

Walden University

College of Management and Technology

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Robinson Ogavu

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Chief Academic Officer
Eric Riedel, Ph.D.

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Abstract

International Taxation: The Challenges of Regulating Transfer Pricing Manipulation in
the United States

by

Robinson C. Ogavu

MBA, Texas Southern University, 1999

BS, Texas Southern University, 1996

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

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Abstract

Some large foreign and domestic controlled multinational enterprises (MNEs) report zero income and zero tax liabilities to the U.S Treasury. Taxpayers' underreporting of their tax revenues to the Treasury negatively affects government's tax base and essential services to taxpayers. To protect the government's tax base, the U.S. Treasury updated the 1968 transfer pricing regulations of intercompany services in 2006. The purpose of this quantitative study was to address the following 2 research questions. First, it examined how effective the updated transfer pricing regulations of intercompany services were in preventing MNEs from underreporting their income in the United States. Second, it assessed how the changes in the IRS enforcement budgets affected the income MNEs reported to the U.S Treasury between 2000 and 2009. The theories of tax equity, economics, and strategic management guided the study. A control group time-series and regression analysis showed that MNEs reported increased income in the United States after the implementation of the updated regulation. Regression analysis also showed that changes in IRS' enforcement budgets had no direct relationship with the income MNEs reported in the United States. The study's findings and recommendations should benefit U.S. business taxpayers and lawmakers directly. Recommendations for action include a reduction of U.S corporate income tax rate and amendments to U.S international tax provisions. The implementation of the recommendations would result in new business investments and new job creations in the United States. The potential new business investments and jobs would result in positive economic and social changes to U.S business taxpayers in particular, and to the U.S economy in general.

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Dedication

The divine blessings of the Almighty God made the completion of this study possible. I thank God for providing me with the inner strength, the knowledge, and the good health that enabled me to reach the end of this doctoral journey. I equally thank God for blessing me with the most wonderful, supportive, and inspirational family members who cheered me on throughout the research process. I pray for God's continuous inspirations and blessings in all my future endeavors.

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Chapter 1: Introduction

Prior to the implementation of the temporary and proposed transfer pricing regulations of intercompany services in 2006, Congress enacted the existing transfer pricing rules applicable to intercompany services in 1968 (Department of the Treasury, 2006). In 2006, the Treasury Department and the IRS implemented the proposed and temporary transfer pricing regulations of intercompany services, to address some of the shortfalls of the outdated 1968 transfer pricing regulations of services (Department of the Treasury, 2006). To design future optimal tax systems, it is crucial to measure the effectiveness of changes to existing regulations. To my knowledge, no previous studies measured the effectiveness of the implemented changes to transfer pricing regulations of intercompany services in preventing MNEs from underreporting their income in the U.S, between 2000 and 2009. I equally could not find prior studies on the relationships between IRS enforcement budgets, and the pretax income that MNEs, in the service industry, reported to the U.S Treasury between 2000 and 2009

The purpose of this quantitative study was to evaluate the effectiveness of the U.S government's efforts to mitigate the loss of tax revenues to MNEs conducting business in the United States. To conduct the study, I used existing data from the IRS statistics of income (SOI) database. I evaluated the relationships between the updated transfer pricing regulations of intercompany services, the relationship between increases in the IRS enforcement budgets, and the pretax income that MNEs, in the service industry, reported to the U.S Treasury between 2000 and 2009. Absolute proof of the effectiveness of the changes in transfer pricing regulations of intercompany services, and the effects of the

increases in the IRS enforcement budgets on reportable income was beyond the scope of this study. Future researchers could use this study's recommendations to perform experimental studies to explore such cause and effect relationships. However, my analysis showed the extent of the relationships among the variables measured.

Given that I could not introduce, or manipulate the independent variables (changes in transfer pricing of intercompany services and changes in IRS enforcement budgets), casual comparative research design, and the use of existing data, was the most suitable design for the study. The independent variables in this study were already available and identifiable from the IRS database. To measure the relationships among the variables, I used profit level indicators, as described under Treasury regulation 1.482-9, to evaluate the effects of the 2006 changes to transfer pricing regulation of intercompany services, on the pretax income MNEs reported in the United States.

The use of profit level indicators in this study was consistent with the measures prior researchers used to conduct similar studies. For example, Grubert, Goodspeed, Swenson (1993), Government Accountability Office (GAO; 1992), and GAO (1995) used profit level indicators to investigate the persistency of transfer pricing abuses in the United States. Grubert et al. used the ratio of taxable income to assets to compare the profitability levels of Foreign-controlled domestic corporations (FCDC) and domestic-controlled corporations. GAO (1992) and GAO (1995) used the ratio of gross profit to sales as the profit level indicator to investigate possible foreign controlled corporations' transfer pricing abuses. GAO (1992) showed lower gross profit to sales ratio for foreign controlled corporations than U.S domestic corporations. GAO (1992) noted that the

observation might be an indication that FCDCs paid more for goods as a percentage of sales than U.S domestic corporations, but not an absolute proof of transfer pricing abuses. The findings of the three studies above indicated that large foreign-controlled corporations (FCC) were more likely than U.S. controlled corporations to pay zero U.S. income taxes.

Similar to the other studies, I used the ratio of operating profit to total service costs as the profit level indicator to measure the effects of the updated transfer pricing regulation on the income, which MNEs reported in the United States between 2000 and 2009. I compared the profit levels of FCDCs in the service industry to the profit levels of non-foreign-controlled domestic corporations in the same industry, between 2000 and 2009. FCDC in the service industry was the tested group, and the domestic corporation was the control group. To evaluate the effects of increases in the IRS budgets on the income MNEs reported in the United State, I evaluated the effects of IRS annual compliance budget ratio (CBR) (compliance budget divided by total returns FCDCs filed) on the pretax income ratio (PTIR) (pretax income FCDCs reported divided by the total returns filed).

The pricing of intercompany transactions affects the distribution of profits and, therefore, the taxable income affiliated multinational companies report, across tax jurisdictions (GAO, 1995). Abusive transfer pricing occurs when controlled MNEs allocate income and expenses among their interrelated entities improperly to reduce taxable income in high-tax jurisdictions (GAO, 1995). The U.S. government's objectives to protect its income tax revenue base and business taxpayers' objectives to maximize

and protect their profits conflict with one another. The conflicting objectives have created rivalries between the two entities. The U.S. GAO (2008) and the IRS (2012) reported that a majority of FCCs and domestic-controlled corporations (CFCs) benefit from U.S markets, government services, and tax incentives, but pay little or no income taxes to the U.S Treasury. GAO (2008), Sullivan (2012), Johnson (2012), and the IRS (2012) have reported that MNEs use transfer-pricing schemes to shift income from countries that have high marginal tax rates to foreign countries that have low marginal tax rates. Congress enacted section 482 (§ 482) of the IRS Code to prevent controlled multinational taxpayers from avoiding U.S. income tax burdens through transfer pricing manipulations (Reg. § 1.482-1). The primary objective of the code section was to ensure that multinational enterprises sell goods and services among their affiliated entities at arm's length (Reg. § 1.482-1). The government's ultimate goal is to ensure that multinational corporations report and pay their fair share of the U.S. tax burden on their worldwide income accurately (Federal Register 33 FR 5849, 1968).

Since enacted under the Revenue Act (1928), Congress and the Treasury Department have made changes to the existing regulations and added new ones (Federal Register 33 FR 5849, 1968). These changes are also published in Federal Register July 8, 1994, December 20, 1995, May 13, 1996, and August 26, 2003 (Department of the Treasury, 2009). According to GAO (1992), the global economy and international transactions have evolved and grown in complexity since 1928. In addition, the Treasury Department and the IRS spent taxpayers' resources in implementing and enforcing changes to the transfer pricing regulations (GAO, 2005; IRS, 2012). Given the frequent

changes in U.S. tax policies and legislations, the enforcement costs, and the evolving nature of the global economy, there is a need for researchers to evaluate the effectiveness of certain provisions of the U.S transfer pricing regulations frequently.

In this chapter, I focused on the presentations and analysis of the problems attributable to multinational corporations' (MNCs) abilities to shift taxable income from the United States to foreign countries to circumvent U.S tax liabilities. I integrated the interplay of the equity, the economics, and the strategic management theories of taxation.

Tax Incentives and Income Shifting

Multinational corporations and wealthy individual taxpayers take advantages of the large U.S. consumer markets and the business tax incentives congress provided in the tax code (GAO, 2008). However, the multinational corporations have the abilities to shift their income from the U.S. to foreign countries, and offshore bank accounts, to avoid U.S income taxes. The GAO (1993, 2008) showed that some large multinational corporations conducting businesses in the United States pay little or no income taxes to the U.S Treasury. The loss of tax revenues to MNEs and wealthy individual taxpayers is a problem that the U.S Treasury has been struggling to solve for many years (GAO, 2008).

A series of events has renewed people's concerns about the problems of income shifting, and the U.S. governments' attention to the increasing loss of tax revenues to controlled MNEs and wealthy individual taxpayers. The first of the recent events is the general decline of the U.S. economy; the second is the Congressional Budget Office's (CBO, 2011) projected budget deficits of about \$6.9 trillion between 2012 and 2021. The third is the \$450 billion increasing tax gap, which the IRS estimated in January of 2012 (GAO, 2012). These events have refocused politicians, and the public's attention to the loss of tax revenues to MNEs and wealthy individual taxpayers at the expense of the U.S. Treasury. The 2012 presidential election debates about the renewal of the expiring tax incentives available to business taxpayers, under the Jobs and Growth Tax Relief Reconciliation Act (2003), underscored the renewed concerns and the relevance of the problem.

The U.S. government wrote its tax laws and the code of federal regulations in part to generate tax revenues (GAO, 2005). Certain provisions of the regulations provide incentives to stimulate economic growth and technological innovations. An example of the tax incentives is the research and developments (R&D) tax credit, described under section 41 of the Internal Revenue Code (Code § 41), and under the treasury regulation section 1.41-2 (Reg. §1.41-2). Another example is the general business tax credit described under section 38 of the tax code (Code § 38). Other examples are the incentives provided under the Jobs and Growth Tax Relief Reconciliation Act (2003), which expired at the end of 2012, but renewed, with some modifications, in January of 2013. Some of the tax incentives, under the Jobs and Growth Tax Relief Reconciliation Act, benefit large corporations and wealthy individual taxpayers more than they benefit the average taxpayers. For instance, the legislation reduced the tax rates on capital gains and dividends and provided bonus depreciation for business assets among other tax incentives (GPO - 117 STAT. 752, 2003). Given their capabilities and propensities to invest, business taxpayers and wealthy individual investors benefited disproportionately from the reduced tax rate on capital gains, and the bonus depreciation of business assets. Additional examples of the business tax incentives allowed under the tax code are the development tax credit, the investment tax credit, the new markets tax credit, the alcohol fuel credit, and the enhanced oil recovery credit, among others (Code § 38, 1986).

Among the listed tax incentives designed to benefit business taxpayers, the R&D tax credits are of great importance to multinational corporations. MNEs invest in the R&D activities and other intangible properties. Businesses spent about \$398 billion in

R&D related activities, an increase from \$373 billion reported in 2007 (US National Science Foundation, 2010). To encourage continued investments in technological innovations and research activities, section 41 of the U.S. tax code allows businesses to obtain tax credits for most of the expenses they invested in qualified R&D activities.

Some researchers support public's perceptions that MNEs and wealthy individual taxpayers exploit the U.S. consumer markets and tax incentives, but in most cases, pay zero or lower taxes than average taxpayers pay (GAO, 2008). Other researchers have also indicated that MNEs use their resources and various management strategies to circumvent enacted tax laws and regulations in certain countries. For example, the GAO (2008), Sullivan (2012) Johnson (2012), and the IRS (2012) showed the pervasiveness of income shifting problems and U.S. Treasury's loss of tax revenues.

The complexities and the global structure of controlled MNEs enable them to mitigate or eliminate their U.S. income tax liabilities by shifting income and expenses from one country to another through transfer pricing schemes (Eden, 2009). For example, GAO (2008) showed that 83 % of the largest U.S. public companies had subsidiaries in foreign countries listed as tax havens in 2007. The GAO also found that 63 % of the largest U.S federal contractors in 2007 had subsidiaries in tax haven countries. Sullivan (2012) highlighted that the Apple Corporation is one of the most admired companies in the world and among the multinational corporations that conduct most of their research and development activities in the United States. Apple Corporation takes advantages of the tax deductions and credits related to its qualified incremental research and development activities available in the U.S tax code. However, the company paid taxes

on only 30 % of its income in 2010 to the U.S Treasury (Sullivan, 2012). Sullivan stated that Apple Inc. exploited the loopholes in U.S transfer pricing regulations to reduce its federal tax bills by billions of dollar in 2011.

Similarly, Johnson (2012) stated that judging from its equity of about \$194 billion at the end of 2010, General Electric (GE) was the second richest company in the world as of 2010. However, GE paid little or no income taxes in the United States in 2010, essentially. Johnson also stated that GE's economic income in 2010 was about \$19 billion, but the company paid only 0.02 % tax rate. Compared to the corporate tax rate of 35 %, GE's effective tax rate of 0.02 is noteworthy. Johnson claimed that the U.S. tax code allowed GE, and similar large multinational corporations, too many deductions and opportunities to avoid U.S. income taxes. Using the loopholes in the U.S. tax code and the Generally Accepted Accounting Principles (GAAP) to shift income from the U.S to foreign tax jurisdictions, GE saved about \$6.8 billion in taxes in 2010 at the expense of the U.S government (Johnson, 2012). These findings supported the IRS assertion that corporate taxpayers underreport their income in the United States. The IRS (2012) attributed the \$67 billion of the total gross tax gap in 2006 to corporations' underreporting of their taxable income. The findings also underscored MNEs' abilities to circumvent existing U.S international tax regulations. It also highlighted the need for updated studies to evaluate the effectiveness of the changes congress makes to U.S transfer pricing regulations, under section 482.

More studies are necessary to address some of the fundamental issues regarding income shifting in the United States comprehensively. Examples of the issues are the

measures that the U.S government has taken to protect the erosion of its tax base and the loss of tax revenues to multinational corporations. Another issue is the challenges that U.S tax authorities face in finding optimal solutions to the problem of income shifting. Others are whether the U.S. government should implement a comprehensive reform of its international tax laws, or continue with its current reactive, case-by-case, approach of making changes when needed. Given the evolving nature of the international business environments and the global economy, interested researchers should address these fundamental questions regularly. In this study, I examined how effective the updated transfer pricing regulations of intercompany services prevented MNEs from underreporting their income in the United States, and how changes in the IRS enforcement budgets affected the income MNEs reported to the U.S Treasury between 2000 and 2009.

Problem Statement

Most large foreign-controlled and domestic-controlled multinational corporations reported zero tax liability and zero income to the U.S Treasury in 2005 (GAO, 2008). In 2008, the U.S. Treasury reported an estimated loss of about \$100 billion of tax revenues to large corporations and individual taxpayers (U.S. Senate Permanent Subcommittee on Investigations, 2008). In 2012, the IRS estimated that corporations' underreporting of their taxable income contributed to \$67 billion of the existing gross tax gap of \$450 billion (GAO, 2012). GAO (2012) showed that the tax gap has been a problem for the Treasury, in spite of congressional and IRS efforts to reduce the tax gap. The loss of the tax revenues was attributable to multinational corporations and wealthy individual taxpayers' abilities to shift income from the United States to foreign tax havens, and secret offshore bank accounts (GAO, 2008).

Prior to the implementation of the temporary and proposed transfer pricing regulations of intercompany services in 2006, Congress issued the existing transfer pricing regulation applicable to intercompany services in 1968 (Department of the Treasury, 2006). Since 1968, intercompany service transactions among multinational corporations, have become an integral part of the United States and the global economy. In some cases, the outdated transfer pricing regulations created distortions of transfer prices of services among affiliated taxpayers (Department of the Treasury, 2006). Furthermore, the lack of updated transfer pricing regulations of intercompany services created discontinuity between the transfer prices for services and transfer prices for tangible and intangible products (Department of the Treasury, 2006). The objective of this

study was to evaluate the effects of the updated transfer pricing regulations of intercompany services, and the effects of increases in IRS enforcement budgets on the taxable income, which MNEs, reported in the U. S between 2000 and 2009.

Background of the Study

Income tax revenue has been a component of the U.S. government's revenue base and annual budgets since 1861 (The Library of Congress, 1861). It has also been a source of conflict between tax authorities and taxpayers. The imposition and collection of income taxes have been a subject of political debates among U.S. politicians since 1864 (Congressional Globe, 1864). The United States has a progressive income tax system and taxes its citizens and residents on their worldwide income (IRS Code § 61, 1986). To ensure the optimal collection of tax revenues from controlled business enterprises, the U.S. government enacted section 482 of the tax code (Reg. § 1.482-1, 1986). The code section granted the IRS the authority to reallocate income and deductions among controlled multinational enterprises to ensure that business taxpayers pay their fair share of U.S. tax burdens (§ 1.482-1). On the other hand, business taxpayers, especially the MNEs, employ different strategies to protect their profits from excessive taxation. The manipulation of the transfer prices, which controlled business enterprises charge to their affiliated entities for goods and services, is among the strategies MNEs employ to mitigate their global tax liabilities (Sullivan, 2012).

In a recent government report, prepared for members and committees of congress regarding international tax avoidance and evasions, the U.S. Senate Permanent Subcommittee on Investigations (2008) reported that the U.S. Treasury lost about \$100 billion of estimated tax revenues. The subcommittee attributed the loss of tax revenues to large corporations, and wealthy individual taxpayers' abilities to shift income from the U.S to foreign tax havens, and secret offshore banks accounts. The Subcommittee

claimed that U.S. citizens and foreigners hid trillions of dollars in assets in secret offshore banks. In a similar report, GAO (2008) showed that high percentages of large foreign-controlled domestic and U.S. controlled corporations reported zero tax liabilities between 1998 and 2005. In addition, the IRS published its most recent report on the estimated gross tax gap in the U.S. in January of 2012. The agency estimated a total of \$450 billion in gross tax gap for the tax year 2006, an increase of \$105 billion from the previous estimate of \$345 billion, reported in 2004 (GAO, 2012). According to the IRS, the gross tax gap included the non filing gap, the underreporting gap, and the underpayment gap. The GAO showed that corporations' underreporting of their taxable income accounted for \$67 billion of the total gross tax gap. These findings underscored the magnitude and the importance of the problem. It also highlighted the need for continuous studies to find optimal solutions to the income-shifting problem.

The loss of tax revenues to multinational corporations through transfer pricing manipulations has been a problem that the U.S. government and its global partners have been struggling to resolve. Finding the optimal solutions to mitigate the loss of tax revenues to controlled MNEs is critical to the U.S. Treasury. The IRS (2009) claimed that the international tax gap attributable to income shifting and transfer pricing manipulations ranged from \$40 billion to \$123 billion annually. The growing global business activities are widening the tax gap. The IRS (2009) documented that international businesses and investments in the United States increased from \$188 billion in 1976 to \$14.5 trillion in 2007. At the same period, the U.S. businesses and investments overseas grew from \$368 billion to \$15 trillion (IRS, 2009). The U.S Department of

Treasury and many foreign tax authorities increased their scrutiny and regulations of international transactions to keep up with the evolving nature of the global economy. The tax authorities increased their monitoring and legislation of MNE's international transactions to protect their income tax bases. The IRS has implemented new regulations and other innovative initiatives to ensure that MNEs conducting businesses in the United States are reporting their share of taxable income in the United States. The IRS has invested money and other resources to ensure that MNEs are complying with the implemented transfer pricing rules and regulations.

Given the continued growth of international businesses activities, and the persistent loss of tax revenues through transfer pricing schemes, there is a need for interested scholars to evaluate the effectiveness of the changes congress made to the transfer pricing legislation regularly. The abuse of the transfer prices that multinational enterprises charge to their global affiliated entities distorts the true prices of the goods and services transacted. It also provides unfair tax advantages to the multinational enterprises involved. Hence, the objective of this study was to evaluate the relationship between the recent changes to the U.S transfer pricing regulations of intercompany services and the taxable income MNEs, in the service industry, reported in the United States between 2000 and 2009.

The Origin of U.S. Transfer Pricing Regulations

The business practice of shifting income from one affiliated entity to another to circumvent U.S. tax laws is not a new phenomenon in the United States. As early as 1917, the U.S. government became concerned that related companies conducting businesses in the United States were not paying their appropriate share of the income tax burdens (Treasury Department, 1988). In 1917, congress granted the IRS the authority to allocate income and deductions among affiliated corporations (Treasury Department, 1988). Under that authority, the IRS could also require related corporations to file consolidated tax returns when necessary to determine taxable income more equitably. To prevent the erosion of its tax revenue base, the U.S. congress enacted section 45 of the tax code under the revenue act of 1928. Section 45-the predecessor of the current section 482 of the U.S. tax code- authorized the commissioner to allocate gross income and deductions among controlled business entities (U.S. Revenue Act, 1928).

Concerned that affiliated corporations could sell goods and services to their related entities at artificial prices, congress adopted the principle of arm's length, as the fundamental principle guiding section 45 in 1935 (U.S. Revenue Act, 1935). According to the concept of arm's length, controlled businesses should sell similar goods and services to their affiliated entities and nonaffiliated entities at the same or similar prices. During the amendment of the internal revenue code of 1954, the Treasury renamed section 45 to section 482, without changes to its core provisions (Murdoch, 1965).

Before the U.S. Treasury implemented new transfer pricing regulations in 1968, corporations with international affiliations operated under the assumption that section 482

applied only to domestic businesses (Treasury Department, 1988). In the 1960s, there were increases in international transactions among U.S. multinational corporations and their foreign-affiliated entities. Given the increased international activities, in 1961 the Treasury requested that congress made changes to section 482 to protect U.S. tax revenue bases. In 1962, congress authorized the Treasury to explore and implement suitable options, including additional regulations and guidelines necessary to achieve the Treasury's objectives, under its existing authorities to allocate income and deductions (Treasury Department, 1988).

In response, the Treasury issued new regulations guided by the arm's length principles in 1968. The new regulations applied to the performance of services and licensing or sale of intangible and tangible assets. For the performance of services, the regulations did not provide any guidance to determine transfer prices when comparable transactions were unavailable (Treasury Department, 1988). For tangible assets, section 482 provided three methods for determining the appropriate arm's length price (section 482-1). The methods are the comparable uncontrolled price method, the cost plus method, and the resale price method (Treasury Department, 1988). The three methods relied on comparable transactions to determine arm's length prices. For the intangibles, the regulation provided a list of factors that taxpayers should consider when there were no comparable. The factors include the prevailing rates in the industry, competitor's offers, the uniqueness of the property and its legal protection, anticipated profits to be generated by the intangible, and the required investments necessary to use the intangibles (Treasury Department, 1988).

Since 1968, both congress and the Treasury Department have made several changes to the transfer pricing rules and regulations. For instance, in 1986, congress modified section 482 by adding commensurate with income provision to the code section (IRS Code, 1986). The new provision states that income related to a third party transfer of intangible assets should be commensurate with the income attributable to the intangible assets (Reg. § 1.482-4, 1986). Congress enacted the commensurate with income standard to address the problem of determining the arm's length prices of certain intangible properties when there are no existing comparable transactions (Joint Committee on Taxation, 2010). In July of 1994, the IRS issued temporary regulation and final regulation in 1996 to provide guidance for the application of section 482. Some of the provisions issued in 1994 are as follows: Penalty provision, under section 6662(e) of the code, to penalize substantial misstatements of transfer prices. The penalty applies if the IRS adjusts taxpayers' transfer prices during audits (IRS, 1999). Other provisions are the guidance for functional analysis and comparability, the best method rule, range of arm's length results, transfer of tangible property, transfer of intangible property, and the use of inexact comparable pricing (IRS, 1999). The 1996 final regulation made no changes to the 1968 provisions regarding loans, services, and leases. In Chapter 2 of this study, I highlighted the most recent changes to the transfer pricing regulation related to service industries and intangible assets in much detail.

Purpose of the Study

The purpose of this study was to evaluate the effectiveness of the U.S government's efforts to mitigate the loss of tax revenues to multinational corporations conducting business in the United States. GAO (2008) reported that most large foreign-controlled and domestic-controlled multinational corporations reported zero tax liability and zero income to the U.S Treasury in 2005. In 2012, the IRS also estimated that corporations' underreporting of their taxable income accounted for the \$67 billion of the existing gross tax gap of \$450 billion (GAO, 2012). Affiliated multinational corporations may engage in abusive transfer pricing by allocating income and expenses among themselves improperly to reduce their taxable income in high tax jurisdiction (GAO, 2005).

To prevent abusive transfer pricing and to prevent MNEs from underreporting their taxable income in the United States, the U.S Treasury and IRS have certain enforcement tools at their disposal (GAO, 2005). Some examples of such enforcement tools are the ability to obtain information from taxpayers, audits of taxpayers' tax returns, imposition of penalties, litigation, and advance-pricing agreements (GAO, 2005). Other enforcement tools are the implementation of new tax regulations, or changes to the existing tax laws and regulations, which was the subject of this study (GAO, 2005).

It is important to determine how effective these collective enforcement tools were in preventing multinational corporations in the service industry from underreporting their taxable income in the United States. The GAO (2012) proposed that increasing the IRS enforcement budget would increase taxpayers' compliance with enacted U.S tax laws.

The U.S. Treasury Department and the IRS implemented the proposed and temporary transfer pricing regulations of intercompany services in 2006 to address some of the shortfalls of the outdated 1968 transfer pricing regulations of services (Department of the Treasury, 2006). In this study, I evaluated the effects of increases in IRS enforcement budgets and the effects of the updated transfer pricing regulations of intercompany services on the pretax income MNEs, in the service industry, reported in the United States between 2000 and 2009.

The implementation of the study's recommendation would eliminate the incentives to shift income to foreign countries and promote relocation of business operations in the United States. Additionally, new jobs and investments would increase the government's revenue base and help close the existing international tax gap. The study's recommendations would also contribute positively to society by saving income tax compliance costs for U.S taxpayers and increasing the government's tax base.

The United States premised its income tax laws on the principles that U.S taxpayers would pay their fair share of the income tax burdens on their worldwide income sources. Taxpayers' avoidance of their tax responsibilities undermines the fairness and equity concepts of the tax system. Tax avoidance or deliberate tax evasion affects the operating revenues of a country negatively, and threatens the viability of the country's economy. For a country to have a robust economy, it is crucial for the country to have an optimal tax system in which eligible taxpayers pay their fair share of the tax burden.

This study contributes to the body of knowledge on the topic of transfer pricing by extending the findings of Collins, Kemsley, and Shackleford (1997). Collins et al. examined the possibilities of transfer price manipulations by FCDC in the wholesale industry, using available data from 1981 to 1990. Similar to the study conducted by Bernard et al (2006), Collins et al. used the most recent data available in the IRS income tax database to answer the research questions. Their studies and this study were among the growing number of studies using available data sources to conduct quantitative research.

Theoretical Framework

The interplay of the economic theory of crime, the equity theory, the macro and micro economic theories, and the strategic management theory illustrates the historical conflicts of interests among U.S tax authorities, taxpayers, and politicians, regarding the optimal collection and distribution of income taxes. In this section, I synthesized the theories and showed their relationships with transfer pricing regulations and manipulations.

The Economic Theory of Crime

Becker (1968) provided the basis for comparing the optimal cost of crime to the level of punishment prescribed for the crime. According to Becker (1968), in the economic theory of crime, the success of preventing a particular type of criminal act (tax evasion, for example) will depend on the amount of economic resources committed to enforcing the law related to the crime. Becker questioned the optimal amount of cost, or other resources, necessary to enforce any particular legislation. Becker inquired, “How many resources and how much punishment should be used to enforce different kinds of legislation” (p. 170). Becker suggested that the optimal amount of enforcement of a particular offense depends on enforcement cost, and the offenders’ response to the punishment. Becker’s conclusion contributed to my interest to examine the relationship between the IRS annual budgets and the income MNEs reported to the U.S Treasury.

Congress charged the IRS with the responsibility of maintaining the integrity of the U.S federal tax system (Brown & Mazur, 2003). To meet this responsibility, the IRS uses its budgeting and strategic planning processes to establish a formal structure for

resource allocations (Brown & Mazur, 2003). There is a need to evaluate the optimal enforcement costs for the IRS to enforce transfer pricing rules and regulations. In line with the principles of the economic theory of crime, the GAO (2012) suggested that increases in the IRS budget would increase the taxable income multinational corporations report in the United States. Dubin, Graetz, and Wilde (1990) suggested that increasing the probability of IRS tax audit or the penalty rate for underreporting tax liabilities would reduce noncompliance.

Macro and Micro economic Theories

Business taxpayers employ strategic management principles of efficiency to maximize profits and increase their shareholders values. Taylor (1997) explained that macroeconomics is useful to explain how and why the economy grows and fluctuates overtime. Taylor indicated that when used appropriately, policy-makers could use macroeconomics' concepts to improve the economic welfare of any given country. Taylor (1997) also defined microeconomics as the study of individual consumers, firms, and market behaviors. Business enterprises and individuals are more concerned with microeconomics principles than the governments. Business managers are interested in managing their company's resources in ways that would enable them to maximize profits for their shareholders. As a result, managers of multinational enterprises employ cost saving strategies, including transfer price manipulations to maximize net profits, minimize business costs, and reduce their tax liabilities.

Macroeconomics assist policy-makers with making decisions about government spending, revenue distribution, and tax policies that promote economic growth. The U.S

government employs macroeconomic principles in managing the U.S economic growth. Enacting transfer pricing rules and regulations to ensure that MNEs are not shifting income from the United States to other countries is one example of that effort. Taxpayers' avoidance or evasion of income tax liabilities, through transfer price manipulation, interferes with the federal government's efforts to collect and redistribute tax revenues throughout the economy. The core objective of U.S transfer pricing rules and regulations is to prevent transfer price manipulations, and increase the government's tax revenue base.

Some politicians' subscriptions to the macroeconomic theory, which states that governments should provide more tax incentives and lower tax rates to large corporations and wealthy individuals than the poor or average taxpayers, has been a controversial concept. The macroeconomic theory, based on the supply side economic principles, known informally as "trickle-down economics," drives the controversy around the progressive nature of the U.S. tax system. According to the trickle-down theory, large corporations deserve favorable tax incentives and rates, because they create jobs. Eventually, the tax incentives they received from the government would trickle down to the average taxpayer in the economy. Although President Reagan promoted this theory, the concept has been the subject of political debates. During the debates about the introduction of progressive tax rate structure in the 19th century, the conservative members of congress opposed the idea of collecting more taxes from the rich. Their oppositions initiated the controversies about the equity and fairness of the U.S income tax system, which have dominated the U.S. political debates for centuries.

The Theory of Equity and Fairness

The concept of collecting and redistributing income taxes through the graduated or the progressive tax rate structure has been the focus of congressional debates from the 19th century (Congressional Globe, 1864). Records of the congressional debates regarding the progressive tax system, which congress approved in 1864, suggested that conservative presidents and member of U.S. Congress tended to favor regressive income tax systems historically (Congressional Globe, 1864). On the other hand, the liberal presidents and members of congress tended to favor the progressive tax rate structures. The conservatives' opposition to the first progressive income tax rate system introduced in 1862, in favor of more regressive excise tax and tariffs, underscored their past preferences to regressive, indirect, tax systems (National Archives, 1862). The conservative presidential candidates' call for the replacement of the current U.S progressive income tax system with a flat tax rate structure, during the 2012, Republican Party's primary presidential election debates, highlighted their continued support for a regressive tax system.

Strategic Management Theory

Strategic management is the act of formulating, implementing, and evaluating cross-functional business decisions that enable organizations to achieve its objectives (David, 2005). The primary objective of most business enterprises is to generate maximum profits for their shareholders. To accomplish the objective, business managers develop and employ business plans and strategies to minimize costs and maximize

revenues. Most MNEs engaged in transfer pricing manipulation in an effort to mitigate their net income tax liabilities. To the discontent of U.S. tax authorities and its global counterparts, multinational corporations may engage in transfer pricing manipulations as part of their cost saving strategies.

Research Questions and Hypotheses

The following research questions and hypotheses guided this study.

1. To what extent do the recent changes in the transfer pricing regulations of intercompany services relate to the pretax income, which MNEs in the service industry, reported to the U.S Treasury between 2006 and 2009?

H_01 : The recent changes in the U.S. transfer pricing regulations of intercompany services have no effect on the pretax income MNEs reported in the U.S. between 2006 and 2009.

H_11 : The recent changes in U.S. transfer pricing regulations have significant effects on the pretax income multinational entities reported in the United States between 2006 and 2009

This question was essential to evaluate the effect of the implemented 2006 temporary and proposed regulations of intercompany services, since 1968 (Federal Register, 1968). The IRS had implemented similar changes for other non service industries, for tangible products, in 1994 (Department of the Treasury, 2009).

2. To what extent do changes in the IRS enforcement budgets relate to the pretax income that MNEs, in the service industry, reported in the U. S between 2000 and 2009?

This question was relevant to evaluate the GAO (2008, 2012) theory that an increase in the IRS enforcement budget would increase the taxable income multinational corporations report to the U.S. Treasury.

H_02 : Increases in the annual IRS compliance and enforcement budgets would have no significant effect on the taxable income, which multinational corporations in the service industry reported in the U.S between 2006 and 2009.

H_12 : Increases in the annual IRS compliance and enforcement budgets would have significant effect on the taxable income, which multinational corporations in the service industry reported in the U.S between 2006 and 2009.

Based on the principles of Becker (1968) economic theory of crime, I predicted that increasing the Internal Revenues Service's compliance and enforcement budgets would reduce multinational corporations' underreporting of their taxable income in the United States.

Variables

Becker's (1968) economic theory of crime provided the basis for measuring the effectiveness of law enforcement on taxpayer's behaviors. The concept of measuring the effects of IRS budgets on taxpayers compliance behaviors originated from Dubin et al.'s (1990) extension of Becker's economic theory of crime. Dubin et al. posited that increasing the probability of the IRS tax audit or the penalty rate for underreporting tax liabilities would reduce noncompliance to tax regulations. Dubin et al. used a time-series cross sections data set from 1977 to 1986 to measure the effects of IRS audits on federal taxes filed and collected. I used a similar model to that of Dubin et al. and Dubin (2004) to measure the effects of IRS audit rates on taxpayers compliance to enacted tax laws.

The objective of this study was to evaluate the effectiveness of U.S government's efforts to reduce multinational corporations' propensity to underreport their taxable income in the United States. The goal of this study was to evaluate the effects of the GAO (2008) proposal to increase IRS enforcement budgets, and the effects of the updated transfer pricing regulations of intercompany services in 2006 on the taxable income, which MNCs reported in the United States, between 2000 and 2009. The study's designs and variables were similar to the designs Harris (1993) and Clausing (2009) used to examine MNCs' income shifting patterns before the enactment of the Tax Revenue Act (1986) and after the implementation of the Tax Revenue Act. Chapter 3 of this study includes details of their studies and findings.

To evaluate the effects of the proposed increase in the IRS budgets, I analyzed the effects of IRS annual compliance budget ratio (CBR) (compliance budget divided by total returns FCDCs filed) on the pretax income ratio (PTIR) (pretax income FCDCs reported divided by the total returns filed). Accordingly, the PTIR was the dependent variable and the CBR was the independent variable.

To evaluate the effects of the changes in transfer pricing regulations of intercompany services in 2006 on pretax income FCDCs reported, I used a control group time-series for analysis. I used the control group time-series to compare the year-to-year changes in the pretax income controlled FCDCs in the service industry reported to the IRS, and the pretax income domestic corporations in the service industry (the control group) reported to the IRS between 2000 and 2009.

The TIR was the proxy for the dependent variable. I used domestic corporations in the service industry as the control group because the 2006 changes in transfer pricing regulations of intercompany service targeted corporations with foreign affiliations (section 482). The PTIR from 2000 and 2005 represented the percentages of the pretax income reported before the implementation of the 2006 changes to transfer pricing regulation of intercompany services. The PTIR from 2005 and 2009 represented the percentages of pretax income reported after the implementation of the 2006 changes to transfer pricing regulations of intercompany services. I used regression analysis and a time-series to show the year-to-year changes of the PTIR between 2000 and 2009 and the historical trend of pretax income, which controlled foreign corporations and domestic corporations reported within the period.

The Nature of the Study

The study was a quantitative research that used existing data for analysis.

Quantitative inquiry is the most suitable for researchers who desire to display results in numerical and statistical forms. I used existing data from the IRS databases for analysis. In contrast, a qualitative inquiry is suitable for exploratory studies, in which a researcher desires to present the research finding in narratives instead of numerical format.

The most appropriate research design to answer the research questions was the causal comparative design, also called ex post facto research design, and the use of existing data sources. An alternative design is the correlational research design. Leedy and Ormrod (2005) described the ex post facto research design as an alternative to experimental designs for researchers interested in investigating the extent to which an independent variable may affect the dependent variable when it is not possible to manipulate the independent variable (p. 232). This design was the most suitable because the data sources for the study were secondary database. In addition, the independent variable (changes in transfer-pricing regulations) has already been proposed and implemented and could not be changed. This design is similar to a correlational design in the sense that both involve the evaluation of past conditions. Given the impossibility of introducing treatments and manipulation of the independent variables, causal comparative and correlational designs may establish covariations and relationships between two or more variables but cannot determine with certainty that one variable causes changes in the other.

Definition of Terms

Transfer price: The price at which controlled company sells goods or services to its affiliated entity (Department of Treasury, 2007).

Transfer pricing regulations: The system of laws and practices used by countries to ensure that related companies sell goods and services to their affiliated entities at similar prices, which they would sell the goods and services to nonaffiliated entities (Reg. 1.482).

Generally accepted accounting principles (GAAP): The rules governing the preparation of financial statements in the United States (FASB, 2013).

Income shifting: The practice of moving income from one country to another country to avoid high income tax rates (Department of Treasury, 2007).

Arm's-length standard: The concept of selling goods and services to affiliated companies at the same price a company would sell similar goods and services to nonaffiliated companies (Reg. 1.482).

Assumptions

I assumed that most of the controlled multinational corporations in the service industry implemented and complied with the changes to the U.S. transfer pricing rules and regulations. I also assumed that U.S tax authorities spent the necessary resources to implement and enforce the new transfer pricing regulations. Furthermore, I assumed that the 2006 changes to the transfer pricing of intercompany services would have significant effects on the taxable income MNEs reported to the U.S Treasury.

Limitations

The use of existing data for new studies has its limitations. I limited the sample size of this study to large FCDCs and USDCs in the service industry that rendered professional, scientific, and technical services in the United States. Samples selected from professional, scientific, and technical services represented one of the most common services foreign parent corporations render to their controlled subsidiaries. The foreign controlled domestic corporations were the tested group, and the U.S domestic corporations were the control group. The tested sample included 1.074 million foreign-controlled domestic corporations that filed income tax returns with net income. The control group included 5.039 million non foreign-controlled domestic corporations that filed income tax return with net income. Although the total sample size selected at random was a good representation of the income taxes MNEs in the service industry filed, readers should exercise caution when generalizing the study's findings.

Delimitations

The study and analysis of the entire provisions of section 482 of the IRS code was beyond the scope of this study. I focused instead on the most recent changes congress made to the transfer pricing regulations related to the service industry between 2006 and 2009.

Significance of the Study

This study should increase taxpayers' understanding of U.S. transfer pricing rules and regulations. It also added to the previous studies on the topics of transfer pricing schemes and income shifting. In addition, the study contributed to the ongoing discussions and debates about the loss of tax revenues to multinational corporations and wealthy individual taxpayers at the expense of the U.S. Treasury. The study's findings and recommendations should help refocus U.S. lawmakers' attention to creating effective and optimal tax systems, rather than focusing their efforts on tax policies rooted in partisan politics. Additionally, the study's recommendations served as a balance between the protection of the government's tax base and the increased revenues for multinational corporations. The net effect would result in an improved U.S economy, which would benefit U.S taxpayers, lawmakers, and U.S global humanitarian services abroad.

The United States wrote its tax laws under the premise that eligible U.S taxpayers would pay their share of the income tax burdens. Individuals or corporations' consistent investments on strategies to avoid paying U.S income taxes undermine the fairness and equity concepts of the tax system. Tax avoidance, legal or illegal, affects the operating revenues of any country negatively, and in effect, affects governments' operating revenues negatively.

The study's findings showed that FCDCs reported increased income, over time, after the implementation of the 2006 changes in the transfer pricing regulations of intercompany services. This implied that the updated transfer pricing regulations of intercompany services were effective. Nonetheless, I recommended some changes to the

current U.S international tax provisions. The implementations of the recommended changes would have positive social changes in the United States and beyond its borders.

I recommended the reduction of U.S corporate income tax rate and the elimination of the current deferral of the income U.S foreign controlled corporations earned in foreign countries until repatriated to the United States (under subpart F). If implemented, the immediate positive change implication of this recommendation is that U.S controlled foreign corporations would transfer billions of dollars they have in various foreign countries back to the United States. The inclusion of the new funds into the U.S economy would result in new jobs creation and new business investments in the United States. The new jobs and investments would transform people's wellbeing and the U.S economy. The potential improvements to people's lives would be a positive social and economic changes to the society.

Summary

In Chapter 1, I introduced the integral components of this study. I presented the purpose of the study, the problem statement, and the background of the study. I also presented the theoretical framework, the research questions, and hypotheses. I presented the conflicting objectives between taxpayers and tax authorities. I also presented the analysis of the U.S. transfer pricing regulations and methods. I provided the analysis of some of the existing studies to support the persistence of transfer pricing and income shifting problems. I also presented the historical and political backgrounds of the controversies surrounding income tax collections and redistributions in the United States. I included the evaluation of economics and management theories related to transfer pricing regulations. Furthermore, I presented the interplay of government's objectives to regulate the transfer prices of goods and services and multinational taxpayers' objectives to manipulate transfer-pricing rules.

I indicated that the principles of equity, economics, and strategic management theories guided the study. The theories also guide both government policies and multinational corporations' business strategies. Congress enacted section 482 of the Internal Revenue Code to ensure equitable distributions of U.S. income tax burdens, under the equity principles, and as a strategy to increase government revenue bases, under the macroeconomic theory. MNEs, on the other hand, devise innovative ways to circumvent U.S. transfer pricing regulations, as a strategy to reduce costs and maximize profits for their shareholders, under the principles of microeconomic theories. In addition to the foregoing, I also discussed the study's assumptions, limitations, delimitations, the

significance of the study, and the study's implications to positive social change.

In the literature review, I focused on the evaluations and analysis of existing literature and prior studies on the subject of transfer pricing and income shifting.

In chapter 2, I reviewed and analyzed previous research and literature related to transfer pricing and income shifting. In chapter 3, I discussed and analyzed of the study's research method and design. Chapter 4 of the study included the presentation and analysis of the study's results. Chapter 5 was comprised of the discussions of the study's findings, the study's conclusions, and recommendations.

Chapter 2: Literature Review

Introduction

The purpose of this chapter was to examine the current literature on the U.S transfer pricing rules and regulations and some of the theories previous researchers proposed on the topic. The chapter is comprised of a brief history of U.S income taxation, the evaluations of U.S. transfer pricing theories and methods, and an analysis of tax equity and fairness concepts. The chapter also includes the analysis of some economics and strategic management theories of taxation. The literature review includes the evaluations of the optimal taxation theories espoused by Ramsey, Mirrlees, and other researchers, including the U.S GAO. In addition, I synthesized the recent changes in the U.S transfer pricing regulations and the influences of different political and economic ideologies on U.S tax policies.

The U.S. transfer pricing rules and regulations, described in section 482 (§ 482) of the internal revenue code, set the rules to ensure that controlled taxpayers report the transfer prices of goods and services they sell to their affiliated entities at arm's length. Part of the objectives of this study was to evaluate the effectiveness of the recent changes to the U.S. transfer pricing regulations in preventing MNCs from shifting income from the United States to foreign countries. The study's recommendation would help lawmakers to focus more attention on tax strategies that would help to create an effective and optimal tax system, rather than focusing attentions on tax strategies rooted in partisan politics.

The U.S. tax authorities consider transfer-pricing manipulation as a scheme to avoid U.S. tax burdens. MNCs, on the other hand, consider transfer-pricing manipulation as a management tool to mitigate costs and increase their shareholders' values. Eden (2009) indicated that transfer pricing offers MNCs advantages not available to domestic corporations. Eden argued that MNCs have the advantages of internalizing transactions within the firm rather than using the arm's length prices to reduce costs. Eden also stated that MNCs could transfer knowledge-based resources among affiliated entities rather than at arm's length. Eden also noted that MNCs could benefit from global integration and arbitrage in ways that domestic corporations could not benefit. These benefits encourage MNCs to find ways to circumvent enacted transfer pricing regulations.

In 2008, the U.S. Government Accountability Office published its study on U.S. corporations registered in tax haven countries primarily to avoid U.S. tax burdens. The GAO (2008) showed that 83% of the largest U.S. publicly traded corporations reported having subsidiaries in foreign jurisdictions listed as tax havens or financial privacy jurisdictions in 2007. Prominent among the listed tax haven countries was the Cayman Islands. The GAO noted that U.S. taxpayers incorporated business entities in the Cayman Islands for some of the following reasons: Cayman Island is an offshore financial center (OFC) that has no direct taxes and attracts high volumes of nonresident financial activities from the United States and other countries. The lack of direct taxes on the islands attracts U.S.-based corporations to use the islands legally to minimize their U.S. tax liabilities. Cayman Islands have the global reputation for stability and compliance with international standards. It also has business-friendly regulatory environment and has

a prominent financial center. Other attractions to the Cayman Islands are its bankruptcy laws, which provide certain protections for creditors and investors.

Literature Search Strategy

Cited articles and studies listed on this study came from different sources and databases. The study included reviews of academic literature and articles on transfer pricing, published between 2007 and 2012. I used key words such as transfer pricing and income shifting to retrieve relevant articles from Walden University Library's Research database and Google Scholar. The Walden University Library's databases include Management and Business Databases, ABI/INFO Complete, Business Source Complete/Premier, Multidisciplinary databases, and other specialized databases. Google Scholar has a link to academic articles on multidisciplinary topics. It also has a link to multidisciplinary databases, including, but not limited to, most accredited U.S Universities' libraries.

Major sources of the prior studies on transfer pricing and income shifting that I reviewed came from GAO database, the Internal Revenue Code, and the Code of Federal Regulations. Another source of information for the study was the Google search engine used to retrieve reviewed studies and articles individual researchers published on multidisciplinary topics.

Background of U.S Income Taxation

Prior to the introduction of income taxes in 1861, the U.S. government funded its operations through indirect taxes such as excise taxes and tariffs. As the government activities and responsibilities expanded, revenues from indirect taxation became insufficient to fund government operations. The government added income taxes as part of its revenue source in 1861 when it needed extra money to fund the civil war (The Library of Congress, 1861). On August 5, 1861, Abraham Lincoln signed the first income tax bill into law under the revenue act of 1861 as an emergency measure to fund the civil war (Library of Congress, 1774-1875). The Library of Congress (1861) showed that some conservative members of congress opposed the concept of income taxes during the congressional debates of 1861. They opposed income taxes on the ground that it was a direct tax on labor, but tolerated it because of the civil war. The Congressional Globe (1864) reported that the conservative members of congress who supported the concept of income taxes opposed the progressive tax rate structure implemented in 1864.

In April of 1864, Congress debated and defeated a 5 % flat income tax rate that the conservatives introduced, and approved the progressive rate structure the House supported. The defeat of the flat tax system triggered emotional statements from some conservative members of congress. Stevens dubbed the graduated tax rate structure as a “strange way to punish men because they are rich” (as cited in Congressional Globe, 1864, p. 1876). Morrill proposed the initial concept of income taxes, and compared the progressive tax structure to extortion of property from people who have more than others (as cited in Congressional Globe, 1864). These statements are similar to what the current

conservative members of congress say about the liberal's members. The liberals oppose the tax incentives that benefit large corporations and wealthy individual taxpayers. The conservatives accused the liberals of waging class warfare against the rich because of their wealth.

However, the conservatives' oppositions and calls for tax reforms intensified after the civil war in 1865 and resulted in the supreme court's eventual declaration of income taxes to be unconstitutional in 1895 (U.S. Supreme Court, 1895). In Pollack vs. Farmer's Loan and Trust, the Supreme Court ruled that income taxation was unconstitutional on May 20, 1895 (U.S. Supreme Court, 1895). The ruling initiated the debates about granting congress the authority to impose and collect income taxes. The National Archives (1913) showed that on July 2, 1909, congress passed the 16th Amendments to the U.S. constitution, which granted congress the authority to impose and collect taxes on the worldwide income that U.S citizens and residents earned above a certain threshold. Congress ratified the 16th amendment on February 3, 1913 (National Archives, 1913). The regulation of the transfer prices controlled taxpayers charge to their affiliated entities for goods and services were among the tax legislation congress passed since 1913. Congress described the transfer pricing rules and regulations under code section 482. The code of federal regulations provides more detail about the transfer pricing regulations under section 1.482-1.

Review of Recent and Earlier Studies on Transfer Pricing

Many researchers have published various studies on transfer pricing. However, none of the previous scholars measured the relationship between the recent changes in the transfer pricing of intercompany services and the pretax income FCDCs, in the service industry, reported in the United States between 2006 and 2009. In addition, none of the previous researchers synthesized the historical congressional tax debates with the contemporaneous congressional tax debates. Additionally, none of the previous researchers proposed the elimination of the incentives that encourage MNEs to transfer income from U.S to foreign countries. Thus, the objective of this study was to evaluate the effectiveness of the recent changes to the U.S transfer pricing rules and regulations in preventing FCDCs in the service industry from shifting income earned in the United States to foreign countries.

Many authors have written and examined various subsections of transfer pricing regulations from several perspectives. However, researchers should continue to evaluate recent changes the Congress and the Treasury made to the U.S. transfer pricing regulations regularly. It is also necessary to explore how the changes affect the income MNEs report in the United States at any given period. Below are some of the earlier studies, which other researchers conducted on transfer pricing, relevant to this study. Some of the scholars underscored the growing trend of transfer pricing manipulations and governments' regulations across the globe. Others highlighted the conflicting objectives among tax authorities and MCNs in protecting their tax bases.

Capuzzi (2010) underscored the rivalry between tax authorities and taxpayers over tax base allocations. Capuzzi stated, “The proper allocation of the tax base has long been at the forefront of concerns, so much so that normative transfer pricing principles have existed for decades” (p. 1). “However, the "variation in tax rules across national tax jurisdictions causes different degrees of complexity and uncertainty for both the tax authority and the taxpayer regarding tax base allocation" (p. 1). Capuzzi proposed that the IRS should not use FIN 48 work papers, and other tax accrual work-papers, as a road map for adjustments.

Similar to this study, Clausing (2009) examined the influence of tax policies on multinational corporations’ tax avoidance between 1982 through 2004. However, contrary to this study, where I examined the relationship between new tax regulations and pretax income, Clausing evaluated the relationship between multinational corporations’ behaviors and national government policies. Clausing examined income shifting by estimating the relationship between affiliated corporations’ profit rates and foreign countries’ tax rates. Clausing estimated the effects of taxes on multinational firms operations across countries. Clausing used estimates to calculate how profits would differ from their current levels without tax incentives. Clausing also estimated how tax incentives would affect U.S. government revenues. Clausing used data sets of countries, which the Bureau of Economic Analysis compiled. Clausing also used tax rates and employment rates to measure the U.S. multinational corporations’ responsiveness to tax differences across countries. Similar to Clausing, I evaluated the relationship between changes in government tax policies and the income, which multinational corporations

reported in the United States. In contrast to Clausing, I evaluated the responsiveness of pretax income to changes in regulatory enforcement between 2000 and 2009. However, instead of using estimated data, I used existing data from the IRS statistic of income division database for analysis.

In another study, Adams and Drtina (2010) noted that in 1994 only two tax authorities, the United States and Australia, had enacted transfer pricing legislation. However, Adams and Drtina stated that in 2009, at least 49 countries, including most countries in the Organization for Economic Co-Operation and Development (OECD), had passed transfer-pricing legislation. Adams and Drtina indicated that the increase in the adaptation of transfer pricing legislation could be attributable to multinational corporations' strategies to shift profits to lower tax jurisdictions. Most of these countries' tax authorities adapted the arm's length standard as a measure to mitigate transfer pricing manipulations (Adams & Drtina, 2010). Adams and Drtina wished to determine whether a management accounting traditional, theoretical approach to transfer pricing provides a transfer price that satisfies international laws. Adams and Drtina hypothesized that the traditional management accounting approach to transfer pricing neglected managements' incentives to shift income, and ignored the arm's length requirements of tax regulations. Adams and Drtina compared the consequences of setting transfer prices under management accounting theoretical, economics-based approach, and the international tax law approach, based on an arm's length standard. Adams and Drtina found that the transfer price, from the theoretical model, is not always consistent with the arm's length standard when firms operate at less than full capacity. Adams and Drtina highlighted the

need for periodic studies to measure the effectiveness of transfer pricing regulations enacted to regulate transfer-pricing manipulations. Contrary to Adams and Drtina's study on the transfer pricing of tangible products, I evaluated the effectiveness of the 2006 changes in the transfer pricing regulations of intercompany services.

In another study, Chan (2011) questioned the validity of prior studies on transfer pricing and the claim that most multinational corporations engaged in income shifting and transfer pricing manipulations solely to maximize profits. Chan contradicted Adams and Drtina's (2010) findings. Chan conducted an experimental research to investigate whether multinational corporations engaged in transfer pricing manipulations solely to maximize their companies' profits. Chan cited Chan and Chow (1997), Crain and Stitts (1994), Harris (1993), Klassen et al. (1993), and Shackleford (1993) as examples of the studies with such claims. Chan also investigated the claim that divisional managers engage in transfer pricing manipulations to maximize their divisional profits. Furthermore, Chan investigated the claim that divisional managers manipulate transfer prices to maximize their incentive pays. Chan cited Chalos and Haka (1990) as examples of studies with such claims. Chan posited that these studies are inconsistent. However, in the experimental study in a classroom setting, Chan showed that the relationship between tax rates and incentive structures are significant. Chan concluded that when faced with conflicting corporate objectives and inputs, decision-makers would be concerned about fairness instead of maximization of corporate profits. Chan argued against the claim that profit maximization motivates MNEs' to manipulate transfer prices. In contrast to this

dissertation in which I focused on the transfer pricing of services, Chan (2011) evaluated transfer-pricing problems related to tangible products.

In their 2011 study, Alexander and Whiteaker-Poe (2011) highlighted the growing pervasiveness of income shifting and transfer pricing. Alexander and Whiteaker-Poe examined the relationship between corporate subsidiaries located in tax haven countries and permanently reinvested earnings. To measure this relationship, Alexander and Whiteaker-Poe measured “tax shelter intensity” with the tax reserve, which multinational corporations established. Alexander and Whiteaker-Poe showed that firms with subsidiaries in tax haven countries showed increased tax shelter intensity. Alexander and Whiteaker-Poe also showed that firms with large amounts of permanently reinvestment earnings showed greater tax shelter intensity, for every \$1 billion in permanently reinvested earnings. Alexander and Whiteaker-Poe supported the existence of income shifting to tax haven countries and the need for government regulations. As various governments enact new legislation to keep up with the pace of MNEs transfer pricing strategies, there are needs for periodic studies to measure the effectiveness of the new legislation.

Avi-Yonah (2009) examined income shifting and transfer pricing manipulations from different perspectives entirely. Avi-Yonah stated that the U.S. tax system is complex and that observers are nearly unanimous in lamenting the compliance burdens and the impracticability of coherent enforcement. Avi-Yonah proposed the adaptation of formulary apportionment instead of the prevalent arm’s length standard as a solution to mitigate transfer pricing manipulations and income shifting problems. Avi-Yonah argued

that the traditional methods of transfer pricing did not work in most cases. Avi-Yonah also highlighted that the IRS lost every transfer pricing case it litigated between 1980 and 1995. Avi-Yonah also noted that courts refused to accept the comparables the IRS used under the traditional methods as the reasons for the IRS losses. The relevance of to this study is the formulary apportionment the study. Formulary apportionment is similar to but different from the standard price I proposed for services. The effectiveness of formulary apportionment would be a good topic for future research.

Bhat (2009) reiterated the governments' responsibilities to collect taxes and the need to enact legislation to ensure equitable distribution of tax burdens. Bhat stated that tax-motivated transfer pricing has attracted worldwide attention because of low tax haven jurisdictions and the volume of multinational corporation activities. Bhat emphasized that multinational corporations have the ability to shift profits through transfer pricing through tax haven countries. Governments designed the implementation of arm's length principles and formulary apportionments, in most cases, to regulate transfer pricing manipulations (Bhat, 2009). Bhat recommended the establishment of a global institution to calculate MNEs worldwide income and provide tax authorities with timely information. A global institutions' calculation of corporations' income would encounter implementation problems. In contrast, I recommended the implementation of a standard price for categories of international services as a solution to transfer pricing manipulation related to the service delivery.

On a different transfer pricing study, Grubert (2012) measured how multinational corporations' foreign share of income varied if the governments set statutory tax rates at 35% of corporations' foreign income. Grubert found that a drastic change in tax rate would have a significant effect on the share of MNCs' income abroad. In contrast, I evaluated the effects of enacted tax legislation in the service industries in this study. Grubert examined a hypothetical tax legislation that would require corporations to pay 35% of their income in taxes. However, similar to this study, Grubert used available data from the IRS's income tax database as data sources, and regression analysis as the analytical tool to evaluate the data.

Hsiao-Chen Chang and Ching-Wen Lin (2010) explored the motivations behind the pricing strategies multinational enterprises (MNEs) employ when setting transfer pricing. Their study concluded that tax minimization is no longer the focus of transfer pricing manipulation strategies of Taiwanese MNEs. Taiwanese MNEs are more concerned about winning maximum economic profits, enhancing the competitiveness of the enterprise, and effectively repatriating profits to parent companies in order to facilitate greater economic profits than tax minimization (Hsiao-Chen Chang & Ching-Wen Lin, 2010). They conducted interview to gather their data. In contrast, I used the existing data in the IRS database instead of surveys or interviews.

Chan (2007) examined how tax rates influence MNEs management decision-making process regarding transfer pricing. Chan examined profit shifting and the influence of tax effects on the transfer pricing decisions. Chan concluded that although decision makers considered the profit effects of tax rates, decision makers did not

optimize overall corporate profitability. Chan recommended that decision makers should consider incentive schemes that would induce profit optimizing decision behavior when considering the selection of transfer prices (Chan, 2007).

Horst (1971) examined the effects of tax rate differences on production and pricing when a single agent is responsible for intra-company transactions. Horst posited that transfer pricing decisions depends on whether marginal costs of production are increasing or decreasing, or whether tariffs are high enough for intra firms to discriminate perfectly between its two national markets.

In another study, Mandolfo (2007) evaluated the IRS's cost-sharing proposals in the worldwide tax system, and questioned why the United States should not embrace a territorial tax system. Mandolfo acknowledged the persistence of transfer pricing issues but proposed a unique solution to the problem. Mandolfo stated that the internal revenue service's failure to regulate cost-sharing arrangements highlighted the need for the U.S. to adopt a territorial tax system. Mandolfo also claimed that under the current worldwide tax system, cost sharing arrangements, and transfer pricing techniques allowed U.S. corporations to move profits overseas effectively. Mandolfo recommended that Congress should adopt territorial tax system to solve transfer pricing and cost sharing problems.

In a different study, Capuzzi (2010) addressed the advance pricing agreement, a component of transfer pricing regulations, in relation to FIN 48, measurement of uncertain tax positions taken in the reported financial statements. Capuzzi proposed that the IRS should modify APA agreements to include an assertion that the agency would not use FIN 48 work papers, and other tax accrual work-papers, as a road map to

adjustments. Using existing data, Bernard, Jensen, and Schott, (2006) examined how prices set by multinational firms vary across arm's length and related party customers. Using existing data from U.S Bureau of Labor Statistics, and Census Bureau, Bernard et al. compared prices within firms, products, destination countries, mode of transportation and transaction month, they found that the prices U.S. exporters set for their arm's length customers are substantially larger than the prices recorded for related parties. Loraine Eden, Luis F Juarez, Valdez, and Dan Li (2005) used event study methodology to assess the impact of the US transfer-pricing penalty on the stock market valuation of Japanese MNEs with US subsidiaries in the 1990. Eden et al. found that the penalty caused a drop in the cumulative market value of stock prices in 1997.

The obvious characteristic of the studies reviewed thus far is the acknowledgement that transfer-pricing manipulations exist. These researchers highlighted the attention to the problem, evidenced by the national and international tax authorities' enactment of new regulations to manage the problem. As shown in these studies, each author analyzed the problem and recommended different solutions to the problem. However, none of the studies examined the effectiveness of the changes in transfer pricing regulations on the income MNEs reported in the United States. Unlike the other studies reviewed, I used existing recent data to evaluate the changes to the transfer pricing regulations relative to the service industry.

Earlier Empirical Studies

Harris, Morck, and Slemrod (1993) studied the income shifting into the United States. Harris et al. examined ninety-five companies for the years 1984 to 1988. Harris et al. found that U.S tax liabilities were lower among corporations that located the businesses in a tax haven country. Also in 1993, Harris (1993) studied income shifting into the United States following the amendments of the IRS code in 1986. Harris examined firms for the years 1987 to 1990. Harris found that U.S. multinational corporations paid more U.S. taxes, and reported more U.S. income between 1987 through 1990 than U.S. domestic corporations reported during the same period. Harris also found that multinational corporations reported less foreign income in 1987 and 1988. Klassen, Lang, and Wolfson (1993) conducted a study on income shifting in the U.S also following significant changes in the U.S. tax code in 1986. Lang and Wolfson examined 191 firms for the years 1987 and 1990, as well. They found that multinational corporations shifted income into the United States in 1987 and out of the country in 1988. Collins, Kemsley, and Shackelford (1997) studied foreign controlled domestic corporations (FCDCs) in the wholesale industry from 1981 to 1990. Collins et al. found that there were no links between the FCDCs nonpayment of income taxes and manipulation of transfer prices.

Obviously, none of the above studies measured the effectiveness of transfer pricing regulations in the service industry; moreover, the 1986 changes to the tax code did not affect services. Contrary to the above studies, I explored the relationship between the changes in the transfer pricing regulations of intercompany services and the pretax

income controlled foreign corporations reported in the United States between 2000 and 2009. However, I used available data from the IRS database similar to the above studies.

U.S. Transfer Pricing Regulations and Methods

The United States Treasury implemented section 482 of the internal revenue code to set rules for the transfer prices that affiliated taxpayers could charge one another, in intercompany transactions. Reg. § 1.482-1 states that one purpose of transfer pricing regulation is to ensure that taxpayers reflect income attributable to controlled transactions clearly. Another reason is to prevent tax avoidance related to such transactions. By determining the true income of controlled taxpayers, section 482 places controlled taxpayers on tax parity with uncontrolled taxpayers (Reg. § 1.482-1). The overriding objective of section 482 is to ensure that controlled taxpayers set their transfer prices at arm's length. Reg. 1.482-1 defines the principles of the arm's length, the transfer pricing methods, the best method rules, the comparability rules, and arm's length ranges, among other transfer pricing rules.

A controlled taxpayer's transaction meets the arm's length standard if the result of the transaction is consistent with the result an uncontrolled taxpayer would obtain if engaged in the same transaction under the same circumstances (Reg. § 1.482-1(b)). Under the best method rule, a controlled taxpayer should consider available facts and circumstances to determine the most reliable measures of an arm's length. The IRS gives no priority to any transfer pricing method. However, if the district director determines that another method produces a more reliable measure of arm's length, the director may apply the reliable method. Data from transactions between unrelated taxpayers is the

most objective and reliable data to measure the best method (Reg. § 1.482-1(c). For comparability purposes, a controlled transaction produces an arm's length result if the result from such transaction is similar to the result an uncontrolled taxpayer would realize under comparable circumstances (Reg. § 1.482-1(d). Sometimes, the application of a transfer pricing method produce multiple results that fall within certain ranges of reliable results. In such cases, the IRS would not adjust the results of transactions within the acceptable arm's length range (Reg. § 1.482-1(e). Regulation section 1.482-1 also subcategorized the provisions of the section 482 into subsections. Each subsection provides explanations and guidance for the related rules and regulations of section. The subcategories of each section are as follows:

Sections 1.482-2 provide guidelines to determine income at different situations. Section 1.482-3 provides guidelines on methods to determine taxable income in connection with a transfer of tangible property. Section 1.482-4, which is the focus of this study, discusses the methods to determine taxable income in connection with a transfer of intangible property. Section 1.482-5 provides information on comparable profits methods. Section 1.482-6 discusses the profit split method. Section §1.482-7 provides guidelines regarding the methods to determine taxable income in connection with a cost sharing arrangement. Section 1.482-8 sets examples for the best method rules. Section 1.482-9 provides guidelines to determine taxable income in connection with a controlled service transaction.

Section 1.482-2 provides guidelines to determine income at different situations. For example, if a member in a group of controlled entities grants a loan to another

member within the group at zero or lower than the prevailing interest rate, the IRS district director may reallocate the interest charges to reflect the arm's length interest rate of the loan.

Section 1.482-3 provides guidelines on methods to determine taxable income in connection with a transfer of tangible property. The section provides six methods to determine the arm's length amount to charge in a controlled transfer of tangible property. These six methods are additional to the best method rule, the comparability analysis, and arm's length range, described in Reg. §1.482-1 above.

The first of the six methods are the comparable uncontrolled price method. The method evaluates whether the amount a controlled taxpayer charged for intercompany transactions are at arm's length compared to similar transactions in a comparable uncontrolled transaction.

The second method is the resale price method. Under this method, controlled taxpayers should use the gross profit margin, which they realized in comparable uncontrolled transactions, to determine whether a transaction is at arm's length. The method measures the value of functions performed. Taxpayers normally use this method to measure the satisfaction of arm's length standard in transactions involving the purchase and resale of tangible properties.

The third method is the cost plus method. Under this method, taxpayers use the gross profit markup, which uncontrolled taxpayers realized in comparable transactions, to measure whether controlled transactions are at arm's length. Taxpayers use the cost plus method to measure the transactions involving manufacturing, assembly, and other

transactions involving the production of goods, which controlled taxpayers sold to their affiliated entities.

The fourth method is the comparable profits method. Profit level indicators are the measurement tools to determine if controlled transactions are at arm's length. Taxpayers compare the profitability of uncontrolled taxpayers, engaged in similar business activities under similar circumstances, to the controlled entity under review (§1.482-5).

The fifth of the six methods is the profit split method. The method evaluates whether the allocation of consolidated profits or losses among affiliated taxpayers is at arm's length. Taxpayers should base their evaluation on each affiliated entity's contribution to the total operating profits or losses. Reg. §1.482-6 states that the total operating profit or loss must be derived from identifiable business activities of the controlled taxpayers, which include the controlled transactions.

The sixth method is the unspecified method. Under this method, a taxpayer may use an unspecified method, not described above, to determine arm's length transactions. However, the taxpayer should consider and apply the best method rule principles. A controlled taxpayer should apply any other methods that are more realistic than the unspecified method used.

Transfer Pricing of Intangible Assets

Sections 1.482-4 of the federal regulations provide guidelines that are necessary to determine taxable income in connection with the transfer of intangible assets. In addition to the provisions discussed in section 1.482-1, taxpayers engaged in the transfer

of intangible properties have additional factors to consider in determining arm's length prices. Reg. §1.482-4(f) (2) states that the arm's length consideration for the transfer of an intangible asset determined under this section must be commensurate with the income attributable to the intangible property.

Some of the additional factors to consider when transferring intangible assets are the comparability of the intangible property. To compare intangible properties, which uncontrolled taxpayers transferred, to the intangible properties, which they transferred in controlled transactions, the intangible properties should meet the following criteria: The intangibles should be in use in connection with similar products or processes within the same general industry or market. The intangibles should also have similar profit potentials.

Taxpayers use the net present value of the potential benefits from subsequent transfer of the intangibles to measure the profit potentials. Additionally, the intangibles should have similar circumstances to be comparable among one another. The factors relevant for comparability are the terms of the transfer, which include the exploitation rights granted in the intangible property and any restrictions to the rights. Other factors are the developmental stage of the intangible, including governmental approvals and licenses, the uniqueness of the property and the protections afforded to the property under the law of relevant jurisdictions. Additional factors are the economic and product liability risks each transferee assumed, the existence of ongoing relationships between the transferee and transferor, and responsibilities of the transferor and transferee.

Section 482 classifies the following items as intangible assets; Patents, inventories, formulae, processes, designs, patterns, and expertise (knowhow). Other items are copyrights, musical or artistic compositions, trademark, trade names, or brand names. Additional intangibles are franchises, licenses, contracts, methods, programs, systems, procedures, campaigns, surveys, studies, forecasts, customer lists, and technical data, among other items.

Transfer of Controlled Service Transactions

The provisions of section §1.482-1, including the best method rule of §1.482-1(c), the comparability analysis of §1.482-1(d), and arm's length range of §1.482-1(e), also apply to transactions related to controlled services. The methods to determine the arm's length transactions of services are the services cost method, the comparable uncontrolled services price method, including the comparability and reliability considerations. Others are the gross services margin method, the cost of services plus method, the comparable profits method, described in §1.482-5 (f) and §1.482-5 (g), and the Unspecified methods.

Under Reg. § 1.482-9, the Treasury described the methods and criteria as follows: The service cost method; the services cost method use the total services costs without markup to evaluate whether certain services is at arm's length. The services cost method without markup represents the best method for the purposes of satisfying Section 1.482-1(c) relative services. The following requirements are necessary to use the service cost method to measure the arm's length of controlled service transactions. The first requirement is that the service should be a covered service. Covered services consist of

controlled service transactions, which met the definitions of specific covered services, or low margin services. Specific covered services are controlled service transactions that the Commissioner specifies by revenue procedure. The commissioner determines services to include in the revenue procedure based on the support services that are common among taxpayers in the sector. The services do not involve significant median comparable markups on total service costs (Reg. § 1.482-9). Low margin covered services are controlled service transactions, which the median comparable markup on total service costs are less than or equal to seven percent. Reg. § 1.482-9 defines the median comparable markup on total services costs as the excess of the arm's length price of the controlled services transaction determined under the general section 482 regulations using the interquartile range described in §1.482-1(e)(2)(iii)(C).

The second requirement is that the service is not an excluded activity. Excluded activities are manufacturing, production, extraction, exploration, or processing of natural resources, construction, reselling, distribution, sales or purchasing agent commission sells agents, research, development, or experimentation, engineering or scientific activities, financial transactions, including guarantees, and insurance or reinsurance.

The third requirement is that the taxpayers' business judgment rule does not preclude the service from constituting a covered service. This implies that services do not include services that contribute significantly to fundamental risks of business success or failure. A service cannot constitute a covered service unless the taxpayer reasonably concludes in its business judgment that the service does not contribute significantly to

key competitive advantages, core capabilities, or fundamental risks of success or failure in one or more trades or businesses of the controlled group (§1.482-1(i)(6)).

The fourth requirement is the availability of books and records. Taxpayers should maintain books and records to show the taxpayers' intention to apply the services cost method to evaluate arm's length transactions. The books and records should have adequate information to enable the IRS to verify the total service costs incurred by the service provider, including a description of the services in question, identification of the service provider and the recipient of such services. It should also include sufficient documentation to allow verification of the methods used to allocate and apportion such costs to the services in question (Reg. § 1.482-9).

The next method taxpayers, who engaged in controlled service transactions, could use to determine arm's length transaction is the comparable uncontrolled services price method. The comparable uncontrolled services price method uses the amount taxpayers charged, in a comparable uncontrolled service transaction to determine whether a controlled services transaction is at arm's length. Although all of the factors described in §1.482-1(d) apply to determine the degree of comparability between controlled and uncontrolled transactions, similarity of the services rendered, and the similarity of the intangible property used in performing the services, usually have the greatest effects on comparability under this method. This method will not provide a reliable measure of an arm's length result if there are material differences between controlled and uncontrolled services.

The next method is the gross service margin method. This method uses the gross profit margin that taxpayers realized, in comparable uncontrolled transactions, to determine whether the amount controlled service taxpayer charged, in a controlled service transaction is arm's length. Taxpayers use the method in situations where a controlled taxpayer performs services or functions in connection with an uncontrolled transaction between a member in a controlled group and an uncontrolled taxpayer. Taxpayers may also use this method when a controlled taxpayer renders services (agent services) to another member of the controlled group in connection with a transaction between that other member and an uncontrolled taxpayer (Reg. § 1.482-9). Additionally, a controlled taxpayer may also use the method, in cases where a controlled taxpayer contracts to provide services to an uncontrolled taxpayer, but another member of the controlled group performs a portion of the services provided.

Another method is the cost of services plus method. In this method, taxpayers use the gross services profit markup, which uncontrolled taxpayers realized in comparable transactions, to determine whether the amount controlled taxpayers charged are at arm's length. The cost of services plus method is suitable in cases where the controlled service provider render the same or similar services to both controlled and uncontrolled parties. The method is not suitable to use in cases where the controlled services transaction involves a contingent-payment arrangement.

Comparable profits method is another method. The comparable profits method uses the objective measures of profitability (profit level indicators) derived from uncontrolled taxpayers that engage in similar business activities, under similar

circumstances, to measure whether the amounts that controlled taxpayers charged are at arm's length. The rules in §1.482-5 relating to the comparable profits method also apply to controlled services transactions.

The next method is the profit split method. In the profit split method, taxpayers should use the relative value of each controlled taxpayer's contributions to the combined operating profit or loss, to evaluate whether the allocations of the combined operating profit or loss, attributable to controlled transactions were at arm's length. Taxpayers should determine the relative value of each controlled taxpayer's contribution in a manner that reflects the functions performed, risks assumed and resources employed by such controlled taxpayer in the relevant business activity.

Last method under controlled services is the unspecified method. Taxpayers may use methods not specified above to evaluate whether the amount they charged in a controlled services transaction is arm's length. Consistent with the specified methods, unspecified methods should take into account the principle that uncontrolled taxpayers should evaluate the terms of a transaction by considering the realistic alternatives to that transaction, including economically similar transactions structured as other than services transactions. To establish whether a controlled services transaction achieved an arm's length result, an unspecified method should provide information on prices or profits that the controlled taxpayer could have realized by choosing a realistic alternative to the controlled services transaction. A taxpayer's choice to outsource a service function, rather than performing the function itself would be an example of a realistic alternative (Reg. § 1.482-9).

Theoretical Foundation

The Economic Theory of Crime

Becker (1968) economic theory of crime provided the bases for the concept of measuring the effectiveness of law enforcement on taxpayers' behaviors. I derived the concept of measuring the effects of IRS budgets on taxpayers compliance behaviors from Dubin, Graetz, and Wilde (1990) extension of Becker (1968) economic theory of crime. Becker (1968) suggests that the success of preventing a particular criminal act (for example, tax evasion) would depend on the amount of economic resources committed to enforcing the law related to the crime. In the article, "Crime and Punishment: An Economic Approach", Becker showed details of his ideas about crimes and optimal amount of punishment. Becker inquired "how many resources and how much punishment should be used to enforce different kinds of legislation" (Becker, 1968, p.170). Becker suggested that the optimal amount of enforcement of a particular offense depends on enforcement cost, and the offenders' response to the punishment. Dubin et al. (1990) extended the theory, and suggested that increasing the probability of IRS tax audit or the penalty rate for underreporting tax liabilities will unambiguously reduce noncompliance.

Congress charged the Internal Revenue Service with the responsibility to maintain the integrity of the U.S federal tax system (Brown & Mazur, 2003). To meet the responsibility, the IRS uses its budgeting and strategic planning processes to establish a formal structure for resource allocations (Brown & Mazur, 2003). In this study, I evaluated whether there were optimal enforcement costs for the Internal Revenue Service to enforce transfer pricing rules and regulations. In line with the principles of the

economic theory of crime, GAO (2012) suggested that increases in the IRS budget would increase the taxable income multinational corporations report in the United States.

Principles of Tax Equity and Fairness

Most governments strive to create an effective, efficient, but a fair tax system that would generate desired revenues for the government. Tax systems should have the attributes of optimal tax systems to be equitable and effective. The attributes of an optimal tax system include but not limited to the principles of equity, efficiency, simplicity, transparency, and administratively feasible (GAO, 2005). Nonetheless, the concepts of equitable and fair tax systems are subjective. In most cases, the concepts of equity and fairness depend on individuals' political and economic philosophies. The divergent economics and political ideologies among members of U.S. legislative and executive branches of government influence the U.S. tax policies and legislation significantly. The frequency of changes to the U.S. tax policies and regulations reflects the differences in the two dominant political and economic ideologies that U.S. lawmakers and politicians advocated for at any given period. The two prevailing political and economic philosophies, conservatism, and liberalism contributed largely to the U.S. lawmakers' inability to create an optimal tax system in the U.S.

There has been and will continue to be public debates and disagreements about tax equity and fairness in the U.S. GAO (2005) argued that the debates about tax equity and fairness centered on the principles of taxpayers' abilities to pay and the tax benefits they receive. The principles of the ability to pay suggest that taxpayers with the economic resources should pay more than the taxpayers who have less economic

resources. In contrast, the benefits received principle implies that people should pay taxes in proportion to the tax benefits they received from the government (GAO, 2005).

However, one short fall of the benefits received concept is that it would be difficult for the government to identify and measure who received what benefits from the varieties of government programs available. Use tax, such as gasoline taxes used to maintain highways, would be an example of a benefit-received tax (GAO, 2005). Only taxpayers who own and operate motor vehicles pay such tax burdens.

An extension of the ability to pay principle is the horizontal and vertical equity concepts. Horizontal equity concept suggests that the government should treat taxpayers who have similar resources and abilities to pay taxes similarly. The administrative challenges to this concept are the influence of targeted expenditures, such as tax deductions and credits, which permeate the entire U.S. tax systems. Government designed tax deductions and credits to favor certain tax behaviors of taxpayers over others with similar financial conditions (GAO, 2005).

Vertical equity, on the other hand, deals with the differences in the ability to pay (GAO, 2005). People's economic conditions or political ideologies influence their perspectives on the ability to pay when income is the measurement factor. The ongoing political debates about the progressive nature of the U.S tax system reflect the diverse perspectives on the vertical equity concept. In most cases, people with less wealth and income tend to favor a progressive tax rate structure in which taxpayers' liabilities increases as their income increases. On the other hand, wealthy taxpayers tend to favor proportional and regressive tax rate structures. Under the proportional tax rates structures,

taxpayers pay the same percentage of their income in taxes regardless of the amount of their income. Under the regressive tax rate structures, taxpayers pay smaller percentages of their income as their income increases. However, tax deductions and credits affect the actual tax rates applicable to taxpayers' income.

Optimal Taxation Theories

The origin of optimal tax theory could be traced back to 1927. Ramsey (1927) was among the first of the economists who proposed optimal tax theories. In the 1927 article, A contribution to the Theory of Taxation, Ramsey (1927) proposed an optimal tax system that would be based on taxing commodities. Ramsey suggested that the government should impose taxes on commodities at inverse proportions. Ramsey reasoned that commodities are prone to inelastic demand and should bear higher tax rate. One of the obvious weaknesses of Ramsey's proposal was the assumption that there are identical commodities, and uniform consumer preferences. These assumptions are unrealistic in the real world. For example, the idea that the government should restrict taxation to commodities only is not optimal. Such proportionate tax system would be inefficient and inadequate to raise the necessary funds governments need to operate.

In 1971, Mirrlees (1971) proposed an optimal tax model that improved on the proposals of Ramsey (1927). Mirrlees suggested that governments should set up a tax system that encourages productivity, especially individuals with high abilities. Mirrlees proposed that government should provide incentives for individuals with high abilities to encourage them from being productive. Mirrlees proposal reflects the ongoing debates about extending the expiring tax incentives available to large corporations and wealthy

individual taxpayers. Unlike Ramsey (1927), Mirrlees (1971) suggested that government should tax other activities in addition to commodities. Mirrlees also proposed that an optimal tax system should have a zero marginal tax rate for high-income earners. Mirrlees argued that a marginal tax rate above zero would discourage individuals with high abilities from producing at an efficient cost.

In his contributions to the discussions of the optimal taxation and tax systems, Slemrod, (1991) questioned whether government should raise additional revenues by introducing a value-added tax, increasing income tax rates, or by enforcing the existing income tax more effectively. Slemrod also questioned whether the government should abandon its attempt to tax income progressively. He also questioned whether the government should eliminate income taxes, and replaced it with consumption taxes. Slemrod (1991) argued that the available optimal tax theory is incomplete as a guide to answer the questions he posed. Slemrod argued that the available optimal tax theories failed to address the coercive nature of tax collection and implementation costs comprehensively. He suggested that most literature on optimal taxation addressed the taxation of a single commodity, but ignored the discussions of the impact of heterogeneous characteristics of individuals. He concluded that future research in the optimal theory of taxation should shift focus from the structure of consumer preferences to the technology of collecting taxes, and from the optimal tax rate structure to optimal tax systems.

Economics and Strategic Management Theories of Transfer Pricing

Taxpayers and tax authorities employ elements of economics and strategic management principles to protect their respective tax bases. Transfer pricing manipulations is one of the strategies business taxpayers employ to mitigate their tax liabilities (GAO, 2007). Hirshleifer (1956) was among the economists who pioneered work on transfer pricing. Hirshleifer proposed that when there are no separate markets for intermediate products, companies should set transfer prices at marginal cost. Conversely, if there are perfect competitive markets for intermediated products, companies should set transfer price at the market price for the intermediate goods. In contrast, section 482 of the Internal Revenue Code, requires controlled taxpayers to set the transfer pricing for their intercompany goods and services at the prevailing market price (at arm's length).

Myers and Collins (2011) reviewed the economic and strategic management theories of transfer pricing among other topics. On their review of the strategic management theory, they touched on some of the possible motivations of transfer pricing manipulations. In a controlled multinational corporation, the incentives to manipulate the transfer prices of goods and services depend in part to the companies' operating strategies. Myers and Collins (2011) recognized that organizational goals, plans, and strategies set to achieve the goals play significant roles in divisional managers' attitudes about transfer pricing. They argued that middle managers should be motivated to make decisions that would help the organization achieve its goals and objectives. In most cases, motivation could be in the form of rewards based on performance evaluations and divisional profitability. Myers and Collins (2011) noted that when the central

managements provide incentives to divisional managers based on divisional profitability, the divisional managers might ignore the overall company's objectives in favor of their individual goals. The individual objective to increase divisional profits may contribute to the motivation to manipulate transfer pricing.

It is essential for a multinational corporation to devise a corporate strategy that encourage its divisions to use market-base transfer pricing, or cost based transfer pricing strategies. However, the use of market based, or cost based transfer prices depends on whether the corporation's operating structure is diverse or closed (Myers & Collins, 2011). The focus on market base or cost based pricing methods would shift divisional managers attentions away from divisional profits to the overall profitability of the entire corporation. Myers and Collins (2011) reiterated that one strategic management theory holds that organizations should make both short and long-term decisions toward achieving the long-term objectives of the company as a whole. Part of the long-term strategy should be the selection of the appropriate transfer prices for goods and services, whether market or marginal cost based. Such central managements' strategic involvement in setting transfer prices for divisional managers would motivate the divisional managers to focus on central organizational goals and objectives, rather than their personal goals.

In its transfer pricing survey, Ernst & Young (2001) characterized transfer pricing as relevant strategic management tool MNEs could use to mitigate costs and increase their shareholders values. The 2001 survey emphasized that multinational corporations would realize significant financial benefits by combining tax and operations at every conceivable level. Ernst & Young (2001) noted that only 29% of parent firms

and 35% of subsidiaries view transfer pricing as part of strategic planning. About 28% of parents and 20% of subsidiaries determined transfer prices after making strategic decisions, and 39% of parents and 38% of subsidiaries treated transfer pricing as a tax compliance issue (Ernst & Young, 2001). The firm suggested that lack of alignment between tax and operations was attributable to the lower percentage of companies that considered transfer pricing as a strategic tool.

Subscribers to positive theory of taxation believe that the government impose taxes to generate revenue or as an incentive to influence behaviors. Hettich and Winer (1999) summarized some of the basic characteristics of positive and normative theories of taxation. The positivists subscribed to the notion that all taxes are consequences of alternatives, which policy makers could model. Positive theories of taxation attempt to model the alternative tax systems and tax rates (Hettich & Winer, 1999).

Proponents of a normative tax theory believe that tax systems should be broad based. Examples are the income taxes, sales taxes, and value added taxes (Hettich & Winer, 1999). They also believe that tax systems should be neutral. Neutrality in this case refers to a tax system that does not have direct effects on relative prices. It also implies a tax system that are broad based without loopholes, and treat all taxpayers similarly (Hettich & Winer, 1999). Hettich and Winer (1999) stated that normative tax theories refer to a tax system that minimized the total burden of taxation. Policy makers could achieve this through the choice of tax systems and choices of tax rates.

Additionally, Hettich and Winer (1999) noted that most economists subscribe to the utilitarian's theory. Utilitarian believes that governments should allocate taxes in a

manner that maximizes social welfare function. The utilitarian's concept of a fair tax system is the progressive income tax systems. They believe that an optimal tax system should impose taxes according to taxpayers' abilities to bear the tax burden.

Review of Recent Changes in Transfer Pricing

The study and analysis of all the changes to the U.S. transfer pricing legislations since inception were beyond the scope of this study. The focus of the study was to evaluate the 2006 changes to the transfer pricing regulations of intercompany services. From 1986 to 2012, both domestic and international business activities have increased substantially in quantities and complexities (IRS, 2009). To keep up with the involving nature of the international business activities, the U.S. government has invested substantial amounts of resources and efforts to implement new transfer pricing legislations, and to amend or enforce the existing ones.

Still concerned about the abuse of transfer pricing regulations in some industries, U.S. congress directed the Treasury Department to review the existing transfer pricing rules and regulations. In 2004, congress, through section 424 and 806 of the American Jobs Creation Act of 2004, directed the Treasury to review the administration of section 482 and reported back to Congress. In response to that directive, the Department of Treasury (2007) acknowledged that the provisions of section 482 regarding Services were outdated and needed revisions. Department of Treasury (2007) suggested that pervasive misapplications of transfer prices related to services and tangible properties existed. Department of Treasury indicated that because the 1994 guidance on intercompany transactions excluded intercompany service transactions, there has been a need to provide guidance regarding the appropriate application of intercompany service transactions. The Department of Treasury indicated that there were needs to incorporate the general rules in

“Treas. Reg. § 1.482-1 (including the best method rule of Treas. Reg. § 1.482-1(c), the comparability analysis of Treas. Reg. § 1.482-1(d), and arm’s length range of Treas. Reg. § 1.482-1(e) to the existing service regulations” (Department of Treasury, 2007, p. 50). In addition, there has also been a need to coordinate and harmonize the rules applicable to service transactions with the rules for other types of transactions under section 482, especially the transfer of intangible assets (Department of Treasury, 2007).

According to Department of Treasury (2007), the implementation of the listed guidelines would mitigate the extent to which multinational enterprises manipulate transfer prices of goods and services. The Treasury and the Internal Revenue service implemented the temporary and proposed services regulations in 2006. The objectives of the temporary and proposed service regulations were to provide guidelines, and address other transfer pricing related concerns (Reg. 1.482-9). In this study, I evaluated the effectiveness of the 2006 changes in preventing MNEs from underreporting their income in the US. Given the Treasury’s loss of tax revenues and the public debates about the tax incentives to large MNCs and wealthy individual taxpayers, there are crucial needs for updated studies to measure the effectiveness of the new regulations.

Summary

The Influence of different Ideologies on U.S. Tax Policies

Most changes to the U.S. transfer pricing rules and regulations reflect the differences in the two prevailing political ideologies and the economic theories, which dominated the U.S. tax policies and debates since the 19th century. Conservatism and liberalism are the two main political philosophies that have influenced U.S. domestic and international tax and economic policies for centuries. Historically, the conservatives adhere to the principles of limited government and the normative theories of taxation. Their philosophies are that the government should play minimal roles in peoples' lives and their economic well-being and that the government should impose minimal taxes on taxpayers' income, including individuals and corporate taxpayers. Empirical and historical studies indicated that the conservatives believe that the government should impose taxes on taxpayers' income regressively or proportionately.

On the other hand, the liberals subscribe to the principles of more government, and to the positive theory of taxation. Liberals believe that the government should play significant roles in peoples' lives and their economic well-being. Both historical and empirical studies also indicated that the liberals believe that the government should impose taxes on taxpayers' income progressively regardless of the income sources. Some of the studies reviewed in this chapter showed that the basic ideological differences, between the conservatives and the liberals, are at the center of the political debates regarding U.S. international tax policies and transfer pricing regulations. Members of the

U.S executive and legislative branches of the government tend to support tax policies, which favor their conservative or liberal views of government functions. For instance, a conservative member of congress would be more likely to support tax legislation that favors large MNCs and wealthy individual taxpayers than a liberal member of congress would support.

Records of the U.S. political campaigns and debates showed that in almost every presidential election debates in the United States from 19th century to present, the need to amend the tax code, to either decrease or increase the tax burdens to taxpayers, were usually among the topics of the debates. The U.S. 2012 presidential election debate was a prime example. Central to the presidential candidates' arguments was whether congress should extend the expiring tax cuts and credits, which congress provided, under the 2003 Jobs and Growth Tax Relief Reconciliation Act. The ideological differences were whether to extend the tax incentives available to large multinational corporations and wealthy individual taxpayers, or whether to extend the tax incentives only to the average taxpayers and small businesses. The political and economic philosophies of the presidential candidates, as well as their political party affiliations, influenced their support in favor or against the tax cuts, and other similar tax incentives to large corporations. For instance, the Democratic Party President, proposed to extend the tax cuts and credits only to tax payers earning less than \$250,000 annually. On the other hand, his Republican Party candidate challenger, proposed to extend the tax benefits to tax payers earning above the \$250,000 thresholds, which includes large multinational corporations and wealthy individuals. Historically, the Republican Party members

subscribed to the macro economic theory, informally known as “trickled down theory,” which suggests that the wealth of large corporations and wealthy individual taxpayers would trickle down to the average citizens eventually. They reasoned that large corporations reinvest their profits back into the U.S economy, which eventually trickled down indirectly to the public. The Democratic Party members, mostly, disagree with that philosophy. They contended that large corporations and wealthy individuals shift their income to foreign countries, and pay little or no income taxes in the United States. Those basic political and economic philosophical differences influence U.S. legislators and public perceptions of a fair tax system significantly.

Chapter 3: Research Method

Introduction

In this chapter, I examined the research method, design, target population, sampling procedures, samples, data collection process, and the data analysis suitable for the study. Additionally, the chapter includes discussions of other research methods and designs to contrast existing data design used in this study from the other research designs. Most researchers design their studies using one or combinations of the following three research methods: quantitative, qualitative, and mixed methods of research. Each method has its inherent strengths and weaknesses. The research question or hypothesis a researcher wants to explore influences the selection of the method or combination of methods suitable for the research. Selecting the most appropriate method or methods is essential to addressing a given research question properly. Singleton and Straits (2010) explained that a variable is quantitative if its values or categories consist of numbers and if researchers can express the differences between its categories numerically. Accordingly, the quantitative research method and casual comparative research design were the most suitable for this study. I used existing (or available) data sources, a controlled group time-series, and regression analysis to address the study's questions and hypotheses.

Quantitative Research

Quantitative research method was the most suitable method for this study, and causal comparative design, also called ex post facto research design, using available data sources, was the appropriate research design. Leedy and Ormrod (2005) described the ex post facto research design as an alternative to experimental designs for researchers interested in investigating the extent to which an independent variable may affect the dependent variable of interest when it is not possible to manipulate the independent variable (p. 232). Given that the IRS has already proposed and implemented the independent variables in the study (changes in transfer pricing of intercompany services and changes in IRS enforcement budgets), the casual comparative research design was the most suitable design for the study. I could not reintroduce or manipulate these existing variables.

Research Questions and Hypotheses

The following research questions and hypotheses guided this study.

3. To what extent do the recent changes in the transfer pricing regulations of intercompany services relate to the taxable income, which multinational enterprises in the service industry, reported to the U.S Treasury between 2006 and 2009?

H₀1: The recent changes in the U.S. transfer pricing regulations of intercompany services have no effect on the taxable income MNEs reported in the U.S. between 2006 and 2009.

H₁1: The recent changes in U.S. transfer pricing regulations have significant effects on the taxable income multinational entities reported in the United States between 2006 and 2009

4. To what extent do changes in the IRS enforcement budgets relate to the taxable income, which MNEs, in the service industry, reported in the U. S between 2000 and 2009?

H₀2: Increases in the annual IRS compliance and enforcement budgets would have no significant effect on the taxable income, which multinational corporations in the service industry reported in the U.S between 2006 and 2009.

H₁2: Increases in the annual IRS compliance and enforcement budgets would have significant effect on the taxable income, which multinational corporations in the service industry reported in the U.S between 2006 and 2009.

To address the research questions and test the hypotheses, I conducted four separate tests. First, I tested whether FCDCs in the service industry engaged in transfer pricing manipulations in United States within the tested period. To conduct the test, I used profit level indicators to evaluate whether the transfer prices foreign controlled domestic corporations charged to their affiliated entities in the United States were at arm's length. Reg. § 1.482-9 requires the use of ratio of operating profit to total service costs as the appropriate profit level indicator to compare profitability levels of controlled companies when the tested party is the service provider. I used the ratio of operating profits to total service costs to compare the profitability levels of FCDCs and the comparable non foreign-controlled domestic corporations (USDC). The tested transactions are the services that FCDCs and USDCs in the professional, scientific, and technical services industries rendered within the measured periods.

I used regression analysis to measure the relationships between the operating profits and the total cost of services to test the first hypothesis. The dependent variable was the operating profit and the independent variable was the total cost of services. For visual and year-to-year comparisons, I used a control group time-series to compare the changes in operating income, which FCDCs and USDCs reported during the measured periods.

I evaluated the effects of changes in IRS annual enforcement budgets on the pretax income FCDCs in the service industry reported to the IRS between 2000 and 2009. To test the hypothesis, I measured the relationships between the IRS' annual compliance and the enforcement budget ratios (CBR), and the pretax income ratios (TIR). Similar to

Clausing (2009), Dubin et al. (1990), the dependent variable was the PTIR and the independent variable was the CBR. For visual comparisons, I used time-series to compare the year to changes in IRS budget and the pretax income, which FCDCs reported in the U.S between 2000 and 2009.

Existing Data Design

Existing data or available data research includes the use of an existing data source generated by someone else other than the researcher. In most cases, researchers collect data for a purpose, but the same data may be useful for other purposes not related to the original purpose for collecting the data. Singleton (2010) described the use of available data as one of the approaches to social research. There are several sources of existing data. Public databases are a source of available data. The U.S. Census Bureau, the IRS, the Bureau of Labor Statistics, and the Bureau of Vital statistics are sources of existing data that researchers could use to conduct a new research not related to the original purpose for collecting the data. The Census Bureau keeps records of U.S population counts and other demographic data. The IRS maintains databases of federal income taxes taxpayers filed. The United States conduct a census every 10 years to keep track of changes in the population. Private sources, mass media, or social science data archives are other sources of available data that researchers may use to conduct a new research. Newspapers, magazines, television, radio, and films documentaries are other useful sources of existing data (Singleton, 2010).

Using existing data has some advantages. Singleton (2010) listed the nonreactive nature of data sources, analysis of large social structure, study of the past, understanding of social changes, increased replication and sample size, and savings on research costs as some of the advantages of using available data to conduct a new research. Research data collected for other purposes and stored in public or private databases controls for participants' sensitivity to a research study. Existing data are nonreactive except for

personal documentaries and autobiographies, in which the authors are aware that the interviewer may publish their responses. Existing data, unlike experimental research designs, enable researchers to gather and study data related to social groups. Existing data also enables researchers to study past events. For instance, available data would make it possible to study events that took place in the 15TH century or earlier periods.

Sometimes, available data are the only feasible method of studying historical events.

Durkheim conducted a study on suicide rates in different countries, to emphasize the importance of secondary data source (as cited in Frankfort-Nachmias & Nachmias, 2007). Durkheim was able to document that suicide rates were higher in predominantly Protestant countries than in Catholic countries as cited in Frankfort-Nachmias & Nachmias, 2007) Mark used official economic statistics to substantiate a study of class-struggle theory and the need for economic determinism as another prime example of the usefulness of secondary data source as cited in Frankfort-Nachmias & Nachmias, 2007). Historians use available data in most of their studies. Existing data research designs are most suitable to study changes in social and cultural events, such as racial segregation and gender inequalities because of the sensitive nature of these events.

Another advantage of using existing data is the use of a large sample size and the possibility for replicating the studies (Singleton & Straits, 2010). Researchers can select data from multiple databases to complete their studies. Compared to survey research or other research designs that require original data collection, using existing data sources provides more sample size, and saves more collection costs, time, and efforts for researchers. I used an approximate total sample size of 6,113,000 from IRS Statistics of

Income database. It would cost a considerable amount of time and money to an individual researcher interested in collecting an original data sample size of this magnitude. In addition, given the personal nature of income tax returns, it would be difficult for an individual researcher to collect such sample size from the respective business taxpayers.

Although the use of existing (or secondary) data has many advantages, it also has its limitations. Frankfort-Nachmias and Nachmias (2007) cited the difficulty of fitting data collected for other purposes to a new research problem as a disadvantage. Another disadvantage of using existing data is that it could also be difficult to locate the suitable data researchers need to conduct desired studies. In addition, available data may not be sufficient to answer the research questions a scholar needs to answer. Gaining access or permission to existing data could be problematic and challenging for a researcher in some cases.

The study of the effectiveness of changes in enacted transfer pricing legislations on the behaviors of multinational enterprises, evaluated by the taxable income they reported in the United States, is among the studies that are suitable for existing data designs. Many previous researchers relied on existing data sources to test their hypotheses and address their research questions on transfer pricing. The followings are some of the studies conducted on transfer pricing using available data designs and data sources.

Previous Studies Conducted Using Existing Data Design

To address the research questions posed in this study, I used similar designs and methods that Harris (1993), Clausing (2009), Dubin et al. (1990), and Dubin (2004) used in their studies. Harris conducted a quantitative study using an existing data design and controlled time-series to examine MNCs income shifting patterns before the enactment of the Tax Revenue Act (1986) and after the implementation of the Tax Revenue Act. Harris compared the levels of income taxes U.S multinational corporations reported to the levels of income taxes U.S domestic corporations reported between 1984 and 1990 in the United States. Using the same method and design, Clausing used the ratio of pretax income to sales to analyze the relationship between U.S-affiliated corporations' profit rates and foreign corporations' tax rates between 1982 and 2004.

To compare the year-to-year changes in the IRS enforcement budgets and the income MNEs reported from 2000 to 2009, I applied similar methods and designs that Dubin (2004) used. Dubin (2004) used a cross sectional time series between 1998 and 2001 to measure the effects of IRS audit rates on taxpayers' compliance with tax laws. Dubin measured the effect of IRS budget rate (total IRS budget divided by total taxes filed) on reported tax per return (income tax audited divided by income tax filed). Dubin et al. (1990) also used time-series cross sections data set from 1977 to 1986 to measure the effects of IRS audits on federal taxes filled and collected. Dubin et al. expected and found that the IRS budget per return influenced audit rates and federal taxes collected.

In another study, the White House and the U.S. Department of the Treasury (2012) used existing data to conduct a study to show that the U.S. system of taxing

businesses needs reforms. In the study, the White House and the U.S. Department of the Treasury argued that the United States has a narrow tax base and high statutory and effective corporate tax rates, compared to other Organization of Economic Corporation and Development's (OECD) countries. To illustrate their points, The White House and the U.S. Department of the Treasury used the existing data, compiled by the OECD, to show the comparative tax rates for Canada, France, Germany, Italy, Japan, the United Kingdom, and the United States. The White House and the U.S. Department of the Treasury showed the weighted average statutory and effective corporate tax rates between 1981 through 2011 for the countries.

Similar to the previous study, Grubert (2012) used existing data from the U.S. Treasury's corporate tax base to determine the increased share of multinational corporations' income abroad. Grubert used the tax data from corporate tax returns from 1996 and 2004 to calculate the average effective foreign tax rates for the period.

Similarly, Harris, Morck, and Slemrod (1993) studied the income shifting into the United States. Harris et al. examined 95 companies for the years 1984 to 1988. Harris et al. found that U.S tax liabilities were lower among corporations that located the businesses in a tax haven country. Harris (1993) studied income shifting into the United States following the amendments of the IRS code in 1986. Harris examined firms for the years 1987 to 1990. Harris found that U.S. multinational corporations paid more U.S. taxes and reported more U.S. income between 1987 through 1990 than U.S. domestic corporations reported during the same period. Harris also found that multinational corporations reported less foreign income in 1987 and 1988. Klassen, Lang, and Wolfson

(1993) conducted a study on income shifting in the United States also following changes in the U.S. tax code in 1986. Klassen et al. examined 191 firms for the years 1987 and 1990. Klassen et al. found that multinational corporations shifted income into the United States in 1987 and out of the country in 1988. Collins, Kemsley, and Shackelford (1997) studied FCDCs in the wholesale industry from 1981 to 1990. Collins et al. found that there were no links between the FCDCs' nonpayment of income taxes and manipulation of transfer prices. The use of existing data sources enhanced the researchers' ability to study large samples of data over a long period within a short time frame.

The Study's Population

The study's population includes multinational corporations in the service industries that filed income tax returns with the IRS from 2000 to 2009. They were comprised of multinational corporations with affiliated entities in the United States and in foreign countries. The recent changes in the transfer pricing regulations of intercompany services targeted multinational corporations with controlled entities in the United States and in foreign countries. The U.S government designed its transfer pricing regulations to ensure the multinational corporations sell goods and services to their affiliated entities at arm's length (Section 482).

The Target Population

The study's target population includes FCDCs in the service industry and the domestic corporations in the service industry that filed income tax returns with the IRS from 2000 to 2009. Setting up foreign corporations in countries with low income tax rates is among the strategies multinational corporations use to shift income from the United States to foreign countries (GAO, 2008). I also targeted FCDCs in the service industry because the 2006 changes to transfer pricing regulations were specific to the service industry (section 482). Domestic corporations in the service industry were included in the target population to serve as a control group for comparison.

Sampling Frame

I selected samples from the corporate tax returns Form 1120, which domestic- and foreign-controlled corporations filed with the IRS between 2000 and 2009. These tax forms contain income statements elements and balance sheet data for the corporations. The samples were restricted to tax returns that showed net income. The IRS maintains income tax returns database for individuals and corporations for research purposes (Treasury Department, 2007).

Sampling Procedure

The Statistics of Income (SOI) division of the IRS compiled its tax return database using stratified probability sampling method. I used the stratified samples for analysis. SOI stratified the tax return data by industries and categorized them by tax forms filed and by various financial statements elements.

Sample Size

The table below shows the total sample size selected for both USDCs and FCDCs.

The samples are comprised of tax returns that show net income for the listed tax years.

Table 1

Number of returns filed between 2000 and 2009- with net income

Amounts in Millions

Years	USDCs- Number of Returns with net income	FCDCs - Number of Returns with net income
2000	405	70
2001	373	68
2002	391	71
2003	406	76
2004	481	96
2005	549	132
2006	630	128
2007	676	144
2008	550	132
2009	578	157
Total	5039	1074

Note: Data Source: Internal Revenue Service, Statistics of Income Division, Washington DC

Data Collection and Analysis

Most U.S taxpayers, including Foreign Controlled Corporations and Domestic Controlled Corporations, are required to file their income tax returns with the U. S Internal Revenue Service annually. Corporations' tax returns include details of their income statements and other relevant elements of the financial statements. Domestic corporations and multinational corporations also file their financial statements with the U.S Securities and Exchange Commission (SEC) annually.

Reviews of previous studies on transfer pricing shows that the IRS income tax database serves as a good source for research data. For example, Grubert et al (1993), GAO (1992), and GAO (1995) used available data from IRS' statistics of income (SOI) division from 1990 and 1991 to study the percentage of foreign-controlled and U.S.-controlled corporations that paid no income tax in United States. The SOI data reflects the tax returns data as filed and did not reflect IRS audits or net operating loss carrybacks that would result from any losses in future years. Similarly, in this study I used similar data source for analysis.

In a similar study, Collins, Kemsley, and Shackelford (1997) conducted a study to measure whether foreign corporations, "prevalence of near zero taxable income" is linked to transfer pricing manipulation of inventory purchases. Collins et al. used existing data from corporate tax returns in the IRS database, from 1981 to 1990, to address their research questions. Similarly, I used similar IRS income tax database to examine the Controlled Foreign Corporations reported taxable income between 2000 and 2009.

In another study, Department of Treasury (2007) conducted an empirical study to measure the relationship between the profitability of Foreign Controlled Corporations (FCCs) in high tax jurisdictions and FCCs in low tax jurisdictions. GAO (2008) used the corporate tax returns FCCs filed with the IRS as a data source. To investigate the relationship between tax rates and reported profits, Department of Treasury (2007) used the ratio of operating profit to sales and the dependent variable, and the statutory tax rates as the independent variable. These financial elements are available already in the income tax Form 1120 that FCDCs filed with the IRS. I used similar data source to address the research questions.

In a similar but different study, Grubert (2012) used corporations' income tax returns from the IRS database, from 1996 to 2004, to measure the changes in the sensitivity of foreign income shares and profit margin, to tax rate differences for a given period. Grubert used regression analysis to estimate the changes in profit margin and sales and their levels in a given year. Similarly, I used the tax returns FCDCs filed with IRS to evaluate the effect of changes in IRS budgets on the pretax income FCDCs, in the service industry reported between 2000 and 2009.

Data Analysis

The objective of this study was to evaluate the effectiveness of U.S government's efforts to mitigate Multinational Corporations' propensity to underreport their taxable income, in the United States. To reduce corporate taxpayers' non-compliance behaviors, the U.S government employs regulations and enforcement strategies to enhance compliance to U. S tax laws (GAO, 2008). As part of the strategy, the IRS updated section 482 of IRS code in 2006, regarding the transfer pricing of intercompany services. In 2012, Government Accountability Office proposed that increasing the budget IRS would decrease taxpayers' non-compliance rate (GAO, 2012).

Bases for the Variables

The bases for measuring the effects of IRS budgets on taxpayers compliance behaviors originated from Dubin, Graetz, and Wilde (1990) extension of Becker (1968) economic theory of crime. Dubin, Graetz, and Wilde (1990) posited that increasing the probability of IRS tax audit or the penalty rate for underreporting tax liabilities would reduce noncompliance to tax regulations. In this study, I used a similar method that Harris (1993), Clausing (2009), Dubin, Graetz, and Wilde (1990), and Dubin (2004) used. They measured the effects of tax rates and IRS audit rates on taxpayers' compliance to enacted tax laws. Similarly, I used SPSS to run a regression analysis, to answer the research questions.

Data Sources

The IRS SOI database was the major source of the data that I used to conduct this study. The Internal Revenue Code (IRC) requires foreign owned domestic corporations and U.S domestic corporations to file their income tax returns with the IRS annually. Corporations' tax returns include details of their income statements and other relevant financial statements' elements. The use of available data from SOI to address the research questions is consistent with previous studies on the topic of transfer pricing regulations. For example, in a recent study, Grubert (2012) used corporations' income tax returns from the IRS database, from 1996 to 2004, to measure the changes in the sensitivity of foreign income shares, profit margin and tax rate differences within the measured periods. Similar to this study, Grubert (2012) also used regression analysis to estimate the levels of changes in profit margin and sales for the study. In earlier studies, Grubert et al (1993), GAO (1992), and GAO (1995) used available data from SOI, from 1990 and 1991, to study the percentage of foreign-controlled and U.S.-controlled corporations that paid no income tax in United States.

Similarly, Collins, Kemsley, & Shackelford (1997) conducted a study to measure whether foreign corporations, “prevalence of near zero taxable income” is linked to transfer pricing manipulation of inventory purchases. Collins et al. used existing data from corporate tax returns in the IRS database, from 1981 to 1990, to address their research questions.

In another study, Department of Treasury (2007) conducted an empirical study to measure the relationship between the profitability of Foreign Controlled Corporations

(FCCs) in high tax jurisdictions and FCCs in low tax jurisdictions. The agency used corporate tax returns FCCs filed with the IRS as a data source. To investigate the relationship between tax rates and reported profits, Department of Treasury (2007) used the ratio of operating profit to sales and the dependent variable, and the statutory tax rates as the independent variable. These financial elements are available already in the income tax Form 1120, which FCDCs filed with the IRS. This study used similar profit level indicator, the ratio of operating profit to total cost of services, to evaluate whether FCDCs, in the service industry, rendered services to their affiliated entities at arm's length.

Review of Other Quantitative Research Designs

Quantitative Research

Quantitative research is a method of inquiry researchers use to answer research questions through numerical evidence. The focus of quantitative research is to assign numerical values to data, construct statistical models using collected data, and to draw conclusions based on applied statistical tools used for data analysis. Quantitative research follows established standards of measurements and analytical processes to answer research questions. Therefore, quantitative method is an objective, and effective research approach to answer certain research questions or to test hypotheses. Researchers could examine quantitative research problems from two broad categories; one is through descriptive quantitative research, and the other is through experimental research. Singleton and Straits (2010) defined descriptive study as a structured, systematic, and precise way to describe a phenomenon using detailed numerical data. Singleton and Straits further explained that in a descriptive, quantitative research study, researchers would gather information selectively and analyze them in the way they are without manipulations. Examples of descriptive quantitative research designs are correlational research, survey research, causal comparative research, and existing data designs. Researchers could employ any of the research methods to generate quantitative data, which they could summarize through statistical analyses (Leedy & Ormrod, 2005). On the other hand, experimental research entails actual testing of relationships among variables. True experimental research design involves the manipulation of dependent variables to measure results. The subsequent sections of this chapter show examples of

true experimental designs, quasi-experimental designs, and other descriptive research designs.

Correlational research design

Correlational research design could be an alternate design for this study. It would be an acceptable design to measure the relationships between the changes in transfer pricing regulations and the taxable income multinational corporations reported in the United States. Correlational study examines the degree to which one quantifiable variable relates to other quantifiable variables. Correlations exist among variables when a change in one variable causes a predictable change in another variable (Leedy & Ormrod, 2005). The changes could be direct or indirect. For example, a correlation exists if a change in one variable causes an increase or decrease in another variable. Researchers use correlation coefficient to measure the level of the relationship among variables. Correlation coefficient is a number between -1 and +1. The coefficients of highly correlated relationships are closer to either -1 or +1. For instance, -.80 or .85 denote strong relationship. Conversely, -.10 or +.11 show weak relationships. A positive number indicates a positive correlation, which implies that as one variable increase, the other increases, as well. A negative number indicates negative correlation, which means that when one variable increase the other will decrease. One of the disadvantages of correlational studies is that researchers cannot establish the causal relationships among variables based on the correlational studies (Leedy & Ormrod, 2005). Correlation study shows relationship, but does not claim that change in one variable caused the change in

the other, negative, or positive. One can only draw such conclusions through true experimental designs.

The advantages or strengths of a correlational study are that it establishes relationship- either positive or negative relationships. For instance, if a correlational study shows a positive relationship between Federal Pell Grant program and student's enrollment in 4 years universities, it has shown that Federal Pell Grants increases students' enrollment, although it cannot claim that Federal Pell grants caused the increase in students' enrollment. However, the positive correlation may inspire further true experimental research to confirm whether one variable causes the other. If further studies confirm that one of the variables caused the other, the correlational study has served its purpose. Another advantage of correlational research is that researchers could use it in situations where true experimental design is impractical, due to ethical or legal reasons.

Survey research

Leedy and Ormrod (2005) defined survey research as a research process that involves acquiring information about one or more groups of people regarding their characters, opinions, attitudes, or previous experiences by asking questions and summarizing their answers. Similarly, Singleton and Straits (2010) explained that social science survey involves asking questions to a large sample of people through various methods. The method could be in the form of phone interviews, questionnaire, or face-to-face interviews. The units of analysis in a survey research are usually people; however, researchers may use other appropriate units of analysis for their studies. Surveys have three common attributes: they involve a large number of sample sizes selected from a

form of probability sampling, observations, through interviews and questionnaires, and statistical analysis of collected data (Singleton & Straits, 2010). Surveys are useful for both scientific and non-scientific purposes because it covers the large sample size involving different characteristics. A researcher could gather data from participants through structured or unstructured interviews. In a structured interview, the objectives are specific and predefined. In unstructured interviews, the objectives may be general and covers a wide variety of topics. Researchers normally follow the structured interview protocols if the purpose of the survey is to gather quantitative data; they use the unstructured format if the purpose of the survey is to gather qualitative data.

Data analysis depends on the purpose of the survey. In practice, the statistical analysis to use varies if the purpose is descriptive, explanatory, or a combination of the two types of study. Descriptive surveys seek to describe the distribution within a population of certain characteristics, attitudes, or experiences. On the other hand, explanatory surveys seek to investigate relationships between two or more variables and attempt to explain these in cause-and-effect terms (Singleton & Straits, 2010). One of the advantages of survey research is that another researcher could use the large samples the primary researcher gathered to answer new research questions.

Singleton and Straits (2010) referred to existing survey research as secondary analysis of survey research. Some examples of survey research data sources, researchers could use for secondary research purposes, are the census data, labor statistics related databases, and other government databases. When experiments are impractical because of ethical or other legitimate reasons, survey research can be an effective and efficient way

to gather information from a broad range of research topics. Secondary analysis of data gathered through survey saves money and time for researchers and provides larger samples of data to a secondary researcher. One disadvantage of survey research is that, unlike experimental designs, it is difficult to infer cause and effect through survey research. The researcher can only summarize the data he or she gathered from participants, but cannot manipulate the content of the data. A researcher should anticipate and measure relevant extraneous variables and apply statistical control over the variables in the data analysis (Singleton & Straits, 2010).

Ex Post Facto or Casual Comparative research

Causal Comparative research, also known as ex post factor design, is a research design that researchers can use when it is unethical to introduce certain treatments to the research process. The design is also useful when it is impossible to manipulate certain independent variables in order to measure their potential influence on dependent variables. Leedy & Ormrod (2005) explained that ex post facto design provides an alternative means by which a researcher can investigate the extent to which certain independent variables may affect the dependent variables of interest. Researchers can use this design to identify events that have already occurred or conditions that are already present. When investigating events that have already occurred, researcher would collect data to investigate the possible relationships between the existing events and the subsequent characteristics or behaviors (Leedy & Ormrod, 2005). In some ways, ex post facto designs are similar to, but not the same as correlational or experimental designs. Like correlational research, ex post facto research involves the evaluation of existing

conditions, but like experimental research, ex post facto research identifies independent and dependent variables. However, ex post facto design does not involve any manipulation of independent variables, which is the most distinguishing feature of experimental research designs. Given that researchers using ex post facto research design cannot manipulate the independent variables, to test the effect of the variables on dependent variables, the research cannot draw absolute conclusions about cause and effect. The researcher's inability to manipulate the independent variable implies that he or she cannot control most of the extraneous variables that may provide alternative explanations to the research results (Leedy & Ormrod, 2005).

Experimental Design

Researchers use experimental designs to determine cause-and-effect relationships. During experimentation, researchers anticipate and control for possible factors that may provide alternative explanations other than the variables that are the focus of investigation. One of the disadvantages of experimental design is weak external validity. This is because experimental designs do not allow researchers to replicate real-life social situations. Another weakness is that researchers must often rely on volunteers or self-selected subjects for their samples. As a result, samples may not be a reasonable representation of the population of interest (Frankfort-Nachmias, 2008).

There are three categories of experimental research designs: Pre-experimental designs, Quasi-experimental designs, and True experimental designs. Pre-experimental designs are useful in forming hypotheses that research would retest with controlled studies (Leedy, 2005). Researchers cannot imply cause-and-effect relationships with

pre-experimental designs because the designs lack the necessary attributes to establish cause and effects. When researchers use pre-experimental designs, they do not select samples at random and cannot manipulate the independent variables, or control extraneous variables. Examples of pre experimental research designs are one shot experimental case study, one-group pretest- posttest design, and static group comparison design (Singleton & Straits, 2010). Each one of the designs involves nonrandom selection of samples or groups, observation, and treatment. None has sufficient control for extraneous variables

Researchers use quasi-experimental designs when random selection of samples is not possible or impractical. However, like the pre experimental designs, quasi-experimental designs do not control for confounding variables, which may provide alternative explanations for research results. As a result, researchers should consider the extraneous variables when analyzing their data, and cannot infer causal relationship from the study results. Examples of quasi-experimental designs are nonrandomized control group, pretest-posttest design, and time series designs (Leedy & Ormrod, 2005).

True experimental design

One of the major differences between true experimental designs and other research designs are the random selection and assignment of participants to study groups. Random assignments ensure that differences between groups are due to chance, and not due to confounding variables. In true experimental designs, researchers are able to select units of study to include in the study groups at random. Researchers can also control for extraneous variables, strengthen the study's internal validity, and manipulate the

independent variables. An example of true experimental design is pretest-posttest control group design. In a pretest-posttest control group design, researchers select an experimental and a control group using appropriate randomization methods. The researcher observed the experimental group, subjected it to experimental treatment, and observed it once again. The researcher would not subject the control group to any treatment; he or she would simply observe the group in the beginning, and at the end of the test. The pretest-posttest control group design, unlike the pre-experimental design, enables the researcher to determine whether a change has taken place. If changes had occurred, the researcher can conclude that the changes are due to the experimental treatment, and not due to extraneous variables.

Solomon four-group design; one of disadvantages of pre-test posttest control design is that pre-testing may influence how people respond to the experimental treatments. To overcome this shortcoming, Solomon (1949) proposed extension of the pretest -posttest control group by adding two more control groups. None of the two additional control groups would be pre tested at the beginning. One group would be treated and observed after treatment; the other group would receive no treatment, but the researcher will observe the group at the end of the treatment. Researchers would eliminate the pretesting problems and increase the generalizability of their studies by using the combined four groups in a study.

The posttest –only control group design is useful when it is not possible to conduct pre-test. For instance, the actions of natural disasters such as hurricane and thunderstorms cannot be pretested. Researchers use the posttest only control group

designs in such situations. This is similar to the last two additional groups Solomon (1949) proposed.

Another research design, within subject design, involves the administration of multiple experimental treatments simultaneously to the same experimental groups. Researchers referred to this design as within subjects design because researchers measure the dependent variables multiple times (Leedy & Ormrod, 2005). The six research designs discussed so far are most suitable for quantitative research studies. The following section discusses qualitative research and examples of the most suitable research designs for a qualitative research.

Qualitative Research

Contrary to the quantitative research described above, qualitative research is a research approach used to gain a better understanding of participants' beliefs, attitudes, motivations, and the general behaviors of individuals. Researchers use qualitative research approach to explore social or human problems. The approach includes methods such as focus groups, in-depth interviews, observation research, and case studies. Creswell (2007) stated that qualitative research begins with assumptions of worldviews, possibly a theoretical basis, and the study of research problems exploring the meaning individuals or groups ascribe to social or human problems. "Researchers build a complex, holistic picture, analyzes words, reports detailed views of informants, and conducts the study in a natural setting" (p. 249). Qualitative research is a research process that employs a holistic approach to studying social phenomena. Researchers collect data from

natural settings or field. The researcher is the key instrument for data collection. The data are in the form of words or images. Data analyses are inductive and interactive.

Qualitative research is a subjective approach to research with a focus on participants' perspectives, their meanings, and their subjective views. It frames human behaviors and belief with a social-political or historical context, or through cultural perspectives (Creswell, 2007).

Qualitative research designs

Both qualitative and quantitative studies follow similar processes. Like quantitative research, qualitative study starts with an issue or a problem. A qualitative researcher reviews existing literature on the problem, pose questions, gather and analyze relevant data, and write up the results. The followings are some of the examples of qualitative research designs: Case study, Ethnography, phenomenology, and Grounded Theory.

Case study research involves the study of an issue a researcher explores through one or more cases within a bounded system (Creswell, 2007). Case studies are suitable for learning more about less known or poorly understood events or situations. It may also be useful for investigating how an individual or program changes over time because of intervening circumstances (Leedy & Ormrod, 2005). The focus of a case study is to develop an in depth description and analysis of a case or multiple cases. One of the research problem best suitable for a case study design is a problem that involves the provision of an in-depth understanding of a case or cases, drawing from psychology, law, political science, or medical background (Leedy & Ormrod, 2005). The units of analysis

are events, programs, activities, and group of individuals. Data collection methods are the use of multiple sources, such as interviews, observations, documents, and artifacts.

Researchers analyzed data through description of the case and themes of the case as well as cross-case themes. Researchers report their findings developing a detailed analysis of one or more cases. One of the challenges of a case study is deciding the “boundaries” of a case. Researchers struggle with how many cases to study, a single case or multiple cases. Deciding how much time, activities, and efforts to devote on a case present challenges to case study researchers.

Ethnography

Ethnography is the study of a cultural, a social group, or individuals within the group based on the researcher’s observations and the prolonged periods they spent with participants in the field. The ethnographer listens and records the voices of informants with the intent of generating a cultural portrait (Creswell, 2007). Ethnographic studies involve the description and interpretation of a cultural sharing group. The research problem best suitable for the design is the problem that involves the description and interpretation of the shared patterns of culture of a group. Anthropologists and sociologists use the research design for their studies. In this research design, the units of analysis are groups that share the same culture. Researchers collect data primarily through observations and interviews. They collect and analyze data by describing the culture-sharing group and themes about the group. Researchers document their findings by describing how a culture-sharing group works (Creswell 2007).

Phenomenology

Leedy and Ormrod (2005) defined phenomenological study as a study that attempts to understand people's perceptions, perspectives, and understandings of a given situation. In a general sense, phenomenology refers to a person's perception of the meaning of an event as opposed to the event as it exists external to the person (Leedy & Ormrod, 2005). Researchers using phenomenology design depends on interviews of individuals who had personal experiences related to the phenomenon in question to gather their data. The researcher normally focuses on understanding the essence of the experience. The need to understand and describe the essence of a lived phenomenon is normally the best problem suitable for a phenomenological research. Researchers draw experiences from philosophy, psychology, and education when conducting phenomenological studies. Some examples of the units of analysis for a phenomenological research are individuals that have shared the experience of interest. The strategies to analyze data in this study design are the analysis of data for significant statements, measuring units, textural and structural description, and the description of the "essence" (Creswell 2007).

Grounded Theory Study

In a grounded theory study, researchers generate an abstract, an analytical schema of a phenomenon, a theory that explains some actions, interaction, or processes. Researchers accomplished this through the collection of interview data, making multiple visits to the field, attempting to develop and inter-relate categories of information, and writing a substantive or context-specific theory (Creswell, 2007). Grounded theory refers

to the idea that researchers derive the theory that emerges from the study from the data they collected in the field rather than the data taken from the research literature.

Grounded theory studies are helpful when current theories about a phenomenon are either inadequate or non-existent (Creswell, 2007). Researchers engaged in grounded theory studies usually focus on developing theories grounded in the data collected from the field.

The research problem most suitable for grounded theory is a research problem with a focus on the theory researchers derived from the data field participants provided.

Researchers draw experiences from sociology background. The units of analysis of the research design are process, actions, or interaction involving many individuals. Open coding, axial coding, and selective coding are the usual methods of data analysis.

Researchers report their finding in the form of theory generation (Creswell, 2007).

Summary

Comparisons of quantitative and qualitative research

From the foregoing analysis of research designs, it is apparent that the focus of social science research is about finding answers to social research problems that researchers want to explore at a given period. The research approach or design researchers employ is relevant but should be secondary to finding the best answers to the research problems. In a quantitative research, researchers quantify the data they collected in numbers and measurements, but in qualitative research, the data are in words, narratives, and descriptions. In qualitative research, data collection takes place in more natural and less controlled settings than the quantitative research. Researchers using correlational, experimental, and quasi-experimental research designs for their studies usually collect quantitative data. Researchers using case studies, ethnography, phenomenology and grounded theories for their studies usually collect qualitative data. When using a quantitative approach, experimentation may take place in the field or at a laboratory. Survey interviews and questionnaires vary in their structure, sample size, and quality. Existing data could be in different forms and has unique methodological problems. Investigators involvement in the observational setting of field research presents subjectivity problems. Ethical considerations may restrict experimentation and manipulation of certain variables. Survey researches are useful to estimate and describe the characteristics and attitudes of a given population. When a researcher collects both quantitative and qualitative data, the research approach is the mixed method. The next chapter, chapter 4 shows the findings of the study.

Chapter 4: Results

Introduction

In this study, I evaluated the effectiveness of the updated U.S transfer pricing rules and regulations of intercompany services in 2006 in preventing foreign-controlled domestic corporations from shifting income from the United States to foreign countries. The focus of this chapter is to discuss the study's findings. The chapter includes the overview of the research questions, hypotheses, and the analysis of the research results. The chapter also includes the following three main subcategories: (a) data collections, (b) results, and (c) summary. Furthermore, the subcategories include the description of data collection, samples, descriptive statistics, assumptions, findings, and the chapter summary.

Research Questions and Hypotheses

To measure the effectiveness of the updated transfer pricing regulations of intercompany services, the following research questions and hypotheses guided the study:

1. To what extent do the recent changes in the transfer pricing regulations of intercompany services relate to the taxable income, which multinational enterprises in the service industry, reported to the U.S Treasury between 2006 and 2009?

H_01 : The recent changes in the U.S. transfer pricing regulations of intercompany services have no effect on the taxable income MNEs reported in the U.S. between 2006 and 2009.

H_1 1: The recent changes in U.S. transfer pricing regulations have significant effects on the taxable income multinational entities reported in the United States between 2006 and 2009

2. To what extent do changes in the IRS enforcement budgets relate to the taxable income, which MNEs, in the service industry, reported in the U. S between 2000 and 2009?

H_0 2: Increases in the annual IRS compliance and enforcement budgets would have no significant effect on the taxable income, which multinational corporations in the service industry reported in the U.S between 2006 and 2009.

H_1 2: Increases in the annual IRS compliance and enforcement budgets would have significant effect on the taxable income, which multinational corporations in the service industry reported in the U.S between 2006 and 2009.

To address the research questions and test the hypotheses, I conducted four separate tests. I tested whether FCDCs in the service industry engaged in transfer pricing manipulations in the United States within the tested period. To conduct the test, I used the profit level indicators to evaluate whether the transfer prices that foreign-controlled domestic corporations charged to their affiliated entities in the United States were at arm's length. Reg.1.482-9 requires the use of the ratio of operating profit to total service costs as the appropriate profit level indicator to compare profitability levels of controlled companies, especially, when the tested party is the service provider. I used the ratio of operating profits to total service costs to compare the profitability levels of FCDCs and the comparable non foreign controlled USDC. The tested transactions were the services

that FCDCs and USDCs in the professional, scientific, and technical services industries rendered within the measured periods.

For visual comparisons, I used a control group time-series to compare the year-to-year changes in operating income, which FCDCs and USDCs reported during the measured periods. I used regression analysis to measure the relationships between the operating profits and the total cost of services to test the first hypothesis. The dependent variable was the operating profit and the independent variable was the total cost of services.

I evaluated the effects of changes in IRS annual enforcement budgets on the pretax income FCDCs in the service industry reported to the IRS between 2000 and 2009. To address the second research question and test the hypothesis, I measured the relationships between the IRS' annual compliance and CBR and the TIR. Similar to Clausing (2009), Dubin et al. (1990), the dependent variable was the TIR and the independent variable was the CBR. For visual comparisons, I used time-series to compare the year to changes in IRS budget and the pretax income, which FCDCs reported in the United States between 2000 and 2009.

Data Collection

The SOI division's income tax database served as sources for research data. I used the available data from the SOI database to address the research questions and test hypotheses. The data collection process started with the e-mail I sent to the IRS SOI in Washington DC on May 28, 2013. I requested permission to use their corporate income tax database as a data source for the study. A staff from the SOI division responded and informed me that there were no restrictions on the use of the data on their website. The Internal Revenue Code (IRC) requires foreign-owned domestic corporations and U.S domestic corporations to file their income tax returns with the IRS annually. Corporations' tax returns include details of their income statements and other relevant financial statements' elements. The IRS' SOI data reflects the tax returns data as filed and does not reflect IRS audit adjustments or taxpayers amended returns.

My use of available data from SOI to address the research questions is consistent with previous studies on the topic of transfer pricing regulations. For example, Grubert (2012) used corporations' income tax returns from the IRS database, from 1996 to 2004, to measure the changes in the sensitivity of foreign income shares, profit margin, and tax rate differences within the measured periods. Similar to this study, Grubert also used regression analysis to estimate the levels of changes in profit margin and sales for the study. In earlier studies, Grubert et al. (1993), GAO (1992), and GAO (1995) used available data from IRS' SOI division from 1990 and 1991 to study the percentage of foreign-controlled and U.S.-controlled corporations that paid no income tax in the United States. Similarly, Collins et al. (1997) conducted a study to measure whether foreign

corporations “prevalence of near zero taxable income” is linked to transfer pricing manipulation of inventory purchases (p. 82). Collins et al. used existing data from corporate tax returns in the IRS database from 1981 to 1990 to address their research questions.

The Department of Treasury (2007) conducted an empirical study to measure the relationship between the profitability of FCCs in high tax jurisdictions and FCCs in low tax jurisdictions. The agency used corporate tax returns FCCs filed with the IRS as a data source. To investigate the relationship between tax rates and reported profits, the Department of Treasury used the ratio of operating profit to sales as the dependent variable and the statutory tax rates as the independent variable. These financial elements are available already in the income tax Form 1120, which FCDCs filed with the IRS. I used a similar profit level indicator, the ratio of operating profit to the total cost of services, to evaluate whether FCDCs in the service industry rendered services to their affiliated entities at arm’s length.

Data Adjustments

SOI database enables industry-by-industry comparisons of domestic- and foreign-controlled corporations. The most current data available that SOI published during the data collection process were the income tax returns corporations filed up to the tax year 2009. Given the available data, I revised the measurement period from 12 consecutive years to 10 consecutive tax years (from 2000 through 2011 to 2000 through 2009). The revision had no material impact on the results of the study. I compared the operating profits, which FCDCs and USDCs reported before 2006 and the operating profits they

reported after 2006. Therefore, the corporations' income tax data from 2000 to 2009 were sufficient to draw relevant conclusions. For accuracy and consistency purposes, I used operating income as the dependent variable instead of taxable income to compare the year-to-year changes in the reported income. Taxable income includes adjustments such as interests, net operating loss carry back; dividends received deductions, taxes paid, and other similar items. These items vary from one company to another, and may skew the result of study if used as the dependent variable.

Results

Question 1 and Hypothesis 1

I conducted the following tests to address the first research question and the first hypothesis regarding the effect of the updated transfer pricing regulations of intercompany services on the income, which FCDCs reported in the United States between 2006 and 2009. First, I tested whether FCDCs in the service industry rendered services to their controlled affiliated entities in the United States at arm's length, compared to comparable non foreign-controlled U.S domestic corporations. The test is relevant because paying higher prices for goods and services to related foreign corporations is one of the methods U.S-based foreign corporations could use to transfer taxable income from the United States to foreign countries (GAO, 2008). Therefore, FCDCs' reporting of high total cost of services and lower operating profits over the same period might suggest transfer- pricing manipulations. I found that FCDCs that rendered professional, scientific and technical services in the United States reported average operating profits within the same interquartile range as the comparable non foreign controlled domestic corporations in the same industry. FCDCs, in the service industry charged arm's length prices for the services they rendered to their affiliated entities in United States within the measurement periods.

To conduct the first test, I used the best method rules, described under Reg. 1.482-1 for intercompany services. I used the ratio of operating profits to total service costs as the profit level indicator to compare the profitability levels of foreign-controlled domestic corporations and the comparable non foreign-controlled domestic corporations, in the

service industry. Reg.1.482-9 requires the use of the ratio of operating profit to total service costs as the appropriate profit level indicator to compare profitability levels of controlled companies when the tested party is the provider of intercompany services. I selected professional, scientific, and technical services transactions as the relevant comparable service transactions for both FCDCs and USDCs tested. Tables 2 through 4 below show the financial statement's data, from IRS SOI divisions' database, used to compute the operating profits and the profit level indicators.

Table 2

FCDCs' Cost of Services Data from 2000 to 2009

Amount in Millions

Years	Number of Returns with net income	Business Receipts	Cost of Goods Sold	Operating Expenses before taxes and interest expense	Operating Profits	Total Cost of Services
2000	70	25,389	11,028	7,126	7,235	18,154
2001	68	29,740	12,723	7,763	9,254	20,486
2002	71	32,472	14,844	7,591	10,037	22,435
2003	76	33,116	13,389	8,350	11,377	21,739
2004	96	39,252	15,424	10,572	13,256	25,996
2005	132	49,634	18,146	12,851	18,637	30,997
2006	128	55,212	19,497	14,427	21,288	33,924
2007	144	69,192	24,627	17,425	27,140	42,052
2008	132	70,039	25,465	18,023	26,551	43,488
2009	157	67,177	21,683	19,164	26,330	40,847
Total	1,074	\$471,223	\$176,826	\$123,292	\$171,105	\$300,118
Average		\$47,122	\$17,683	\$12,329	\$17,111	\$30,012

Note. Source: Internal Revenue Service, Statistics of Income Division, Washington DC

Table 2 shows the computation of operating profits and total average cost of services for FCDCs that rendered intercompany services to their affiliated entities in the United States from 2000 to 2009. I used the average total cost of services of \$30,012 million computed in Table 2 to compute the FCDCs' comparable operating profit reported in Table 4. Table 3 shows similar data for USDCs.

Table 3

USDC Cost of Services Data from 2000 to 2009

Amount in Millions

Years	Number of Returns with net income	Business Receipts	Cost of Goods Sold	Operating Expenses before taxes and interest exp.	Operating Profit	Total Cost of Sales	Ratio of Operating Profit to Total Cost of Sales
2000	405	172,568	63,762	56,425	52,381	120,187	43.58%
2001	373	165,452	54,291	54,140	57,021	108,431	52.59%
2002	391	160,992	52,145	50,691	58,156	102,836	56.55%
2003	406	175,340	57,466	51,424	66,450	108,890	61.02%
2004	481	194,406	63,866	58,466	72,074	122,332	58.92%
2005	549	221,127	72,877	67,627	80,623	140,504	57.38%
2006	630	245,633	81,955	72,792	90,886	154,747	58.73%
2007	676	263,631	88,959	80,255	94,417	169,214	55.80%
2008	550	261,023	95,618	75,120	90,285	170,738	52.88%
2009	578	278,115	104,706	72,553	100,856	177,259	56.90%
Total	5039	2,138,287	735,645	639,493	763,149	1,375,138	

Note. Data Source: Internal Revenue Service, Statistics of Income Division, Washington DC

Table 3 shows the computation of the profit level indicators, the ratios of operating profits to total costs of services, for non foreign-controlled domestic corporations in the professional, scientific, and technical service industry for tax years 2000 to 2009. Applying each year's ratio to the FCDC's average total cost of services shown in table 2 (\$30,012) would lead to the comparable operating profit (COP) for the services that FCDC rendered, as shown in table 4 below.

Table 4

FCDC Comparable Operating profits and USDC's Profit Level Indicators

Tax Years	Ratio of USDC Operating Profit to Total Service Cost	Computed FCDCs' Comparable Operating Profit
2000	43.58%	13,080
2001	52.59%	15,782
2002	56.55%	16,972
2003	61.02%	18,315
2004	58.92%	17,682
2005	57.38%	17,221
2006	58.73%	17,627
2007	55.80%	16,746
2008	52.88%	15,870
2009	56.90%	17,076
Total		166,371

Table 4 shows the computed comparable operating profits for FCDC. I derived the profit level indicators from the comparable business activities of non foreign-controlled U.S Domestic Corporations. Reg.1.482-1(e)(2)(iii)(B) requires the computation of arm's length range when the available data are not sufficiently complete to conclude that all material differences between the relevant business activity of the tested companies and the comparables companies have been identified. In this study, the arm's length range was computed according to the interquartile range under § 1.482-1(e)(2)(iii)(C). The interquartile range consisted of the results ranging from \$16,972 to \$16,746, shown in table 4. The average operating profit of \$17,111, computed in table 2, falls within the range. The tested FCDCs rendered intercompany services to their affiliated entities in the United States at arm's length.

In the second test, I used a control-group time series to show the year-to-year changes in the operating profits and total cost of sales for both FCDCs and USDCs from 2000 to 2009.

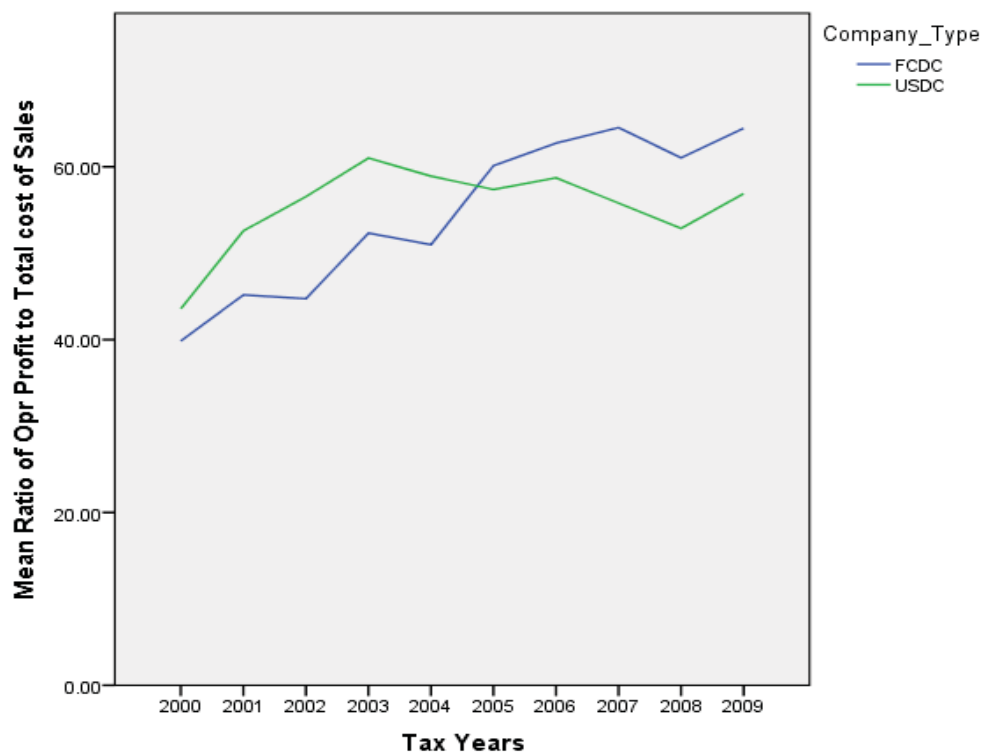


Figure 1. The control group time series for FCDCs and USDCs reported income trend.

The chart showed increased trend of the operating profits, which FCDCs reported in U.S from 2000 to 2009. It also showed that the income that FCDCs reported, within the measured periods, increased along with increased total costs of services, especially after 2006. Compared to the USDC, the chart implied that FCDCs rendered services at arm's length to its affiliated entities in the U.S during the measured period. The chart also

showed that, from 2006 to 2009, FCDCs reported increased pretax profits in the U.S consistently. This is consistent with the results from the first test.

In the third test, I used simple regression to measure the relationships between the pretax income and the total cost of services, which FCDCs reported in the U.S from 2000 through 2009. The dependent variable was the operating income and the independent variable was the total cost of services. Below are the summary of the results.

Statistics-Regression Analysis

The regression analysis shows that the independent variable, the total cost of services, related significantly to the dependent variable, the operating profits, which FCDCs reported in U.S between years 2000 and 2009. The F ratio is equal to 39.066. P, equals to less than .001, R, equals .911. The P value of .001 is less than the standard of value of .05. The R-value implies that the total cost of services had significant, positive relationship with the reported operating profits. It showed that the total cost of services increased over the periods when the operating profits increased. The significant positive relationships further suggested that the tested FCDCs rendered services to its affiliated entities at arm's length, in the United States. Total costs of services have beta equals to .911. See table 5 below.

The three tests conducted to answer the first research question consistently show that FCDCs in the service industry rendered services to their affiliated entities in the U.S at arm's length. Based on the tested companies, the results indicated that the 2006 changes in the U.S transfer pricing regulations of intercompany services were effective in mitigating the manipulation of intercompany service transactions in the U.S.

Table 5

Relationships between FCDC Operating Profits and Total Cost of Services

	B	Std. Error	Beta
(Constant)	28.55	4.36	
Total Cost of Services	0.01	0.00	0.91***

Note: R = .911, R square = .830, p = < .001.

Assumptions

The number of assumptions in a study varies depending on whether the researcher conducted a simple or a multiple regression. Multiple regression analysis requires more assumptions, given that it has two or more predictor variables than simple regression, which has only one predictor variable. Berry (1993) indicated that certain assumptions must be true for researchers to draw conclusions about a population based a regression analysis from a sample. I used simple regression analysis to test the study's hypotheses and answer the research questions. The study met the following assumptions: Variable types, Non-zero variable, independent errors, normally distributed error, and linearity assumptions. The variable type assumption requires all predictors to be quantitative or categorical, and the outcome variable to be quantitative, continuous, and unbounded. The values of the total cost of services and the ratio of operating profits, used in this study met the assumptions. The no zero variance requires that the predictors should have no zero values. The values of the total cost of services and the ratio of operating profits, used in this study, met the assumption. The independence assumption assumes that all of the values of the outcome variable are independent. This study has one outcome variable of each of the two hypotheses tested. The Durbin-Watson test, shown on the table below, shows compliance to the independence of errors assumption.

Table 6.

Model Summary

Model Summary ^b					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.91 ^a	.83	.81	4.00919	1.66

a. Predictors: (Constant), Total Cost of Sales

b. Dependent Variable: Ratio of Operating Profit to Total Cost of Services

The model summary shows R-value of .911, which represents the simple correlation between the ratio of operation profit and the total cost of services. The value also represents strong positive relationship between operating profits and total cost of services. The model shows R square of .83, which implies that the total costs of sales accounted for 83% of the variations in operating profits. It also shows standard error of 4.009, which is small considering the sample size.

The Durbin Watson statistic shows a value of 1.661. Durbin Watson recommended statistic range between 1 and 3 (Field, 2009). In this model, the Durbin-Watson statistic of 1.661 falls within the accepted range. This implies that the errors in the model were reasonably independent.

Table 7.

ANOVA Summary

ANOVA ^a					
Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	627.932	1	627.932	39.066	.000 ^b
1 Residual	128.589	8	16.074		
Total	756.521	9			

a. Dependent Variable: Ratio of Operating Profit to Total Cost of Services

b. Predictors: (Constant), Total Cost of Sales

The main ANOVA summary table shows that the observed significance value is .000, which is less than 0.05 threshold recommended. This implied that there was a significant effect of total costs of sales in operating profits.

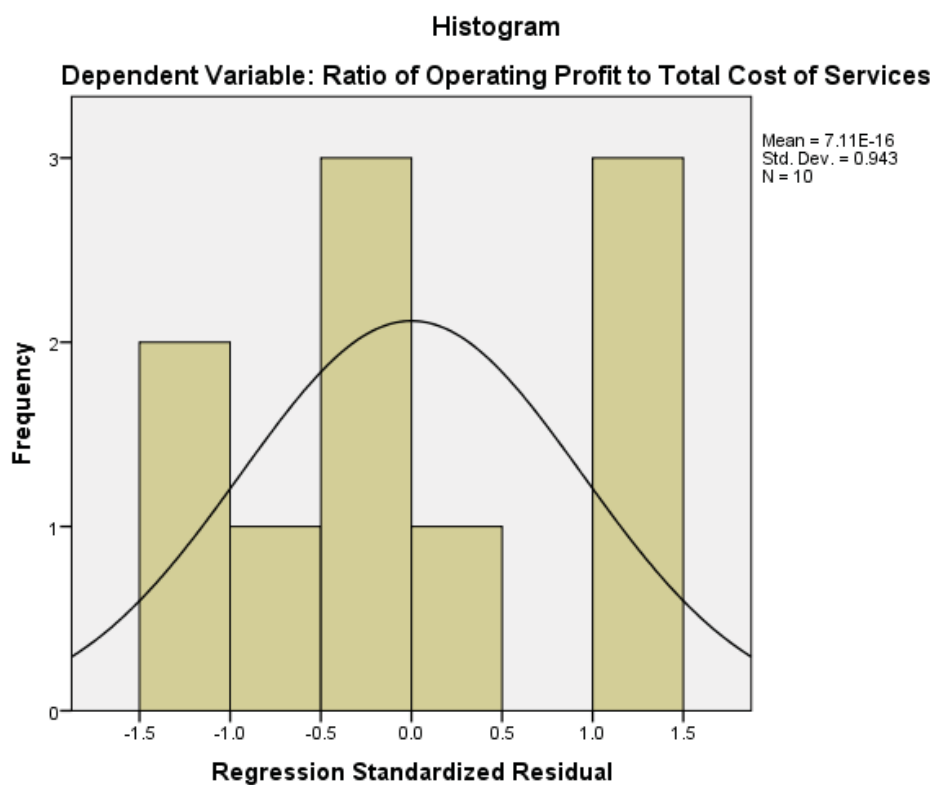


Figure 2. The histogram showing normal distribution

The histogram appears reasonably distributed normally.
This suggested that the model met the normality of errors assumption.

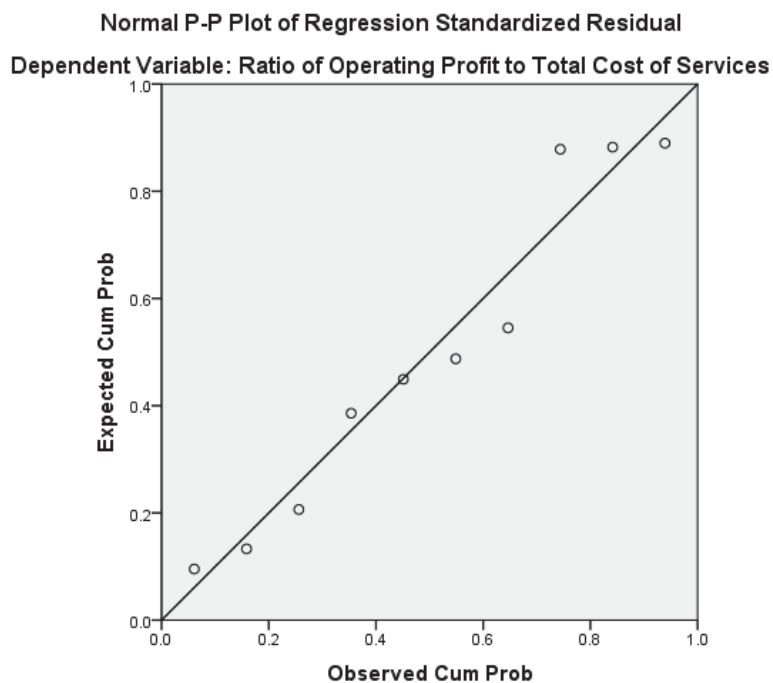


Figure 3. The P-P plot shows the linear relationships between the variables.

The graph shows a positive relationship between the operation profits and total cost of services. This indicated that an increase in operating profits correspond with an increase in total cost of services. Conversely, decreases in operating profits correspond to decreases in the total cost of services.

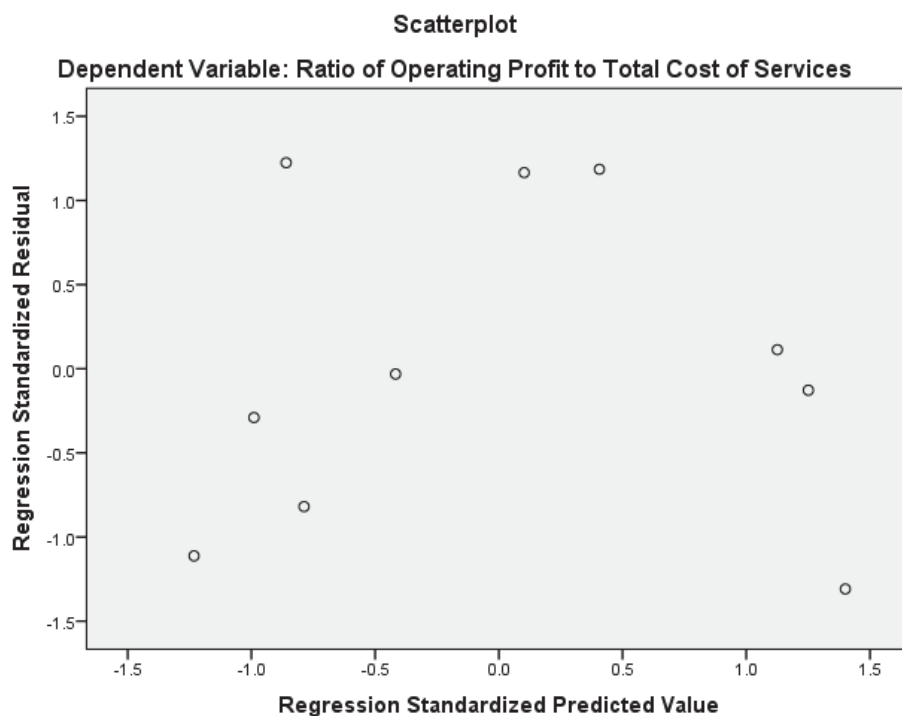


Figure 4. The scatterplot shows the assessment of independence of errors.

The plot showed random pattern, which indicated no violation of the independence of errors assumption.

*Table 8.**Descriptive statistics– FCDC*

Variables	Mean	Std. Deviation	N
Ratio of Operating Profit to total Cost of Services	54.6010	9.16831	10
Total Cost of Sales	\$30,011.80	\$9,623.893	10

Amounts in millions of dollars

The N column shows the number of years tested (2000 to 2009) and not the actual number of samples. As shown in first column of table 1, the total sample size tested was 1.074 million corporations that filed income taxes with net income.

Table 9

Person Correlation - level of relationships between the variables

	Variables	Ratio of Operating Profit to Total Cost of Services	Total Cost of Sales
Pearson Correlation	Ratio of Operating Profit to Total Cost of Services	1	.91
	Total Cost of Sales	.91	1
Sig. (1-tailed)	Ratio of Operating Profit to Total Cost of Services		.000
	Total Cost of Sales	.000	
N	Ratio of Operating Profit to Total Cost of Services	10	10
	Total Cost of Sales	10	10

***Correlation is significant at $p = < .000$ (1tailed)

The Pearson correlation matrix shows the strength of the linear relationships between the variables measured. It shows the strong positive relationship of .91 between operating profits and the total cost of services.

Question 2 and Hypothesis 2

The fourth and last test addressed the second research question and the second hypothesis regarding the extent changes in the IRS enforcement budgets relate to the income MNEs reported to the U.S Treasury, between 2000 and 2009. To address the question, I evaluated the relationships between the ratio of pretax income, which FCDCs in the service industry reported in U.S, and the ratios of IRS enforcement budgets, between 2000 and 2009. Below are the summary of the results.

Statistics-Regression Analysis

The regression analysis showed that IRS' annual enforcement budgets, within the measured periods, significantly, but negatively related to the pretax income FCDCs reported in the United States. The result shows that as the annual budgets ratio decreased, pretax income ratio increased. This implies that pretax income ratio increased from year-to-year, within the measured periods, regardless of the annual budgets. The F ratio is equal to 9.213, P equals .016, R equals -.732. The beta also equals -.732 because there was only one independent variable. The analysis suggested the increasing the annual IRS budgets may not increase the pretax income, which FCDCs, in the service industry reported to the U.S Treasury. See table 10 below.

Table 10

Relationship between FCDC Pretax Income and Budget Ratios

Independent Variables	B	Std. Error	Beta
(Constant)	63.696	12.963	
Enforcement Budget Ratio	-.951	.313	-.732

Note. R = .732, R square = .535, p = <. 017

Descriptive Statistics

Table 11

Descriptive Statistics

Variables	Mean	Std. Deviation	N
Pretax Income Ratio	24.9480	9.77453	10
Enforcement Budget Ratio	40.7540	7.51930	10

The total number of FCDCs corporations tested was 1.074 million. The N column represented the number of years tested (2000 to 2009), and not the actual number of samples from the IRS SOI.

Table 12

Level of relationship between enforcement ratio and pretax income

	Variables	Pretax Income Ratio	Enforcement Budget Ratio
Pearson Correlation	Pretax Income Ratio	1	-0.73
	Enforcement Budget Ratio	-0.73	1
Sig (1-tailed)	Pretax Income Ratio		0.008
	Enforcement Budget Ratio	0.008	
N	Pretax Income Ratio	10	10
	Enforcement Budget Ratio	10	10

***Correlation is significant at $p = < .016$ (1tailed)

The Pearson correlation matrix shows the level of the relationships between FCDCs' reported pretax income and IRS annual enforcement budgets.

Scatter plot showing the relationships between the FCDCs' pretax income ratios and IRS' annual budget ratios from 2000 to 2009

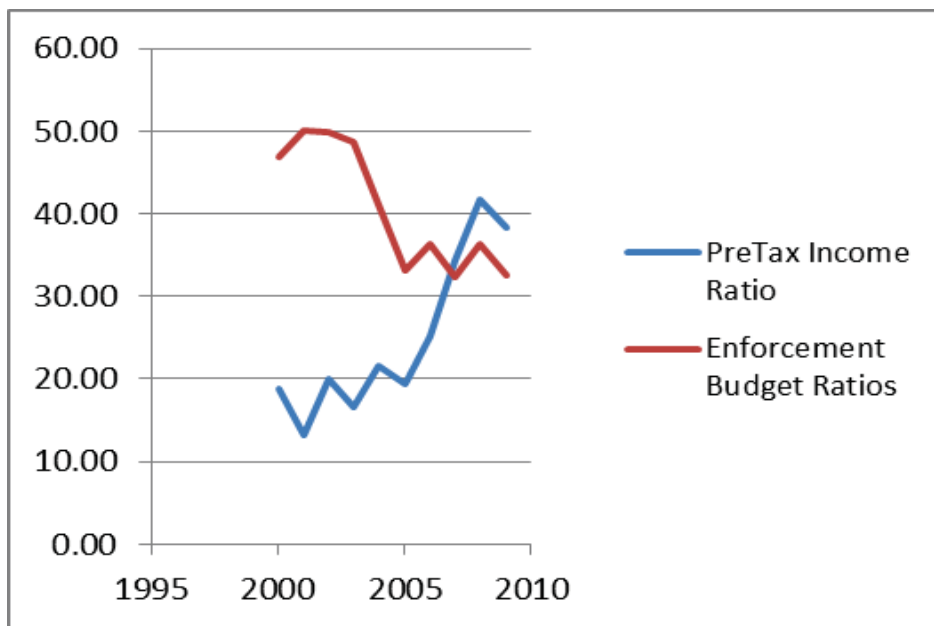


Figure 5. The Scatter plot showing the relationships between pretax income and budgets

The chart shows the inverse relationships between the pretax income and the IRS's enforcement budgets. It showed that pretax income had increased consistently from 2006 to 2009, but enforcement budgets, on other hand, had decreased at the same period.

Second Assumptions

As already stated, this study used simple regression analysis to test the study's hypotheses and answer the research questions. The study met the following assumptions: Variable types, Non-zero variable, independent errors, normally distributed error, and linearity assumptions. The variable type assumption requires all predictors to be quantitative or categorical, and the outcome variable to be quantitative, continuous, and unbounded. The numerical values of the pretax income and the enforcement budgets, used in this study met the assumptions. The no-zero variance requires that the predictors should have no zero values. The values of the pretax income and the enforcement budgets met the assumption. The Durbin-Watson test, shown on the table below, shows compliance to the independence of errors assumption.

Table 13

Model Summary 2

Model	R	R Square	Model Summary ^b		
			Adjusted R Square	Std. Error of the Durbin-Watson Estimate	
1	.732 ^a	.535	.477	7.06782	1.105

a. Predictors: (Constant), Enforcement Budget Ratio

b. Dependent Variable: Pre_Tax_Income_Ratio

The model summary shows R-value of .732, which represents the correlation between the IRS enforcement budget ratio and the pretax income MNEs reported in the U.S. The model shows R square of .535, which implies that the enforcement budget accounted for 54% of the variations in the pretax income MNEs reported in U.S within the measured period. The Durbin Watson statistic shows a value of 1.105, which is within the acceptable range of 1 through 3. This implies that the errors in the model are reasonably independent.

Normal Distribution Assumption

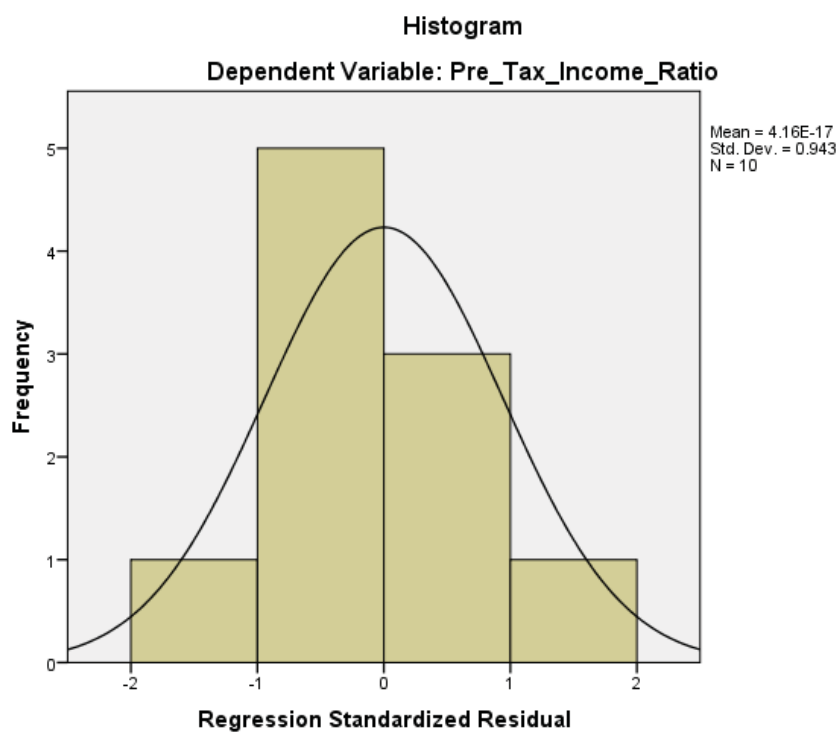


Figure 6. The second histogram showing normal distribution

The histogram seems normal, which met the normal distribution assumption.

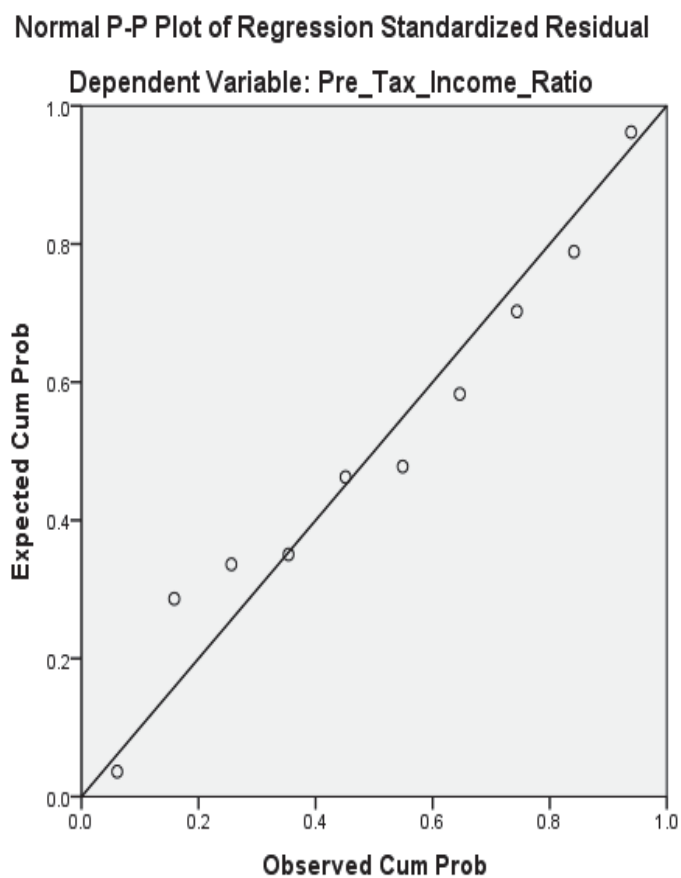


Figure 7. The P.P plot showing linearity assumption

The P-P plot shows linear relationships of the variables, which satisfies the linearity assumption.

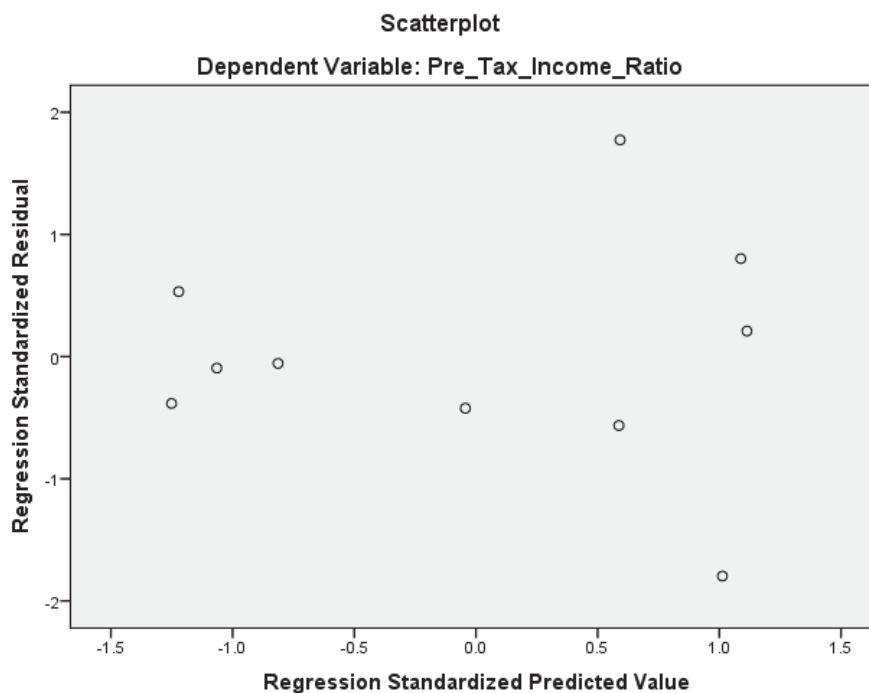


Figure 8. The scatterplot showing the assessment of independence of errors.

The plot shows random pattern, which indicates no violation of the independence of errors assumption.

Summary

I applied three separate tests to evaluate the effect of the 2006 updated transfer-pricing regulations of intercompany services on the pretax income, which multinational enterprises reported to the U.S Treasury between 2000 and 2009. First, I evaluated whether FCDCs rendered services to its affiliated entities in the U.S. at arm's length. To conduct the test, I used one of the methods Treasury regulation section 1.482-1 prescribed. The result showed that FCDCs in the professional, scientific, and technical services industry rendered services at arm's length to their affiliated entities in the United States.

Second, I used control group time series to evaluate the year-to-year changes in the income, which FCDCs and USDCs in the service industry, reported before the implementation of the 2006, and the income they reported after the implementation updated changes. The result showed that FCDCs reported increased income in U.S consistently after 2006. Based on samples tested, the result indicated that updated transfer pricing regulations of intercompany services had the government's intended effect.

Finally, I used regression model to test the relationships between the pretax income, which FCDCs reported in the U.S after the implementation of the 2006 changes to the U.S transfer pricing regulations, and the total cost of services the corporations incurred to earn the reported profits. The result showed significant, positive, relationships between the total cost of services and the pretax income that FCDCs reported during the measured periods.

I also used regression model to test the relationships between increases in IRS annual budgets and the pretax income MNEs reported in the United States. My objective was to test GAO (2012) theory that increasing the IRS' enforcement budgets would increase the pretax income, which controlled multinational corporations reported to the U.S Treasury. The result showed inverse relationships between IRS budgets and the pretax income FCDCs reported in U.S within the measured periods. The next chapter, chapter 5, provided additional interpretations of the study's findings, limitations, recommendations, and the Social change implications of the study.

Chapter 5: Discussion, Conclusions, and Recommendations

Introduction

In 1994, Congress revised some provisions of intercompany transfer pricing regulations under section 482 of the code. However, the revisions excluded regulations related to intercompany services. The absence of updated intercompany services regulations had led to discontinuities between transfer pricing for services and transfer pricing for tangible and intangible property (Department of Treasury (2007)). The Department of Treasury indicated that prior to the implementation of the new service regulations in 2006, Congress issued the existing final transfer pricing regulations of intercompany transactions in 1968. In the interim, intercompany service transactions had become a significant component of the U.S and global economy (Department of Treasury, 2007). The Department of Treasury indicated that large, integrated, multinational corporations are much more common now than they were in 1968. The Department of Treasury also showed that intercompany services rendered within such controlled groups constitute a growing proportion of global service transactions. These findings supported the need for updated regulations for intercompany services.

The purpose of this study was to evaluate the effectiveness of the U.S government's efforts to mitigate the loss of tax revenues to multinational corporations conducting business activities in the United States. The objective of the study was to analyze the relationships between the updated transfer pricing regulations of intercompany services, the relationship between increases in the IRS enforcement budgets, and the pretax income that MNEs, in the service industry, reported to the U.S

Treasury between 2000 and 2009. In this quantitative research, I used existing data sources and regression analysis to answer the research questions and test the stated hypotheses.

Concerned that affiliated multinational enterprises manipulate their transfer prices, and the difficulty of the IRS to conduct retrospective audits to determine noncompliance to the arm's length standards, the U.S Congress ordered a review of the intercompany transfer pricing in 1986 (Treasury Department, 1988). In 2004, congress, through section 424 and 806 of the American Jobs Creation Act (2004), directed the Treasury to review the administration and compliances of the existing transfer pricing regulation. In response to that directive, the Treasury reviewed and acknowledged that the provisions of section 482 regarding services were outdated and needed revisions (Department of Treasury, 2007). The Department of Treasury (2007) confirmed the existence of pervasive misapplications of transfer prices related to services and tangible properties. The Department of Treasury stated that because the 1994 guidance on intercompany transactions excluded intercompany service transactions, there was a need to provide guidance regarding the appropriate application of intercompany service transactions.

Among other recommendations, the Treasury indicated that there were needs to incorporate the general rules in "Treas. Reg. § 1.482-1 (including the best method rule of Treas. Reg. § 1.482-1(c), the comparability analysis of Treas. Reg. § 1.482-1(d), and arm's length range of Treas. Reg. § 1.482-1(e) to the existing service regulations" (Department of Treasury, 2007, p. 50). In addition, the treasury indicated that there has

been a need to coordinate and harmonize the rules applicable to service transactions with the rules for other types of transactions under section 482, especially the transfer of intangible assets (Department of Treasury, 2007). The Treasury suggested that the updates would ensure that intercompany services reflect the current legal, business, and economic developments (Department of Treasury, 2007). IRS (2009) indicated that both domestic and international business activities have increased in quantities and complexities from 1986 to 2012. The U.S. Census (2010) showed that the increases in international activities also gave rise to increases in intercompany transactions. The U.S. Census Bureau reported the following historical trend of relative share of related party trade from 2000 to 2009:



Figure 9. The share of related party trade

Note. Source: U.S. Census Bureau -U.S. Department of Commerce • Washington, D.C. 20230 (2010)

The percentage of relative share of related party trade was between 39.75% and 41.9 %, between 2000 and 2009.

To ensure that the transfer pricing of intercompany services reflects current legal, business, and economic developments, the Treasury Department implemented the proposed, and temporary regulations of services in 2006 (Department of Treasury, 2006). The Department of Treasury also recommended continuous monitoring of the transfer pricing rules to ensure its relevance to the changes in business environments, and to prevent noncompliance with the arm's length principles. Reg. § 1.482-9 describes the newly implemented methods and application criteria as follows: the service cost method (the total services costs without markup to evaluate whether certain services are at arm's length). The services cost method without markup represents the best method for the purposes of satisfying Section 1.482-1(c) relative services. The following requirements are necessary to use the service cost method to measure the arm's length of controlled service transactions. The first requirement is that the service should be a covered service. Covered services consist of controlled service transactions, which met the definitions of specific covered services, or low margin services (Reg. § 1.482). Specific covered services are controlled service transactions that the commissioner specifies by revenue procedure (Reg. § 1.482). The commissioner determines services to include in the revenue procedure based on the support services that are common among taxpayers in the sector. The services do not involve median comparable markups on total service costs (Reg. § 1.482-9). Low margin covered services are controlled service transactions, which the median comparable markup on total service costs are less than or equal to 7%. Reg. §1.482-9 defines the median comparable markup on total services costs as the excess of

the arm's length price of the controlled services transaction determined under the general section 482 regulations using the interquartile range described in §1.482-1(e)(2)(iii)(C).

The second requirement is that the service is not an excluded activity. Excluded activities are manufacturing, production, extraction, exploration, or processing of natural resources, construction, reselling, distribution, sales or purchasing agent commission sells agents, research, development, or experimentation, engineering or scientific activities, financial transactions, including guarantees, and insurance or reinsurance.

The third requirement is that the taxpayers' business judgment rule does not preclude the service from constituting a covered service. This implies that services do not include services that contribute to risks of business success or failure. A service cannot constitute a covered service unless the taxpayer concludes in its business judgment that the service does not contribute to competitive advantages, core capabilities, or risks of success or failure in one or more trades or businesses of the controlled group (§1.482-1(i)(6)).

The fourth requirement is the availability of books and records. Taxpayers should maintain books and records to show the taxpayers' intention to apply the services cost method to evaluate arm's length transactions. The books and records should have adequate information to enable the IRS to verify the total service costs incurred by the service provider, including a description of the services in question, identification of the service provider, and the recipient of such services. It should also include sufficient documentation to allow verification of the methods used to allocate and apportion such costs to the services in question (Reg. § 1.482-9).

The next method taxpayers, who engaged in controlled service transactions, could use to determine arm's length transaction is the comparable uncontrolled services price method. The comparable uncontrolled services price method includes the amount taxpayers charged, in a comparable uncontrolled service transaction, to determine whether a controlled services transaction is at arm's length. Although all of the factors described in §1.482-1(d) apply to determine the degree of comparability between controlled and uncontrolled transactions, similarity of the services rendered, and the similarity of the intangible property used in performing the services, usually have the greatest effects on comparability under this method. This method will not provide a reliable measure of an arm's length result if there are material differences between controlled and uncontrolled services.

The gross service margin method includes the gross profit margin that taxpayers realized, in comparable uncontrolled transactions, to determine whether the amount controlled service taxpayer charged in a controlled service transaction is arm's length. Taxpayers use the method in situations where a controlled taxpayer performs services or functions in connection with an uncontrolled transaction between a member in a controlled group and an uncontrolled taxpayer. Taxpayers may also use this method when a controlled taxpayer renders services (agent services) to another member of the controlled group in connection with a transaction between that other member and an uncontrolled taxpayer (Reg. § 1.482-9). Additionally, a controlled taxpayer may also use the method in cases where a controlled taxpayer contracts to provide services to an

uncontrolled taxpayer, but another member of the controlled group performs a portion of the services provided.

In the cost of services plus method, taxpayers use the gross services profit markup, which uncontrolled taxpayers realized in comparable transactions, to determine whether the amount controlled taxpayers charged are at arm's length. The cost of services plus method is suitable in cases where the controlled service provider render the same or similar services to both controlled and uncontrolled parties. The method is not suitable to use in cases where the controlled services transaction involves a contingent-payment arrangement.

Comparable profits method includes the objective measures of profitability (profit level indicators) derived from uncontrolled taxpayers that engage in similar business activities, under similar circumstances, to measure whether the amounts that controlled taxpayers charged are at arm's length. The rules in §1.482-5 relating to the comparable profits method also apply to controlled services transactions.

In the profit split method, taxpayers should use the relative value of each controlled taxpayer's contributions to the combined operating profit or loss to evaluate whether the allocations of the combined operating profit or loss, attributable to controlled transactions, were at arm's length. Taxpayers should determine the relative value of each controlled taxpayer's contribution in a manner that reflects the functions performed, risks assumed, and resources employed by such controlled taxpayer in the relevant business activity.

In the unspecified method, taxpayers may use methods not specified above to evaluate whether the amount they charged in a controlled services transaction is at arm's length. Consistent with the specified methods, unspecified methods should take into account the principle that uncontrolled taxpayers should evaluate the terms of a transaction by considering the realistic alternatives to that transaction, including economically similar transactions structured as other than services transactions. To establish whether a controlled services transaction achieved an arm's length result, an unspecified method should provide information on prices or profits that the controlled taxpayer could have realized by choosing a realistic alternative to the controlled services transaction. A taxpayer's choice to outsource a service function, rather than performing the function itself, would be an example of a realistic alternative (Reg. § 1.482-9).

I evaluated the effectiveness of the implemented transfer pricing regulations of intercompany services in preventing MNEs from underreporting their income to the U.S Treasury. I also evaluated the effects of increases in the IRS enforcement budgets on the pretax income, which MNEs in the service industry reported to the U.S Treasury between 2000 and 2009. Based on the tested samples, the implementations of the new transfer pricing regulations of intercompany services, in 2006, were effective in preventing noncompliance to the arm's length principles. I could not reject the first alternative hypothesis. IRS annual budgets had no direct relationship with the pretax income, which MNEs reported in the United States, within the measured period. I could not reject second null hypothesis.

Interpretation of Findings

In testing the first hypothesis, I showed the effect of the 2006 updated U.S transfer-pricing regulations of intercompany services on the pretax income FCDCs reported to the IRS. FCDCs, in the professional, scientific, and technical industries, reported lower income in the United States before 2006 and higher income after the implementation of the transfer pricing regulations of intercompany services in 2006. The implementation of the transfer pricing regulations of intercompany services, in 2006, were effective in preventing multinational corporations from underreporting their income in the United States within the measured period.

On the other hand, the result derived from testing the second hypothesis showed no direct relationship between IRS' enforcement budgets and the income MNEs reported in U.S. The result showed an inverse relationship between changes in IRS budgets and the income FCDCs reported between 2000 and 2009. The significant, but negative relationship between the pretax income FCDCs reported and the annual IRS budgets suggested that increased IRS budgets were a poor measure of MNEs compliance behaviors to U.S tax regulations.

The results of this study reflected the interplay of the strategic, equity, and the economics theories. In its transfer pricing survey, Ernst & Young (2001) identified transfer pricing as one of the relevant strategic management tool multinational corporations use to mitigate costs and increase their shareholders values. Ernst & Young (2001) noted that both parent firms and their subsidiaries view transfer pricing as part of their strategic planning. On the other hand, taxing authorities, across multiple

jurisdictions, implement and update tax regulations to ensure equitable distribution of income tax burdens among eligible taxpayers.

Comparisons with Previous Studies

The results obtained from testing the first hypothesis, regarding the effects of the 2006 updated transfer-pricing regulations of intercompany services on reported pretax income, supported some previous studies and contradicted others. For instance, the study supported the studies Collins, Kemsley, and Shackelford (1997), Klassen, Lang, and Wolfson (1993), and Harris (1993) conducted. Collins et al. (1997) studied foreign controlled domestic corporations (FCDCs) in the wholesale industry from 1981 to 1990. They found that there were no links between the FCDCs nonpayment of income taxes and manipulation of transfer prices. Although Collins et al. studies focused on FCDCs in the wholesale industry, and transactions of tangible products; similar to this study, their studies showed no evidence of transfer pricing manipulations.

Klassen, Lang, and Wolfson (1993) conducted a study on income shifting into the U.S. following significant changes in the U.S. tax code in 1986. Klassen et al. (1993) examined 191 firms for the years 1987 and 1990, as well. They found that multinational corporations shifted income into the United States in 1987 and out of the country in 1988. In a different study, Harris (1993) studied income shifting into the United States, also following the amendments of the IRS code in 1986. Harris examined firms for the years 1987 to 1990. Harris found that U.S. multinational corporations paid more U.S. taxes, and reported more U.S. income between 1987 through 1990 than U.S. domestic

corporations reported during the same period. Harris also found that multinational corporations reported less foreign income in 1987 and 1988.

In contrast, this study's findings is contrary to the studies Harris, Morck, and Slemrod (1993), Alexander and Whiteaker-Poe (2011), and Clausing (2009) conducted. Harris et al. (1993) studied income-shifting patterns into the United States. They examined 95 companies for the years 1984 to 1988. Harris et al. (1993) found that U.S tax liabilities were lower among corporations that located the businesses in a tax haven country. Alexander and Whiteaker-Poe (2011) highlighted the growing pervasiveness of income shifting and transfer pricing. Alexander and Whiteaker-Poe examined the relationship between corporate subsidiaries located in tax haven countries and permanently reinvested earnings. Their findings supported the existence of income shifting to tax haven countries. Clausing (2009) on the other hand, examined the influence of tax policies on multinational corporations' tax avoidance between 1982 through 2004. Clausing evaluated the relationship between multinational corporations' behaviors and national government policies. Contrary to this study, the results showed that both tax motivated income shifting and employment motivated shifting resulted to loss of tax revenues to the United States. The differences in the outcomes of the studies could be attributable to the pricing of tangible products and the pricing of services. In another study, Chan (2011) conducted an experimental research to investigate whether multinational corporations engaged in transfer pricing manipulations solely to maximize their companies' profits. Chan's experiment, in a classroom setting, showed that the relationship between tax rates and incentive structures are significant. Chan concluded

that when faced with conflicting corporate objectives and inputs, decision makers would be concerned about fairness, instead of maximization of corporate profits.

Limitations of the Study

The use of secondary data sources for a new research has its limitations. I used existing data from the IRS' SOI database to conduct this study. SOI compiled its corporate statistics from a stratified probability sample of corporate income tax returns and other tax forms taxpayers filed with the IRS (SOI, 2012). SOI classified corporations' income tax return data according to the North American Industry Classification System (NAICS). SOI further subcategorized the income tax data into companies' balance sheet, income statements, and taxes paid. In this study, I used the relevant financial statements elements under the large foreign controlled domestic corporations and domestic corporations, in the professional, scientific, and technical service industry. IRS classified large corporations as the corporations with total assets of \$250 million or more. The focus on only large corporations excluded smaller corporations with assets less than \$250 million.

Furthermore, the sample size of the data was limited to large FCDCs and USDCs in the service industry that rendered professional, scientific, and technical services in the United States. Samples selected from professional, scientific, and technical services represented one of the most common services foreign parent corporations render to their controlled subsidiaries. The foreign controlled domestic corporations were the tested group, and the U.S domestic corporations were the control group. The tested sample included 1.074 million foreign controlled domestic corporations that filed income tax returns with net income. The control group included 5.039 million non foreign-controlled domestic corporations that filed income tax return with net income. The data samples

represented 100% of the tax returns, with net income, which FCDCs and USDCs, reported to the IRS during the SOI's data compilation periods. Given these limitations, users should exercise caution about generalization of the results.

Recommendations for Action

Although the study's findings indicated that the updated transfer pricing regulations of intercompany services in 2006 were effective in minimizing MNEs underreporting of income in U.S, I recommended optimal solutions to the income shifting problems. My recommendations would improve the overall U.S international tax system. As stated in chapter 2, the United States has a worldwide tax system, modified by exemptions such as the foreign tax credits, deferral of active foreign income until repatriated, and the Subpart F income provisions of the IRC. One of the major incentives for multinational corporations to shift income from the U.S to foreign tax havens is the low income tax rates, in those countries. Transfer pricing manipulations of intercompany transactions is just one of many strategies multinational corporations employ to shift taxable income from one taxing jurisdiction to another, to avoid high tax rates. Other methods include debt financing, strategic location of intangible assets, and reclassification of foreign passive income to active income to reduce their tax liabilities in high tax rate jurisdictions (GAO, 2010). The implementation of my recommendations would mitigate the income shifting problems in general, regardless of the methods employed.

Reduction of Corporate Tax Rates and Elimination of Deferral

Given that the ultimate objectives of most controlled multinational corporations engaged in income-shifting strategies are to reduce their tax liabilities in high tax rate countries, such as the United States. I recommended the elimination of the major incentives for the MNEs to shift income from the U.S to foreign countries. One method

to eliminate the incentives would be to reduce U.S federal corporate income tax rates to an average level of U.S global trading partners. In 2013, the United States is one of the countries with the highest income tax rate in the world. U.S has a federal corporate tax rate of 35 % and average states and local tax rate of 4.2 %, total of 39.2 % (OECD, 2013). The table below shows comparative statutory income tax rates for some OECD countries.

Table 14

Global Corporate income tax rate

Country	Central government corporate income tax rate	Adjusted central government corporate income tax rate	Sub-central government corporate income tax rate	Combined corporate income tax rate
Australia	30.0	30.0		30.0
Austria	25.0	25.0		25.0
Belgium	33.99 (33.0)	34.0		34.0
Canada	15.0	15.0	11.3	26.1
Chile	20.0	20.0		20.0
Czech Republic	19.0	19.0		19.0
Denmark	25.0	25.0		25.0
Estonia	21.0	21.0		21.0
Finland	24.5	24.5		24.5
France	34.4	34.4		34.4
Germany	15,825 (15,0)	15,825	14.4	30.2
Greece	26.0	26.0		26.0
Hungary	19.0	19.0		19.0
Iceland	20.0	20.0		20.0
Ireland	12.5	12.5		12.5
Israel	25.0	25.0	0.0	25.0
Italy	27.5	27.5		27.5
Japan	28.05(25.5)	26.2	10.8	37.0
Korea	22.0	22.0	2.2	24.2

Luxembourg	22,47 (21,0)	22.5	6.8	29.2
Mexico	30.0	30.0		30.0
Netherlands	25.0	25.0		25.0
New Zealand	28.0	28.0		28.0
Norway	28.0	28.0		28.0
Poland	19.0	19.0		19.0
Portugal	25.0	30.0	1.5	31.5
Slovak Republic	23.0	23.0		23.0
Slovenia	17.0	17.0		17.0
Spain	30.0	30.0		30.0
Sweden	22.0	22.0		22.0
Switzerland	8.5	6.7	14.4	21.1
Turkey	20.0	20.0		20.0
United Kingdom	23.0	23.0		23.0
United States	35.0	32.8	6.3	39.1

Source: OECD Tax Database, 2013

Another method is to eliminate the deferral of foreign earned income provision in the current U.S tax system. Under the current U.S. tax code, multinational corporations could defer paying taxes on the income they earned from foreign corporations until they repatriate the income to the U.S, in the form of dividends (Department of Treasury, 2000). The Revenue Act of 1913 introduced the principles of worldwide taxation of U.S citizens and residents, the taxation of corporations as separate entities from their shareholders, and the taxation of corporations based on the country of organization (Department of Treasury, 2000). The provisions of the 1913 revenue act enable U.S corporations to organize corporations in foreign countries and defer paying taxes on the income the foreign corporations earned for several years.

Multinational corporations' ability to defer its foreign income indefinitely neutralizes the concept of worldwide income taxation. For example, if multinational corporations choose to defer and reinvest their foreign earned income indefinitely, the

investment return on the deferred income could be much greater than the taxes due originally. In such case, a multinational corporation could pay zero taxes on its foreign earned income. To protect the erosion of U.S tax basis through deferral, congress enacted Subpart F of the U.S tax code, in 1962 (section 9520). However, Congress did not eliminate foreign income deferral; instead, Subpart F provisions tax certain items of income currently. The followings are some of the income items that U.S taxed when earned. The first subpart F income, not subject to deferral is the insurance income, which congress described under section 953 of the tax code. The second taxable item is the foreign base company income, under section 954. Foreign-based income included, but not limited to foreign personal holding company passive income, which includes dividends, interest, royalties, capital gains, and certain rents (Department of Treasury, 2007). It also includes income from selling personal property purchased or sold to related U.S. persons. Foreign-based income also includes companies' services income. Service income includes technical services, managerial, engineering, architectural, scientific, skilled, industrial, and commercial services, among affiliated controlled multinational companies (Department of Treasury, 2007).

The third subpart F income are the income from countries subject to international boycotts, described under section 999; the fourth are Illegal bribes, kickbacks, and similar payments, described under section 162 (c); and the fifth are income from countries where the United States has no formal diplomatic relations as described under section 901 (j) (Department of Treasury, 2000).

The elimination of the deferral provision of foreign income would eliminate the need for Subpart F income provisions of the tax code. Both MNEs and the government expend resources to comply or to enforce the requirements of subpart F provisions and associated tax planning. The eliminations of deferrals and the related subpart F income provisions would save substantial amounts of money for the government and multinational corporations.

The implementation of these recommendations would remove the incentive for U.S corporations to relocate their business operations overseas. It would also encourage the relocation of outsourced operations back to the United States. Furthermore, the reduction of U.S current tax rates would encourage foreign corporations to move new businesses to the U.S, to take advantages of U.S large markets and technologies. Most importantly, the U.S multinational corporations' potential relocation of their operations back to the U.S would create additional jobs in the U.S, which would boost the U.S economy. These potential new tax revenues and boosts to the U.S economy would offset the lost revenues from the corporate tax rate reduction. Additionally, the potential savings from compliance costs currently incurred in complying with deferral and Subpart F income provisions would result to significant savings to MNEs corporations.

Implications for Social Change

If implemented, the recommendations in this study would have positive, social, and economics change implications. For example, the recommendations would improve multinational corporations' profit margins and governments' tax revenue bases. U.S government uses its tax revenues to fund various governments programs that benefit individuals, here in the U.S, and individuals in various foreign countries directly. On the other hand, multinational corporations invest in both the United States and in foreign countries to increase their shareholders equity. These business investments create jobs that improve people's economic wellbeing both at home and abroad.

For instance, the reduction of the current U.S statutory corporate tax rate to the global average of 24.05 % or the average of OECD rate of 25.32% would benefit both MNEs and the U.S government. The tax rate reduction would eliminate the incentive for U.S corporations to move business operations to foreign countries. It would also lead to the transfer of the outsourced jobs back to the United States. The positive effect would be savings in compliance costs for MNEs and increased tax revenues for the government.

I also recommended the elimination of the current deferral of the income U.S foreign subsidiaries earned in foreign countries until repatriated to the U.S. The potential positive change implication of this recommendation is that U.S controlled foreign corporations would transfer billions of dollars, which they have currently in various foreign countries, back to the United States. The inclusion of the new funds into the U.S economy would result in the creation of new jobs and new business investments in the United States. The new jobs and investments, as already stated, would transform people's

wellbeing. Most importantly, it would satisfy the governments' need for tax revenues and the multinational corporations' need to maximize their shareholders' equity.

Recommendations for Further Study

One of the tax provisions of the Internal Revenue Code, designed to discourage U.S taxpayers from shifting income to foreign tax haven, is Subpart F (anti-deferral rule). Congress enacted subpart F of the IRC under the revenue act of 1962 based on the tax memo President Kennedy presented to Congress on April 20, 1961 (Department of Treasury, 2000). The prevention of tax haven abuse, taxing passive income currently, promoting equity, promoting economic efficiency, and avoiding undue harm to the competitiveness of U.S multinationals were the overriding objectives for enacting subpart F in 1962 (Department of Treasury, 2000). As recommended in the preceding section, reducing U.S corporate tax rate and eliminating foreign income deferral provisions in the IRC would eliminate the incentives to avoid U.S corporate income taxes.

The investigation and analysis of the effectiveness of subpart F provision since enacted would be a good topic for future studies. An example of future research question to investigate would be to evaluate the effectiveness of subpart F provision in accomplishing its intended purposes, since enacted in 1962. An empirical study to address this question may contradict or support one of the recommendations of this study.

Conclusion

Since the introduction of the federal income taxes in the United States, on August 5, 1861, there have been historical conflicts of interest between the U.S government and taxpayers. Library of Congress records (1774-1875) documented congressional members' opposition to the concept of income taxes during the congressional debates of 1861. The government has been interested in protecting its tax revenue bases, and taxpayers have been interested in minimizing their income tax liabilities. Governments enact tax rules and regulations to protect the erosion of their tax revenues bases and ensure equitable distribution of the income tax burden. On the other hand, taxpayers, especially multinational corporations, employ creative strategies to maximize profits and protect their profits from income taxation. One of the strategies MNEs employ to avoid U.S income taxation was to shift income to foreign countries, through transfer pricing schemes. Some of the tax haven countries have little or no income taxes.

In this study, I evaluated the effectiveness of the updated transfer pricing regulations of intercompany services and recommended a balanced solution to the ongoing income-shifting problems. The study's findings showed that MNEs, in the service industry, reported increased pretax income after the implementation of the 2006 changes. This suggested that the implemented changes to the transfer pricing regulations of intercompany services were effective in preventing MNEs from underreporting their income in the U.S, within the measured period. I also tested GAO (2008) proposal that increasing the IRS enforcement budgets would increase the income taxpayers reported to the U.S Treasury. The result showed inverse relationships between the changes in IRS

enforcement budgets and the pretax income MNEs reported in the U.S between 2000 and 2009.

I recommended that the U.S should reduce its federal statutory income tax rate to the global or the OECD average rates of 24.05% and 25.32 % respectively. Section 11(b)(1)(D) of U.S tax code imposed federal statutory tax rate of 35% on corporations' taxable income that exceeds \$10,000,000, up to 15,000,000. The section included additional 3% surcharge for taxable income that exceeds \$15,000,000. KPMG (2013) shows that the average global and OECD corporate tax rates between 2006 and 2013 are 24.05% and 25.32 % respectively. I also recommended the elimination of the current deferral of foreign income from U.S taxation until repatriated to the United States. The net effect of these recommendations would be the elimination of the major incentives to shift income from the U.S to foreign countries. U.S multinational corporations would potentially relocate business operations back to the United States and pay taxes at the reduced rate. The potential new businesses would create additional new jobs in the U.S and boosts U.S economy. The volume of the potential new businesses would offset the loss of tax revenues from the reduced tax rate. The implementation of the recommendations would be a viable and optimal solution to the ongoing conflicts of interests between the government and U.S taxpayers.

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Appendix A: Permissions to Use Data Request

*SIS <SIS@irs.gov>

Tue, May 28, 2013 at 7:36 AM

Mr. Ogavu,

Thank you for contacting the Statistics of Income (SOI) Division. In response to your question below:

SOI data on the Tax Stats Web site are public information and there are no restrictions for using the data.

**The suggested citation is
Internal Revenue Service
Statistics of Income Division
Washington DC**

**Ruth Schwartz
Statistics of Income Division
Internal Revenue Service
[202-874-0447](tel:202-874-0447)
ruth.a.schwartz@irs.gov**

Permission for Data Use Request

I am a doctoral student at Walden University and writing a dissertation on international tax related topic. I am interested in using some of the data that SOI compiled on Foreign Controlled and Domestic Controlled Corporations, located at <http://www.irs.gov/uac/SOI-Tax-Stats-International-Business-Tax-Statistics>. Please let me know if I have the permission to use some of the data, and how to cite the sources.

Thank you,

Robinson Ogavu

Appendix B: G7 Statutory and Marginal Tax Rates

G7 Statutory and Marginal Tax Rates

TABLE 1: 2011 G-7 STATUTORY CORPORATE TAX RATES (IN PERCENT) Country	Statutory Corporate Tax Rate (including subnational taxes)	Effective Marginal Tax Rate (including subnational taxes)^b
Canada	27.6	33.0
France	34.4	28.3
Germany	30.2	23.3
Italy	31.3	24.0
Japan	39.5	42.9
United Kingdom	26.0	32.3
United States	39.2	29.2
G-7 average excluding the U.S.^a	32.3	31.9

The G-7 Average is calculated using 2010 gross domestic product (in current US dollars) as weights.

Source: OECD Tax Database, 2012

Appendix C: U.S Imports & Exports by Related-Parties



Note. Source: U.S. Census Bureau News, U.S. Department of Commerce • Washington, D.C. 20230

Curriculum Vitae

Robinson C. Ogavu

Education:

PhD Management, Accounting Specialization
Walden University, Minneapolis, MN
(Degree 2013)

MBA, Accounting
Texas Southern University, Houston, TX

BA, Accounting
Texas Southern University, Houston TX

Professional Experiences:

Tax Consultant – Domestic and International Taxation
Proficient in international, domestic, states, and local tax planning and compliance

Texas Children's Hospital/TMFHC
Houston/Tyler, Texas
Manager - Tax Reporting and Compliance (2010 – 2013)

Beckman Coulter Inc.
Brea, California
Tax Manager (2006 – 2009)

American Express Business Finance/KEY Bank
Houston Texas
Tax Manager (2001 – 2006)

PriceWaterhouseCoopers/El-paso energy Corporation
Houston Texas
Accountant – Houston Texas

Advanced Computer Skills

Accounting and tax systems configurations and implementations