat (2016), most classical *Shariah* scholars were agreed that only gold and silver should be considered as prime money based on *hukm shar'i* (as stated in the Quran and the Sunnah), but some scholars have acknowledged the use of other types of money.

4.3.5 Question 5: Fiat money is acceptable in Islam. This question discussed whether contemporary fiat money (i.e. money that is not redeemable for gold or silver, such as contemporary paper money) is acceptable in Islam.

A majority of respondents believed that the fiat money system is acceptable as a type of money in Islam. Most respondents who agreed argued that modern paper money is convenient and there is no issue arising to justify abandoning it. Some scholars even accepted the system under the concepts of *urf* (tradition) and *adat* (custom). Even though the researcher highlighted the arguments that the current paper currencies had engendered unequal distributions of wealth and economic turmoil, most respondents still believed that these were only minor problems and they were not mainly owing to the fiat currency system. They believed that economic problems, such as recession and inflation, were because of greediness and incompetent economic handling caused by too much debt being issued in the market. The problem of the unequal distribution of wealth was mainly attributed to individual attitudes and was not perceived as being directly related to the paper currency system *per se*.

Only three people (12 per cent) believed that the contemporary monetary system should not be accepted in *Shariah*, as it had brought a lot of problems with its implementation. One of the respondents argued that fiat money should not be accepted in *Shariah* because of its drawbacks, and he believed that Muslim scholars should find an alternative solution to replace fiat money.

Finally, eight respondents (31 per cent) selected the "neutral" answer to this issue. Even though some of them believed that a lot of negative issues had arisen from the fiat money system, some respondents argued that this system was convenient, up-to-date and efficient. Thus, to discontinue the system would bring a good deal of havoc to societies.

4.3.6 Question 6: Present money in the current monetary system is forbidden. Some scholars believe that the present monetary system should be forbidden. For example, Vadillo (1991) asserted that the system should be considered as *haram* (forbidden), as the money created by it is *dayn* (debt) and it is associated with *riba* (usury).

In all, 15 per cent of the respondents (four persons) agreed that this system is forbidden (*haram*) because of the tremendous problems that have arisen from it. In their opinion, wars between and within nations, economic turmoil and the unequal distribution of wealth are all due to this fiat monetary system. Most of them have argued that Muslims should return to using gold and silver coins as money, or some other possible alternative payment systems which avoid *gharar, maysir* and *riba* and promote justice in the market instead.

Most of the respondents, around 20 persons (77 per cent), argued that the system should not be considered as forbidden (*haram*), but should remain functioning. Even among these scholars, there was recognition of fiat money's problems[1], but it was thought that to consider it forbidden (*haram*) would bring havoc to societies. Furthermore, practically speaking, the fiat system is modern and convenient. Some scholars also believed that this system was acceptable under *urf* (tradition) and custom in *Shariah*. Besides, most of the problems that have arisen in the market have not been because of this system in the main. Other contributory factors have led to economic problems such as a lack of knowledge, the inefficient use of economic factors and the attitudes of people in economies.

Finally, only two respondents (8 per cent) argued that they did not know whether this system was allowed or not in *Shariah*. One of them believed that this system was convenient, and to consider it as *haram* would bring havoc to societies.

4.3.7 Question 7: Interest charges are acceptable in Islam. Interest rates are referred to as the compensation cost for money lent, which is paid by borrowers to their creditors. Interest is justified by lenders because the money lent could be used for other investments if it were not already lent out. In Islam, it is obvious that charging interest is forbidden. From a historic point of view, Aristotle asserted that it was immoral to charge interest based on the statement that "interest is the price of time and time belongs to God" (Shajari and Kamalzadeh, 1995). There are so many negative impacts of interest rates on economic activities. For example, lenders get returns without taking any risks in the market themselves. Thus, the ultimate implication of interest is that wealth remains concentrated in a few hands.

In this case, all respondents unanimously agreed that charging interest is forbidden. However, two respondents agreed that even though interest rates are considered to be *haram*, it was possible to use them as *gharamah* ("fines" or penalties) to avoid borrowers delaying future payments. However, the proceeds of *gharamah* should be channeled to charitable institutions and should not be used by banking systems. Some scholars agreed that when discussing the term, most Islamic banks usually used "interest rate" interchangeably with "profit rate". Some respondents mentioned that, even though *Shariah* scholars collectively agreed that charging interest rates was forbidden, in the modern system it was very difficult to avoid its practice, especially in capital markets. One of the respondents argued that interest rates are needed in economies to avoid payment defaults by borrowers. This was because, without this kind of rate, borrowers would usually be disregardful of paying borrowed money back on time. Therefore, verbally, some of the scholars argued that "service charges" such as those used in financial markets by banking systems might be implemented. In their opinion, this rate known as a "service charge" covers the management fees of financial institutions.

4.3.8 Question 8: The use of interest rates as benchmarks in Islamic finance. An interest rate benchmark is the minimum rate of return that investors will accept for buying non-government (non-treasury) securities. It is also a benchmark upon which a floating rate security or interest rate swap is based, such as LIBOR (London), KLIBOR (Kuala Lumpur) and the Federal Fund Rate (New York). These rates are used by banking systems to calculate adjustable rate mortgages or other variable loans.

Eight scholars (31 per cent) agreed that these interest rates can be used as benchmarks in Islamic finance. Most of them claimed that they were the only available benchmarks and easily accessed in capital markets. One respondent explained that some *Shariah* scholars were proposing to use the pork index to replace the current interest rate index, as the price of pork is very stable. Those scholars argued that sins committed with pork were less severe than sins of usury. In their opinion, the use of the pork index might be a better benchmark than the interest rate index in capital markets.

Nine of the respondents (35 per cent) insisted that interest rates should not be used as benchmarks in capital markets. Most of them argued that a group of Islamic finance scholars under ISRA had produced an alternative "Islamic Pricing Benchmark" (ISRA, 2010). However, the benchmark was not accepted by the financial authority (i.e. the Central Bank of Malaysia) and has not been used in the market.

Finally, nine respondents (35 per cent) chose to remain neutral on this question. Most of these believed that the use of interest rates as a benchmark in Islamic finance was not applicable in *Shariah*. However, as this benchmark is the only available benchmark in the market, its use was permissible but not encouraged. Once an Islamic pricing benchmark index was available in the market, Islamic users should automatically switch to it.

4.3.9 Question 9: Interest charges are not riba in Islamic economic systems. On this issue, no respondents agreed with the statement that interest charges are not *riba* in Islam. It has been proven from an academic perspective that most Islamic economists and Muslim scholars agreed that money capital should not be treated as being similar to other productive factors or commodities. It is believed that the lending of money is prohibited by most monotheistic religions (Harran, 1993).

However, two of the respondents chose to answer that they did not know. Both of these respondents agreed that interest charges were *riba* and forbidden in *Shariah*. However, in contemporary Islamic financial institutions, the words "interest rate" have become interchangeable with the words "profit rate" and vice versa.

4.3.10 Question 10: The fractional-reserve banking system, as practiced today, is acceptable in Islam. In the current financial system, the banking system holds only a fraction of the total deposits made by consumers as real cash-in-hand. The banking system issues loans for amounts that are more than their total amounts of deposits. Transactions have been made possible by the invention of "checks", credit cards, e-banking and mobile banking systems. Presently, most of the total money that exists is in the form of digital bits in bank computers and this is known as money alchemy or the money multiplier. The amount of "invisible" money is dependent on the percentage offset as the fractional-reserve ratio. For example, if the reserve ratio is 1 per cent, that means that the banks can theoretically loan out 100 times more than their real held cash.

For this question, five respondents (19 per cent) believed that the fractional-reserve ratio system was acceptable. Most of them regarded this system as modern, up-to-date and convenient. Furthermore, they believed that the system has few drawbacks and can be accepted under the concepts of *urf* and custom in *Shariah*. Some of them asserted that it would be quite costly and inefficient to revert to using metal coins such as gold and silver. As stated above, such a scenario would be like demanding that consumers regress to using cow carts instead of cars.

Around 11 people (42 per cent) believed that the fractional-reserve ratio system was not acceptable in Islam. Four of them verified that they thought that this system should be abandoned. Seven were not really sure whether to abandon the system or not, as they admitted that they had too little knowledge about the issue. Some even confessed that they were confused by this issue.

Ten respondents (39 per cent) marked this issue as "do not know". Of those ten people, one of them understood the problems without doubt. However, he still couldn't make up his mind about it because he believed that this system was the most efficient and the only one available in the market.

4.4 Statistical analysis for the research

The respondents for this study were a sampled proportion taken from the population of *Shariah* scholars in Malaysia. Thus, inferential statistics were used to test the opinions of

Shariah scholars for the questionnaire distributed as part of this study. For this research, hypothesis testing for a proportion was used to verify the sample's results so that they could be considered as representative of the opinions of the wider population of *Shariah* scholars. The results were analyzed using IBM SPSS software, and the answers were coded as "YES 0", "NO 1" and "NEUTRAL 2". For this study, the opinions of the majority of *Shariah* scholars (i.e. more than 50 per cent) would be verified if they were similar to the expected results of this research.

Five steps of proportion hypothesis testing were undertaken for this research. First, for each question given, the null and alternative hypotheses were identified. Actually, the alternative hypothesis represented the expected results of the questionnaire. Second, a *t*-test was chosen for this statistical calculation. Third, the *p*-value was determined based on the *t*-test calculation. Fourth, the *p*-value was used to reject or to accept the null and alternative hypotheses. Based on the calculations below, in this case, if the *p*-value was smaller or similar to the significance level of 5 per cent (or 0.05) at an α of 1.708, the null hypothesis was rejected. However, if the *p*-value was greater than the significance level of 5 per cent (or 0.05) at an α of 1.708, the null hypothesis was not rejected. Finally, the conclusions of the comparisons (especially for the insignificant issues), based on the original research question and expected results, were presented.

The *t*-test calculation was based on this formula:

$$t_{25,\,0.05} = \frac{p - p_0}{\sqrt{\dfrac{P_0(1 - P_0)}{n}}}$$

$$= \frac{p - 0.5}{\sqrt{\dfrac{0.5\,(1 - 0.5)}{26}}}$$

= if the result was greater than 1.708, the null hypothesis would be rejected.

Table III summarizes the results of the hypothesis testing for this research. Most of the results were significant, except for a few controversial issues. Whenever the results given by the majority of *Shariah* scholars were similar with the expected results, it was considered as significant. Whereas if the results given by the majority of *Shariah* scholars were not similar with the expected results, these were considered to be insignificant.

In this paper, six questions were found to be insignificant. These issues were:

- whether we should move away from paper money to gold and silver as money;
- permissible types of money from a *Shariah* perspective;
- whether fiat money is unacceptable from a *Shariah* perspective;
- whether the interest rate can be used as a benchmark in Islamic finance; and
- whether the fractional-reserve ratio system practiced today is acceptable from the *Shariah* scholars' perspectives.

5. Summary of research and recommendation

Based on the objectives of this research, the results showed that most *Shariah* scholars did not unanimously agree about most of the questions related to the concepts about the current fiat money system that were presented to them. The only question that *Shariah* scholars collectively

Questions	Hypothesis	Results	Expected results	*T*- test (table t = 1.708)	Decision
Most money is created as debt when commercial banks give out new loans	*H0*: Majority (i.e. more than 50%) of Islamic scholars disagreed that money is created when commercial banks give out new loans. *H0*: $p \leq 0.5$ *H1*: Majority (i.e. more than 50%) of Islamic scholars agreed that money is created when commercial banks give out new loans. *H1*: $p > 0.5$	Yes 19 No 1 Neutral 6 Total 26	Yes $p = 73\%$	2.3455	Reject null hypothesis
We should move away from paper money to gold and silver as money	*H0*: Majority (i.e. more than 50%) of Islamic scholars disagreed that we should move away from paper money to gold and silver. *H0*: $p \leq 0.5$ *H1*: Majority (i.e. more than 50%) of Islamic scholars agreed that we should move away from paper money to gold and silver. *H1*: $p > 0.5$	Yes 4 No 4 Neutral 18 Total 26	Yes $p = 15\%$	−3.569	Null hypothesis cannot be rejected
Only gold and silver are money in Islam	*H0*: Majority (i.e. more than 50%) of Islamic scholars agreed that only gold and silver are money in Islam. *H0*: $p \geq 0.5$ *H1*: Majority (i.e. more than 50%) of Islamic scholars disagreed that only gold and silver are money in Islam. *H1*: $p < 0.5$	Yes 5 No 21 Total 26	No $p = 19.2\%$	−3.14	Reject null hypothesis
Types of money in Islam	*H0*: Majority (i.e. more than 50%) of Islamic scholars disagreed that all types of money (i.e. gold and silver, consumption commodities, representative money, electronic money and paper money) are money in Islam. *H0*: $p \leq 0.5$ *H1*: Majority (i.e. more than 50%) of Islamic scholars agreed that all types of money (i.e. gold and silver, consumption commodities, representative money,	Yes 13 No 13 Total 26	Yes $p = 50\%$	0	Null hypothesis cannot be rejected

(*continued*)

Table III.
Statistical analysis: hypothesis testing

Questions	Hypothesis	Results	Expected results	*T*- test (table t = 1.708)	Decision
	electronic money and paper money) are money in Islam. *H1*: $p > 0.5$				
Fiat money is acceptable in Islam	*H0*: Majority (i.e. more than 50%) of Islamic scholars agreed that fiat money is acceptable in Islam. *H0*: $p \geq 0.5$ *H1*: Majority (i.e. more than 50%) of Islamic scholars disagreed that fiat money is acceptable in Islam. *H1*: $p < 0.5$	Yes 15 No 3 Neutral 8 Total 26	No $p = 11.5\%$	−3.926	Null hypothesis cannot be rejected
Do you agree with some scholars who say that the present fiat money is unacceptable?	*H0*: Majority (i.e. more than 50%) of Islamic scholars disagreed with statement that the current fiat money is unacceptable in Islam. *H0*: $p \leq 0.5$ *H1*: Majority (i.e. more than 50%) of Islamic scholars agreed with statement that the current fiat money is unacceptable in Islam. *H1*: $p > 0.5$	Yes 4 No 20 Don't know 2 Total 26	Yes $p = 15.4\%$	−3.528	Null hypothesis cannot be rejected
Questions on interest rates and the fractional-reserve ratio: Interest charges are acceptable in Islam	*H0:* Majority (i.e. more than 50%) of Islamic scholars agreed that interest charges are acceptable in Islam. *H0*: $p \geq 0.5$ *H1*: Majority (i.e. more than 50%) of Islamic scholars disagreed that interest charges are acceptable in Islam. *H1*: $p < 0.5$	No 26 Yes 0 Total 26	No $p = 0\%$	−5.0989	Reject null hypothesis
Interest rates can be used as benchmarks in Islamic finance	*H0*: Majority (i.e. more than 50%) of Islamic scholars agreed that interest rates can be used as benchmarks in Islamic finance. *H0*: $p \geq 0.5$ *H1*: Majority (i.e. more than 50%) of Islamic scholars disagreed that interest rates can be used as benchmarks in Islamic finance. *H1*: $p < 0.5$	Yes 8 No 9 Neutral 9 Total 26	No $p = 34.6\%$	−1.96	Reject null hypothesis
Interest is not *riba* in Islam	*H0*: Majority (i.e. more than 50%) of Islamic scholars	Disagree 24	Disagree $p = 92.3\%$	4.314	Reject null hypothesis

Table III. (*continued*)

Table III.

Questions	Hypothesis	Results	Expected results	*T*- test (table *t* = 1.708)	Decision
	agreed that interest is not *riba* in Islam. *H0*: $p \leq 0.5$ *H1*: Majority (i.e. more than 50%) of Islamic scholars disagreed that interest is not *riba* in Islam. *H1*: $p > 0.5$	Agree 0 Don't know 2 Total 26			
Fractional-reserve banking system practiced today is acceptable in Islam	*H0*: Majority (i.e. more than 50%) of Islamic scholars agreed that the fractional-reserve banking system practiced today is acceptable in Islam. *H0*: $p \geq 0.5$ *H1*: Majority (i.e. more than 50%) of Islamic scholars disagreed that the fractional-reserve banking system practiced today is acceptable in Islam. *H1*: $p \leq 0.5$	Yes 5 No 11 Neutral 10 Total 26	No $p =$ 19.25%	−3.14	Reject null hypothesis

agreed on was the issue of interest rates being considered as usurious (*riba*). Though, as has been mentioned by Lietaer (2001), the teachings of all three "religions of the book" – i.e. Judaism, Christianity and Islam – outlaw usury and the charging of interest on money and, according to him, only Muslim scholars still preach that interest (usury) should be banned by societies.

On the issue of types of money, *Shariah* scholars are undecided about which types are permissible (i.e. consumption commodities, representative money, electronic money, electronic money or paper currencies). However, they unanimously agreed that gold and silver should be considered as prime money in Islam. Nevertheless, most of the *Shariah* scholars who were questioned asserted that they were still confused by the concept of the creation of money as debt by commercial banks operating under FRB. They admitted that they have limited knowledge of this issue.

In conclusion, based on this survey, most of our *Shariah* scholars were unaware of and confused by the mechanics of money creation, especially in respect of the issue of FRB for both the conventional and Islamic banking systems. It is recommended that these scholars should upgrade their understanding of the alchemy of the fiat money system and its consequences. They should realize that commercial banking systems create money out of nothing by the issuance of loans to borrowers. They should also seek to comprehend the damage caused by the alchemy of fiat money to societies and nations. Even though some scholars admitted that they understood the system and its dangers, they saw it as the only available system in the contemporary market. With the high remuneration given to them, *Shariah* scholars should not create financial products that resemble those of the conventional system. If it is possible, an Islamic financial instrument created "outside of the box" of the conventional system should be developed by them.

Note

1. Such as economic turmoil (booms and downturns), disparities of income between rich and poor and the concentration of economic and political power in too few hands.

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