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Country-by-country reporting: An assessment of its objective and scope

Monique Longhorn[1], Mia Rahim[2] and Kerrie Sadiq[3]

Abstract

Australia has recently introduced what is known as country-by-country (CbC) reporting. CbC reporting will require certain multinationals to provide reports to the Australian Tax Office outlining their global financial activities. The introduction of CbC reporting is a result of the OECD's recommendations on Action 13 of the Base Erosion and Profit Shifting program. Despite its introduction, civil society groups, international organisations and businesses lack consensus as to the objective and scope of CbC reporting. This article utilises the extractives industry as a case study and then critically assesses the contradictory academic findings and views as to the objective and scope of CbC reporting. Using stakeholder theory, this article argues that a comprehensive CbC reporting framework should assist the numerous information users who engage with a multinational entity, whilst concurrently ensuring a multinational entity can be held accountable to those impacted by its business operations.

Keywords: Country-by-country reporting, stakeholder theory, tax transparency.

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1. INTRODUCTION

The Australian Federal Government recently introduced several measures aimed at addressing international tax avoidance by multinational corporations. In particular, on 11 December 2015, the *Tax Laws Amendment (Combating Multinational Tax Avoidance) Act 2015* (Cth) received royal assent and introduced three significant measures: amendments to Part IVA of the *Income Tax Assessment Act 1936* (Cth), stronger penalties, and country-by-country (CbC) reporting. CbC reporting, the topic of this article, applies to large multinational corporations operating in Australia, defined as entities with annual global revenue of A$1 billion or more. The new legislation requires large corporations to file an annual statement with the Commissioner of Taxation. The statement, which may require these corporations to include three reports, a CbC report, a master file and a local file, is designed to assist the Commissioner in carrying out transfer pricing risk assessments. CbC reporting is a comparatively new tool aimed at dealing with the problem of tax avoidance and aggressive tax planning facilitated by the non-transparent reporting practices of multinational corporations as enabled by existing regulations. However, as originally designed, CbC reporting is an accounting tool that requires multinational corporations to disclose information on their operations in different geographical destinations, and assists stakeholders to know more about the social responsibility performances of multinational corporations.

The Australian legislation introduces into domestic law Action 13 of the G20 and Organisation for Economic Cooperation and Development's (OECD) Action Plan on Base Erosion and Profit Shifting (BEPS). The BEPS Action Plan is a 15-point plan designed to ensure that the profits of multinational corporations are taxed where activities that generate profits are performed. Action 13 specifically addresses enhanced tax transparency by providing revenue authorities with information to conduct transfer pricing risk assessments. For Australia's purposes, a CbC report will contain information on the location of the economic activity undertaken by the multinational group, a master file will provide a high-level description of the multinational group's business operations, and a local file will describe the Australian entity's operations and cross border related party transactions. Ultimately, it is hoped that together, the three reports will provide a clear overview of key financial and operational metrics relevant to a global group, as well as their Australian operations. However, the proposed OECD reporting mechanisms vary from the original proposals for CbC reporting in three significant ways. First, the information contained in the OECD CbC report is more limited than the original proposal. Second, the reports will be confidential and available only to revenue authorities. Third, the reports will be part of tax compliance obligations rather than financial statements. Given this shift from the originally proposed purpose of CbC reporting, the purpose of this article is to consider the objective and scope of CbC reporting from a theoretical perspective.

This article specifically examines whether CbC reporting has the potential to achieve the broader objectives promoted by civil society groups by ensuring all stakeholders benefit. It is structured as follows. Part two defines CbC reporting and provides a discussion on the history and development of the concept. Part three discusses the potential goals of CbC reporting outlining both the narrow and broad approaches which underlie the rationale for its adoption. Taking into account an assessment of the current studies into CbC reporting, this part concludes that this reporting system is still in its nascent stages, there is no single standard and most importantly, there are

contradictions regarding the group that should benefit from this reporting. Part four argues that stakeholder theory provides an appropriate theoretical explanation for broad CbC reporting. In doing so, it makes suggestions as to the appropriate objectives and scope of this reporting by multinational entities. It then considers the final report of the OECD into CbC reporting and contrasts that with its original intent. Part five, which concludes the article comments on the future prospects of public disclosure of tax-based information.

2. THE EVOLUTION OF COUNTRY-BY-COUNTRY REPORTING

CbC reporting has been developed through both accounting practices and taxation policies. As we currently understand CbC reporting, it is the requirement of multinational entities to produce annual statements which provide information about where economic activity is undertaken and profits are reported by the multinational group (ATO, 2015). However, this description fails to highlight its objectives and scope, both of which have been discussed in the evolution of CbC reporting.

It has long been recognised that accounting information has the ability to influence the way people view and interpret the world and to influence their decision-making (Hines, 1998). However, accounting principles and practices have evolved over time. Traditional accounting was concerned with the measurement and reporting of economic facts by accountants who, due to their neutral roles, were responsible for 'telling it like it is' (Gallhofer and Haslam, 2007). In contrast, critical accounting literature argues that accounting constructs and reflects individual, organisational and social reality and is determined by political processes whereby accountants emphasise particular issues, whilst displacing or eliminating others (Francis, 1990; Suzuki, 2003; Gallhofer and Haslam, 2007). Hence, accounting serves an influential role in society. However, society itself has the potential to influence accounting practice. Society has increasingly questioned the validity of mere 'bottom line' or profit-focused reporting in assessing the performance of a business. As discussed below, CbC reporting has arguably originated from this influence.

CbC reporting has also evolved as a response to criticism from users of financial information. This criticism stems from questions around the quality and quantity of the geographical disclosures made by multinational entities in financial statements.

2.1 An original proposal

In its originally proposed form, CbC reporting is an accounting tool that requires multinational entities to disclose information on their operations in different geographical locations, and assists stakeholders to know more about the social responsibility performances of multinational entities. Richard Murphy, Chartered Accountant and co-founder of the Tax Justice Network, first proposed the idea of CbC reporting in 2003 (Murphy, 2012). In the years since, the Tax Justice Network has become a specialist in CbC reporting matters and has successfully transposed the issue into the campaign agendas of many other organisations and groups, including Christian Aid, Action Aid, Oxfam and Eurodad. The form of CbC reporting as originally proposed by the Tax Justice Network, and supported by civil society groups is deemed to be a 'comprehensive' or 'maximalist' approach due to its detailed reporting requirements. This broad approach to CbC reporting requires a multinational entity to publicly disclose the name of each subsidiary company,

financial performance figures (apportioned between third party and intra-firm), certain financial position figures (such as fixed assets), and detailed tax charges (including actual tax paid and deferred tax liabilities), all on an individual country basis (Murphy, 2009). Murphy's influence in both the UK and globally can be seen in subsequent legislative enactments.

In March 2011 Caroline Lucas, leader of the UK Green Party, introduced the Tax and Financial Transparency Bill into the House of Commons, which under Clause 3 would require all companies incorporated or operating in the UK to

> publish in its annual financial statements prepared in accordance with the requirements of the *Companies Act 2006* [UK] an analysis of the consolidated turnover and profit made by it in each jurisdiction in which it has a permanent establishment for taxation purposes … and the resulting taxation liability due and payment made by that company and its group (if applicable) in each such jurisdiction, without exception being made on the grounds of immateriality.

Although the Bill does not exhibit all of the reporting requirements to be considered a comprehensive version of CbC reporting, it notably represented a substantial step forward due to its application to companies operating in all industries and was consequently supported (and partially developed) by Richard Murphy, the founder of CbC reporting (Murphy, 2011). The Tax and Financial Transparency Bill failed to progress through Parliament (UK Parliament, nd), but it was soon followed by a similar Bill.

Murphy also contributed to the development of the UK Corporate and Individual Tax and Financial Transparency Bill, which was introduced by Michael Meacher MP to the House of Commons in June 2013 (Murphy, 2013). The disclosure requirements placed on large companies under the first clause of the Bill included:

(a) the registered name;

(b) jurisdiction of incorporation;

(c) company number;

(d) jurisdictions in which it trades;

(e) the trading name it uses in each jurisdiction if different from its registered name;

(f) the precise nature of its trade, sufficiently described to ensure its activities can be accurately identified;

(g) the percentage of the related undertaking controlled by the company; and

(h) a statement of the turnover, net profit before tax, current taxation liability owing, number of employees and their total employment cost and the net assets of the related entity for the period for which the company is reporting whether such data be audited or otherwise (UK Parliament, 2013).

The disclosure requirements contained within this Bill, which was not passed by the UK Parliament, represent a full version of CbC reporting.

Beyond the UK, wider acceptance of CbC reporting as a useful tool can be seen in consultations as early as 2010, such as that conducted by the European Commission. From 26 October 2010 to 22 December 2010, the European Union conducted a public consultation to gather stakeholders' opinions on CbC reporting for large companies operating internationally (European Commission, 2010). The consultation paper posed seven questions and considered 'general' CbC reporting requirements (being those stated in Murphy's 2009 report and applicable to multinational entities operating in all industries) and 'specific' CbC reporting obligations applicable solely to companies in the extractive industry (European Commission, 2010). The European Commission recognised the primary goals of general CbC reporting to be assisting investors evaluate the various national business activities undertaken by multinational entities and to enhance the transparency of capital flows to improve the enforcement of tax rules (European Commission, 2010). Most recently, on 12 April 2016, the European Commission adopted a proposal for a directive imposing obligations on multinational groups to publically report on an annual basis the profit and tax paid. This proposal will amend an accounting directive (2013/34/EU) and, as such, only a qualified majority (16 member states with a total 65% of the EU population) is required for the amendment be introduced.

2.2 Publish what you pay

Founded in 2002 by a small number of UK-based non-governmental organisations, the Publish What You Pay (PWYP) coalition now has more than 800 member organisations throughout the world, with national coalitions existing in more than 40 countries (PWYP, 2011). The coalition's primary objective is to require extractive companies to publish what they pay to governments in the form of taxes, fees, royalties, bonuses and other financial transactions for each country of operation, which may be facilitated via changes to: national and international accounting standards; stock exchange disclosure rules; and financial institutions and export credit agencies information requirements for financing and insuring extraction projects (Van Oranje and Parham, 2009).

The PWYP coalition originally primarily campaigned 'for greater transparency and accountability in the management of revenues from the oil, gas and mining industries' (Van Oranje and& Parham, 2009, 27). This work has extended beyond civil society groups and during a United Nations security briefing Kofi Annan, Chairperson of the Africa Progress Panel, highlighted the need to develop global transparency rules that reduce the opportunities for tax avoidance and limit the use of shell companies and tax havens, all of which currently contribute to secretive and exploitative deals in the extractive industry (UN, 2013). The importance of establishing transparency for extractive revenues was highlighted by Annan in his statement that 'Africa loses more money every year through a tax avoidance technique known as trade mispricing than it receives in international development assistance' (UN, 2013).

To better address the 'resource curse' and to encompass the expansion efforts of coalition members, PWYP updated its strategic framework in 2012 to incorporate transparency and accountability concerns at all points along the value chain, where previously revenues had been emphasised (PWYP, 2012). This renewed perspective is distributed amongst the following four pillars: publish what you pay and how you extract; publish what you pay; publish what you earn and how you spend; and practice what we preach (PWYP, 2012).

The first pillar enables stakeholders in resource-rich countries to make informed decisions concerning whether or not to extract and associated extraction rights, in addition to influencing and examining the terms and conditions of extraction contracts established between extractive companies and local governments (PWYP, 2012). The second pillar is the coalition's founding objective concerning revenue transparency, as discussed above. Primarily through budget monitoring, the third pillar achieves accountability from extractive companies and governments to ensure the revenues generated from natural resources benefit the local citizens (PWYP, 2012). The fourth pillar is aimed at Publish What You Pay's own governance and accountability (PWYP, 2012). The coalition campaigns for these four pillars to be considered in the development of international regulation and legislation.

2.3 Voluntary action in the extractive industries

PWYP has worked closely with companies, governments, investors, partner organisations and other civil society groups to develop and expand the Extractive Industries Transparency Initiative (EITI) following its launch in 2003 (PWYP, 2012). The EITI is a voluntary international standard adopted by countries and aimed at improving the transparency and accountability of the extractive industry by requiring public disclosure by governments of revenues and material payments made to them (EITI, 2013). To achieve accountability, the EITI process requires reconciliation by an independent party of the funds paid by companies to the funds received by the respective government (EITI, 2013). The following revenue streams are recommended to be included within the EITI reports of each country:

(a) the host government's production entitlement (such as profit oil);

(b) national state-owned enterprise production entitlement;

(c) profits taxes;

(d) royalties;

(e) dividends;

(f) bonuses (such as signature, discovery and production bonuses);

(g) licence fees, rental fees, entry fees and other considerations for licences and/or concessions; and

(h) any other significant payments and material benefit to government (EITI, 2013, 26).

As part of the 2013 EITI Global Convention Strategy Review, the EITI certification requirements were amended to require revenue stream payments be disclosed on a company-by-company basis in EITI reports, where previously countries had the choice to aggregate or disaggregate revenue streams from extractive companies (EITI, 2013). This amendment to the EITI Standard was supported on the basis of two key EITI Principles, being transparency by governments and extractive companies (Principle 5) and government accountability towards all citizens (Principle 8) (Revenue Watch Institute, 2012). Disaggregated company reporting within EITI reports is suggested to benefit multiple stakeholders, including: governments by enabling better management of their country's natural resource wealth; companies where increased public disclosure of contributions to public revenues may strengthen

companies' licence to operate; and citizens through the provision of additional information to facilitate public debate and enable informed decision-making, especially for local communities that are directly impacted by extractive companies operating in their area (Revenue Watch Institute, 2012).

A country must satisfy five application criteria to be recognised as an EITI Candidate, which is the temporary status prior to recognition as EITI Compliant, with the latter also requiring certain eligibility criteria to be met. EITI Compliant countries are required to publish timely and publicly available reports that contain contextual industry information (EITI, 2013). Although discretion is offered in the form and scope of disclosure, as a minimum, the EITI report requires: a summary of the legal framework and fiscal regime; an overview of the extractive industry and its contribution to the economy; production data; state participation; revenue allocations; and beneficial ownership and contracts if applicable (EITI, 2013). Currently, 31 countries are compliant with the EITI requirements with another 17 countries listed as EITI Candidates (EITI, 2015).

Further validation of the EITI's importance is evident in the OECD's 2011 publication of *Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas*. The guidance report is intended to foster transparent mineral supply chains and prevent the extraction and trade of minerals from becoming a source of conflict and human rights abuses (Deloitte, 2011). An annex to that report includes a requirement that companies ensure that all taxes, fees and royalties associated with the extraction, trade and export of minerals sourced from conflict-affected and high-risk areas are paid to governments and the disclosure of such payments is in agreement with the EITI principles (Deloitte, 2011).

2.4 Legislative action in the extractive industries

The most prominent industry to adopt a form of CbC reporting is the extractive industry. This section highlights the importance of financial transparency in the extractive industry and explores how CbC reporting requirements specifically applicable to extractive companies have been introduced around the globe. Substantial focus has been placed on improving financial transparency within the extractive industry due to increased levels of poverty, corruption, social unrest and economic decline often caused by the exploitation of a country's abundant supply of natural resources, such as oil, gas and minerals. This phenomenon is often referred to as the 'resource curse' or the 'paradox of plenty' (IMF, 2007, 2). As highlighted by the International Monetary Fund (IMF), fiscal transparency plays a vital role in enhancing resource revenue management, which promotes the efficient use of community funds, reduces the risk of unsuitable macroeconomic policies and improves budgetary confidence by establishing credibility (IMF, 2007).

2.4.1 Dodd-Frank Act

In contrast to the voluntary disclosure initiatives and frameworks discussed above, s 1504 of the *Dodd-Frank Wall Street Reform and Consumer Protection Act* (USA) (Dodd-Frank Act) requires all United States and foreign extractive entities that report to the Securities and Exchange Commission (SEC) to disclose all government payments on a CbC basis in a new annual filing to the SEC (SEC, 2012). Under s 13(q) of the Dodd-Frank Act, payments are defined to include taxes, royalties (including license fees), production entitlements, bonuses, and other material benefits

commonly recognised as part of the commercial development of oil, natural gas, or minerals. The Act requires extractive companies to report any payment of US$100 000 or more made on every individual project they operate (SEC, 2012). Adopted into United States federal law in July 2010, the Act does not represent a comprehensive version of CbC reporting as it is only demands oil, gas and mining companies to disclose payments made to United States and foreign governments. However, due to its mandatory legislative nature and the political significance attached to the United States as a country, it is often viewed as one of the most substantial successes of the CbC reporting movement to date. In a statement closely assimilated to the values of the PWYP coalition, the White House said of the Dodd-Frank Act:

> This provision is an essential new tool in promoting transparency in the oil and mineral sectors. This legislation will immediately shed light on billions in payments between multinational corporations and governments, giving citizens the information they need to monitor companies and to hold governments accountable… This provision sets a new standard for corporate transparency. The challenge for us now is to make this a global standard (White House, 2010).

In addition to setting an example for other countries to follow in their CbC reporting implementation efforts, the Dodd-Frank Act is expected to substantially impact the extractive industry as a whole, due to 29 of the 32 largest international oil companies in the world, as of 2011, being registered with or required to report to the SEC (Jubilee Australia, 2011).

2.4.2 European Union Directives

In response to the implementation of the Dodd-Frank Act, the European Union revised the Transparency and Accounting Directives in June 2013 to include requirements for large extractive (oil, gas and mining) and logging companies to disclose payments made to governments on a country and project basis (Council Directive 2013/34/EU of the European Parliament and of the Council [2013] OJ L182/52). The Accounting Directive regulates financial information contained within the financial statements of all limited liability companies registered in the European Economic Area (European Commission, 2013). To extend the CbC disclosure requirements to entities registered outside the European Economic Area, revisions were also made to the Transparency Directive, which is applicable to all companies listed on European Union regulated markets (European Commission, 2013).

Disclosures are required in a separate report with the presentation requirements depending on implementation by each Member State (European Union, 2013). The report is to be published annually for government payments equal to or exceeding €100 000 made in a financial year (European Union, 2013). The reporting requirements encompass ‘types of payments comparable to those disclosed by an undertaking participating in the Extractive Industries Transparency Initiative (EITI)’ and therefore include production entitlements, profit taxes, royalties, dividends, bonuses, fees and other significant payments to governments (European Union, 2013, 24; EITI, 2013).

On 12 April 2016, the European Commission accepted a proposal to amend Directive 2013/34/EU to move towards mandatory public disclosure for multinationals

operating in the EU with global revenues exceeding €750 million a year. Multinationals affected would be required to publish key information on where they make their profits and where they pay tax in the EU on a CbC basis (European Commission 2016). While reporting for the extractives industry already exists in the European Union, this proposal introduces CbC reporting for a host of industry sectors not previously affected.

2.4.3 Extractive Sector Transparency Measures Act

Finally, in June 2013 Canadian Prime Minister Stephen Harper announced a commitment to introducing a mandatory reporting regime applicable to Canadian extractive companies to improve the transparency of material payments made to domestic and international governments (Harper, 2013). This pledge was followed by the introduction of the *Extractive Sector Transparency Measures Act*, which became law on 16 December 2014 after receiving royal assent by Canada's governor general (Natural Resource Governance Institute, 2014). The Act requires disclosure of payments made by extractive companies to governments in the form of taxes, royalties, fees, production entitlements, bonuses, dividends, infrastructure improvement payments and any other prescribed category of payment (s 2). The reporting requirements under the Act are applicable to companies listed on a stock exchange in Canada and entities that are located or conduct business in Canada that meet at least two of the following conditions: owns C$20 million or more in assets; has generated C$40 million or more in revenue; and/or employs an average of 250 or more employees (s 8).

2.5 The work of the OECD

Different countries, organisations and scholars have been working towards a generally agreed format for CbC reporting and a comprehensive framework for regulating this reporting. Stephen Timms, the UK's Financial Secretary to the Treasury, announced a comprehensive CbC reporting proposal at a 2009 Berlin international meeting of finance ministers gathered to assess the OECD's progress on standards for transparency and exchange of taxation information (Lesage and Kacar, 2013). This statement was shortly followed by that of President Nicolas Sarkozy and British Prime Minister Gordon Brown, who issued a declaration on global governance following their meeting in Evian-les-Bains on 6 July 2009 prior to the G-8 summit held in L'Aquila, Italy (Permanent Mission of France to the United Nations, 2009). In particular, the declaration states 'we also call on the OECD to look at country by country reporting and the benefits of this for tax transparency and reducing tax avoidance' (Permanent Mission of France to the United Nations, 2009).

Reference is made to the above request in the issues paper published by the OECD secretariat in January 2010, which outlines the objectives of comprehensive CbC reporting, the associated arguments for and against its implementation and an overview of CbC reporting within the extractive industry via the EITI (OECD, 2010a). The issues paper suggests the matter of CbC reporting could be addressed via the OECD *Guidelines for Multinational Enterprises* or the OECD *Principles of Corporate Governance* (OECD, 2010a).

The above issues paper was utilised in a Joint Meeting hosted by the OECD between the Committee on Fiscal Affairs and the Development Assistance Committee on 27 January 2010 (OECD, 2010b). To achieve the goals stated at this Joint Meeting, the

OECD's Informal Task Force on Tax and Development was formed. Task Force members, including OECD and developing countries, organisations and civil society groups, are responsible for advising the OECD committees on delivering a programme to enable fair and efficient tax collections by developing countries (OECD, 2013c). At the first annual Task Force meeting in May 2010, an ad hoc sub-group was established to analyse CbC reporting and to develop a scoping paper for presentation at the next meeting (OECD, 2010c). The report was discussed at a meeting of the sub-group in December 2010, submitted to the Task Force for its April 2011 meeting and published in July 2011 (OECD, 2013c).

CbC reporting has remained on the agenda of the Task Force, appearing in the minutes of annual meetings, in addition to the agenda of the OECD Committee on Fiscal Affairs. The Committee on Fiscal Affairs, through its subsidiary bodies, is undertaking the current technical work in relation to BEPS. In February 2013, the OECD published its report, *Addressing Base Erosion and Profit Shifting*, which was soon followed by the publication of the BEPS Action Plan in July 2013 that was commissioned by the G20 Finance Ministers (OECD, 2013a). The template under development for Action 13 is a form of CbC reporting, although it is not specifically referred to as such in the Action Plan. On 30 January 2014, the OECD released a Discussion Draft, which recommended the introduction of a two-tiered reporting regime consisting of a master file (relevant to the global operations of the multinational entity group) and a local file (referring to the local material operations of the taxpayer), whereby the CbC template was included within the master file (OECD, 2014b).

On 16 September 2014 the OECD released its report on Action 13, which contained the revised standards and model CbC reporting template to replace the entirety of Chapter V of the Transfer Pricing Guidelines (OECD, 2014a). In contrast to the initial template released on 30 January 2014, the OECD's recent report reduced the amount of information to be disclosed and provided flexible options for how multinational entities could provide that information, in response to substantial consultation efforts. The updated template requires disclosure on the allocation of income, taxes and business activities by tax jurisdiction and constituent entities on an individual, tax jurisdictional basis (OECD, 2014a). The CbC reporting proposal under development by the OECD is applicable to all industries, however, it is not considered to be a comprehensive version of CbC reporting as information is intended to be disclosed directly to tax administrations and not the public. This does not suggest that a fully comprehensive version of CbC reporting will never be developed and implemented. In fact, in addition to civil society groups, political members have shown their support for the implementation of a comprehensive CbC reporting requirement.

Implementing CbC reporting requirements for multinational entities in all industries remains a concept under consideration across the globe. Public consultation efforts in the European Union that evaluated the implementation of industry-wide and industry-specific CbC reporting resulted in the formulation of CbC reporting requirements for large companies in the extractive industry. Political recognition of the transparency and BEPS related benefits of a comprehensive CbC reporting framework has been evidenced in legislative proposals and most significantly, in the ongoing work of the OECD. Action 13 of the OECD's BEPS Action Plan requires the development of a CbC reporting template applicable to multinational entities operating in all industries. The OECD's CbC reporting template contains variances in the information to be

reported and the recipients of the information in comparison to a comprehensive version of CbC reporting. These variances are primarily attributable to the OECD recognising a more limited CbC reporting objective in comparison to a comprehensive approach, being the improvement of transfer pricing documentation for the benefit of tax administrations to conduct more informed risk assessments and audits. Irrespective of the more limited scope of CbC reporting under the OECD reporting model, the commitment expressed by the G20 and OECD countries via the BEPS project signifies widespread recognition of the need for CbC reporting and its eventual implementation, albeit as transfer pricing documentation, in the near future.

It is clear that civil society groups and international organisations have contradictory views regarding the scope of CbC reporting. While the civil society groups call for a wider scope of this reporting, business and the OECD support a more limited scope with only financial information reported. This contradiction has impacted the development of CbC reporting. More specifically, it has hindered the adoption of CbC reporting globally. The following section of this part discusses the contradictory views as to the scope of CbC reporting. Based on the stakeholder theory, it argues that CbC reporting should have a wide scope, and that failure to do so may result in this reporting falling short of meeting its objectives.

3. POTENTIAL GOALS OF CBC REPORTING

The various CbC reporting requirements for the extractives industry share an overarching objective, being to enhance the transparency of payments made by extractive companies to governments to ensure that the appropriate amount has been remitted, and that governments can be held accountable for the efficient allocation of revenues for the benefit of citizens. The achievement of this objective is primarily centred on requiring multinational entities to disclose how much they have paid to the respective government of a country, in the form of taxes, royalties, bonuses, etc. The addition of CbC reporting requirements within the extractive industry represents substantial progress towards enhanced transparency and accountability within an industry that faces unique challenges as a result of the resource curse, whilst further reinforcing the value of CbC reporting. However, the industry specific nature of the frameworks coupled with their structural variances indicate that further work is required to develop a comprehensive CbC reporting regime that applies equally to corporations within all industries thereby preventing unfair competitive advantages, whilst addressing BEPS through increased financial transparency. The advisory group of the European Commission highlighted similar concerns for CbC reporting in the extractive industry; it suggested that the CbC reporting should be well connected with the domestic accountability and governance systems in countries rich in non-renewable resources (European Commission, 2011).

From a narrow perspective the primary goal of CbC reporting is to enhance transparency regarding payments made to governments by multinational entities operating in different geographical destinations. From a broader perspective, CbC reporting is designed to enable informed economic decision-making on the part of the numerous information users who engage with a multinational entity within its course of trade, whilst concurrently ensuring a multinational entity can be held accountable to those impacted by its business operations (Murphy, 2012). Prior literature on the objective and scope of CbC reporting reveals inconsistent findings and tends to be

influenced by different motivations. This literature, analysed below, highlights many incongruities, primarily concerning the objective of CbC reporting, its potential benefits and costs, and where CbC information should be disclosed.

3.1 The goals of civil society groups

A 2010 study by ActionAid International revealed approximately half of the firms in the Financial Times Stock Exchange 100 Index were found to be non-compliant with s 409 of the United Kingdom's *Companies Act 2006*, which requires companies filing with the Companies House to disclose a complete list of subsidiary names and locations in the notes to their accounts, irrespective of subsidiary size or materiality. Following this discovery, ActionAid requested the United Kingdom Companies House to more strictly enforce the subsidiary disclosure requirement under the United Kingdom *Companies Act*, and pressured firms to comply, resulting in compliance levels almost reaching 100% within two years.

Dyreng, Hoopes and Wilde (2014) utilise this event as a natural experiment in their examination of whether the change in enforcement and compliance resulted in actual changes in firms' tax haven subsidiary use and corporate tax avoidance behaviours. The study finds firms that were required to make additional disclosures (non-compliant) avoided less tax following the change relative to firms that were not impacted by the change (compliant). Specifically, non-compliant firms were found to have decreased the proportion of subsidiaries located in tax havens relative to compliant firms. Although this study only considers disclosures of subsidiaries on a geographical basis, and not financial information as per CbC reporting, these results indirectly lend themselves to the CbC reporting debate by emphasising the need for enhanced geographical disclosure and the potential for multinational entities to alter their tax avoidance behaviour. Furthermore, this study highlights the influence the lobbying efforts of activist groups may have on the disclosure practices and tax avoidance behaviours of multinational entities.

3.2 The goals of accounting standards

Gallhofer and Haslam (2007) utilise the review processes of International Financial Reporting Standard (IFRS) 6 *Exploration for and Evaluation of Mineral Resources* and IFRS 8 *Segment Reporting* as case studies in their evaluation of the International Accounting Standard Board's (the Board) ability to fulfil its objective of developing high quality accounting standards *in the public interest*. To explore the politics of accounting disaggregation, Gallhofer and Haslam (2007) apply in-depth critical analysis of the Board's character, contextual location, stated principles and reasoning to the practical examples of the lobbying efforts of non-government organisational groups for IFRS reforms to include CbC reporting in accounting for extractive industries and operating segments.

Gallhofer and Haslam (2007) note that PWYP's submissions (as advised by Murphy) to the review process conducted by the Board for both IFRS 6 and IFRS 8, presented CbC reporting using the Board's own terms and reasoning. In relation to the review of segment reporting requirements PWYP stated 'we believe all multinational companies face risks at a national level which have to be understood if appropriate investment decisions are to be made' (PWYP, 2005). As highlighted by Gallhofer and Haslam (2007), the PWYP submission utilises the Board reasoning in that disaggregated geographical information is presented as accounting information that is useful to

investors that is too important to be left to voluntarism. The authors ultimately found the Board is hindered in its objective of serving the public interest as it 'does not straightforwardly apply its principles. It is unable to abstract from its socio-economic and political context' (Gallhofer and Haslam, 2007, 659). However, Gallhofer and Haslam (2007) further state that the Board has 'not fully [been] captured' by business interests, and thereby possesses the potential to 'embrace accounting shaped by more progressive forces' (2007, 656–657). By examining the key events to date for the inclusion of CbC reporting in IFRS standards this study provides insight as to potential obstacles for any future CbC reporting lobbying efforts to the Board.

Similar to the political economy perspective applied in Gallhofer and Haslam's 2007 study, a current working paper by Wojcik (2012a) analyses CbC reporting within its economic, social and political environment, incorporating post-2006 developments. To encompass the multiple stakeholders involved and dimensions of the CbC reporting debate, the author utilises four complementary political economy perspectives: a structuralist approach, a realist approach, a constructivist approach and an institutionalist approach. Wojcik (2012a) suggests that this method enables the process and direction of the CbC reporting debate to be mapped in addition to associated contradictions to be emphasised. One such contradiction is identified as the United States and European Union enacting requirements in contrast to the 'original intention of the creators of the idea that [CbC reporting] be applied to financial and extractive companies' (Wojcik, 2012, 17). Although this statement is strictly true in that comprehensive CbC reporting is intended to be applicable to the extractive *and* finance sectors, it does not address the broader impact of recent developments in the European Union and United States, being that a CbC reporting requirement was not applied to multinational entities operating in *all* sectors, as suggested by comprehensive CbC reporting proposals.

3.3 The goals of the European Union

A complementary working paper by Wojcik (2012b) contrasts the European Union's CbC disclosure requirements against Murphy's comprehensive form of CbC reporting to determine the potential policy effectiveness of each respectively. The study makes an interesting contribution through its use of the conceptual framework developed by Fung, Graham and Weil (2007) for analysing policy effectiveness of transparency systems. The conceptual framework by Fung et al (2007) suggests that for a transparency policy to be effective, the information disclosed as a result of the policy must influence the decision-making routines and actions of users and disclosers (Wojcik, 2012b). As per Murphy's definition of CbC reporting (2012), the author considers full CbC reporting as accounting information and therefore treats it as 'an extension of corporate financial reporting or even a potential improvement of the existing system' (Wojcik, 2012b). Under the first (of four) elements of the transparency model utilised, the policy objectives of the two forms of CbC reporting are compared and found to be incongruent. Wojcik (2012b, 7–8) identifies the objective of full CbC reporting is to 'create more comprehensive, complete and comparable accounting data in order to help effective allocation of capital', whilst the objective of European Union CbC reporting is deemed to be to 'increase government revenues in [the] developing world', with transparency and accountability mere vehicles to achieve this.

Under the second limb of the comprehensive framework, Wojcik (2012b) concludes that the disclosure requirements under full CbC reporting are more extensive than

European Union requirements. The third element considers the users' perception, calculation and actions in relation to this information, for which Wojcik (2012b) finds the potential value of full CbC reporting to exceed that of European Union CbC reporting. This conclusion is founded on the disclosure of information within 'simplified' financial statements prepared on a per country basis assimilating more closely with users existing routines, in addition to the greater number of users targeted by full CbC reporting (Wojcik, 2012b). The fourth and final element considers whether users' actions in response to CbC reporting would affect the actions of disclosers in line with CbC policy objectives. On this point, Wojcik (2012b) suggests the lack of reference data (ie revenues, assets, employment figures) disclosed within European Union CbC reporting does not assist users to assess reputational and country specific risks, whilst full CbC reporting would incentivise multinational entities to manage these risks, ultimately lowering the cost of capital for companies and enhancing capital allocation.

Wojcik (2012b) presents a thorough comparative analysis, ultimately finding in favour of the policy effectiveness of full CbC reporting. The author determines the potential value of a comprehensive approach to CbC reporting to exceed that of European Union CbC reporting. Wojcik (2012b) suggests comprehensive CbC disclosures may enhance risk assessment opportunities in relation to country-specific and reputational risks, in addition to enabling an assessment of corporate tax contributions to a domestic economy in comparison to employment levels and fixed assets located in a jurisdiction.

Despite this key finding, throughout the paper Wojcik detracts from the importance of certain key elements of full CbC reporting that are likely to have sourced a substantial percentage of non-government organisational campaigning support, primarily that of transparency and accountability. This is evidenced in the above stated objective regarding the efficient allocation of capital and in the lines 'the objectives [of full CbC reporting] of improving tax governance and accountability of [multinational corporations] are mentioned in the submission [to the European Commission in 2010]…but after investors and capital markets and in lesser detail' (Wojcik, 2012b, 8). This opinion may have been justified in the sole context of an analysis of Murphy's submission to the European Commission, which as Wojcik (2012b, 8) notes uses language that reflects the ultimate goal of incorporating CbC reporting into IFRS. However, Wojcik (2012b, 2) states that the analysis undertaken in this study is 'with the aid of other policy documents and research'. This partially limited objective of full CbC reporting is in contrast with other publications by Murphy and supportive civil society groups. For example, a 2009 report by Murphy emphasises that CbC reporting is important in light of the operations of multinational entities because transparency, corporate social responsibility, accountability, trade, people, tax, corruption, development, governance and location all 'matter' (Murphy, 2009, 12).

The notion of CbC reporting being part of accounting reporting is clearly supported by the most recent developments in the European Union (European Commission, 2016). While the current OECD recommendations limit reporting disclosure, the European Commission proposals, if accepted, will require public disclosure of the reported information. In addition to information on tax paid within and outside the European Union, affected multinationals would be required to disclose on a CbC basis the nature of their activities, number of employees, net turnover, profit or loss before income tax, income tax accrued, income tax paid and the amount of accumulated earnings

(European Commission, 2016). Despite opposition from businesses, which preferred the adoption of a narrow approach to CbC reporting by following the OECD/G20 BEPS Action Plan to disclose only to tax authorities, the current proposal goes much further.

3.4 Accountability of corporates

A recent discussion paper by Fuest et al (2014) considers the adequacy of CbC reporting to address profit shifting and tax avoidance by multinational entities. Fuest et al (2014) present a comprehensive version of CbC reporting for analysis, including disclosures on a multinational entity's financial performance, labour costs and employee numbers, asset information and current and deferred tax expense. The authors have only considered the tax related benefits of CbC reporting, potentially due to the aim of the paper being to address tax avoidance and profit shifting issues. The paper presents two objectives, stating they are the main objectives pursued by CbC reporting proponents. However, only the first strictly conforms to this description, being to ensure multinational entities may be held accountable for the amount of taxes they pay within each country they operate in. In contrast, the second objective within the paper is stated as holding governments and their tax administrations to account 'for the way in which they treat multinational investors' (Fuest et al, 2014, 17–18). Although this may be a potential outcome, CbC reporting has more so been promoted as holding governments and their tax administrations accountable for the revenues they receive to ensure funds are efficiently allocated for the benefit of the community, rather than their treatment of multinational investors.

Fuest et al (2014, 18) state CbC reporting 'was initially mainly discussed to increase transparency in the extractive industries,' with transparency identified as a potential method to address well-known corruption issues. The authors further question whether reducing corruption is sufficient justification to apply CbC reporting requirements in other industries. The first statement is arguably misleading, whilst the second is an over simplification. 'Initial' discussions concerning CbC reporting, which occurred in 2003, actually detail a comprehensive version of CbC reporting applicable to all sectors (Murphy, 2009). Second, proponents have seldom ever presented 'combating corruption' as the sole or primary justification for implementing sector-wide CbC reporting disclosures. In relation to the ability of CbC information disclosures to reveal instances of profit shifting and tax planning by multinational entities, Fuest et al (2014, 19) only suggest CbC reporting is less efficient than a 'disclosure of tax avoidance schemes regime' which requires disclosures by tax advisors of the tax planning structures sold to clients.

The authors note legal considerations that have been identified throughout critiques and studies of CbC reporting, primarily that of data confidentiality constraints and the potential for corporate competition to be hindered if CbC reporting were not applied universally (Fuest et al, 2014). As is common in the literature, the study considers the appropriate mechanism for disclosure of CbC information, with the authors concluding that there should be a report separate to the audited financial statements. This view is not a significant departure from the norm and, in fact, corresponds with Evers, Meier and Spengel (2014) (discussed below) and current work by the OECD. The justification for this conclusion by Evers, Meier and Spengel is based on 'accounting standards already prescrib[ing] considerable reporting requirements such as segmental reporting and the tax reconciliation'. Although the study is prepared solely from a taxation benefits perspective, it represents a unique contribution to the

literature in that it is one of few studies to consider information disclosures applicable to a comprehensive version of CbC reporting.

A literary contribution that is more closely aligned with the analysis undertaken in this article is a recent discussion paper by Evers et al (2014). Evers et al (2014) conduct a cost benefit analysis of CbC reporting, ultimately concluding it is not a convincing measure to combat aggressive international tax planning activities of multinational companies. The authors provide an outline of a relatively comprehensive template for CbC reporting for the purposes of their study. Furthermore, distinction is made between direct costs (ie the adjustment of current internal systems and processes and auditing fees) and indirect costs (ie competitive disadvantages). The analysis of expected benefits of CbC reporting were limited in scope to those relating to a taxation perspective.

Evers et al (2014, 10–11) conclude that CbC disclosures are not appropriate for inclusion in individual or consolidated financial accounts, but should rather be contained in a separate template, 'if at all'. Furthermore, public disclosure is determined to be undesirable on the basis that sensitive information could cause competitive disadvantages for multinational entities, in addition to the potential for members of the public who do not possess 'profound knowledge' on international tax law not being able to interpret CbC disclosures (Evers et al, 2014, 12). It is also surmised by Evers et al (2014, 14) that CbC reporting is unlikely to reduce multinational entities utilising legislative loopholes and flaws as 'public pressure resulting from CbCR would be expected in case[s] of illegal endeavours'. This opinion, which suggests the public will only act on news of tax evasion, is inconsistent with the recently publicised tax avoidance practices of well-known multinational entities such as Apple, Starbucks and Google.

As the associated costs are found to outweigh the benefits of CbC reporting, Evers et al (2014) recommend, as an alternative, that tax policy be reformed and enforcement strategies of national and international tax legislation be strengthened. Overall, the paper makes an important contribution to the academic field through its analysis of CbC reporting. Although Evers et al (2014) make a valid recommendation regarding the need for tax policy reforms, the validity of the conclusions made within the study specifically concerning CbC reporting is questionable. This is due to the non-consideration of the wider objectives of CbC reporting beyond tax information disclosure, such as accountability and financial integrity. As mentioned above, this limited scope is most evident in exploration of the benefits associated with CbC reporting, which is especially problematic due to the cost-benefit method utilised within the study. Furthermore, the authors' suggestion that users of financial statements would need 'profound knowledge' of international taxation legislation to interpret CbC disclosures appears unrealistic in light of the nature and content of disclosures required under CbC reporting proposals. Murphy has labelled similar objections that users would not be able to understand financial accounts prepared in accordance with a comprehensive CbC reporting approach as 'baseless', due to CbC reporting (as proposed by Murphy) utilising the same basic format as income statements prepared on a consolidated basis (Murphy, 2014, 3).

A recent study by Ting (2014) was facilitated by a United States congressional hearing, held in 2013, providing information about Apple's international tax structure that was not previously readily available or easily discernible from the corporation's financial statements. Ting (2014) reveals Apple achieved non-taxation on US$44

billion through an international tax structure that consisted of the following components:

(a) complementary definitions of corporate tax residence in Ireland and the United States;

(b) transfer pricing rules on intangibles;

(c) controlled foreign corporation regime in the United States;

(d) check-the-box regime in the United States; and

(e) low-tax jurisdictions.

In addition to a detailed analysis of Apple's international tax structure, Ting (2014) evaluates the potential reforms to the United States tax legislation that may address the double non-taxation of its resident multinational entities, such as Apple. Specifically, Ting (2014) discusses the deficiencies within the United States' check-the-box regime, controlled foreign corporation regime and transfer pricing rules for cost sharing arrangements. In relation to the potential responses source countries may implement to counteract the adverse impacts of BEPS, Ting (2014) suggests two issues must be considered: the application of the enterprise doctrine, and enhancing transparency to reduce information asymmetries between tax administrations and taxpayers.

Ting (2014, 67) evaluates a comprehensive form of CbC reporting and suggests that if such disclosure requirements had already been implemented 'tax authorities in the United States as well as in the source countries would have been alerted to the questionable low effective tax rate in Ireland much earlier and may have taken appropriate action more promptly'. In addition to identifying potential subjects for tax audits, Ting (2014) suggests CbC reporting may provide deterrent effects to multinational entities that are conscious that their detailed CbC disclosures will be evaluated by tax authorities. It is also suggested that these deterrent effects may be enhanced should CbC data be disclosed to the public, on the basis that reputational concerns are 'effective in dampening the appetite of [multinational entities] for BEPS schemes' (Ting, 2014, 67).

The author discredits two common arguments against the implementation of CbC reporting requirements, that is, user information overload and increased compliance costs for businesses. In relation to the former objection, Ting (2014) suggests users should easily be able to interpret CbC disclosures if all essential information is presented, whilst in relation to the latter point, he suggests the cost to a multinational entity of compiling readily available CbC information would be insignificant in comparison to the costs of implementing the tax planning arrangements that contribute to BEPS.

The analysis of CbC reporting presented by Ting (2014) into Apple and CbC reporting offers a unique contribution to the literature due to its contemporary nature and pragmatic application to Vodafone's circumstances in the United Kingdom. In particular, Ting (2014) discusses the inadequacies of the voluntary CbC disclosures provided by Vodafone following public criticism received in relation to the company's failure to pay UK corporate taxes for an extended period. As revealed by Ting (2014, 70), Vodafone aggregated the amount of corporate income tax paid with 60 other taxes and charges, resulting in a total disclosure line item titled 'direct revenue contribution:

taxation'. Furthermore, Ting (2014) suggests Vodafone was not transparent in its disclosure of a subsidiary established in Luxembourg that contributed to BEPS, as figures were aggregated with those of other holding companies within the group. Based on the CbC disclosure practices of Vodafone, Ting suggests CbC reporting should be structured to mandate separate disclosure of the amount of corporate tax payment in each country and should prohibit the aggregation of country data.

3.5 A summary of the literature

A review of the associated literature that specifically examines CbC reporting highlights many incongruities, primarily concerning the objective of CbC reporting, its potential benefits and costs, and where CbC information should be disclosed. Wojcik (2012b) finds in favour of including a comprehensive form of CbC disclosures within the annual financial statements of multinational entities (as per suggestions by Murphy, 2009; 2012), whilst in contrast Fuest et al (2014) and Evers et al (2014) suggest CbC disclosures should be contained within a separate report, therefore aligning with the current work of the OECD BEPS project. In their analysis of the politics of accounting disaggregation, Gallhofer and Haslam (2007) do not comment on the adequacy of the inclusion or exclusion of CbC reporting requirements within IFRS. However, the findings of Gallhofer and Haslam (2007) imply the potential for future IFRS or amendments to contain CbC reporting requirements on the basis that their study finds the Board to possess the potential to serve civil society despite its standard setting process being partially captured by hegemonic forces.

All of the studies evaluated within this part considered the benefits of CbC reporting associated with potential reductions in tax avoidance and profit shifting by multinational entities, with Evers et al (2014) and Fuest et al (2014) solely restricting their analysis to tax related benefits. Of the studies that suggest multinational entities may reduce their tax avoidance behaviours as a result of CbC disclosures, the common causes identified included reduced information asymmetries between tax administrations and corporate reporters, in addition to associated deterrence effects engendered by reputational concerns (Ting, 2014; Wojcik, 2012b). In contrast, Evers et al (2014) and Fuest et al (2014) suggest alternative recommendations primarily relating to tax legislation reform to address tax avoidance and profit shifting.

Evers et al (2014, 12) suggest that members of the public lacking 'profound knowledge' in international tax law would not be able to interpret CbC disclosures, whilst Fuest et al (2014, 18) identify a similar concern relating to the potential for information to be 'misused'. In contrast, Wojcik (2012b) and Ting (2014) discredit these claims based on the perceived knowledge levels of users and the simplicity associated with the proposed content and structure of CbC disclosures. The inconsistent findings and recommendations of the academic studies evaluated within this section may be due to the varying objectives each assigned to the concept of CbC reporting.

Academic studies that examine CbC reporting generally identified differing objectives of disclosing CbC information, which may contribute to the inconsistent findings observed. In particular, the studies evaluated exhibited a lack of consensus concerning the potential benefits and associated costs of implementing and applying CbC reporting requirements, in addition to the ideal location for any such CbC disclosures to be made. Whilst there was general agreement on the potential for CbC information to enhance financial transparency, the literature lacked agreement as to whether it

could serve as a useful and efficient tool to identify profit-shifting activities by multinational entities, with some studies suggesting alternative recommendations primarily relating to tax legislation reform. Furthermore, whilst some studies referred to the benefits of public disclosure, others argued for confidential disclosures to tax administrations. Whilst the studies commonly highlighted concerns for 'information overload' and potential misuse of information, these concerns were disregarded by some authors on the basis of the perceived knowledge levels of users and the simplicity the authors associate with the proposed content and structure of CbC disclosures.

The need to consider the wider application of CbC reporting has become unavoidable due to the current CbC template by the OECD being applicable to multinational entities operating in all sectors. Although extant academic research on CbC reporting is limited, there appears to be consensus regarding the decision useful nature of geographic disclosures by multinational entities and the potential for enhanced financial transparency benefits resulting from CbC disclosures. However, there is no consensus on the regulation of this reporting within the corporate reporting system and the format global corporations should follow for this reporting. Taking these as the challenges in the development of this reporting culture, the following section critically assesses the effectiveness of the current format and trend in the CbC reporting.

4. EVALUATING THE OBJECTIVES AND SCOPE OF CBC REPORTING

The analysis within the previous section ascertains the current status of CbC reporting to be a progressive transparency initiative that is being utilised around the world and across industries, but one that lacks consensus regarding:

(a) what specific information should be disclosed;

(b) how the information should be delivered;

(c) what kind of technology and reporting systems will be required for implementation by taxpayers and governments;

(d) to whom will the information be disseminated; and

(e) for what purpose should the information be used?

These questions, and others, must be considered in a CbC reporting model that promotes corporate accountability and concurrently protects a country's tax base from erosion and profit shifting. Below, the article considers why the scope of CbC reporting needs to be defined widely.

4.1 Stakeholder theory as a sound rationale for CbC reporting

A number of theories explain why the scope of a CbC reporting framework should be wide enough to allow stakeholders to make informed decisions about multinational entities. These theories include legitimacy theory, political economy theory, stakeholder theory, decision usefulness theory, agency theory, positive accounting, and new governance theory. As decision usefulness theory, positive accounting and agency theory focus on corporate motivations for disclosure, and do not consider a broader set of stakeholders and their interests, they are outside the scope of this article.

As functionalist economic theories, they concentrate on financial stakeholders and market outcomes. They do not consider the social responsibility practices of multinational entities (Gray, Kouhy and Lavers, 1995). Therefore, in this article, the focus is on social and political theories such as legitimacy theory, stakeholder theory, and new governance theory. These theories provide more interesting and insightful perspectives on the depth of CbC reporting. Essentially they underpin the idea that CbC reporting should respond to societal expectations. This article looks at stakeholder theory in particular to explain the reasons why and how multinational entities should use CbC reporting for disclosure. In this section, the article discusses the main principles of stakeholder theory and links it to the normative explanation of the objectives and scope of CbC reporting.

The manner in which corporations communicate with broader society has changed. Industrial structures and economic relationships are different now than in the past. Business entities and political bodies are compelled by the community to review approaches to corporate governance. Stakeholder theory, and in particular, the work of Edward Freeman, has become the dominant paradigm in research into the relationships between business and society. Freeman reconceptualised corporate management with stakeholder theory. His worked helped to redefine the theoretical and strategic approaches to corporate management (Cannon, 1994).

Stakeholder theory places emphasis on the concepts of 'stake' and 'holder'. 'Stake' can be seen as the right to take some action in response to any act or attachment. Following from this, 'rights' can also include liabilities, and therefore a 'stake' can incorporate the liabilities a person may experience when exercising a right (Rahim, 2013). A stake can also be a legal share of something, for example, financial involvement with an act or entity. Carroll has identified the three sources of stakes from the perspective of an organisational stakeholder: ownership at one end, legal and moral rights at the other, and interest in between (Carroll and Buchholtz, 2008). The meaning of holder is easier to understand. A holder is a person or entity that may need to take action, or may face certain consequences, because of an act or event. From the organisation and management point of view, Freeman explains a stakeholder to be 'any group or individual who can affect or is affected by the achievement of the firm's objectives' (Freeman, 1984; Freeman, 1994). Carroll expands on this definition by noting that a stakeholder can be 'any individuals or groups who can affect or are affected by the actions, decisions, policies, practices or goals of an organisation' (Carroll and Buchholtz, 2008). Therefore, the list of potential stakeholders in a company is long, and can include employees, customers, owners, competitors, government and civil organisations. According to Gray et al, stakeholders can even include future generations and non-human life (Gray, Owen, & Carol, 1996; Rahim, 2011; Lee, 2008).

In contrast with the ideas of managerial capitalism, stakeholder theory encompasses the notion that corporations must consider the stakeholders in corporate self-regulation. Indeed, stakeholders have the right to be a part of this process, and business has the responsibility to facilitate this (Rahim, 2011). There are two arguments which support this belief. The first of these is that traditional notions of ownership have changed, and that companies are no longer exclusively private property (Freeman, 2001). This means that standard corporate governance is no longer relevant. The second argument focuses on the power relationship between business and society. Under this argument, social power and social responsibility are

inextricably linked; this means that it is now the responsibility of business to mitigate social costs (such as those resulting from industrial pollution, hazardous products, job dissatisfaction, etc) which raises questions about the exercise and limitations of corporate power (Hoffman and Moore, 1990).

Important questions within stakeholder theory are: 'For whose benefit, and at whose expense, should the firm be managed?' (Evan and Freeman, 1993). To answer these questions, the theory explains stakeholders to be all parties within an interest or claim in a company. This could include proprietors, management, suppliers, employees, customers and the local community (Evan and Freeman, 1993). Proponents of stakeholder theory believe that these parties cannot simply be treated as a means to an end; rather, they have the right (or even the obligation) to have a hand in the future of the company (Evan and Freeman, 1993). They believe that businesses do not have the right to decide on outcomes for constituents, and state that 'if the modern company requires treating others as means to an end, then these others must agree on, and hence participate (or choose not to participate) in, the decisions to be used as such' (Evan and Freeman, 1993). Stakeholder theory has also noted that the rights to property, which are legitimate, are not absolute. This is particularly true when those rights conflict with the rights of others. Reinforcing this notion is the belief that 'the property rights are not a license to ignore Kant's principle of respect for a person' (Bichta, 2003). Stakeholder theory also considers the impact of managerial capitalism. It looks at the way in which contemporary business affects the welfare of other parties. Thus, corporate decision makers who guide the activities of a company can be held liable for negative externalities and harmful actions (Rahim, 2013). Theories that try to justify the corporate form 'must be based at least partially on the idea that the company and its managers as moral agents can be the cause of and can be held accountable for their actions' (Bichta, 2003).

Stakeholder theory requires managers to distribute the fruits of organisational success (and failure) among all legitimate stakeholders and to communicate with stakeholders on *how* profits should be maximised (Phillips, Freeman and Wicks, 2003). Phillips et al (2003, 487) further state 'stakeholder theory is concerned with who has input in decision-making as well as with who benefits from the outcomes of such decisions. Procedure is as important … as the final distribution.' Financial outputs are not the sole subject of organisational distributions to shareholders as information is considered another fundamental good that influences stakeholders' perceptions of fairness to the extent that complete information contributes to the decision-making process amongst stakeholders (Phillips et al, 2003).

The 'question of what management should do, and who should matter in their decision making, is a central question of stakeholder theory' and is considered in relation to the managers of multinational entities (Freeman et al, 2010, 209). To address this question, the normative stakeholders of a multinational entity must first be identified. Normative stakeholders are generally agreed to encompass capital providers, employees, customers, suppliers and local communities (Freeman et al, 2010).

In addition to these stakeholders, regulators and taxation authorities have been identified as stakeholders within the CbC reporting literature (Murphy, 2009). The roles served by both regulators and taxation authorities conform to the definition of a normative stakeholder as suggested by Freeman et al (2010, 209) as explained above. Legislation and standards as developed by regulators and taxation revenues collected by tax administrations are directly influenced by a multinational entity's ability to

generate a profit (in the case of for-profit organisations) and the methods used to achieve and distribute this profit. Trade unions, in their negotiations with management over employee's rates of remuneration and fair employment practices, would also satisfy the aforementioned definition of a normative stakeholder (Hadden, 2013). Finally, civil society organisations have the ability to impact the achievement of a multinational entity's objectives through publications and lobbying efforts aimed at altering or improving a particular corporate practice or behaviour.

Following the above identification of normative stakeholders, the substantive normative implications of stakeholder theory, as previously identified, are applied directly to multinational entities that prepare annual accounts of their business operations. The first implication is that multinational entities do not hold an exclusive fiduciary duty to stockholders, but rather are obligated to ensure the value created by the entity is distributed among the identified stakeholders. It has often been implied, and a significant point of literary criticism, that to 'balance' stakeholder interests prescribes that this distribution is determined by equal treatment of all stakeholders (Donaldson and Preston, 1995). However, Phillips et al (2003, 488) suggest a meritocratic interpretation of stakeholder balance whereby benefits are distributed according to the relative contribution to the organisation. For multinational entities under consideration within this article, capital providers would be seen to contribute the most to an organisation due to their funding facilitating the creation and continuation of the business. It is suggested that employees are the second highest contributor through their provision of human capital, followed by local communities who grant a multinational entity with their licence to operate. Suppliers and customers are equally as important as a business would fail to generate revenues with a lack of goods or services to sell or customers to purchase them. Regulators and tax administrators contribute through the provision of regulation and standards to which the business activities of the multinational entity must conform.

Therefore, under a stakeholder theory perspective that utilises a meritocratic interpretation, CbC reporting, as a distribution of information that aids in stakeholder decision-making, should be structured and implemented to primarily benefit investors but also (and to a lesser extent) employees, local communities, suppliers, customers, regulators and tax administrators. It is now considered how the previously identified stakeholders may find CbC reporting disclosures, and financial statement disclosures in general, useful.

Providers of capital, including investors and financial institutions via lending facilities, utilise corporate disclosures and financial reports to better assess firm value, strategy, future opportunities, risk, legal liabilities, compliance with laws and regulation and the stewardship role of management. Present and future employees are considered to be concerned with a corporation's rates of remuneration, job prospects, working conditions, health and safety, industrial relations, risk management, career development and advancement opportunities (UN Conference on Trade and Development, 2008). Former employees may also be interested in the ongoing financial performance of a corporation to ensure continued payment of pensions and retirement benefits (UN Conference on Trade and Development, 2008). Although trade unions have access to employee-related information for an associated corporation, they may utilise employment data disclosed by a corporation to benchmark against other enterprises, industries, or countries (UN Conference on Trade and Development, 2008).

Customers are concerned with product quality, potential associated health impacts, and the manufacturing process including information on how and where products are produced and under what working conditions (UN Conference on Trade and Development, 2008). Suppliers are concerned with the financial performance of a corporation to the extent the latter is able to repay outstanding credit amounts and continue the requisition of goods and/or services. Suppliers may also utilise information concerning a corporation's reputation to make informed decisions as to whom they should supply to and consequently be associated with. Local communities are concerned with a corporation's impact on jobs, contributions to the tax base and on other local businesses (eg, through local business connections and influence on local remuneration rates) in addition to local health, safety and security risks and how community complaints are processed (UN Conference on Trade and Development, 2008). Regulators utilise corporate disclosures to formulate social and economic policies and to identify and remedy any associated gaps within these policies or their enforcement. Similarly, tax administrations utilise information to determine if entities have correctly calculated and reported their taxation liability. Civil society groups utilise financial statement and reporting information to compare or benchmark an organisation's performance in a particular area, such as economic development, primarily focusing on policies and their implementation. As such, there is a wide group of stakeholders who benefit from CbC reporting and not just revenue authorities. Consequently, using stakeholder theory, the objective of CbC reporting is to meet the informational needs of all interested parties.

4.2 An analysis of the OECD CbC model

The OECD's recent revision of Chapter V of the Transfer Pricing Guidelines, which includes the addition of a CbC reporting format, is aimed at providing tax administrations with more focused and useful information to undertake transfer pricing risk assessments and audits. It limits its CbC reporting format to a tax administration perspective as 'the overarching consideration in developing such rules is to balance the usefulness of data to tax administrations for risk assessment and other purposes with any increased compliance burdens placed on taxpayers'. User groups other than tax administrations are not considered in the OECD's discussion draft or deliverable publications, with the CbC report only to be made available to tax administrations.

In contrast, the Tax Justice Network (TJN) has advocated a broader notion of CbC reporting as a method for improving financial reporting transparency. The TJN considers the role of CbC reporting to extend beyond exclusively informing tax administrations, to ensure multinational entities can be held accountable to their shareholders and a broader network of stakeholders in their host country (TJN, 2014). To achieve this, multinational entities would be required to publicly disclose the names of companies operating in each country, labour expenses and employee numbers and financial figures (apportioned between third party and intra-firm), in addition to tax related information (Murphy, 2009). To date, countries like Australia have announced the adoption of the OECD recommendations. However, the current proposed amendments to the European Union Accounting Directive 2013/34/EU suggest an approach which more closely resembles the original proposal by Murphy, especially in terms of public disclosure and the dissemination of the report.

The core differences between the formats prepared by the TJN and the OECD relate to the dissemination of the report and the reporting location. The table below provides a synopsis of the differences in these two CbC reporting formats.

Table 1: ***TJN and OECD CbC Reporting Templates***

Template	Sector	Dissemination	Compulsory/ Voluntary	Template Location	External Assurance
Tax Justice Network (TJN)	All industry sectors	Financial statements are publicly disclosed.	Compulsory	International Accounting Standards (IFRS)	As part of audited financial statements in countries where auditing is required for publicly listed companies.
OECD	All industry sectors	Available to tax administrators only	Voluntary Guidelines with jurisdictions deciding whether they are legally binding	Chapter V of the Transfer Pricing Guidelines	External audits are not recommended.

Both the TJN and OECD models require multinational entities to disclose the names of all subsidiary companies and the names of all the countries in which they operate. This information must be encompassed within a reporting model to satisfy one of the basic principles of CbC reporting – to hold a corporation accountable for its (in)actions, information users must be able to identify which corporations are operating and where they are operating. In other words, the anonymity facilitated by current reporting standards must be removed in order to clearly identify a corporate group structure, its geographic spread and its associated geo-political risk and potential associated reputational damage. A corporation's pattern of geographical spread may be indicative of diversity or lack thereof, in addition to potential dependencies on subsidiaries located in tax havens, the latter of which is further informed through the provision of sales data.

Both proposals require the disclosure of third party, infra-firm and total sales on a per country basis. This information enables the assessment of the direction of sales flows, the extent of intra-group sales and whether they have been routed through or relocated to secrecy jurisdictions for a reason beyond the economic reality. Tax authorities investigating transfer mispricing disputes would have access to information on profit allocations to determine if a systematic bias towards low or tax free jurisdictions is evident, in addition to information on the volume and flows of intra-group trades which may suggest profit allocations are a result of trade mispricing (Murphy, 2009). The disaggregation of sales data between third party and intra-firm would theoretically enable an investor to more accurately assess the geographic external sales diversity and the associated risk of this diversity. For example, if a significant percentage of a

multinational entity's sales were identified as originating from a politically unstable or generally risky jurisdiction, an investor may question the probability of the income stream's continuance.

Sales data is also relevant in reference to any purchases information to be disclosed. Notably, the OECD proposal does not suggest multinational entities disclose any purchase data, whilst the TJN proposes both third party and intra-group purchases be disclosed. Purchase information, apportioned between third party and intra-firm, may increase the decision usefulness of the report without significantly increasing the compliance costs of corporations, as purchase transaction information should be readily available and would already be collected for internal management purposes. The inclusion of purchases data may enable an assessment of the vulnerability of supply chains such as those that obtain products or services from jurisdictions with high political risk. The disclosure of intra-group sales and purchases in each location enables an investor to assess the level of trade in any country that is dependent upon the corporate group, in addition to the potential risk of a transfer price challenge occurring should profit to sales ratios be high in low tax jurisdictions, or low in high tax jurisdictions (Global Witness, 2005). Furthermore, when compared to external sales, high intra-group purchases for a jurisdiction may indicate re-invoicing practices, whilst a comparison of intra-group purchases and intra-group sales may enable internal supply chains to be determined.

The inclusion of employee-related data is suggested to assist information users in multiple ways. Originally both the OECD and TJN proposals required employee numbers and labour costs to be disclosed on an entity and individual country basis respectively. However, following the public consultation period for the Discussion Draft the OECD removed requirements for employee costs to be reported. This removal was likely founded on objections concerning employee confidentiality and compliance efforts, such as the following:

> Employee compensation information often is not maintained by all entities in a [multinational entity] group in the same manner, valuation of non-cash compensation would be difficult, and compensation information could be quite sensitive in situations involving only a relatively small number of employees in a particular country so that the total could reveal personal information (Ernst and Young, vol 2, 82).

In contrast, other respondents recognised that employee information disclosure by multination entities may be beneficial, such as the following statement by PricewaterhouseCoopers Global (vol 3, 137):

> We recognise that data on the number of employees may be seen as useful information for risk assessment purposes and that employee expense will be generally indicative of value. However, detailed guidance regarding the definition of 'employee' and the calculation of employee expense will be necessary before these items can meaningfully be reported on by taxpayers.

The requirement for a clear definition of 'employee' and the associated calculation of employee expense is also recognised as important. The OECD framework provides a sound basis for the determination of employee numbers, being either the actual number of staff employed on a full-time equivalent basis at the end of the reporting year, or alternatively, the average employment levels for the reporting year. The

provision of a choice for multinational entities to report a yearly average or actual year-end figure would still result in users receiving useful information whilst also potentially reducing the compliance burdens for multinational entities. However, corporations should be required to implement a consistent approach from year to year. Unlike the OECD model, rounding or approximation of employee numbers is not recommended as it may provide opportunity to distort the geographical distribution of employees and hinder cross company comparisons.

Furthermore, rounding or approximation of the number of employed staff would be an unnecessary extra step, as actual or average figures should be readily attainable. Distinction should be made between individuals directly employed by the multinational entity and individuals who are formally employed by another organisation but act under the supervision and management of the multinational entity, such as subcontractors. Such a distinction could be communicated through an additional note to the financial statements. The primary stakeholders expected to benefit from the disclosure of employee-related data include investors, employees (existing and potential), customers and trade union groups.

By requiring companies to disclose the number of employees and the associated costs on a CbC basis, investors are able to determine *where* a multinational employs its staff and whether employees are receiving an average pay when compared to similar undertakings in the geographical area. Despite the obvious benefits to a corporation's profitability, many investors may be disinclined to invest in a company that has been identified as subjecting its employees to less than fair working conditions, such as remuneration levels below social or regulatory standards or norms. A similar statement may be made regarding customers who consciously choose to not engage with a corporation due to unfair employment practices. Furthermore, CbC data may help inform an employee's decision to work for a particular company and may further assist with employment negotiations. The comparative nature of CbC reporting may assist employees to determine if a corporation deals with employees consistently and fairly.

As would be expected, both the OECD and TJN include requirements for disclosure of income tax expense and profit (loss) before income tax. Whilst the OECD's template disaggregates tax expense between income tax paid (cash basis) and income tax accrued in the current year, the TJN proposal requires tax information to be disclosed on a per country basis in the profit and loss statement and the balance sheet. It is recommended that an ideal model should follow a similar format to that recommended by the TJN as this would be consistent with existing accounting standard presentation, yet more detailed. Specifically, International Accounting Standard 1 *Presentation of Financial Statements* requires tax expense (tax income) to be disclosed in the statement of comprehensive income, in addition to requiring the current tax assets and liabilities, and deferred tax assets and liabilities, to be disclosed in the statement of financial position. Expanding these requirements to include individual country presentation of tax expense (income) and tax assets and liabilities, is expected to be advantageous to financial statement users due to the consistent use of information presentation formatting. Disclosure of tax expense and liabilities/assets on a current and deferred basis would enable the effectiveness of a jurisdiction's ability to collect taxes to be determined by clarifying the amount a multinational entity actually pays in taxes to each jurisdiction it has operations in.

Furthermore, the detailed disclosure of tax charges applicable to individual countries enables investors to better assess the potential impact of the reversal of deferred taxes on future cash flows, in addition to the extent to which deferred taxes are used as a source of finance in each jurisdiction. CbC reporting would enable investors to assess the sustainability of tax rates by determining if a corporations' reported tax rate was dependent upon basing activities in secrecy jurisdictions (ie tax havens) (Murphy, 2009). This would also influence an investor's perception of share value due to the use of after tax earnings in common valuation ratios. The disclosure of taxes paid to governments, on a cash basis as suggested under both frameworks, is necessary to determine multinational entities' economic contributions to jurisdictions in which they operate and to hold the governments themselves accountable. Furthermore, tax administrations and other interested stakeholders may detect the presence of tax planning arrangements more easily in CbC reports in cases where the cash taxes paid are less than the reported liability of the prior year. To facilitate the transparent reporting of taxes due and paid, it is suggested that separate line items be disclosed, as per the TJN proposal, for current and deferred income tax expense, local government taxes due, and other payments due to governments.

Once again, the balance sheet items included in the TJN's proposal are more detailed than the OECD's proposal, the latter being limited to stated capital and tangible assets other than cash and cash equivalents for each tax jurisdiction. The inclusion of tangible asset information is beneficial to multiple stakeholder groups. For example, the disclosure of balance sheet data such as tangible assets may inform investors on the rate of return on capital by jurisdiction, and thereby whether management has efficiently allocated resources to the locations where a multinational entity operates.

However, it is suggested that multinational entities should also disclose total intangible assets and fixed assets as part of a CbC report. If a subsidiary were to employ minimal staff, conduct all of its sales on an intra-group basis and only own intangible assets or very minimal physical assets, financial statement users could, via the CbC report, question the economic substance of such an entity. Additionally, if investors know of the geographical location of corporate assets they may then be aware of any potential risk of capital loss for assets located in politically unstable areas. Such disclosures by multinational entities would enable local suppliers to more accurately assess the level of risk associated with supplying a corporation with credit based on the value of physical assets a corporation locates within that jurisdiction. For example, if a subsidiary of a multinational entity with a low amount of assets located in a specific country fails financially, the risk of local suppliers failing to be paid increases.

5. CONCLUSION

The aim of this article was to propose a theoretically sound objective and scope for CbC reporting by multinational entities. It has done so by assessing whether current CbC reporting is appropriate within a corporate reporting system. Based on stakeholder theory, it suggests that CbC reports should be prepared for the benefit of a broad stakeholder group and made publicly available through financial statements. The review of the literature on geographical disclosure requirements asserts that CbC reporting has gained adequate theoretical basis and multinational entities have started incorporating this reporting within their self-regulation systems. Further, public focus

on this reporting has increased following the focused attention of the G20, the ongoing work of the OECD as part of the BEPS project, and through lobbying efforts of civil society groups. Despite its increasing acceptance, civil society groups, international organisations and businesses lack consensus as to the objective of CbC reporting, its potential benefits and costs, and the location for CbC information to be disclosed.

An evaluation of real world CbC reporting developments and existing industry-specific implementation efforts shows that CbC reporting has been suggested as a tool to provide decision-useful geographical information. The unique attributes of the extractive industry have resulted in the development of CbC reporting requirements to enhance the financial transparency and accountability of entities operating within this sector. The reporting requirements that currently exist within this industry, as explored within this article, illustrate the practical significance and feasibility of CbC disclosures by multinational entities. However, it must be noted that due to their industry specific nature, disclosure initiatives and requirements do not represent a comprehensive form of CbC reporting.

From a stakeholder theory perspective, CbC reports represent information capable of influencing the decision making process of stakeholders. Public disclosure of CbC reports, as required under the TJN's proposal, and as currently proposed by the European Commission, would benefit a broad range of normative stakeholders such as capital providers, employees, customers and suppliers, local communities, regulators and taxation administrations, trade unions and civil society organisations. Publishing CbC data is generally expected to benefit these stakeholders through the provision of relevant information beyond what is currently available for evaluation and general risk assessment purposes. Direct disclosure to tax administrators seemingly ignores the legitimate claims to information of the above stakeholder groups, with the exception of tax administrations, and therefore fails to balance stakeholder interests as prescribed under stakeholder theory. A meritocratic stakeholder theory approach to CbC reporting would suggest public disclosure of CbC data that is structured to primarily benefit investors, and additionally (but to a lesser extent) employees, local communities, suppliers, customers, regulators and tax administrators.

CbC reporting is a tool to provide decision-useful geographical information. It enhances the financial transparency and accountability of entities operating within this sector. A comprehensive format for this reporting would further develop this practice. The OECD format for this reporting is a worthy initiative to this end, but the focus of this organization regarding this development should be broadened. The OECD can consider this reporting as a means to disclose information to the public. The European Union seems to be moving beyond the narrow disclosure requirements to a model which accepts the benefits of greater public transparency. Given the influence of the European Union, it is likely that other jurisdictions will follow. Such a move would absolve the issues associated with sharing information between tax administrators whilst concurrently ensuring the needs of a broader stakeholder group are satisfied. As different stakeholders (e.g. tax administrators and investors) can use the same CbC data to meet their varying evaluation and assessment needs, multinational entities would not be required to adjust the report or submit multiple filings.

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A comparative analysis of Australian and Hong Kong retirement systems

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Abstract

In the developed world, there comes a point in a person's life when it is socially accepted that they should no longer be required to earn an income through personal exertion — generally quantitatively determined by their age.

The level of support an older person receives is often correlated with the economic stability of the jurisdiction in which they reside. This support can range from basic services through to modest level pensions and healthcare. All support is funded by government revenue (i.e. taxes). Such revenue is predominately derived through taxpayers and, most notably, the working population.

A large issue affecting countries globally is that of aging populations. Statistically, older persons are considered to be those over the age of 60. Aging populations are a direct result of increased mortality rates followed by reductions in fertility rates.[3]

The financial impact of aging populations is that a large network of people finds themselves being supported by a much smaller network. This places a greater burden on the younger population and risks a lower standard of living for older people.

To combat the economic and social risks associated with an aging population, many countries over the past decade have implemented significant pension reforms which have included increasing age requirements for pension benefits, changing the way in which entitlements are calculated and introducing compulsory savings.[4]

The World Bank's leading involvement in pension reform, globally, has identified that the main objectives of a pension system continues to be poverty alleviation and consumption smoothing — beneath the umbrella of social protection.[5]

This paper reviews each comparator country's retirement income system using the World Banks Pension Conceptual Framework. It then considers each country's system in terms such as adequacy, affordability, sustainability, equitability, predictability and robustness.[6]

Keywords: Retirement systems; retirement; comparative analysis of retirement systems

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[3] UN, 2013, 3 [1].

[4] OECD, 2013, 9.

[5] Holzmann and Hinz, 2005, 1.

[6] Ibid 55.

1. INTRODUCTION

The World Bank has played an integral part in worldwide pension systems over the past 30 years. The major focus initially was on social security support for older people, which became an issue predominately due to a global aging population. However, this issue was exacerbated by deficiencies in traditional government and employment-linked retirement plans, as well as changing work patterns resulting in a lack of job stability, and local and international labour migration. A weakening of communities and family-based arrangements also contributed.[7]

The World Bank's experience led them into research on what was quickly becoming an old age crisis by the mid-1990s; subsequently releasing a report, *Averting the Old Age Crisis*. Their agenda was a focus on the refinement of pension systems, by establishing key principles and concepts, to accommodate diverse populations and mitigate the financial risks associated with the older generation.[8]

The World Bank identified that the expected significant growth in individuals over age 60 around the world would put major strains on global healthcare and financial security. They noted that the economic affect was not restricted to older people, but extended to all age groups. While the growth in population and ensuing economic stresses was anticipated to be greater in developing countries, particularly Asia and specifically China, developed countries faced the same problems.[9]

What eventuated from the World Bank's research was the creation of a conceptual multi-pillar retirement system, due to deficiencies in a single pillar system. A single-pillar system such as the public pay-as-you-go defined benefit pensions had the inherent risk of tax evasion, system manipulation, and eventual high contribution rates due to aging populations, which rendered such a system as destined to fail. Other single pillars, like a mandatory publicly managed system lack transparency, rely too heavily on government investment decisions and inhibit growth by depriving access to these funds by the private sector. Another approach, although never relied on solely by any government in the past, involves private occupational or personal savings plans. Such plans do allow for the liberal investment of funds, yet incur longevity risk, the risk of poor individual investment decisions and discriminate against those with low lifetime earnings.[10]

To combat the inadequacies of a single-pillar system, the three-pillar system was born: a public pillar to alleviate old age poverty and funded through taxes, a secondary mandatory pillar, privately managed and defined, and finally a third pillar based on voluntary contributions for people wanting more income in retirement.

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[7] The World Bank, 2008, 1 [1].

[8] Ibid, [2].

[9] Ibid, Overview.

[10] The World Bank, 1994, 14.

The World Bank's involvement in pension systems didn't stop there. In 2005, they released a report, *Old Age Income Support in the 21st Century: An International Perspective on Pension Systems and Reform*. Through involvement with policy makers and pension experts during implementation of pension reform, this 2005 report extended the three-pillar system to a five-pillar system. The addition of a zero, basic, pillar to deal more explicitly with the poverty objective and a non-financial fourth-pillar consisting of access to support and social programs, healthcare and housing. This inclusion of both a zero and a fourth pillar did not result from flaws in the three-pillar approach, but rather to further strengthen the overall pension framework.[11]

Ultimately, the World Bank has made it clear that the five-pillar pension system should be utilised as a benchmark, not a blueprint. The experience of the World Bank and its intimate involvement in pension reform has identified widely varied circumstances across numerous jurisdictions around the world. It recognises many differing starting points, objectives and economic circumstances. For this reason, the five-pillar system has intentionally been created as a flexible benchmark and guide for pension reform, rather than a prescriptive model that would define or limit possible alternatives.[12]

When the World Bank's first report was released in the mid-90s, recommending a three-pillar pension system, Hong Kong's pension system already consisted of two of the three pillars: a social security scheme and a voluntary personal savings plan. Consideration was given to Hong Kong's population and savings habits and, seeing it as a good fit, they immediately began the process of implementation of the third pillar — a mandatory employment-related contribution system — The Mandatory Provident Fund system, which began operation in December 2000.[13] Hong Kong's current retirement system now includes all but Pillar 1 of the World Bank's five-pillar retirement system.[14]

Due to the age pension being established in the early 1900s,[15] the wide availability of private superannuation accounts in the 1970s,[16] and the formal introduction of the superannuation guarantee in Australia in 1992, aimed at providing retirement benefits for all working Australians,[17] Australia's retirement income system consisted of all three of the pillars prior to the release of the World Bank's 1995 report, *Averting the Old Age Crisis*, which included the framework of a three-pillar retirement system. Similar to Hong Kong, Australia's current retirement income system includes the same four of the five pillars that now make up the World Bank's strengthened framework.[18]

[11] Holzmann and Hinz, 2005, 3.

[12] Ibid, 53.

[13] Chan, 2015, 3.

[14] University of Hong Kong Department of Social Work and Social Administration, 2014, 36.

[15] ABS, 2009

[16] Australian Government, 2001, 65.

[17] ATO, 2011.

[18] Australian Government, 2008, 45.

2. COMPARING AUSTRALIA AND HONG KONG AGAINST THE WORLD BANK CONCEPTUAL FRAMEWORK

The first pillar, the non-contributory 'Zero Pillar', has the primary objective of alleviating poverty. It achieves a minimal level of protection for the elderly by providing basic income support. Non-contributory refers to the fact that eligibility for old age pension payments is not determined by any form of pre-retirement contributions made by the recipient. Instead, the Zero Pillar is structured to support residents with low lifetime incomes, including those with limited participation in the formal economy.[19]

Hong Kong has three non-contributory Zero Pillar social security income support payments to older residents. The first is the *Comprehensive Social Security Assistance (CSSA) Scheme*, a means tested payment of up to HK$3,200 per month providing financial assistance to adults aged 60 and over. The second social security payment is the *old age living allowance* which is a payment of HK$2,390 per month (HK$28,680 p.a.) with more lenient eligibility criteria. The third is the *old age allowance*; a flat rate allowance, currently at HK$1,235 per month (HK$14,820 p.a.), to Hong Kong residents over age 70. The old age allowance is not means tested. A number of income support supplement payments also apply to certain circumstances. A person may only be in receipt of the old age living allowance or the old age allowance but not both. One must satisfy certain residency timeframes and means testing in order to be eligible for the payments. [20, 21]

Australia's non-contributory Zero Pillar is the *age pension*. The age pension is a means tested income support payment for residents over the age of 65. This age requirement gradually increases for those born after 1 July 1952 until it plateaus at age 67 for people born after 1 January 1957. Residency requirements must also be met. The payment rate at time of writing is A$867 per fortnight (A$22,542 p.a.) for singles and A$1,307 per fortnight (A$33,982 p.a.) for couples (combined). There are a number of supplements, healthcare benefits and concession cards that an age pension recipient may also be eligible for.[22]

Instead of the age pension, a person may be entitled to receive income support from the Department of Veteran Affairs (DVA). The DVA supports men and women who have served in the Defence Force. There are a range of income support payments for ex-service men and women; some are means tested and some are not, depending on the type of service, involvement in war-combat, and whether or not service resulted in a disability.[23]

As of 1 January 2017, significant changes to means testing of old age pensions in Australia are being implemented, effectively increasing the amount of people eligible for the full age pension (and some DVA pensions) and reducing the number of people

[19] World Bank, 2008, 2 [4].

[20] Social Welfare Department (HK), 2015a.

[21] Social Welfare Department (HK), 2015b.

[22] Department of Human Services, 2016.

[23] DVA, 2016.

eligible for the part-age pension (and some DVA pensions); specifically those with a greater level of assets.[24]

The interesting difference between Australia and Hong Kong's Zero Pillar is that Hong Kong residents over the age of 70 are eligible for a non-means tested income support payment in the old age allowance, which was introduced in 1973. While there was a political movement to means test the old age allowance, due to financial stresses from an aging population, it was not well received by Hong Kong's older generation. The payment, commonly referred to as 'fruit money', is regarded by recipients as a token of appreciation for their lifelong contribution to society, rather than a form of support.[25]

The only non-means tested income support payments for older Australians are those relating to war veterans suffering from total and permanent incapacity or war widows.[26]

2.1 A mandatory 'First Pillar'

The World Bank's mandatory 'First Pillar' is designed to assist with retirement funding through an earnings-linked (traditionally) public mandatory contribution system with the intention of replacing a portion of pre-retirement income through a defined benefit arrangement. Specifically, it is targeted at the working population. One of the main economic risks addressed by the First Pillar is that of 'individual myopia' (i.e. the assumption that a population as a whole is incapable of adequately saving for their own retirement in a voluntary manner). The term myopia is defined by Oxford Dictionaries as '…lack of foresight or intellectual insight'

Forced retirement savings, over a long period of time, generating a formulated retirement income, reduces the stress on government-funded income support under the non-contributory Zero Pillar and removes the sole reliance on individuals (particularly those suffering from myopia) to self-fund their retirement needs. However, as contributions made in respect of retirement under the First Pillar are generally pay-as-you-go financed, they are susceptible to demographic and political risks.[27] For the First Pillar to be effective it requires mandatory participation to ensure a high coverage rate and presumably to minimise costs through economies of scale.[28]

Hong Kong's retirement system does not currently include a mandatory First Pillar. In fact, it is the only pillar from the World Bank model not yet adopted by Hong Kong. Some have advocated for Hong Kong to incorporate a mandatory First Pillar into its retirement system, or even to see it replace or be funded through the mandatory Second Pillar. While authorities have dismissed the inclusion of a First Pillar to the detriment of a Second Pillar, they do acknowledge further discussions on inclusion of the First Pillar will be beneficial in strengthening Hong Kong's overall retirement funding framework.[29]

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[24] Australian Government, 2015a, 27.

[25] Sin, 2008.

[26] DVA, 2016.

[27] Holzmann and Hinz, 2005, 42 and 43.

[28] Chan, 2015, 16 [35].

[29] Ibid, 17 [38]

As with Hong Kong, Australia does not have an equivalent to the World Bank's mandatory First Pillar. It too has built its retirement system around the remaining four of the five pillars. Defined benefit plans funded through mandatory contributions are ingrained in Australia's retirement system; however, such plans are being phased out with a preference for individual retirement savings accounts. Irrespective of this, Australia's defined benefit plans are industry-sector specific rather than all-inclusive as intended by the First Pillar World Bank framework. [30]

2.2 A mandatory 'Second Pillar'

A mandatory 'Second Pillar' is a defined contribution approach to retirement planning that provides the member with an individual retirement savings account. A typical member account affords a great degree of flexibility in so far as investment options, portability of savings between retirement accounts and various withdrawal options in the drawdown phase. However, such flexibility comes at a cost — quite literally. In contrast to defined benefit plans, defined contribution plans incur greater administration and investment management fees, are exposed to agency and longevity risk, and ultimately shift the overall risk from a defined benefit provider (e.g. government or employer) to the member themselves, by subjecting their savings to market volatility.[31]

The Second Pillar is said to complement the First Pillar well, as there is not a perfect correlation between wage growth and financial returns achieving a level of diversification within a pension system.[32]

As with the mandatory First Pillar, the Second Pillar is also influenced by individual procrastination — saving for retirement being a low priority because it is too far in the future — ultimately resulting in inadequate retirement savings. While a specific rate of defined contributions under the Second Pillar can roughly translate into a retirement income, based on expected return and term of investment, it has not been designed to achieve specific income replacement goals.[33] However, if it must be measured, a widely held view is that retirement income adequacy is achieved if defined contributions accumulate sufficient capital to generate an income equivalent to around 70 percent of pre-retirement income over a 30-year period.[34]

A formula driven defined benefit plan under a Second Pillar framework provides workers with an income for the remainder for their lives (in some cases reversionary to their spouse in the event of death). In simplistic terms, the level of retirement income is based on pre-retirement salary and years of service. Defined benefit plans allow an employee to focus on working, unconcerned with providing for retirement, knowing they will be in receipt of a guaranteed replacement income in retirement, which can supplement a Zero Pillar government old age pension to cover retirement

[30] John Burnett et al, 2014,,9 [2].

[31] Holzmann and Hinz, 2005, 42 and 43.

[32] Ibid, 43.

[33] Australian Government, 2009, 10 [8].

[34] Australian Government, 2013b, 23 [6].

expenses. Such plans afford maximum predictability, yet are said to be unsustainable and unaffordable for their sponsors.[35]

At the other end of the spectrum, defined contribution plans are concerned with accumulating a capital investment amount intended on delivering an income stream throughout retirement. This method moves away from the retirement income approach towards a capital accumulation approach, whereby the member bears all the investment risk, pre- and post-retirement, in an area in which they are no doubt unskilled; then they are expected to manage the addition of longevity risk using the net present value theory.[36]

Second Pillar defined contribution plans are becoming an increasingly integral part of overall retirement plans worldwide. For some countries, defined contribution plans are the main pillar. Therefore, the importance in the adequacy of these plans and benefits stemming from them should not be understated.[37]

In Australia, as at February 2014, approximately 83 percent of retirement benefits, based on asset values, were held in defined contribution plans, with the remainder in defined benefit plans.[38] In Hong Kong, approximately 86 percent of retirement benefits were held in defined contribution plans as of 31 March 2014.[39, 40]

Australia's Superannuation Guarantee (SG) System is the main component of Australia's defined contribution pension plan, requiring employers to contribute a percentage of an employee's salary to their superannuation account on a quarterly basis. The current rate is at 9.5 percent. This rate is progressively increasing from 9.0 percent to 12.0 percent between the 30 June 2013 and 1 July 2022.[41] While initially intended to supplement the age pension, this increase in mandatory contributions is now transforming the perception of superannuation into a total retirement income solution.[42]

Hong Kong's defined contribution pension plan is built around the Mandatory Provident Fund (MPF) System. Generally, an employee and their employer are both obligated to each contribute five percent of an employee's salary into the MPF scheme.[43] Unlike Australia, Hong Kong is not so ambitious with the expectations of their defined contribution pension plan. Built on Pillar Two under the World Bank's five-pillar retirement protection approach, Hong Kong has made it clear that there is no immediate objective for the MPF to be a self-funding retirement solution.[44] Hong Kong views the MPF as a means of supplementing other sources of retirement income

[35] Merton, 2012. 6.

[36] Ibid, 11.

[37] OECD, 2012, 1.

[38] APRA, 2013, 8.

[39] Hong Kong Investment Funds Association, 2014a.

[40] Hong Kong Investment Funds Association, 2014b.

[41] ATO, 2014.

[42] Australian Government, 2013b, 21 [4].

[43] Hong Kong Government, 2014, 1 [6].

[44] MPFA, 2014, 1 [1].

and was specifically established as Pillar Two under the World Bank's five-pillar retirement protection approach.[45]

One noticeable difference between Australia and Hong Kong's mandatory contribution system is that non-employees (i.e. self-employed persons) in Australia are not obligated to make mandatory contributions into superannuation on their own behalf. In fact, they're not even required to have a retirement account.[46] In Hong Kong, self-employed persons must contribute five percent of their own income into their retirement plan.[47]

2.3 A voluntary 'Third Pillar'

A voluntary 'Third Pillar' can be loosely defined and broad in nature. It generally consists of personal savings and non-mandatory contributions to retirement plans. Such voluntary savings used for consumption through retirement are derived from sources that are not formally defined as pensions.[48] Similar to the Second Pillar, voluntary savings are generally susceptible to financial and agency risks because of private asset management.[49]

Aside from the consequential retirement funding afforded through the ordinary accumulation of wealth or inter-family transfer of assets, the overall success of a voluntary Third Pillar, in a formal retirement funding sense, generally relies on tax credits and matching contributions. However, structure and limits need to be considered so as not to encourage the wealthier population in capitalising on unintended tax incentives, whereby *tax planning* can be disguised as *retirement planning*.[50] In saying this, voluntary contributions provide an avenue for those on higher incomes to build retirement wealth, often tax effectively, which can greatly assist with achieving commensurate replacement rates.[51]

Contributions in excess of the mandatory provisions are permitted to be made into Hong Kong's Mandatory Provident Fund (MPF) system. These voluntary contributions can either be made by the member or by their employer on behalf of the member. Voluntary contributions made by employees or self-employed into the MPF are unable to be claimed as a tax deduction. Voluntary contributions made by employers in respect of employees are deductible up to 15 percent of the employee's total salary package. Mandatory contributions are included in this 15 percent cap.[52] Conditions surrounding the access of voluntary contributions under the MPF scheme are not determined by law, but rather by each specific scheme.[53]

In Australia, a formal voluntary Third Pillar predominately consists of private savings accumulated through voluntary contributions into a compliant superannuation fund.

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[45] Hong Kong Government, 2014, 1 [4].

[46] ATO, 2015c.

[47] Hong Kong Government, 2014, 1 [6].

[48] Holzmann and Hinz, 2005, 83 [1].

[49] Ibid, 43 [1].

[50] Ibid, 14 [1].

[51] Australian Government, 2009, 13 [4–5].

[52] Hong Kong Government, 2014, 2 [1].

[53] MPFA, 2015.

Voluntary contributions can be concessional (tax deductible) or non-concessional (post-tax). Voluntary contributions are limited, with each limit determined by the member's age and type of contribution. Levels of income or wealth of an individual are irrelevant in determining contributions limits.[54] Lower income earners are encouraged to voluntarily contribute to superannuation, with post-tax savings, in order to receive a co-contribution from the government. Lower income earners can receive a co-contribution of 50 percent up to A$500 on their contribution.[55] Despite not being mandated, voluntary superannuation contributions are also preserved until a condition of release is met (e.g. permanent retirement after reaching a preservations age (currently 56) or attaining age 65).[56]

The voluntary Third Pillar contributes towards the adequacy of a retirement system by increasing replacement rates and improves affordability by encouraging preparedness and alleviating the financial pressure on society's capacity to fund the older population.

2.4 A non-financial 'Fourth Pillar'

The non-financial 'Fourth Pillar' is broad and discretionary in nature and refers to assisted pension funding in the form of family and social support programs, healthcare and housing, as well as home ownership and home-equity available through a reverse mortgage.[57]

Social support and healthcare services can significantly reduce the living expenses of the older generation, thus reducing the stresses on achieving higher effective replacement income rates. Unencumbered home ownership also eliminates the necessity and major expense of shelter, while simultaneously providing access to equity via a reverse mortgage facility whereby repayments are simply capitalised and do not affect the day-to-day cash flow of a retiree.

The Australian Government provides a number of social support programs to older Australians. This ranges from aged care assistance, retirement advice, medical, pharmaceutical and transport subsidies and concessions, plus dozens of other programs designed to guide older people through their 'latter' years.[58]

Home ownership, including occupied private dwellings either owned outright or owned with a mortgage by their occupants, account for 70 percent of dwellings in Australia — a number that has been stable since the early 1970s.[59] Home ownership plays an important role in maintaining retirement living standards in Australia and can largely explain the rate of age pension being a mere 25 percent of average weekly earnings.[60]

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[54] ATO, 2015d.

[55] ATO, i2015b.

[56] ATO, 2015a.

[57] Holzmann and Hinz, 2005, 3 [1].

[58] Australian Government, 2016.

[59] Pink, 2012.

[60] Yates and Bradbury, 2010, 198 [4].

Hong Kong also delivers social services and benefits to their elderly, including community care and support services, residential care services, concessions and discounts, as well as other social services.[61] Permanent home ownership in Hong Kong sits at 53 percent, a rate that has also been reasonably static over the past decade.[62] The Hong Kong Government views the Fourth Pillar as of equal importance to each other pillar, noting that government spending in the 2014–15 financial year towards the Fourth Pillar exceeded that of the spending on the Zero Pillar by 15 percent. Further, aside from public services and support, Hong Kong's Reverse Mortgage Programme, aimed at offering reverse mortgage loans to people aged 55 or above, continues to grow since its launch in 2011.[63]

3. PRIMARY EVALUATION CRITERIA

3.1 Scope

In applying the primary evaluation criteria against the Australian and Hong Kong retirement systems, the mandatory First Pillar has been excluded from this paper's analysis and comparison, as it does not form part of Australia nor Hong Kong's current retirement system. In addition, analysis and comparison of the non-financial Fourth Pillar does not form part of the scope of this section due to its broad and discretionary nature. Attempting to address the Fourth Pillar succinctly and within the constraints of this paper would not allow for any meaningful assessment (when compared to the assessment of the remaining pillars) due to it being so diverse.

3.2 Adequacy: Australia and Hong Kong

> An adequate system is one that provides benefits sufficient to prevent old-age poverty (as a country-specific absolute level) to the full breadth of the population in addition to providing a reliable means to smooth lifetime consumption for the vast majority of the population
>
> — World Bank Pension Conceptual Framework[64]

Despite having one of the leading retirement systems worldwide, it is common belief that many Australians will not have sufficient savings to fund their retirement. While this comes as no surprise when assessing the population *currently* transitioning to retirement, the belief also extends to include retirees who will have contributed to superannuation for their whole working life.[65]

The age pension is the dominant contributor to alleviating old age poverty in Australia. In fact, research concludes that approximately 96 percent of single people and 88 percent of couples will rely on the age pension to assist in covering retirement

[61] Hong Kong Government, 2015.

[62] Hong Kong Housing Authority, 2015, 1.

[63] Hong Kong Government (Commission on Poverty), 2014.

[64] World Bank, 2008.

[65] Burnett et al, 2013, 2 [1].

expenses at some stage in their lives. Further, the age pension will cover more than two-thirds of retirement consumption for singles and one-third for couples.[66]

The age pension presently achieves what it is designed to do — preventing old age poverty in Australia across the full breadth of the population. By continuing to link eligibility age to life expectancy and applying suitable means testing, the age pension should remain affordable and sustainable in supporting those who rely on it most.[67]

Such a heavy reliance by older Australians on the age pension, as described in the figures above, suggests that, while poverty is being alleviated, the overall retirement system is not providing an adequate means for the vast majority of the population to smooth lifetime consumption.

In Hong Kong, the recent 2013 implementation of the old age living allowance has considerably helped to further alleviate old age poverty and extend adequacy across Hong Kong's population. Specifically, the poverty rate of people over 65 years fell from 33.2 percent to 23.0 percent. A study, conducted by Professor Chou Kee-lee (Head of the Department of Asian and Policy Studies at The Hong Kong Institute of Education), found that a 'universal' Zero Pillar used to replace the current old age allowance and old age living allowance schemes could further reduce this poverty rate to 13.0 percent. However, this study concluded that this would come at a significant financial cost to the government.[68]

Australia's mandatory Second Pillar, the SG, addresses consumption smoothing via compulsory contributions. Such contributions are preserved until retirement and are designed to improve retirement adequacy for the working population. Ultimately, a fully mature SG system implemented throughout an individual's complete working-life is expected to eliminate the need for the age pension and replace it with pre-retirement earnings to maintain the same standard of living.[69] Unfortunately there remains a significant distortion in superannuation balance between males and females, reflecting wage gaps and differing working patterns.[70] The SG system also excludes self-employed persons. Given that more than 50 percent of the population are women[71] and 11 percent are self-employed,[72] other forced savings measures need to be adopted to increase retirement income adequacy and smooth consumption for the majority of the population.

Similar to Australia, Hong Kong's immature mandatory Second Pillar, the MPF, is unlikely to provide adequate resources to fully support old age any time soon. However, both Australian and Hong Kong defined contribution plans provide people with a reliable means to smooth lifestyle consumption — albeit one that relies on voluntary, non-mandated contributions, to achieve adequacy.

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[66] Ibid, [4].

[67] National Commission of Audit, 2014, 86.

[68] Hong Kong Institute of Education, 2014, 1.

[69] Borowski, 2013, 750 [2].

[70] Ibid, 752.

[71] Pink, 2012, 240 [1].

[72] Ibid, 293.

While government support and retirement savings policy is imperative to any successful retirement model, an individual's ability and willingness to save is a major contributor towards achieving retirement funding adequacy. One argument is that, unlike Western cultures such as Australia, individual procrastination — the disconnect between now and planning for the future — is less prevalent in Hong Kong. It is hypothesised that this 'ability to save' is achieved through language, as the Chinese grammatically apply the present and future equally; thus providing a psychological advantage towards savings due to the future seeming closer.[73] Additionally, it is argued that the Chinese cultural factor of Confucianism, valuing thrift, self-discipline, moderation and aversion to extravagance translates into a greater savings capacity and comparatively lower expenditure objectives, resulting in higher retirement adequacy levels.[74]

Despite this apparent philosophical approach to life and finances, Hong Kong ranks an uninspiring 45th of the 49 countries measured in the Allianz International Retirement Income Adequacy (RIA) Indicator — a benchmark modelled on a multi-pillar retirement system, taking into account various sources of income, as well as factors influencing expenditure needs.[75] Another notable finding was that, while *China* ranked highly in 'non-pension wealth', *Hong Kong* did not appear to fully embrace the supposed Chinese culture of Confucianism, ranking third last.

The main criticism affecting adequacy in both Hong Kong and Australia's retirement system is in connection with the drawdown phase of the mandatory Second Pillar, due to the availability of lump sum payments of benefits available to members upon attaining a certain age as well as the lack restrictions on the level of pension income that can be withdrawn throughout retirement. These are not characteristics that are favourable when assessing the adequacy of a retirement system.

3.3 Affordability: Australia and Hong Kong

> An affordable system is one that is within the financing capacity of individuals and the society and does not unduly displace other social or economic imperatives or have untenable fiscal consequences
>
> — World Bank Pension Conceptual Framework[76]

In 1993, Australia's three pillar retirement system was endorsed by the World Bank as the world's best practice for the provision of retirement income. [77] Since then it has remained a high benchmark for global retirement systems, as high individual savings rates and broad coverage has been achieved cost-effectively.[78]

The Zero Pillar age pension in Australia is intended only to be used as a safety net and to provide financial security to older Australian's who are unable to support themselves in retirement. Older Australians with sufficient financial resources to fund

[73] Chen. 2013.

[74] Chou et al, 2014, 1572 [2].

[75] Allianz SE, 2015, 3, 9 and 15.

[76] World Bank, 2008.

[77] Nielson, 2010.

[78] Agnew, 2013, 1.

their own retirement should not be entitled to receive such support. Government expenditure on the age pension is growing at a rate of seven percent per annum. Based on current eligibility criteria, this rate would be expected to continue increasing, predominately due to the two main factors of increased life expectancies and an aging population.[79] These two factors are unavoidable and moreover, are likely to trend in a manner that will reduce the affordability of age pension funding in the foreseeable future. However, narrowing the age pension eligibility criteria can reduce such funding pressures.

In a February 2014 report to the Australian Government, the National Commission of Audit stated that '...changes are needed to ensure that the cost of the age pension remains sustainable and affordable and well targeted to those in genuine need.'[80] This suggests that there are inequities in the age pension eligibility criteria, which extends unaffordable income support payments to individuals who could otherwise support themselves.

The Australian Government has since responded to these recommendations in the 2015 Budget, by declaring that, as of January 2017, the asset-tested free area will increase, providing an additional 170,000 pensioners with access to the full age pension. In addition to this, they announced a noticeable reduction to the upper threshold, eliminating payments to older Australians who are reasonably able to self-fund their retirement.[81]

One factor that increases the affordability of retirement protection in Hong Kong is that some residents choose not to apply for social income support, despite being eligible, due to their adherence to traditional beliefs of 'self reliance' and not wanting to be a social burden. Such individuals state that they would only apply for social security if they could not take care of themselves.[82] However, this 'saving' is arguably eroded by non-means tested old age allowance support payments to pensioners over the age of 70, which are made irrelevant of necessity.[83] Overall, it is estimated that social security expenditure for the Hong Kong elderly will increase to HK$59.14 billion by 2041, compared to HK$21.72 billion in 2013, doubling the projected percentage of nominal gross domestic product (GDP).[84]

The greatest criticism of Hong Kong's MPF is that it is an expensive means of providing for retirement with high administration and management fees. Research has indicated that Hong Kong's MPF system has the highest fees and administration costs, when expressed as a percentage of assets under management, reviewed against other comparable international pension systems, including Australia. The main reasons behind these larger costs were inefficient application and transaction processes, lower economies of scale and limited competition. On a positive, the MPF system remains young and criticism is to be expected. If efficiencies, membership and funds under

[79] National Commission of Audit, 2014, 80 [6].

[80] Ibid.

[81] Australian Government, 2015a, 27.

[82] Oxfam (Hong Kong), 2010, 6.

[83] Social Welfare Department (HK), 2015b.

[84] The University of Hong Kong Department of Social Work and Social Administration, 2014, 15–17.

management increase over time, so too will competition; consequently reducing costs. However, there remains the real risk that costs will increase if no action is taken.[85]

Australia has had the advantage over Hong Kong in that its SG system has been in place for almost a decade longer. Over this time it has developed efficiencies and competition which have been the drivers of a reduction in fees. Due to the passive approach that many Australians still have to superannuation, the government developed the concept of a default 'MySuper' product. This product is required to feature a standardised, transparent fee structure and reporting, as well as basic lifecycle investment options, ensuring the savings of passive-decision makers are invested appropriately and cost-effectively. MySuper products became available as of July 2013 and, by 2017, all superannuation trustees are required to transfer 'default balances' into a MySuper product.[86] MySuper product fees now rival international retirement plans.[87]

3.4 Sustainability: Australia and Hong Kong

> A sustainable system is one that is financially sound and can be maintained over a foreseeable horizon under a broad set of reasonable assumptions
>
> — World Bank Pension Conceptual Framework[88]

Assistance to older Australians is Australia's largest single welfare cost, accounting for 39 percent of total social security and 13 percent of total budget spending. The cost of this support to the aged, while not expected to decrease in the near future, is expected to plateau.[89] Maintaining this proportion of spending towards the elderly should be viewed as an improvement towards sustainability when considering that those aged 65 and over accounted for 14 percent of Australia's population in 2011 and will increase to 20 percent of the population by 2030.[90] The anticipated curbing of budget spending towards this sector can be largely attributed to the proposed changes (reversion) of means testing, set to apply from 1 January 2017.

Australia's SG system focuses on compulsory consumption smoothing, addressing the majority of the population's unwillingness to voluntarily and adequately fund their own retirement. A fully mature SG system is projected to assist greatly in sustaining Australia's retirement system by achieving post-tax replacement rates in the vicinity of pre-retirement income. Replacement rates, expressed as a percentage, are in fact more favourable for lower income earners, potentially negating the need for the full-time, consistently-employed, working population to rely on social support.

The current progressive increase in the SG rate from nine percent to 12 percent will further increase such retirement sustainability; arguably at the detriment of low and

[85] Ernst & Young (HK), 2012, 5–6.

[86] Agnew, 2013, 3.

[87] Deloitte, 2014, 15–16.

[88] World Bank, 2008.

[89] Spraggon and Elvery, 2014.

[90] Pink, 2012, 242.

middle income earners' capacity to maintain current standards of living due to lower pre-retirement incomes.[91]

Concessional tax treatment of retirement savings, and voluntary concessional (pre-tax) and non-concessional (post-tax) contributions, which form part of Australia's Second Pillar, are often debated and regularly amended. Specifically, research suggests that the majority of the A$31.8 billion (financial year 2012–13) in superannuation tax concessions benefited high-income earners and those with substantial assets. This figure is only mere A$9.2 billion less than the A$41 billion direct income support payments for seniors. Further, it is argued that restricting current concessions, resulting in wealthier individuals accumulating assets outside of the superannuation environment, would not compromise the effectiveness of the retirement system. This could lead one to presume that the current tax concession framework is somewhat politically motivated.[92]

However, analysing these tax concessions against sustainability of the retirement system is limiting the scope. Superannuation in Australia is valued at A$1.5 trillion and is a major part of the financial services and insurance sectors. These sectors employ around 3.5 percent of working Australians and currently contribute 1.5 percent of GDP. Both of these rates are projected to grow substantially over the next few decades. Domestic retirement savings capital, therefore, together with consistent voluntary contributions is essential to a sustainable and robust economy as a whole.[93]

Topical discussion on superannuation sustainability

The sustainability of Australia's superannuation system is presently being challenged by the Opposition Government. The Australian Labor Party (ALP) has the view that the current system favours the wealthy because the large majority of superannuation tax concessions are benefiting the top 20 percent of income earners.[94] Superannuation tax concessions account for a considerable portion of Australia's annual tax expenditures. The Tax Expenditures Statement (2014) states that 'A tax expenditure arises where the actual tax treatment of an activity or class of taxpayer differs from the benchmark tax treatment' This is usually achieved in the form of tax exemptions, deductions, offsets, concessional tax rates, and tax deferral.[95] The combined tax expenditure of superannuation contributions and superannuation earnings contributes to 24 percent of total tax expenditure.[96] This is considerable; yet it needs to be considered that tax incentives are the sole reason for the existence of the superannuation system, which is instrumental to alleviating the costs of social security to older Australians.[97]

The ALP argue that limiting the tax exempt status of earnings in superannuation drawdown phase and lowering the Higher Income Superannuation Charge will reduce the impact on Australia's tax expenditure, effectively generating greater revenue, and

[91] Australian Government, 2009, 11 [5].

[92] Australian Government, 2013a, 4–8.

[93] Ibid, 4–8.

[94] ALP, 2016,

[95] Australian Government, 2015b, 3.

[96] Ibid, 7.

[97] Pinto, 2013, 583 [2].

will create a fairer, more equitable superannuation system. The ALP believes the affordability gained through these measures will improve the sustainability of Australia's retirement system.[98]

Australia's superannuation system has had significant amendments over the past two decades; both minor and major.[99] The inevitable consequence of change is loss of confidence in the superannuation system. On a micro level, the proposed changes may generate more revenue over the short- to medium-term and achieve a more equitable outcome. However, lack of confidence in the system, through elimination of tax concessions, risks the long-term sustainability of superannuation on a macro level, irrelevant of equitable values, as the wider population already increasingly perceive superannuation as unpredictable.[100]

Sustainability of a retirement system in Hong Kong is under increasing pressure; much more so than most countries around the world. In 2010 Hong Kong ranked outside the top 40 countries on the old age dependency ratio, yet is expected to rank seventh by 2030. A significant drop in fertility rates and improved life expectancy are responsible. Specifically, the fertility rates (children born to a woman during her lifetime) in Hong Kong between 1980 and 2010 have plummeted from 2.3 to 1.0, [101] while life expectancy for a 65 year old is 18.7 years (83.7 years) — the highest ranking in the world.[102]

The number of recipients of social security in Hong Kong has remained relatively stable over the past few years, despite an aging population. It has been suggested that this could be attributed to the implementation of the MPF. The concern is that this could be creating unsustainable temporary relief of old age assistance, as the MPF savings of lower income earners would be exhausted within the first few years of retirement, at which stage most would revert to social security benefits.[103]

The MPF, formally introduced into Hong Kong in December 2000, is an integral component of their overall retirement system. It has been designed to complement the other retirement pillars in achieving adequacy. Still in its infancy, authorities are confident that the well-designed system in conjunction with sound investment options will continue to enhance the sustainability of Hong Kong's overall retirement system.[104]

3.5 Equitability: Australia and Hong Kong

An equitable system provides income redistribution from the lifetime rich to lifetime poor consistent with societal preferences while not taxing workers or retirees external to the system; and an equitable defined-benefit system

[98] ALP, 2016.

[99] Nielson, 2010.

[100] Anderson, 2013, [8].

[101] UN, 2015, 38.

[102] Ibid, 44.

[103] The University of Hong Kong Department of Social Work and Social Administration, 2014, 3.

[104] MPFA, 2014, 1 [1].

> provides the same benefit for service across income groups and cohorts subject income redistribution parameters which may apply
>
> — World Bank Pension Conceptual Framework[105]

Both the Australian and Hong Kong non-contributory Zero Pillars are based on the premise of alleviating poverty. This pillar of the retirement system epitomises equity in a broad economic sense by transferring wealth from the rich, via taxes, to the poor, as income support payments. Both countries do this using a means-tested assessment in order to determine the beneficiaries. However, Australia and Hong Kong each have one notable inconsistency within their respective systems, between the objectives that the social support system is trying to achieve and the actual policy currently in place. These inconsistencies compromise the equitability of each system.

The notable inequity in Australia's social security eligibility criteria is the exemption of the principal residence from means testing. In determining eligibility for the age pension, the assessment allows for high levels of wealth to be sheltered in the form of the family home. For example, under the current rules a single person who owns a A$400,000 house and has A$800,000 in shares (A$1.2 million in total assets) would not be eligible for any age pension payments, while a similar person with a principal residence worth A$2 million and A$200,000 in shares (A$2.2 million in total assets) would be able to claim the age pension at the full rate.[106]

In Hong Kong, the old age allowance is a non-means tested payment to residents aged 70 and above at a current rate of HK$1,235 per month. This is simultaneously insufficient to provide any degree of retirement adequacy and is a detractor to the success of Hong Kong's retirement system. Colloquially referred to as 'fruit money', the old age allowance defies equitability, despite being part of Hong Kong's non-contributory Zero Pillar framework, ordinarily designed to alleviate poverty. The lack of means testing removes any form of redistribution from the lifetime-rich to the lifetime-poor on this portion of social support. Further, there is considerable discussion surrounding the consolidation of Hong Kong's existing tiers of social support into one universal, non-means tested flat monthly payment to all residents, irrelevant of pre-retirement earnings, years of service or personal savings. Hong Kong residents are divided at the prospect of a universal system, with those opposed to it concerned about the significant financial burden on society, believing a more equitable outcome is potentially achievable by directing social support resources to the less fortunate rather than society as a whole.[107] Introducing means testing on all forms of social support income would increase equitability and no doubt contribute towards the sustainability and affordability of the retirement system.

The SG system in Australia and the MPF in Hong Kong, both employment-linked defined contribution plans, effectively reduce salaries and wages to allow for compulsory contributions to a retirement plan. Both of these plans are inherently inequitable approaches to retirement savings, grossly favouring males and higher income earners, which can often be one in the same. The bias towards males and higher income earners results from more consistent work patterns and greater capacity to forego pre-retirement income in exchange for increased retirement benefits.

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[105] World Bank, 2008.

[106] National Commission of Audit, 2014, 85 [4].

[107] The University of Hong Kong Department of Social Work and Social Administration, 2014, 7–9.

Women, in particular those who leave the workforce at a young age due to family commitments, become completely excluded from the compulsory Third Pillar of both countries' retirement systems. Any savings that are accumulated prior to leaving the workforce are too meagre to provide any meaningful contribution towards retirement adequacy and achieving replacement rates. While women can be protected against poverty through social support or an earning spouse, the current system does not make provision for the women who would like more in retirement, or to at least achieve modest replacement rates equivalent to their male counterparts, irrelevant of their previous employment earnings. Because of this, achieving adequacy can be especially difficult for women entering retirement as single persons.

A noticeable inequity that is ingrained in Australia's voluntary Third Pillar and to a certain degree, mandatory Second Pillar is that of tax concessions relating to superannuation contributions and earnings on superannuation benefits.

Firstly, concessional superannuation contributions are effectively taxed at 15 percent upon entry (contributions tax).[108] This is a flat rate and allows an individual to reduce their marginal tax rate from up to 47 percent[109] down to 15 percent through salary sacrifice or personal deductible contributions, significantly reducing tax payable. Such a saving favours higher income earners over low-middle income earners, as the reduction in tax, both in dollar terms and percent is greater. Further, higher income earners arguably have greater capacity to make additional contributions, increasing their advantage.[110] It should be noted that recent progressive decreases to contribution level limits has negated the once significant tax advantages, as has the introduction of an additional 15 percent contributions tax (totalling 30%) for income earners above A$300,000 per annum.[111]

Secondly, earnings on investments within superannuation are capped at 15 percent, reducing to zero percent once an income stream commences. Again, this favours wealthier individuals, as transferring their wealth into superannuation translates into less tax payable than if those same earnings were retained in their individual names and taxed at their marginal tax rates, which are higher than the tax rates for low-middle income earners.

Considering superannuation has been developed as a retirement funding mechanism aimed at consumption smoothing ultimately intended to minimise social support, the motive of current Australian superannuation tax concessions, which are amongst the highest in the world, remains inequitable.[112] The retirement system in Australia would likely not be adversely affected if contribution limits were further reduced, forcing the wealthy to partake in consumption smoothing outside of superannuation.[113] This is in contrast to Hong Kong's MPF whereby the maximum deductible contributions are at a modest HK$18,000 per year — 60 percent of Australian limits. In comparison to Australia's tax concessions, Hong Kong's concessions appear more in line with the

[108] ATO, 2015e.

[109] *Income Tax Rates Act (ITRA) 1986*, Schedule 7.

[110] Hanegbi, 2010, 437.

[111] *Income Tax Assessment Act (ITAA) 1997*, section 293.

[112] Hanegbi, 2010, 432–434.

[113] Hanegbi, 2010, 437.

objectives of equitable consumption smoothing rather than a bias towards tax planning for higher income earners.[114]

3.6 Predictability: Australia and Hong Kong

> A predictable system provides benefit that (i) are specified by law and not subject to the discretion of policymakers or administrators, (ii) includes indexation provisions designed to insulate the individual from inflation, wage and interest adjustments before and after retirement, and (iii) as much as possible insulates the retiree from longevity risks
>
> — World Bank Pension Conceptual Framework[115]

The necessity of a multi-pillar retirement system creates diversity and flexibility which in turn reduces predictability.

Australia's non-contributory Zero Pillar age pension assessment and level of payments has remained reasonably consistent over recent decades.[116] In 1997, the Howard Government enacted the *Social Security and Veterans' Affairs Legislation Amendment (Male Total Average Weekly Earnings Benchmark) Act 1997* which would ensure the minimum full rate of the age pension would be equal to at least 25 percent of male total average weekly earnings (MTAWE).[117] Legislated consistency such as this creates a predictable outcome for individuals in and nearing retirement. It allows for future planning of finances and generates confidence and certainty in the system.

However, a change to the eligibility assessment criteria, in the form of asset thresholds, in September 2007 has affected a number of people. From that date, around 300,000 additional people became eligible for social security income, who hadn't previously been entitled, resulting from more generous thresholds.[118] These generous thresholds still exist today, yet are essentially being reverted to their previous form as of 1 January 2017. This reversion creates more sustainable, equitable and affordable social support for Australia's overall retirement system;[119] however, it also affects the retirement planning of the 300,000 people who presumably incorporated the additional income into their long-term planning. Additionally, it risks community confidence in future stability and, subsequently, system predictability.

Unlike Australia's predictable social security system, Hong Kong's is in the midst of uncertainty, both from an eligibility and legacy perspective. Its existing tiers of income support payments, debate on means testing, and potential consolidation to a universal payment greatly affects its predictability. The introduction of the old age living allowance in 2013 suggests Hong Kong is recalibrating its social security system and can be excused for not providing high levels of predictability during this transition phase. Taking a stance against the non-means tested old age allowance, a

[114] Inland Revenue Department, 2016.

[115] World Bank, 2008.

[116] Nielson, 2010.

[117] Commonwealth Treasury of Australia, above n 14, 73.

[118] Nielson, 2010.

[119] Australian Government, 2015a, 27.

token payment in respect for the elderly, will be difficult to overcome politically, but will improve Hong Kong's social security system.[120]

Australia's mandatory Third Pillar does not boast the stability and predictability achieved in its First Pillar. Since the introduction of the SG system in 1992, there have been amendments to this component of the retirement system almost every year, as well as significant reforms to regulation, comprehensive amendments legislation and sweeping changes to superannuation taxation.[121]

Hong Kong has the highest life expectancy in the world at 84 and Australia also ranks highly at 82.[122] It is estimated, with strong conviction, that the formal statistical life expectancy data generally reported understates more realistic life expectancies by 5–7 years after allowing for mortality improvements on a cohort basis.[123] With high life expectancies comes the higher longevity risks associated with retirement systems. The major shift from defined benefit retirement plans to defined contribution plans, as well as the lack of interest in annuitised products, reflects the preference in flexibility and liberal use of retirement savings in both countries. These defined contribution plans rely on a capital accumulation model with a lump sum benefit, providing ultimate discretion to the member as to how retirement savings are utilised with little consideration given to longevity risks.

Increasing longevity risks and somewhat undermining the intent of a retirement system is the reducing age at which benefits are accessible. Even with increasing life expectancies and an aging population, Australian superannuation fund members are able to access full benefits as early as the age of 56 (this was 55 years before 1 July 2015) and 60 years in Hong Kong. It could be argued that such early access to benefits encourages people to cease work earlier, heightening longevity risks and jeopardising the sustainability of the respective retirement systems.[124]

Yet, longevity risk is not limited to retirees; the economic community bears the risk of needing to fund social security pensions via taxes to compensate for misuse or ineffective planning of retirement benefits.[125] An absurd reality of both the Australian and Hong Kong defined contribution plan — the main contributor to both retirement systems — is that a member can spend 30 working years accumulating wealth through mandatory and voluntary contributions, withdraw the total balance upon retirement, purchase a house well above their means and be in receipt of full social security benefits funded by the community.[126] Furthermore, the same person can apply a reverse mortgage against their new home for additional income to supplement social security benefits without the income being assessed. Such a strategy can continue indefinitely, with no reduction in asset base, if the reverse mortgage drawdown, plus capitalised interest, is equal to or less than the growth in the property price over the course of retirement.

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[120] The University of Hong Kong Department of Social Work and Social Administration, 2014, 3–4.

[121] Nielson, 2010.

[122] World Bank, 2014.

[123] Actuaries Institute, 2012, 5.

[124] Ibid 8-9.

[125] Ibid 8.

[126] Ibid 12.

3.7 Robustness: Australia and Hong Kong

> A robust system is one that has the capacity to withstand major shocks, including those coming from economic, demographic and political volatility.
>
> — World Bank Pension Conceptual Framework[127]

The single largest risk to most Second Pillar defined contribution plans, such as Australia's SG system and Hong Kong's MPF, is major economic shock, such as that experienced during the global financial crisis (GFC). One of the biggest detractors in retirement savings during this period came from investment in direct equities. Equities can be a favourable investment due to high expected long-term returns and passive nature; however, they are also subject to high levels of short term volatility and risk. As a matter of concern, Hong Kong ranks third highest amongst non-OECD countries for the level of pension funds allocated to equities at 57 percent[128] and, of OECD countries, Australia sits second with 46 percent behind the United States.[129] At retirement, Second and Third Pillar savings will usually be a person's largest investment asset in Australia and Hong Kong. This 'asset', the day-to-day investment decisions and all the risk associated with retirement funding reside with the member — an unskilled, under-educated investor. The detrimental effect of inadequate risk management and poor investment decisions by an individual is not merely confined to their own retirement outcome, but generally leads to some form of social support, putting a further strain on outnumbered taxpayers and ultimately reducing the robustness of a retirement system.

The continued transition between jobs and workplaces in the modern day is a hindrance on Australia's defined contribution system. Continuity of contributions into a defined contribution plan is important in developing a robust Second Pillar, but so too is the timing and management of contributions. Contributions made in the early stages of an individual's career have the advantage of the 'investment timeframe', which can smooth investment returns regardless of major shocks to the markets and economy and have a significant influence on the final benefit. As of 2013, Australia had close to three superannuation accounts for each employee, with six million of these accounts deemed 'lost and unclaimed'. Fortunately Australia has implemented an automatic consolidation process for inactive accounts into a standardised platform and notification to the member. This reuniting of unclaimed superannuation is a proactive initiative to improve the robustness of the system so that members can employ consolidated and focused investment strategies designed to achieve adequacy in retirement.[130]

The majority of Hong Kong's MPF members, as with Australia's, do not participate actively in their savings and investment decisions. Vast investment choice and inadequate financial knowledge having proven to be intimidating factors. Subsequently, the Hong Kong Government and the MFPA have concluded that it is necessary to make available a standardised, low-cost, and diversified investment option suited to the life-cycle of the member to help them achieve retirement

[127] World Bank, 2008.

[128] OECD, 2014, 22.

[129] Ibid, 21.

[130] World Economic Forum, 2013, 19.

objectives.[131] Aligning default, life-cycle investment choice for passive retirement savers at a low cost will inevitably contribute towards improving retirement adequacy and ultimately the robustness of the overall retirement system through reduced reliance on social support and a higher standard of living.

Australia has also been very progressive and intent on maintaining a robust retirement system. A major contributor to achieving this aim has been the commission of regular, public and comprehensive retirement system reviews; namely the 'Harmer Review' (2009), the 'Cooper Review' (2010), and the 'Henry Review' (2010), to name a few, which have all influenced the strengthening retirement outcomes for Australians.

4. SUMMARY OF FINDINGS

The Australian and Hong Kong retirement systems are not too dissimilar. Both are built on the foundation of the same four of the five World Bank retirement pillars: the non-contributory Zero Pillar, the mandatory Second Pillar, the voluntary Third Pillar, and the non-financial Fourth Pillar. The mandatory First Pillar has been excluded from both retirement systems.

Australia and Hong Kong both provide means-tested old age social support payments to their people. Hong Kong also provides a non-means tested payment to residents over the age of 70 in recognition of their contribution to society; whereas Australia does not. It is argued that this non-means tested payment contradicts the purpose of the Zero Pillar and affects the affordability, sustainability and equitability of Hong Kong's retirement system.

Australia and Hong Kong both also have a defined contribution mandatory Second Pillar; the SG system and the MPF, respectively. Contributions for each plan are employment linked. At full maturity, Australia's plan is expected to provide an adequate replacement income for full-time employees; however, its shortcomings include the fact that it does not make a mandatory provision for the self-employed and those who tend to have inconsistent work patterns (e.g. women and contract workers). Hong Kong's Second Pillar was established almost a decade after Australia's and is intended to complement the other retirement pillars. It includes mandatory requirements for employees and self-employed, yet also disadvantages individuals with inconsistent work patterns.

The biggest shortcoming of both retirement systems is that the reliance on defined contribution plans exposes the member to all of the risks associated with managing investment savings. In Australia and Hong Kong, members — the majority of whom are unskilled in investment management — are expected to ensure they accumulate sufficient wealth to fund retirement with very little education on pre-retirement wealth accumulation strategies and management of longevity risks post-retirement. The degree of flexibility and liberal use of funds upon attaining retirement age is destined to continue causing predictability, affordability and sustainability flaws in each retirement system.

[131] MPFA, 2015, 4–5.

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Tax professionals' perception of large and mid-size business US tax law complexity

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Abstract[3]

Tax complexity represents one of the most serious problems facing taxpayers and governments. For example, the United States (US) tax law and regulations contain more than 17,000 pages, an increase of more than 40 percent since 2000. The effect of this complexity involves a significant cost for both taxpayers and the government by creating annual compliance costs. As the tax code becomes more complex, this number rises as well. The most important cost engendered by tax complexity may be the frequent errors by the Internal Revenue Service (IRS) and taxpayers as well as the somewhat related non-compliance ('tax gap') with the tax law. Unfortunately, this issue is not unique to the US.

The current study concentrates on issues related to large and mid-size businesses. In this study, we surveyed both tax directors for large US corporations as well as partners and managers of international accounting and law firms to get their perception of tax complexity across 40 different tax issues. The results show that five of the ten most complex issues dealt with international tax, but in contrast with prior studies, the participants in this study did not find Alternative Minimum Tax (AMT) and depreciation to be very complex. This study also tested the differences in perception of the two groups of participants (external and internal tax advisers) to see if they were significant. While the difference in perception was significantly different for a few of the tax issues, the differences for the majority of the issues were not statistically significant.

Keywords: Tax law complexity, large business, tax law professionals

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1. INTRODUCTION

According to the Taxpayer Advocate Nina Olson, tax complexity represents 'the most serious problem facing taxpayers' (Olson, 2013). She went even further in her 2014 Annual Report in suggesting that 'I believe we need fundamental tax reform, sooner rather than later, so the entire system does not implode' (Olson 2015). In a June 28, 2011 Congressional Hearing before the US Senate Finance Committee, Olson (2011) directly linked complexity to the 'tax gap' and cited an IRS National Research Program that identified 67 percent of errors on tax returns as inadvertent and caused by complexity of the tax system.[4] Even though major changes have been made to the Internal Revenue Code (IRC) in the last three decades, or maybe because of these changes, the tax law still remains highly complex. For example, in 2014 the US tax law and regulations contained more than 74,608 pages in the CCH Standard Federal Tax Reporter (CCH, 2014). Compare this number to the 26,300 pages the US tax law contained in 1984 and you will see that it is almost three times longer today.

In addition, in the National Taxpayers Union Foundation (NTUF) annual study of tax code complexity in the US, they found that the economy lost $233.8 billion due to 6.1 billion hours of lost productivity (an estimated value of $202.1 billion) and $31.7 billion in out-of-pocket costs spent complying with a complex tax code in 2015. According to this study the cost of tax complexity spiked from under $150 billion per year to well over $200 billion per year between 2009 and 2011. It has not fallen below that threshold since, and 2015's estimates are nearly $10 billion higher than the previous year, showing that complexity costs are rising each year (Brady, 2016).

Over the past 20 years, an increasing number of American taxpayers bewildered by 'the increasing complexity of tax law' and 'confusion over how to comply with the tax code' have sought help in preparing their income tax returns according to IRS Commissioner John Koskinen. He told the Senate Finance Committee in April of 2014 that about 80 million returns, or 56 percent of the total individual tax returns filed each year, are done by paid preparers. Another 34 percent of taxpayers use tax preparation software, making a total of 90 percent of taxpayers who seek some form of assistance (Jones, 2014). These percentages are not publicly available for corporate returns but one would expect the percentages to be at least as high as the percentage for individual tax returns.

It is interesting that former Representative David Camp (prior House Ways and Means Chair) and former Senator Max Baucus (prior Senate Finance Chair) both lobbied for tax reform during 2012 and 2013 while Camp presented a tax reform proposal to Congress in 2014, all of which has all been ignored. Camp and Baucus have said their motivation for tax reform was the complexity of the current tax law and the need to simplify. Similarly, President Obama established a tax reform panel to recommend a tax law reform package (often called the Simpson-Bowles proposal) (White House, 2010). It too went nowhere.

[4] Tax gap is a term used by the IRS to define the difference between total taxes owed and taxes paid on time. This difference includes taxes not paid due to both inadvertent mistakes and tax evasion. The number is made up of three components – non-filing, underreporting of tax owed, and underpayment of tax. The US government calculates the tax gap number periodically based on information from both the IRS and the Census Bureau.

One of the current suggestions in Congress is to broaden the tax base while reducing the tax rates. The *Tax Reform Act of 1986* (86TRA) broadened the tax base and lowered the tax rates in an effort to simplify the tax code. However, few would argue that the 86TRA made the tax law simpler with the inclusion of the Passive Activity Loss rules, the limitation on interest deductions, the repeal of the General Utilities doctrine, the expansion of both corporate and individual Alternative Minimum Tax, and inclusion of transfer pricing relative to intangibles (Kent, 2011; Slemrod, 1992).

We would hope that Congress would look at the complexity issues before deciding whether a provision should be included or not. However, recent experience with the *Protecting Americans from Tax Hikes Act of 2015* (PATH) enacted on 18 December 2015, suggests this hope is probably not realistic. Members of Congress had barely a day to consider what was in that law and lobbyists held sway. Instead, we therefore need to hope that studies like ours can provide input before the legislative process even begins.[5]

Complexity is almost a metaphysical term that no one wants to define. In this paper we define the complexity of a tax system as the sum of compliance costs (incurred directly by individuals and businesses) and administrative costs (incurred by government). Compliance costs include the time taxpayers spend preparing and filing tax forms, learning about the law, and maintaining record-keeping for tax purposes.

This study will examine the perceptions of both internal and external tax professionals to determine which areas of the current US tax law they believe are the most complex. In addition, we will test to see where there are any differences within the total sample and between the two groups of professionals that make up the sample. The authors hope the results of the current study will help policymakers focus on what are the complex areas of the tax law relative to large and mid-sized businesses[6] that need to be simplified, rather than have the term be used as a euphemism for simply lowering a constituency's tax liability.

There have been a number of studies that have looked at the complexity of the individual tax system and a few that examined small business complexity. The current study focuses on issues related to large and mid-sized businesses by surveying tax practitioners. We surveyed both international tax directors for large corporations, and partners and managers of international accounting firms to get their perception of tax law complexity. This study will add to the literature in two ways. First, to date all of the studies have focused on individuals and small business. This study will expand the focus to larger corporations. This expansion is important since the companies in the large and mid-sized group usually have more complex structures and thus would be more affected by complexity in the tax law. Second, this study uses both tax professionals in public accounting and law firms (external) and corporate tax directors (internal) in the sample. To the best of our knowledge**,** it is the first study to compare the perception of internal tax professionals and external tax professionals.

[5] It is possible if the US used a consultative process such as that used in New Zealand where taxpayers have a way to voice their opinion before the legislation is enacted, a less complex tax code could result.

[6] Based on Internal Revenue Service designation we define large and mid-sized businesses as corporations with $10,000,000 or more in gross assets.

This paper is presented in six parts. It begins with a short discussion of the complexity of the current US tax law and provides the context for the balance of the paper. The second part reviews prior research regarding tax complexity and includes an analysis of the findings of the various studies. The third part discusses the research methodology and hypotheses used in the study. The fourth part reports the results of the study. The fifth part lists some of the limitations and strengths in the study. The final section reviews the conclusions that can be reached from the study and includes some recommendations on how the results can impact tax policy.

2. TAX COMPLEXITY

Many US tax practitioners cynically and realistically assume that when Congress adds the word 'simplification' to a new law it means the opposite; the tax code will become even more complex. The effect of this complexity results in a significant cost to both taxpayers and the government. According to Olsen (2013), tax compliance translated into 6.1B work hours. If one compares this number to the 2001 estimate of 4.6B (Moody, 2001), one can see that complexity is increasing rapidly. In her 2012 report to Congress, Olsen reported that there had been 4,680 changes to the IRC Code since 2001 (Olsen, 2013). Interestingly, in prior studies in the US, Australia and New Zealand, frequent changes in the tax law were rated by professionals as extremely complex (Ingraham and Karlinsky, 2005; Tran-Nam and Karlinsky, 2008; and Gupta, 2011). These prior studies examined small businesses. We include changes in the tax law in the current study to see how the perception of this issue may differ with a different type of tax practitioner.

The National Taxpayer Union Foundation (NTUF, 2015) recently estimated that the cost of complying with our federal income tax system includes $31.7 billion in software costs, while the Heritage Foundation estimates the total annual cost of complying with tax law as close to $1.5 trillion (Tax Notes, 2014). But perhaps maybe the most important cost tax complexity engenders is involves frequent errors by the IRS and taxpayers plus the somewhat related non-compliance with tax law. McKerchar (2003) investigated the impact of complexity upon tax compliance. Her study focused on Australian personal taxpayers. The results of this study revealed that the incidence of unintentional non-compliance was high due to tax law complexity.

The most recent report from the IRS (2016) found that the US tax gap for 2008–2010 was $458 billion annually. This study also found that the voluntary compliance rate was 81.7 percent. These numbers are slightly higher than those reported for 2006, however, they do not represent a significant change. It has often been asserted that tax complexity adds to the tax gap by encouraging aggressive non-compliance. Unfortunately, as Fred Goldberg, former IRS Commissioner, has stated: 'Tax simplification is everyone's favourite orphan. All of us involved in the tax system-Congress, the executive branch, practitioners and taxpayers—proclaim our affection for this child of our dreams, but few are willing to adopt her as our own.' Other comments typically heard include the statement that tax simplification has no constituency to lobby for it.[7]

[7] It would be an interesting experiment to see if people would pay slightly more in taxes in return for serious simplification of the tax system. We would venture a guess that taxpayers want to have their cake and eat it as well—no increased taxes and a simpler system.

3. PRIOR RESEARCH

The importance and impact of tax complexity has been discussed extensively in the tax policy literature. Several previous studies have found that complexity in the US tax system negatively influences a person's judgment and quality of decision making (Boylan and Frischmann, 2006; Rupert, Single and Wright, 1998). Boylan and Frischmann (2006) found that tax complexity affects market efficiency. They found that tax complexity led to higher prices and quantities of shares in the market. The higher prices created larger gains and thus more taxes owed which resulted in the movement of more of the funds from the investment market to the government. The Rupert et al. (1998) study found when marginal tax rates were harder to determine, individuals were more likely to make incorrect investment decisions. The authors also found when individuals were subject to a more complex tax situation, they were more likely to adopt a fixed-decision strategy which led them to a less than optimal tax position. For example, if a person was given the tax rate to be applied to the income from an investment decision they were more likely to make a better decision than when they did not know the specific tax rate that would apply.

Other studies have examined the effect of the tax complexity of the US tax system on compliance, tax evasion, fairness and equity. Two studies (Milliron and Toy, 1988 and Collins, Milliron and Toy, 1992) found evidence that complexity is associated with taxpayer non-compliance. Conversely, Forest and Sheffrin (2002) found evidence that there may be a disconnect between tax complexity and taxpayer compliance because taxpayers don't necessarily view complexity as unfair. In other research, Karlinsky and Koch (1987) found that a high level of complexity leads to reduced technical accuracy by both tax professionals and future tax practitioners which supports the idea that tax complexity helps increase the tax gap. Carnes and Cuccia performed two studies (1996, 2001) to investigate the relationship between tax complexity and tax equity perceptions. In the first study, they found that the perception of tax complexity generally has a negative effect on a persons' perception of tax equity. The results also suggested that the participants in their sample believed that tax complexity was necessary. However, the participant's justification for tax complexity varied across different tax items and complexity sources. In their second study, Carnes and Cuccia conducted an experiment in which subjects assessed different forms of a hypothetical tax provision with identical economic consequences. The results of the second study found that the provision's complexity negatively affected equity assessments only when the subjects were given a less complex alternative: for example, computing the tax liability from a rate schedule versus determining the tax liability from a tax table. The authors also found that if an explicit justification for the complexity was provided, many of the participants excused the complex nature of the provision.

Several prior studies have also examined the perception of tax complexity. However, most of these focused on the individual tax system. The first (Karlinsky, 1981) surveyed US tax professionals asking which areas of tax law were the most complex. This study examined the entire income tax code, not any particular segment. Karlinsky found the most complex areas of the tax code then were the Subpart F rules, the rules related to collapsible corporations (since repealed) and the issues governing

consolidated groups. Interestingly, the results of the current study found some of the same issues among the most complex, 35 years later. This reminds one that the more things change, the more they stay the same.

O'Neil, Samelson and Harkness (1997) investigated the complexity of the US Schedule C (sole proprietors reporting schedule) but did not examine other small business entities such as partnerships and S corporations. They found the major factors of complexity for sole proprietorships were rules related to auto expense, depreciation expense and the office-in-home deduction. Davies, Carpenter and Iverson (2001) surveyed tax practitioners and tax educators regarding their perception of tax complexity. Their survey included 39 tax issues that mainly concentrated on individual tax. They found support for the idea that the US tax laws are extraordinarily complex.

Both Ingraham and Karlinsky (2005) and McKerchar, Ingraham and Karlinsky (2005) examined tax practitioners' views on the complexity of tax issues relative to small businesses. Ingraham and Karlinsky examined the perception of US tax preparers while McKerchar, Ingraham and Karlinsky compared the perception of tax preparers in the US and Australia. Ingraham and Karlinsky (2005) examined 37 areas of tax law. They found the five most complex areas to be partnership taxation, estate and gift taxation, tax deferred exchanges, frequency of tax law changes and retirement plans. The Ingraham and Karlinsky study was replicated (with jurisdictional modifications) in Australia (Tran-Nam and Karlinsky, 2008) and New Zealand (Gupta, 2011). The Australian study (Tran-Nam and Karlinsky, 2008) also found frequency of tax law changes and retirement planning to be some of the most complex, while the Gupta study (2011) also found frequency of tax law changes to be one of the most complex issues. The other items considered most complex in these two studies had no corresponding issues in the US tax code.

Karlinsky and Burton (2010) used a sample of US tax professionals to examine the complexity of the tax system for large businesses. In their study they sampled only tax directors. In this study the authors extended the original Karlinsky and Burton study by expanding the sample to include outside tax advisers. The earlier paper also did not contain any statistical analysis or mean testing, nor did it examine differences between the various sub-samples.

4. RESEARCH METHOD

There has been little research regarding which provisions of the IRC, particularly those that work with the tax law, are perceived to be the most complex. Those studies that have examined this issue have primarily focused on small businesses and individual tax issues (Ingraham and Karlinsky, 2005 and Davies et al, 2001). In this study, we examine the top areas of perceived complexity affecting large businesses by surveying tax directors of major corporations[8] and their external advisors. Given that large businesses are an important part of the country's economic health and that $48 billion of the US tax gap was from large corporations underreporting their correct tax liability, we felt the perception of those who work with large companies was important. To put this segment of the tax return population into perspective, in 2010 there were 38,000 consolidated returns filed representing 2.4 percent of all corporate

[8] Defined by the IRS classification of LB&I, companies with more than $10 million in gross assets.

tax returns. Income tax paid on these returns was 99.83 percent of revenue collected from the corporate sector (SOI, 2012).

A test instrument was designed to be as simple as possible. A list of 40 areas of the tax law (encompassing corporate federal and state issues, partnership issues, custom taxes, employment tax, etc.) was presented to the participant to identify the relative complexity of the tax area or provision that affects large businesses (See Appendix A).

The 40 areas of tax law tested were derived from our experience in the LB&I area, discussions with several large corporate tax directors about areas they encountered in practice, and a pilot test with six tax directors to test the instrument in general, and the specific issues in particular. To account for any major items that may have been inadvertently omitted, there was room provided in an 'other' space.[9]

The test instrument was designed to be completed online in 10 minutes or less, and to be simple and clear. A five-point Likert scale was used with a slight variation; a sixth category for Not Applicable to LB&I clients. The five discrete points on the Likert scale ranged from extremely complex (1) to very complex (2), complex (3), and somewhat complex (4) to not complex (5). The list of 40 items was randomised with four variations to minimise any potential built-in response or immediacy bias. The survey also included a demographic section that asked about the industry the participant primarily worked in, tax experience, level of education, job title, geographic location, and experience with LB&I clients. The test instrument was sent to 800 tax professional who were members of Tax Executive Institute (TEI) and to 100 partners and managers from several large international accounting and law firms. One hundred and nine professionals completed the entire questionnaire which made for a 12 percent response rate.

The variable of interest in this study is the perception of complexity. Because most of the issues included in the survey are US federal tax related, geographic location was not expected to be a discriminating factor since all US corporations face the same tax law. However, we did include three control variables: experience, job title and education that prior studies indicated would make a difference in a person's perception. The test instrument had five experience levels: less than 5 years, 5 to 10 years, 10 to 15 years, 15 to 20 years and greater than 20 years. The test instrument also had three job title descriptions: tax director, partner and manager; plus three education levels: bachelor's degree, master's degree (MBA or MST) and doctorate (JD or LLM).[10]

Based on the Ingraham and Karlinsky study (2005), the experience level of the participant was expected to make a difference in their perception of complexity of some issues. In their study they examined the differences in the perception of complexity based on job title. They could use job titles as all of their participants were from public accounting and had similar titles. In our study we have participants

[9] Of the 109 subjects, there were only nine 'other categories filled out. Areas found in the other category included IP migration (extremely complex), APB 23 issues (complex), timing of a deduction/loss (very complex), environmental taxes (very complex), section 6662 documentation (somewhat complex), estate tax planning (very complex), tax stock basis computation (extremely complex), other transfer pricing issues such as APAs (extremely complex) and expense/liability incurred under section 461 (very complex).

[10] More than 80 percent of the participants in the sample had some form of advanced degree. Based on these demographics we did not test for differences in education level.

from both public accounting and private corporations and thus the job titles vary greatly. For this reason, instead of using job titles we have used experience level as its proxy. We used this information to test the following hypothesis:

H1: Perception of complexity decreases with experience.

Since those in public accounting and law firms deal with many different companies and may or may not spend most of their time on LB&I issues, whereas the participants from corporate tax departments deal with one large consolidated group of companies and spend all of their tax time on LB&I issues, we expected to see a difference in the perception of complexity. External advisors may find the issues to be more complex because they see a wider variety of different transactions than someone in a large corporation. On the other hand, external advisors may see the issues to be less complex because they may be specialists who work with the issues on a daily basis and are more comfortable with them. We therefore expect to see a difference between the perception of external advisors and those that work in a corporate tax department.

From this background we tested the following hypothesis:

H2: Perception of complexity is different for external advisers than for internal advisers.

Hypothesis 1 looked at the difference in experience for the whole sample while Hypothesis 2 dealt with the difference between the overall sample of internal and external participants. We expected to see a difference in both experience and work type. We extended our examination to look at the differences within the two groups. The first extension examined the differences within the two sub-samples related to experience. To make this determination we tested the following two hypotheses:

H3: Perception of complexity by external advisers with >20 years' experience vs. >20 years' internal advisers.

H4: Perception of complexity by external advisers with <20 years' experience vs. <20 years' internal advisers.

Likewise, based on Hypothesis 1, we expected to find differences in perception based on experience in the tax field. Thus, we further divided the sample to see what type of differences we could find based on experience, holding internal or external position constant. With the divided sample we tested the following two hypotheses:

H5: Perception of complexity by external advisers with <20 years' experience vs. >20 years' external advisers.

H6: Perception of complexity by internal advisers with <20 years' experience vs. >20 years' internal advisers.

5. RESULTS

5.1 Demographics

The survey was administered to 109 professionals of which 49 were external advisors and 60 were employees in the tax department of large corporations. There were 39 Tax Directors, 34 Partners, 10 Vice-Presidents, 7 Senior Managers, 13 Managers and 6 with other titles. As expected with this type of taxpayer most of the sample had extensive years of service, with 64 of the 109 having more than 20 years of experience, while only seven had between five and ten years of experience. More than 80 percent of the sample participants were CPAs. Sixty-five of the participants had a master's degree, and 25 had either a JD or LLM. Only 15 (18%) spent less than 75 percent of their time on tax issues. Eighty-two percent of the participants spent more than 75 percent of their time on LB&I taxpayer issues. All of the participants were from the US. Table 1 shows the demographics of the sample.

5.2 Overall results

The overall mean for the 40 factors was 2.96 for the full sample. The overall mean for outside advisors was 2.94 and the internal group 2.97, while the overall mean for participants with over 20 years' experience was 2.88 and for participants with less than 20 years' experience was 3.23. The individual average for the 40 factors in order of complexity from Extremely Complex (1) to Not Complex (5) are listed in Table 2.

Table 1: Demographic information

Outside advisor	49
Corporate tax	60
CPAs	89
Non-CPAs	20
Educational background	
JD	25
Master's degree	65
Bachelor's degree	19
Years of experience	
5–10	7
10–15	13
15–20	23
>20	64
Non-reporting	2
Percent of time spent on tax issues	
50% or less	9
50 to 75%	6
> 75%	90
Non-reporting	4
Percent of time spent on LB&I	
50% or less	7
50 to 75%	10
> 75%	92
Job title	
Tax Director	39
Partner	34
VP	10
Senior Manager	7
Manager	13
Other	6

Although individual participants rated many of the issues as extremely complex (1.0), the average listed in Table 2 showed no average score as extremely complex and only three of the factors were scored above very complex (<2.0). The fact the only three of the factors were scored as very complex may be influenced by the familiarity with the issue the participants had. Most of the participants in the study had a number of years' experience with large corporate tax matters and may have been quite familiar with the tax issues in the survey. When a person is familiar with an issue they do not usually perceive it to be as complex as someone who is not familiar with the issue or someone who works in the area only rarely.

Not surprisingly, the most complex issue was foreign mergers and acquisitions which combines elements of international tax and reorganisations (two areas rated as the most complex in Karlinsky, 1981). The second most perceived complex topic was deferred income taxes (ASC 740). This area requires in-depth knowledge of both financial accounting rules and tax law, which many tax professionals, especially attorneys, may not be familiar or comfortable with. This issue has also received a lot of exposure with the enactment of the *Sarbanes-Oxley Act* and the issuance of ASC 740 regarding uncertain tax positions (UTP) and related Form 1120 Schedule UTP. This complex ranking reinforces the findings of the Public Company Accounting Oversight Board that there are more weaknesses in accounting for income taxes than any other part of financial statements. It should be noted that even if the tax law were to be simplified, this issue may still be perceived to be complex as long as there are differences between tax law and financial statement accounting.

Table 2: Forty factors in descending order of complexity — overall sample

		Total Average	Overall Rank
Foreign mergers and acquisitions (Section 367)		1.637	1
Deferred income taxes (FAS 109, 123R, 141, FIN 48)		1.840	2
Section 482		1.953	3
Foreign tax credit (including sourcing rules)		2.038	4
Subpart F		2.038	5
Domestic mergers and acquisitions (including corp. divisions)		2.075	6
Sections 381–384 Loss carryover limitations		2.086	7
Partnership/joint ventures (including PFIC)		2.122	8
Consolidated tax rules (including dual consolidated loss rules)		2.125	9
Repatriation		2.300	10
Corporate tax shelters		2.423	11
IFRS vs. GAAP		2.434	12
Frequent changes to the tax law		2.606	13
Foreign currency translation		2.647	14
Foreign income taxes		2.687	15
Employee benefits (i.e. NQO, ISO, ESPP)		2.713	16
Executive compensation (i.e. 409A)		2.757	17
Earnings & profits		2.785	18
Treaties		2.833	19
Pension plans		2.888	20
Inventory (Unicap, FIFO, LIFO)		2.908	21
General business credits (R&D Credit, Rehab, etc.)		2.960	22
Domestic production activity deduction (199)		3.063	23
VAT		3.072	24
Debt vs. equity		3.113	25
Customs		3.167	26
Independent contractor vs. employee		3.294	27
Temporary provisions, extenders		3.276	28
Capital vs. revenue expenditure (Indopco, etc.)		3.284	29
Revenue recognition		3.369	30
Schedule M-3		3.451	31
Corporate AMT/ACE		3.510	32
State franchise taxes		3.570	33
State sales taxes		3.589	34
Capital gains and losses		3.991	35
Payroll taxes		4.010	36
Estimated taxes		4.143	37
Depreciation		4.183	38
Property taxes		4.312	39
Charitable contributions		4.398	40

Of the ten most complex LB&I tax provisions identified by the participants the average score ranged from 1.637 to 2.300. Of those ten, five related to the international arena. Issues related to domestic mergers and acquisitions were rated as the sixth and seventh most complex signifying that determining the taxability and the tax attributes that come with a merger or acquisition still give sophisticated practitioners problems. As with the 2005 small business survey done by Ingraham and Karlinsky, partnership tax issues were included in the ten most complicated areas. Many people perceive partnerships as a small business issue but this ranking emphasises the increased complexity engendered by using partnerships and limited liability companies (LLCs) to transact business (e.g. joint ventures, strategic alliances). Many corporations are now using LLCs instead of C corporations in multijurisdictional transactions. In many cases the corporation can achieve better results with a single-member LLC than it could with a wholly-owned subsidiary corporation because of the asymmetrical treatment of LLCs across jurisdictions. However, the use of entities with the tax treatment varies across taxing jurisdictions and only adds to the complexity of the transaction.

Prior studies (O'Neil et al, 1997 and Carnes and Cuccia, 1996) found that depreciation was considered to be extremely complex. However, in the current survey, depreciation was rated as relatively not complex (4.183). The results of the current study relative to depreciation do agree with those found by Ingraham and Karlinsky (2005). They suggested that the reason for the difference in results may be that there has been little change in the depreciation rules over the last ten years and tax professionals have become more familiar with these provisions and therefore do not perceive them as complex. Another reason that the subjects may have found depreciation to not be complex is their personal experience level. Many of the participants deal with much larger and more complex transactions and thus depreciation is deemed to be relatively less complex. It is interesting to note that depreciation was rated as not very complex during a time when there have been multiple changes to the depreciation rules with the inclusion of bonus depreciation (IRC Section 168(k)). This change may be evidence that allowing tangible personal property expensing is definitely a simplifying provision, as was section 179 for small business. As compared to the small business studies, the individuals in this sample may be doing more tax advisory work rather than tax compliance work. Therefore, many of the sample may not perform many AMT or depreciation calculations or use computer programs to do much of the work in this area. On the whole, this sample surveyed more senior level professionals. It may be interesting in a future study to survey more junior level tax professionals (seniors or managers) to see if they still perceive these areas to be more complex.

In addition to partnerships and depreciation, the current survey had 11 other factors in common with the Ingraham and Karlinsky study. In all cases, the overlapping factor was rated as less complex in the LB&I study than in the small business study. Of particular note was the rating for frequent changes in the law. In the small business study, participants rated it as the fourth most complex area, whereas in the current LB&I study it was only the thirteenth most complex factor. The difference in the rating may be explained by the fact that participants that work in or with LB&I taxpayers are associated with larger organisations which have more resources to stay up-to-date more easily. Another factor that showed a large difference between the two studies was the perception of the complexity of Corporate AMT. In the small business study, it was rated as the eighth most complex, while it was in the bottom ten (thirty-

second most complex) in the current study. Again, the difference in ratings may be explained by the client mix of participants in the two samples.

5.3 Qualitative analysis

To provide for internal consistency, the participants were asked to list the five most complex issues and the five least complex issues in their opinion in addition to rating each of the 40 factors from 1 to 5. As would be expected, the areas that were listed the most were for the most part the same as the items that had the lowest overall average rating. However, there were a few inconsistent results. The ten tax issues that were listed most often as one of the five most complex issues included foreign currency translation, frequent changes in the tax law and executive compensation. None of these issues were in the top ten overall rating. Foreign currency translation was rated fourteenth, while frequent changes in the tax law was thirteenth, and executive compensation was sixteenth. One reason that executive compensation may have been mentioned as one of the top five most complex issues is the recent changes made to section 409A. There was total internal consistency of the quantitative and qualitative ranking for the issues that were considered the least complex.

5.4 Experience analysis

Since we are dealing with very large businesses (over $10 million in gross assets) and more complex issues, a strength of this study is that the subject's experience level was much greater than in most surveys. We separated the groups into those that had more than 20 years of experience and those that had less, regardless of whether the participant worked internally for the company or not. This division breaks down to 64 participants with over 20 years' experience and 43 participants with less than 20 years' experience. Two of the participants did not indicate the amount of experience they had and were omitted from the results. This breakdown appears appropriate as no one in the sample had less than five years' experience and only seven participants had less than ten years' experience. Table 3 shows the ranking of each of the factors for both groups. The ratings for both groups are similar to the overall rankings but there are some interesting differences.

Table 3: Forty factors in descending order of complexity — experience

		Total Average	Overall Rank	>20 Years	< 20 Years
Foreign mergers and acquisitions (Section 367)		1.637	1	1	1
Deferred income taxes (FAS 109, 123R, 141, FIN 48, etc.)		1.840	2	3	2
Section 482		1.953	3	2	8
Foreign tax credit (including sourcing rules)		2.038	4	7	3
Subpart F		2.038	5	4	6
Domestic mergers and acquisitions (including corp. divisions)		2.075	6	5	4
Sections 381–384 Loss carryover limitations		2.086	7	9	10
Partnership/joint ventures (including PFIC)		2.122	8	8	5
Consolidated tax rules (including dual consolidated loss rules)		2.125	9	6	7
Repatriation		2.300	10	11	9
Corporate tax shelters		2.423	11	10	12
IFRS vs. GAAP		2.434	12	12	14
Frequent changes to the tax law		2.606	13	14	13
Foreign currency translation		2.647	14	13	17
Foreign income taxes		2.687	15	15	14
Employee benefits (i.e. NQO, ISO, ESPP)		2.713	16	18	23
Executive compensation (i.e. 409A)		2.757	17	19	15
Earnings & profits		2.785	18	16	16
Treaties		2.833	19	17	20
Pension plans		2.888	20	20	21
Inventory (Unicap, FIFO, LIFO)		2.908	21	21	19
General business credits (R&D Credit, Rehab, etc.)		2.960	22	23	18
Domestic production activity deduction (199)		3.063	23	25	22
VAT		3.072	24	22	26
Debt vs. equity		3.113	25	24	25
Customs		3.167	26	26	24
Independent contractor vs. employee		3.294	27	34	34
Temporary provisions, extenders		3.276	28	28	30
Capital vs. revenue expenditure (Indopco, etc.)		3.284	29	29	27
Revenue recognition		3.369	30	27	31
Schedule M-3		3.451	31	30	28
Corporate AMT/ACE		3.510	32	31	29
State franchise taxes		3.570	33	32	32
State sales taxes		3.589	34	33	33
Capital gains and losses		3.991	35	36	36
Payroll taxes		4.010	36	35	35
Estimated taxes		4.143	37	37	37
Depreciation		4.183	38	38	38
Property taxes		4.312	39	39	39
Charitable contributions		4.398	40	40	40

To determine if the difference in perception is statistically significant between the two groups, a t-test for each factor was performed. Table 4 shows the average rating for both groups. Based on the t-test, the perception of the complexity of 13 of the 40 tax issues was significant at either the .01, .05 or .10 level11. In all cases where the difference was significant, the more experienced group rated the issue as less complex. In addition, none of the issues rated in the bottom ten by either group was significantly different.

Because the data is not continuous, we also ran a Kendall's Tau-b test. The Tau-b test is a commonly used non-parametric measure of association used to look for a trend in the responses. There were 13 issues that were significant based on years of experience, seven of which were significant in the t-tests.[12] In all cases the responses to years of experience were negative, meaning that there was a negative correlation between years of experience and perception of complexity. This result of the Tau-b tests support the results found with the t-tests. Both the t-tests and the Tau-b tests support hypothesis 1 that the perception of complexity decreases with experience.

5.5 External versus internal adviser analysis

We also tested to see any differences between the perception of the complexity of the 40 tax issues between the external advisors and those that work in the tax department of large corporations. Table 5 shows how the 40 factors rank for the overall sample and for the external professionals versus the internal professionals. For most of the factors the two groups rated the factors consistently.

[11] Differences that are significant at the .01 level are denoted as *** while those that are significant at the .05 level are denoted as ** and at the .1 level as *. This notation is consistent throughout all the tables in the paper.

[12] The 13 differences that were significant under the Tau-b test are denoted with #.

Table 4: Forty factors in descending order of complexity — experience

		>20 Years	< 20 Years	T-test	Tau-b
Foreign mergers and acquisitions (Section 367)		1.508	1.721	**	
Deferred income taxes (FAS 109, 123R, 141, FIN 48)		1.864	1.732		
Section 482		1.688	2.233	***	#
Foreign tax credit (including sourcing rules)		2.016	2.000		
Subpart F		1.903	2.140	**	
Domestic mergers and acquisitions (including corp. divisions)		2.000	2.093		
Sections 381–384 Loss carryover limitations		2.161	2.349	*	
Partnership/joint ventures (including PFIC)		2.067	2.135		
Consolidated tax rules (including dual consolidated loss rules)		2.016	2.195		
Repatriation		2.271	2.244		
Corporate tax shelters		2.238	2.528	***	#
IFRS vs. GAAP		2.283	2.583	**	#
Frequent changes to the tax law		2.508	2.610		
Foreign currency translation		2.459	2.854	*	
Foreign income taxes		2.638	2.659		#
Employee benefits (i.e. NQO, ISO, ESPP)		2.717	3.077		
Executive compensation (i.e. 409A)		2.721	2.780		
Earnings & profits		2.646	2.833		
Treaties		2.672	2.976		#
Pension plans		2.807	3.02	*	#
Inventory (Unicap, FIFO, LIFO)		2.900	2.923		#
General business credits (R&D Credit, Rehab, etc.)		2.934	2.892		
Domestic production activity deduction (199)		2.978	3.053	**	#
VAT		2.912	3.300	**	#
Debt vs. equity		2.946	3.262	***	
Customs		3.047	3.257	**	#
Independent contractor vs. employee		3.746	4.051		
Temporary provisions, extenders		3.156	3.571	*	
Capital vs. revenue expenditure (Indopco, etc.)		3.270	3.357		#
Revenue recognition		3.111	3.692		
Schedule M-3		3.387	3.487		#
Corporate AMT/ACE		3.403	3.525		
State franchise taxes		3.474	3.737		
State sales taxes		3.593	3.789		
Capital gains and losses		3.921	4.244		#
Payroll taxes		3.820	4.154		
Estimated taxes		3.938	4.317		
Depreciation		4.159	4.350		
Property taxes		4.300	4.445		
Charitable contributions		4.233	4.500		

Table 5: Forty factors in descending order of complexity — public versus private

		Total Aver	Overall Rank	Public	Private
Foreign mergers and acquisitions (Section 367)		1.637	1	1	1
Deferred income taxes (FAS 109, 123R, 141, FIN 48, etc.)		1.840	2	2	3
Section 482		1.953	3	11	2
Foreign tax credit (including sourcing rules)		2.038	4	5	5 tied
Subpart F		2.038	5	3	7
Domestic mergers and acquisitions (including corp. divisions)		2.075	6	8	4
Sections 381–384 Loss carryover limitations		2.086	7	7	5 tied
Partnership/joint ventures (including PFIC)		2.122	8	6	8
Consolidated tax rules (including dual consolidated loss rules)		2.125	9	4	9
Repatriation		2.300	10	9	10
Corporate tax shelters		2.423	11	10	12
IFRS vs. GAAP		2.434	12	12	11
Frequent changes to the tax law		2.606	13	14	14
Foreign currency translation		2.647	14	15	13
Foreign income taxes		2.687	15	16	16 tied
Employee benefits (i.e. NQO, ISO, ESPP)		2.713	16	17	16 tied
Executive compensation (i.e. 409A)		2.757	17	20	15
Earnings & profits		2.785	18	18	19
Treaties		2.833	19	13	24
Pension plans		2.888	20	24	18
Inventory (Unicap, FIFO, LIFO)		2.908	21	19	21
General business credits (R&D Credit, Rehab, etc.)		2.960	22	22	22
Domestic production activity deduction (199)		3.063	23	23	25
VAT		3.072	24	21	27
Debt vs. equity		3.113	25	25	23
Customs		3.167	26	27	26
Independent contractor vs. employee		3.294	27	34	20
Temporary provisions, extenders		3.276	28	26	30
Capital vs. revenue expenditure (Indopco, etc.)		3.284	29	28	29
Revenue recognition		3.369	30	29	31
Schedule M-3		3.451	31	33	28
Corporate AMT/ACE		3.510	32	30	33
State franchise taxes		3.570	33	32	32
State sales taxes		3.589	34	31	34
Capital gains and losses		3.991	35	36	35
Payroll taxes		4.010	36	36	36
Estimated taxes		4.143	37	37	38
Depreciation		4.183	38	38	37
Property taxes		4.312	39	39	39
Charitable contributions		4.398	40	40	40

However, there were a few factors that the external advisors rated considerably more complex than those participants from the corporations and a few that were rated as less complex than by internal advisers. Factors that the external advisors rated as more complex included VAT, corporate AMT/ACE, subpart F, consolidated tax rules, and treaties. Each of these may have been rated as more complex because the public accountant works with many companies and therefore will see more and different transactions which could lead to a perception that these areas are more complex. Whereas the corporate personnel work with one consolidated group and may be used to the rules for their company and therefore do not perceive these issues to be as complex. The factors that external advisors rated as less complex than the internal ones included section 482, pension plans, domestic mergers and acquisitions, executive compensation, independent contractor and schedule M-3. The reason the external advisors may have rated these items as less complex may be that they work with these issues on a daily basis with various clients and therefore they are more comfortable with them.

The average complexity for each tax issue for those in public accounting and law firms versus those that work for private companies is presented in Table 6. A t-test was performed to determine if the difference in average perception of complexity between the groups for each factor was statistically significant or not. The differences in only 14 of the 40 issues were statistically significant. Of the 14 issues where the differences were significant external advisers rated seven of the issues as more complex than the corporate tax accountants and seven of the issues as less complex than the corporate tax accountants. The results from the t-tests support hypothesis 2 that the perception of complexity is different based on the person's work environment.[13]

[13] In addition, we ran a non-directional chi-square test to determine the relationship of the responses with industry. However, there were only five issues that were significant related to industry and only one of those issues was also significant in the t-test.

Table 6: Forty factors in descending order of complexity — public vs. private

		Public	Private	T-test	Chi Square
Foreign mergers and acquisitions (Section 367)		1.681	1.600		#
Deferred income taxes (FAS 109, 123R, 141, FIN 48)		1.860	1.825		
Section 482		2.324	1.638	***	
Foreign tax credit (including sourcing rules)		2.000	2.071		
Subpart F		1.939	2.125		
Domestic mergers and acquisitions (including corp. divisions)		2.125	2.034		
Sections 381–384 Loss carryover limitations		2.102	2.071		
Partnership/joint ventures (including PFIC)		2.022	2.208		
Consolidated tax rules (including dual consolidated loss rules)		1.957	2.259	**	
Repatriation		2.273	2.321		
Corporate tax shelters		2.286	2.535		
IFRS vs. GAAP		2.333	2.500	**	
Frequent changes to the tax law		2.596	2.614		
Foreign currency translation		2.733	2.579		#
Foreign income taxes		2.750	2.627	**	#
Employee benefits (i.e. NQO, ISO, ESPP)		2.814	2.627	*	
Executive compensation (i.e. 409A)		2.933	2.621		
Earnings & profits		2.816	2.759		
Treaties		2.574	3.055	**	
Pension plans		3.150	2.673	*	
Inventory (Unicap, FIFO, LIFO)		2.854	2.947	**	
General business credits (R&D Credit, Rehab, etc.)		2.953	2.964		
Domestic production activity deduction (199)		3.064	3.061		
VAT		2.944	3.170		#
Debt vs. equity		3.184	3.053	*	
Customs		3.276	3.093		
Independent contractor vs. employee		3.795	2.914		
Temporary provisions, extenders		3.188	3.351		
Capital vs. revenue expenditure (Indopco, etc.)		3.304	3.268		
Revenue recognition		3.356	3.379		#
Schedule M-3		3.705	3.259		
Corporate AMT/ACE		3.378	3.614	*	
State franchise taxes		3.605	3.544		
State sales taxes		3.538	3.625	**	
Capital gains and losses		4.061	3.931	*	
Payroll taxes		3.927	4.071	*	
Estimated taxes		4.085	4.190		
Depreciation		4.200	4.169		
Property taxes		4.351	4.286	**	
Charitable contributions		4.400	4.397		

5.6 Within job description analysis

Because we found statistically significant differences in terms of experience level amongst both external advisors and those that work for a corporation, we further divided the sample for both external advisors and corporate personnel into those that had 20 or more years of experience and those that had less than 20 years Table 7 presents the averages for the two outside advisor groups and Table 8 presents the averages for the two corporate personnel groups.

It is interesting to note that the differences between the two corporate groups (Table 8) the more experienced group rated 32 of the 40 issues as less complex than the younger group while in the two external advisor strata (Table 7), the older group only rated 19 out of the 40 as less complex (the groups had essentially the same rating for nine of the issues). The results for the corporate personnel follow the results for the whole sample while the results of the external advisors do not. The reason the more experienced external advisors may find the issues more complex is that they are involved with a lot of very complex transactions for their clients while those with less experience are often only working with the normal year-to-year transactions. We ran t-tests to see if the differences were statistically significant. Only one difference (deferred income taxes) was statistically significant for the external advisors. However, this result may be because the two groups are relatively small. There were seven differences that were statistically significant for the corporate group. It is interesting to note that all seven issues were rated as more complex by the more experienced group and included issues such as transfer pricing, corporate tax shelters, revenue recognition and international issues of IFRS and VATs.

Table 7: Forty factors in descending order of complexity — external advisors

		>20 Years	< 20 Years	T-test
Foreign mergers and acquisitions (Section 367)		1.652	1.682	
Deferred income taxes (FAS 109, 123R, 141, FIN 48, etc.)		2.150	1.619	*
Section 482		2.200	2.455	
Foreign tax credit (including sourcing rules)		2.040	2.000	
Subpart F		1.800	2.091	
Domestic mergers and acquisitions (including corp. divisions)		2.292	1.955	
Sections 381–384 Loss carryover limitations		2.120	1.955	
Partnership/joint ventures (including PFIC)		2.125	1.842	
Consolidated tax rules (including dual consolidated loss rules)		1.826	2.095	
Repatriation		2.182	2.400	
Corporate tax shelters		2.438	2.056	
IFRS vs. GAAP		2.533	2.059	
Frequent changes to the tax law		2.542	2.619	
Foreign currency translation		2.783	2.667	
Foreign income taxes		2.792	2.773	
Employee benefits (i.e. NQO, ISO, ESPP)		3.045	2.500	
Executive compensation (i.e. 409A)		3.087	2.850	
Earnings & profits		2.760	2.818	
Treaties		2.833	2.762	
Pension plans		2.714	2.850	
Inventory (Unicap, FIFO, LIFO)		3.045	2.550	
General business credits (R&D Credit, Rehab, etc.)		3.048	2.684	
Domestic production activity deduction (199)		3.050	3.053	
VAT		3.000	3.150	
Debt vs. equity		3.280	3.273	
Customs		3.077	3.118	
Independent contractor vs. employee		3.954	3.810	
Temporary provisions, extenders		3.040	3.409	
Capital vs. revenue expenditure (Indopco, etc.)		3.292	3.333	
Revenue recognition		3.522	3.737	
Schedule M-3		3.478	3.737	
Corporate AMT/ACE		3.348	3.350	
State franchise taxes		3.526	3.632	
State sales taxes		3.667	3.632	
Capital gains and losses		4.208	4.136	
Payroll taxes		4.000	3.650	
Estimated taxes		4.217	4.286	
Depreciation		4.261	4.150	
Property taxes		4.353	4.167	
Charitable contributions		4.571	4.250	

Table 8: Forty factors in descending order of complexity — corporate

		>20 Years	< 20 Years	T-test
Foreign mergers and acquisitions (Section 367)		1.500	1.762	
Deferred income taxes (FAS 109, 123R, 141, FIN 48, etc.)		1.811	1.850	
Section 482		1.432	2.000	***
Foreign tax credit (including sourcing rules)		2.114	2.000	
Subpart F		2.086	2.190	
Domestic mergers and acquisitions (including corp. divisions)		1.921	2.238	
Sections 381–384 Loss carryover limitations		2.314	2.762	
Partnership/joint ventures (including PFIC)		2.147	2.444	
Consolidated tax rules (including dual consolidated loss rules)		2.237	2.300	
Repatriation		2.457	2.095	
Corporate tax shelters		2.292	3.000	*
IFRS vs. GAAP		2.310	2.900	*
Frequent changes to the tax law		2.622	2.600	
Foreign currency translation		2.389	2.905	
Foreign income taxes		2.688	2.526	
Employee benefits (i.e. NQO, ISO, ESPP)		2.667	3.500	***
Executive compensation (i.e. 409A)		2.639	2.714	
Earnings & profits		2.711	2.850	
Treaties		2.711	3.200	
Pension plans		3.029	3.048	
Inventory (Unicap, FIFO, LIFO)		2.972	3.150	
General business credits (R&D Credit, Rehab, etc.)		3.026	2.947	
Domestic production activity deduction (199)		3.167	3.053	
VAT		3.028	3.450	*
Debt vs. equity		2.862	3.250	
Customs		3.250	3.211	
Independent contractor vs. employee		3.821	4.105	
Temporary provisions, extenders		3.405	3.750	
Capital vs. revenue expenditure (Indopco, etc.)		3.432	3.381	
Revenue recognition		3.026	3.650	**
Schedule M-3		3.514	3.250	
Corporate AMT/ACE		3.622	3.700	
State franchise taxes		3.639	3.842	
State sales taxes		3.750	3.947	
Capital gains and losses		3.946	4.368	
Payroll taxes		4.026	4.450	**
Estimated taxes		4.077	4.320	
Depreciation		4.316	4.550	
Property taxes		4.289	4.526	
Charitable contributions		4.271	4.526	

5.7 Between experience levels analysis

We also compared the more experienced groups and the less experienced groups. The results for the more experienced groups can be found in Table 9 and the results for the less experienced groups can be found in Table 10.

When comparing the ratings of the more experienced groups, the corporate personnel rated 19 of the tax issues as more complex while the external advisors rated 16 of the issues as more complex, with five of the issues being rated approximately the same. It is interesting to note that the corporate personnel rated more strategic and financial statement issues such as mergers and acquisitions, deferred taxes and revenue recognition as more complex than the external advisors, while the external advisors rated computations issues such as foreign tax credit, schedule M-3 and corporate AMT as more complex than the corporate personnel.

With the less experienced groups, the internal personnel found only six of the 40 issues as more complex while the external advisors found 28 of the 40 to be more complex than the corporate personnel. Some of the issues the internal personnel found to be more complex dealt with transfer pricing, repatriation, and revenue recognition. These results are similar to the results for the more experienced group. Again we ran t-tests to test the differences. There were three issues that were statistically significant between the more experienced groups, all of which the corporate group found to be more complex. These differences were transfer pricing issues, executive compensation and revenue recognition, all issues that the external advisor group may have more experience with as they work with multiple clients.

Table 9: Forty factors in descending order of complexity — more experienced

		External Advisor	Corporate	T-test
Foreign mergers and acquisitions (Section 367)		1.652	1.500	
Deferred income taxes (FAS 109, 123R, 141, FIN 48, etc.)		2.150	1.811	
Section 482		2.200	1.432	****
Foreign tax credit (including sourcing rules)		2.040	2.114	
Subpart F		1.800	2.086	
Domestic mergers and acquisitions (including corp. divisions)		2.292	1.921	
Sections 381–384 Loss carryover limitations		2.120	2.314	
Partnership/joint ventures (including PFIC)		2.125	2.147	
Consolidated tax rules (including dual consolidated loss rules)		1.826	2.237	
Repatriation		2.182	2.457	
Corporate tax shelters		2.438	2.292	
IFRS vs. GAAP		2.533	2.310	
Frequent changes to the tax law		2.542	2.622	
Foreign currency translation		2.783	2.389	
Foreign income taxes		2.792	2.688	
Employee benefits (i.e. NQO, ISO, ESPP)		3.045	2.667	
Executive compensation (i.e. 409A)		3.087	2.639	*
Earnings & profits		2.760	2.711	
Treaties		2.833	2.711	
Pension plans		2.714	3.029	
Inventory (Unicap, FIFO, LIFO)		3.045	2.972	
General business credits (R&D Credit, Rehab, etc.)		3.048	3.026	
Domestic production activity deduction (199)		3.050	3.167	
VAT		3.000	3.028	
Debt vs. equity		3.280	2.862	
Customs		3.077	3.250	
Independent contractor vs. employee		3.954	3.821	
Temporary provisions, extenders		3.040	3.405	
Capital vs. revenue expenditure (Indopco, etc.)		3.292	3.432	
Revenue recognition		3.522	3.026	*
Schedule M-3		3.478	3.514	
Corporate AMT/ACE		3.348	3.622	
State franchise taxes		3.526	3.639	
State sales taxes		3.667	3.750	
Capital gains and losses		4.208	3.946	
Payroll taxes		4.000	4.026	
Estimated taxes		4.217	4.077	
Depreciation		4.261	4.316	
Property taxes		4.353	4.289	
Charitable contributions		4.571	4.271	

Table 10: Forty factors in descending order of complexity — less experienced

		External Advisor	Corporate	T-test
Foreign mergers and acquisitions (Section 367)		1.682	1.762	
Deferred income taxes (FAS 109, 123R, 141, FIN 48, etc.)		1.619	1.850	
Section 482		2.455	2.000	*
Foreign tax credit (including sourcing rules)		2.000	2.000	
Subpart F		2.091	2.190	
Domestic mergers and acquisitions (including corp. divisions)		1.955	2.238	
Sections 381–384 Loss carryover limitations		1.955	2.762	***
Partnership/Joint ventures (including PFIC)		1.842	2.444	*
Consolidated tax rules (including dual consolidated loss rules)		2.095	2.300	
Repatriation		2.400	2.095	
Corporate tax shelters		2.056	3.000	**
IFRS vs. GAAP		2.059	2.900	**
Frequent changes to the tax law		2.619	2.600	
Foreign currency translation		2.667	2.905	
Foreign income taxes		2.773	2.526	
Employee benefits (i.e. NQO, ISO, ESPP)		2.500	3.500	**
Executive compensation (i.e. 409A)		2.850	2.714	
Earnings & profits		2.818	2.850	
Treaties		2.762	3.200	
Pension plans		2.850	3.048	
Inventory (Unicap, FIFO, LIFO)		2.550	3.150	
General business credits (R&D Credit, Rehab, etc.)		2.684	2.947	
Domestic production activity deduction (199)		3.053	3.053	
VAT		3.150	3.450	
Debt vs. equity		3.273	3.250	
Customs		3.118	3.211	
Independent contractor vs. employee		3.810	4.105	
Temporary provisions, extenders		3.409	3.750	
Capital vs. revenue expenditure (Indopco, etc.)		3.333	3.381	
Revenue recognition		3.737	3.650	
Schedule M-3		3.737	3.250	*
Corporate AMT/ACE		3.350	3.700	
State franchise taxes		3.632	3.842	
State sales taxes		3.632	3.947	
Capital gains and losses		4.136	4.368	
Payroll taxes		3.650	4.450	*
Estimated taxes		4.286	4.320	
Depreciation		4.150	4.550	
Property taxes		4.167	4.526	
Charitable contributions		4.250	4.526	

There were eight differences that were statistically significant for the less experienced groups. For six of these eight differences, the outside advisors found the issue to be more complex. The two issues that the internal group found to be more complex, transfer pricing and schedule M-3 may again be because the external advisors have more experience in these areas.

It was unclear what the interplay between education level and experience would be on perception of complexity. If either one is sufficient to reduce complexity perception, then we may not see a significant result. Thus, if 20 years' experience with a bachelor's degree is equivalent to ten years with an LLM degree, we may not see a significant difference using parametric statistics. Therefore, we analysed it with non-parametric analysis. However, we did not find any significant differences in the non-parametric analysis either.

5.8 Limitations and strengths

It should be noted that the results of this study are limited by the fact that we had only 109 participants involved. Of those participants 49 were in public accounting. The other 60 were from various large corporations. In addition, the participants were not geographically dispersed as all were from the US and many were located in California. It is clear that this complexity issue is not unique to the US. (James and Budak, 2016). A major strength of this study is that we did not use undergraduate or master's level students, but rather polled experienced tax practitioners who work with these issues daily. Previous research polled students who were studying business and accounting at either the undergraduate or master's level as a proxy for taxpayers. Many of these students would not have the in-depth knowledge of the tax system to make an informed decision. Another strength is that the participants include both practitioners from the public arena and practitioners that work in the tax department of major international corporations.

6. CONCLUSIONS

A number of conclusions can be reached as a result of this research.

First, experienced tax practitioners, whether as external advisors or corporate tax professionals find the tax system that applies to large and medium-sized businesses to be very complex. Overall the sample found the tax law to be 2.96, or just on the cusp of very complex and complex. The overall external and internal professionals were grouped around this mean at 2.94 and 2.97 respectively.

Second, both tax practitioners in public practice and tax directors of large corporations find international tax issues to be the most complex. Five of the top ten tax issues rated as most complex were international in nature. These results have significant policy implications.

Third, two areas in the financial accounting arena were found by both groups to be complex, namely deferred income taxes and international accounting standards.

Fourth, some of the issues that have received a lot of attention in the past few years (schedule M-3, domestic production activity deduction, and AMT) were all rated as relatively less complex by the participants of this survey.

Fifth, there was no significant difference in the perception of the complexity of the tax factors based on experience and also between those in public accounting and corporate tax departments. While we found some areas were significantly different, the difference for *most* of the factors were not significant. For the most part the corporate personnel found more strategic issues to be more complex, while the outside advisers found more technical issues to be more complex. However, it should be noted that for all of the issues where the differences were significantly different, those with more experience rated the issues as less complex. This result should also have policy implications. It shows that it isn't just one group of tax professionals that find an area complex.

Sixth, everyone whether working for a corporation or in public accounting, and whether they had five years of experience or 25 years, found foreign mergers and acquisitions to be extremely complex. These results imply that as a country moves towards a more global economy, it should consider simplifying the tax rules related to international operations

7. RECOMMENDATIONS/OVERALL OBSERVATIONS

The results of this paper should be important to tax policymakers. The study used both internal and external tax professionals that work with some of the largest corporations in the US. Congress and other tax policymakers should take into careful consideration what these individuals perceive to be the most complex issues in the current tax law. In discussions of tax reform these are the areas that policymakers should address in a meaningful and measured manner.

Five of the top ten tax issues rated as most complex were international in nature. These results have significant policy implications. Clearly a rigorous study of the relative complexity of the territorial system versus the current US worldwide tax system with deferral of income for many multinational corporations needs to be made. A study by a country that uses the territorial system, especially if they converted recently with all the attendant transition rules, would be very instructive. President Obama has included in his tax agenda many changes to the international tax area as did Representative Camp. If practitioners already perceive this area to be the most complex, more changes may not be the right simplification answer. The administration may want to look at how to simplify the current law first. There have been some suggestions in the professional tax press by Kleinbard (2013), and Karlinsky (2013) to simplify the international tax area by modifying the tax system to partly base it on financial statement income or worldwide tax consolidation. This would largely eliminate the need for monitoring transfer pricing, cost sharing and subpart F rules which are three areas that our current study shows are some of the most complex areas of the tax law. It would also lead to simplification of the IRC section 367 international reorganisation rules, the number one complexity provision in our survey. It should be noted however, that some taxpayers may like the complexity of this area as it may assist them in structuring transactions that are more difficult for the IRS to understand. However, that should not be a reason to not change the current tax law.

Both groups found the two financial accounting topics: deferred income taxes and international accounting standards to be complex. This result makes sense as the

participants were tax professionals who were many years away from working regularly with financial accounting. However, the results do point to the importance of tax departments staying current with the changes that have been proposed for financial accounting as it clearly has an impact on the tax work they perform daily.

Issues such as schedule M-3, the domestic production deduction, depreciation and AMT were not found to be very complex. These results may mean that the taxpayers that were protesting these changes were not doing so because they found the rules to be too complex, but rather that they take too much time and effort to produce a sufficient relative benefit to the company. Their protests may have also been a transparency issue in that they did not want to disclose this information in their financial statements and tax returns. In addition, the participants may have not rated these issues as complex because of familiarity. Individuals that work with a provision regularly may perceive it to be less complex even though others who are less familiar with the provision would find it to be more complex. In the past these areas have been deemed to be quite complex. If the US Congress were to propose a more simplified tax system, they should examine the rules related to these issues to make sure they are based on sound tax policy.

8. FUTURE RESEARCH

The sample in this study included both public accountants and attorneys as well as accountants and lawyers in tax departments of major corporations. It would be interesting to include IRS and government officials[14] that work in this area using the same survey. We believe that government officials may perceive the complexity of some of these issues quite differently than the tax practitioners. In addition, similar studies could be conducted in other countries. For example, it would be interesting to see the relative complexity of a territorial tax system versus a worldwide tax system as this is an area receiving a lot of attention today. It also would be interesting to survey less experienced external and internal tax professionals (say seniors and managers with three to ten years' experience) to gauge the relationship between experience level and complexity perception.

[14] The authors tried to get IRS participation, but were foiled by union rules that forbade them participating in this survey. Some other governments may be more flexible in allowing government officials to be surveyed.

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10. APPENDIX

We are two academics doing a study on tax professionals' perceptions of the degree of complexity of selected large and mid-sized business (LB&I) tax issues. For purposes of this study, we are defining large and mid-sized business (LB&I) as having gross assets > $10MM; It would primarily include C corporations as well as some large partnerships, LLCs, LLPs, or S corporations. This criterion is a demarcation used by the IRS.

Thank you in advance for taking ten minutes out of your busy schedule to share your thoughts with us.

Since we are only interested in your judgments, there are no right or wrong answers. Please just tell us how you honestly feel about each issue's tax complexity. Note that your responses are totally anonymous.

To make full use of your responses, we need you to answer all judgment and background questions.

Thank you,

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Associate Professor
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Tax Issue

	Extremely complex	**Very complex**	**Complex**	**Somewhat complex**	**Not complex**	**N/A to LB&I**
Depreciation						
Schedule M-3						
Foreign tax credit (including sourcing rules)						
Earnings & profits						
Estimated taxes						
Subpart F						
Independent contractor vs. employee						
Section 482						
Capital gains and losses						
Foreign income taxes						
VAT						
Frequent changes to the tax law						

Customs

General business credits (R&D Credit, Rehab, etc.)

Payroll Taxes

Employee benefits (i.e. NQO, ISO, ESPP)

Deferred income taxes (FAS 109, 123R, 141, FIN 48, etc.)

State FRANCHISE TAXES

Corporate AMT/ACE

Revenue recognition

Temporary provisions, extenders

State sales taxes

Property taxes

Foreign currency translation

Executive compensation (i.e. 409A)

Partnership/joint ventures (including PFIC)

Domestic mergers and acquisitions (including corp. divisions)

Foreign mergers and acquisitions (Section 367)

Sections 381-384 Loss carryover limitations

Inventory (Unicap, FIFO, LIFO)

Capital vs. revenue expenditure (Indopco, etc.)

Domestic production activity deduction (199)

Repatriation

Treaties

Consolidated tax rules (including dual consolidated loss rules)

Debt vs. equity

Pension plans

IFRS vs. GAAP

Corporate tax shelters

Charitable contributions

Other _____

Demographics

Industry you primarily work in

communications, technology, and media

heavy manufacturing and transportation

natural resources and construction
retailers, food, pharmaceuticals and healthcare

Education credentials (check all that apply)

CPA
MST
JD
LLM
MBA
BA

 # Years tax experience

>20
15-20
10-15
5-10
<5

% time spent on tax issues

% time spent on LB&I clients

Job status (e.g. tax director/ partner/ manager)

Which state or country are you located in?

Gross receipts

Total
Foreign
USA

Rank the five most complex issues from above (with one being most complex of 43 issues)

1
2
3
4
5

Rank the five least complex issues from above (with one being least complex of 43 issues)

1
2

3
4
5

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Book-tax conformity: The review of recent research and its implication for the IFRS adoption in Europe

David Procházka and Jan Molin[1]

Abstract

As the goal of corporate taxation contradicts substantially the accounting principles of true and fair view, distinct measures of income are used in corporate and tax accounting. This dichotomy may facilitate an opportunistic behaviour of executives to manage earnings upwards in financial reporting and taxable profits downwards simultaneously. Aligning both measures may restrict the misbehaviour of management, however at cost of losing informativeness of accounting information. The deliberations on the level of book-tax conformity are complicated by international capital mobility, which facilitate the cross-border profit shifting. Finally, the worldwide adoption of IFRS challenges the governments to decide, whether to allow IFRS to be a tax base for corporate taxation. The growing number of opportunities to relocate profits to more favourable jurisdiction constitutes risks, but also opportunities, for governments struggling to retain control over taxation. The decision may influence both the regulatory frameworks and the business practices of companies. The paper analyses the advantages and disadvantages of low/high book-tax conformity. Our analysis rests on the review of respective literature and it is complemented by the classification of real corporate and tax accounting systems of the EU countries after the IFRS adoption. The classification can be employed in research studies, when the control for different aspect of 'de jure book-tax conformity' is needed.

Key words

Book-tax conformity; IFRS adoption; accounting choices; tax avoidance; reporting incentives

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1. INTRODUCTION

Under model of perfect competition, a single all-encompassing unambiguous measure of income would be used in all models of economic decision-making. In reality, markets are incomplete and information are dispersed asymmetrically (Hayek 1945). This makes all income calculations problematic, and in certain cases even impossible (Beaver and Demski 1979). For operational difficulties, several measures of a corporate performance exist, each having advantages and shortcomings over others in particular decision-making tasks. Intensive theoretical and practical disputes occurred addressing whether and how to relate accounting and taxable concepts of income. On the one hand, income is a subject of distribution both to owners and government; therefore the same distributable income shall be used in both systems in order to avoid capital erosion (Hicks 1946). However, accounting is used in various investing and contractual settings requiring different measures of income (Edwards and Bell 1961; Chambers 1974; Gjesdal 1981). The sole measure of income would then limit its usefulness for investors and other users of financial statements. The separation of corporate and tax accounting seems to be therefore inevitable, despite it may wipe off the boundaries for opportunistic behaviour via earnings management.

The research debate, whether financial reporting and corporate taxation systems shall be independent or interconnected, emerged as a reaction to two practical issues. Firstly, the independency of both systems was criticised in connection with the accounting scandals (Enron, Tyco, Xerox and other cases) at US capital markets. According to Desai (2005), the relative independence of corporate and tax accounting enabled companies to inflate their profits for capital markets and to understate profits reported to tax authorities simultaneously. Secondly, the IFRS adoption by European Union raised concerns about the tax collection, especially in countries (eg, Germany, Austria) with a strong link between accounting and taxation. By adopting a new system of financial reporting standards, policy makers are challenged, whether the new system should be also implemented for taxation purposes or not. The coexistence of two accounting regimes (IFRS and local GAAP) intensifies the problems when balancing the basic principles of taxation, e.g. neutrality, equality, simplicity, and legal certainty (MacDonald 2002; Oestreicher and Spengel 2007).

The issue of book-tax conformity and the influence of IFRS adoption are particularly important for open small economies, which struggle to retain control over corporate taxation. The tax theory does not offer enough arguments, why corporate income tax should exist in small open economies. If capital is mobile internationally, corporate tax could be easily avoided (Diamond and Mirrlees 1971) and the tax burden would be borne by immobile factors (Razin and Sadka 1991), such as labour. Taxable profits are highly mobile in an integrated global economy. It is increasingly arduous to identify the jurisdiction, where income was generated, and thus to levy a tax on it (Fuest, Huber and Mintz 2005). Furthermore, capital taxation creates an economic contortion between capital and labour (Gordon 1986). Finally, corporate income tax has distortive impacts on creation of savings and allocation of scarce economic resources among competing uses in a market system (Auerbach 1983), which undermine its defence on economic grounds.

Economic reality, however, contradicts the theoretical forecasts on the untenable nature of corporate taxation, as real firms do cope with income taxes, even in small open economies. The research explains this puzzle using the model of a dominant

capital exporter (Gordon 1992). Alternatively, income taxes are levied to restrict the shifting of income between personal and corporate taxes, or to reduce income transfers between domestic and foreign sources (Gordon and MacKie-Mason 1995). In this case, personal and corporate income tax rates shall be on comparable level, so that incentives to reallocate taxable income from one stream to another are eliminated. Similarly, foreign source of income shall be taxed at the same rate as domestic sources to mitigate tax evasions. A potential measure is to use low rates for taxation levied on those sources, which can be effortlessly shifted internationally, eg through transfer pricing. Regardless on conclusions of taxation theory, corporate taxation is still a matter of fact. The adoption of IFRS and their usage for taxation purposes may thus have unintended economic consequences (Brüggemann, Hitz and Sellhorn 2013) for public budgets, eg through impact on the inflows and outflows of foreign direct investments, through relocation of corporate headquarters, and through international profit shifting of course.

The paper is organised as follows. After the introduction in Chapter 1, the relevant streams of literature dealing with the issue of book-tax conformity in reaction to accounting scandals are analysed in Chapter 2. Referring to this review, the main arguments for and against the dependence of corporate and tax accounting are assessed. Chapter 3 focuses on the specifics of IFRS adoption by the EU. In particular, we (a) introduce the regulatory framework for IFRS in the EU; (b) propose the classification of real systems of accounting and taxation based on the degree of their mutual (in)dependency; and (c) review the literature on impacts of the IFRS adoption on taxation and the role of book-tax conformity in this process. Chapter 4 summarises the cardinal findings of the paper, outlines its contribution to current research and identifies limitations of the study.

2. BOOK-TAX CONFORMITY: REVIEW OF RESEARCH IN THE CONTEXT OF CORPORATE ACCOUNTING SCANDALS

The (in)dependency of accounting and taxation is a subject of ongoing debate. The advantages and disadvantages of having a close link between both systems (so called book-tax conformity, further 'BTC') in various information settings has been scrutinised mainly in times of turbulent economic twists. In reaction to accounting scandals of 2001-2002, appeals for aligning the tax base with accounting income arose. Referring to Enron, Tyco and Xerox cases, Desai (2005) argues that firms boost profits reported to the capital markets and at the same time they bury profits reported in tax returns. The degradation in corporate profits reporting is allegedly caused by the separation of accounting and taxation. The quality and reliability of corporate earnings shall improve, if the same figure will be mandated for both purposes. By establishing effective full BTC, the management will be forced to trade-off between the 'penalties' from capital market and 'benefits' from taxation if lows profits are reported. Similarly, capital markets rewards for reporting high profits would be neutralised by higher tax burdens. The decrease in corporates' compliance costs and more efficient tax control are identified as additional benefits from the increased BTC. The same findings, requirements and conclusions as in Desai (2005) are presented by Whitaker (2005).

Both studies, although, do not contain any satisfactory empirical evidence, whether double-opportunistic behaviour of firms is really a phenomenon expanding over the economy. Some supportive arguments on dichotomy of accounting and tax profits are shown by Manzon and Plesko (2001). Using publicly available data for US companies, they found evidence that margin between accounting and tax income had spread increasingly in the period 1988–1998. The factors explaining the spread dynamics are although not detected. Mills, Newberry and Trautman (2002) confirmed that book-tax income differences were growing throughout the 1990s. Dyreng, Hanlon and Maydew (2008), based on the US data from 1995 to 2004, revealed the ability of firms to pay a low amount of cash taxes per dollar of pre-tax earnings over long time periods. The long-run cash effective tax rate can be low as long as ten years. Despite these studies discovered steadily growing differences between earnings in financial reporting and income tax expense accompanied with the capability to avoid taxes on long-run basis, they did not identify any common pattern for companies, which had undertaken the tax avoidance. On the other hand, the aggressive tax reporting is usually associated with aggressive corporate financial reporting and vice versa (Frank, Lynch and Rego 2009). A strong positive association between financial and tax reporting aggressiveness testifies that company-specific costs from trading-off financial and tax reporting purposes are insufficient to prevent companies from opportunistic behaviour, thus allowing to manage book income upward simultaneously with decreasing taxable income.

The empirical research offers some evidence on discrepancy between accounting and tax income, which results in boosting of profits for capital markets and reducing tax profits in the same time. The separation of financial reporting and taxation is thus believed to be the main reason of low quality of earnings. By implementing the BTC, tax authorities would be an additional guardian of accounting quality, contributing thus to a higher transparency of financial reporting and a higher tax compliance (Desai 2005). The logic of this requirement rests on the findings of Guenther, Maydew and Nutter (1997), who assessed the consequences of the US *Tax Reform Act* of 1986 (further TRA86). The TRA86 mandated the usage of accrual basis for the calculation of tax base, whereas companies had been allowed to opt between cash and accrual basis under the preceding tax regime. Those companies, which used cash basis, did not trade-off accounting and taxation profits and tax aspects have no material impact on financial statements. Following the change in the tax setting, those companies, that previously had optimised tax profits, continued in tax evasions, this time by managing accounting earnings through accruals. This study thus backs up empirically the effectiveness of BTC ensuring the higher credibility of reported earnings.

On the other hand, dependency between accounting and taxation tempts companies to lobby on accounting standards to influence reported figures in financial statements and thus to avoid or postpone taxation (Zeff 2002; Hoffmann and Zülch 2014). Similarly, governments are stimulated to solve their fiscal needs via accounting rules, which may impair the informativeness of accounting for economic decision-making. The state inferences in accounting are quite common in countries with code-law tradition. Theoretical debate should therefore address a critical issue, whether benefits of low BTC outweigh its costs. If financial reporting and corporate taxation are relatively stand-alone, the managers may utilise the discretion in accounting standards to reveal private information and thus to reduce information asymmetry (Marshall 1974; Bushman 1991; Bushman and Indjejikian 1993). Empirical research produces extensive evidence that increased accounting and tax dependency lowers accounting

quality, as each system assists to completely different purposes. Ali and Hwang (2000) document that value relevance of accounting earnings diminishes with increasing BTC. The loss of earnings informativeness to the capital markets under tight BTC using the explanatory value of earnings of US companies is documented by Hanlon and Shevlin (2005), Hanlon, Laplante and Shevlin (2005), and Hanlon, Maydew and Shevlin (2008). Atwood, Drake and Myers (2010) apply an alternative approach and different dataset, but with the same conclusions. Based on worldwide data, they confirm that persistence of current earnings declines with increasing BTC. In addition, the association of current earnings and future cash flows is moving oppositely to the development of BTC. Temporary book-tax differences may then serve as a useful signal of earnings persistence (Hanlon 2005; Blaylock, Shevlin and Wilson 2012). Finally, Blaylock, Gaertner and Shevlin (2015) uncover that companies located in countries with higher BTC exhibit higher rather than lower levels of earnings management. The study contains evidence on 34 countries, thus challenges strikingly the arguments of BTC proponents appealing for the higher dependence between accounting and taxation measure of profit.

Besides the negative impact of high BTC on the informativeness and quality of accounting earnings, the research has also identified that a proposed closer link between accounting and taxation does not work and it does not enhance accounting quality of earnings. According to the study of Guenther and Danquing Young (2000), accounting earnings in the UK and the US are more tightly related to real economic activity than accounting earnings in France and Germany, despite latter two countries incline to a higher level of BTC. Lang, Lins and Maffett (2012) detect that earnings management is lower for firms domiciled in the countries with a weaker link between tax and financial reporting. The findings of these studies deteriorate the arguments for linking accounting income with taxable one. Real data indicates that higher BTC results in lower earnings persistence and lower dependency between current earnings and expected cash flows and provides thus additional arguments in favour of the independency of accounting and taxation.

The findings of all previous studies support an idea that a high level of BTC has an adverse effect on accounting quality defined in terms of earnings management, timely loss recognition, and value relevance of accounting amounts (Beaver 1998; Barth, Beaver and Landsman 2001; (Barth, Landsman and Lang 2008). However, there are two recent studies showing an opposite picture. Tang (2015) investigates financial statements of companies from 32 countries and finds out that high BTC is associated with less earnings management and lower tax avoidance. Moreover, an increasing BTC curtails earnings management more in code-law countries, but does not result in significant differences between developed and developing capital markets. Finally, the IFRS adoption has not affected the association. The main weakness of this study is the sample, which employs consolidated financial statements of analysed companies. In majority of code-law countries, corporate income tax is levied on a separate legal body, and the tax calculation must be based on its separate financial statements. This point is addressed by Watrin, Ebert and Thomsen (2014), who scrutinise both consolidated and separate financial statements of companies from 27 EU countries. The analysis gives evidence that companies in countries with one-book system (ie with high BTC) exercise less earnings management in their consolidated financial statements compared to firms in two-book systems (ie in countries with relatively independent accounting and tax regime). However, the power of findings in

this study may be impaired because of certain misspecifications in classification of countries.[2]

Despite some studies confirm that high BTC may be capable to reduce opposite management of earnings for capital markets and taxation, the majority of papers furnish arguments to express severe concerns about the viability of BTC for financial reporting purposes. Even if we admit that the aligning of accounting income with taxable profit may enhance the tax compliance and cut off the tax avoidance under certain conditions,[3] there are plenty of proofs that a tight link between accounting and taxation destroys information power of accounting earnings in decision-making of financial statements users. Weak empirical evidence on concurrent managing of accounting and tax profits in divergent direction can be explained by the concept of reporting incentives. Firms have incentives to report truthfully and to meet their contracting commitments on voluntary basis, as the credible commitment brings economic benefits (Gigler 1994; Skinner 1994; Burgstahler, Hail and Leuz 2006; Christensen, Lee and Walker 2008; Hail, Leuz and Wysocki 2010). Capital markets and other institutional factors determine companies' incentives, whether to prepare financial statements that reflect economic performance in truly manner or not. The subordination of financial reporting to overriding tax system can eliminate opportunistic behaviour, if the enforcement is weak and the incentives to transparency are missing. On the other hand, if enforcement works and incentives are present, the discretion in accounting choice within boundaries of accounting standards is more frequently used to reduce information asymmetry and to reveal private information to investors rather than to manage earnings opportunistically (Subramanyam 1996).

The review of BTC research in the context of corporates' accounting-taxation related misbehaviour might be concluded by assertion that empirical evidence depicts more solid arguments in favour of the independency of corporate and tax accounting. Moreover, the dichotomy of corporate and tax accounting can be grounded on different goals of both systems. The main role of accounting lies in supplying useful information for economic decision-making and contracting; taxation aims at collecting resources needed for carrying out economic and social policy by government. Economic concept of income, which is extensively incorporated in accounting definition of profit (Procházka 2009; Bromwich, Macve and Sunder 2010),

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[2] Table 1 in Watrin, Ebert and Thomsen (2014): Slovakia should not be assigned to the group 'IFRS prohibited', as certain companies (eg, financial institutions and big non-financial firms exceeding specified criteria of turnover, total assets and number of employees) have to mandatorily prepare their separate financial statements according to IFRS (Tumpach and Stanková 2014). Furthermore, Slovak listed companies may opt, whether they prepare their separate financial statements in compliance with Slovak GAAP or IFRS.

Table 4 in Watrin, Ebert and Thomsen (2014): The Czech Republic shall be classified in two-book system, as listed companies are required to prepare individual financial statements according to IFRS, but they have to use tax rules based on local GAAP for corporate taxation (Procházka 2014).

Referring to previous remark on Table 1, classification of Slovakia is ambiguous. If a Slovak listed company prepares its separate statements according to IFRS, regardless whether mandatorily or voluntarily, it may also opt for IFRS in tax accounting (Tumpach and Stanková 2014). Therefore, the assignment of Slovakia to 'One/Two' category would be more appropriate.

The misspecification may not have significant impact on study's results, as both countries are small economies (see Table 3, according to which both countries count for 0.26 per cent cases of observations in case of consolidated statements and 5.09 per cent observations of separate statements). However, some concerns about the results remain.

[3] We refer, for example, to the different evidence in Guenther, Maydew and Nutter (1997) compared to Guenther and Danquing Young (2000).

encompasses not only the results of realised past transactions, but also unrealised gains. However, the taxation of unrealised gains contradicts the basic tax canons.

The absolute BTC is not possible, neither desirable, as there is no all-comprehensive concept of accounting income. As Gjesdal (1981) points out distinct tasks require different type of accounting information. For each role of accounting, a different definition of income may be needed and the existence of accounting choices is a necessary condition in meeting informational and contracting demands of counterparties (Lambert 2001). Financial reporting standards (such IFRS and US GAAP) requested by stock exchanges are primarily investor-oriented (Barth 2000; 2006; 2007). However, companies are parties in many contracts. The supervision of their fulfilment is based on different information than information utilised in investment decisions. Despite the emphasis on investors' needs by standard-setters, Lev (1989), Hayn (1995) or Ball and Shivakumar (2008) do not identify any significant influence of accounting data on stock market prices. This confirms conclusions of Beaver (1973), who attributes the negligible association of accounting data with market prices to delays in publishing of financial statements compared to other sources of information. Facing the unsuitable accounting standards for contracting purposes, earnings management practices can be just a reasonable reaction to fulfil companies' contractual obligation, and not the effort to avoid taxation or boost management compensation.

If earnings management is detected, researchers have to address a cardinal issue, whether accounting choices are driven by opportunism, or by efficiency (Watts and Zimmerman 1990). A selection of accounting procedure is opportunistic, if it is made by managers to be better off at expense of counterparties. Contrariwise, an efficient accounting choices aims at maximising the firm value (Holthausen 1990). The empirical evidence in Christie and Zimmerman (1994) or Subramanyam (1996) inclines to the inference that management behaves honestly and accounting choices driven by efficiency prevail. Regardless the nature of management behaviour, the partial discretion in accounting choices, allowing firms to meet the demand for information from wide range of users, is inevitable. Aligning accounting principles with tax rules would be conditioned by compromises, which cannot although yield benefits for any party. The relevance of information for the users of financial statements will be lost at some extent. Furthermore, tax authorities will be restricted when punishing companies for tax avoidance, if the concealment of taxable profits is justified as a consequence of accounting principles. Finally, too tight BTC restricts governments in practising their economic, social and other policies by setting the (dis)incentives through taxation system (Alley and James 2005).

3. THE IFRS ADOPTION IN THE EU AND DEBATE ON BOOK-TAX CONFORMITY

Although accounting research outlines arguments against rather than in favour of book-tax conformity, the strong interdependence of corporate and tax accounting is a matter of fact in many countries. The adoption of IFRS adds a new dimension to the deliberations, whether to link tax profits to accounting income or not. The debate on usefulness of IFRS for corporate taxation emerged especially in countries with strong link between accounting and taxation (namely German-speaking countries). If the tight form of BTC is applied, a potential shift to IFRS for taxation purposes may

substantially extend or contract the base, which is subject to taxation. The impact on tax revenues then depends on the type of earnings management behaviour. Besides the general evidence in the previous section, additional stream of research methods may be applied for the evaluation of the phenomena of IFRS adoption. Methodologically, the introduction of new accounting principles for determination of taxable profit is equivalent to the changes in other tax-relevant variables.

The impact of IFRS adoption on tax collection may be estimated by the findings of studies on the corporate reaction to announced changes in taxation systems (such as changes in definition of tax base, or in legal tax rates), affecting the expected effective rate of taxation. For example, an approved and announced reduction in tax rate may entice taxpayers to engage in intertemporal shift of taxable profits from current to future periods to lower their tax burden. Once again, the TRA86 represents important source of empirical evidence, whether companies abuse the modifications in tax regime to avoid taxation. According to Scholes, Wilson and Wolfson (1992), the probability of intertemporal profit shifting is growing with the increasing size of a company. However, the tax optimisation is counterbalanced with the management of credit exposition, as the risk of breaching debt covenants mitigates the eagerness to utilise attainable tax savings (Guenther 1994). Furthermore, Lopez, Regier and Lee (1998) discovered that the anticipated change in tax rates did not increase tax avoidance significantly. The benefits from intertemporal tax savings were mainly taken by those companies, which had exercised the tax aggressive patterns already before the reform. Similar to general evidence, changes in the tax regime are not a driver of frequent tax misbehaviour.

Based on the research review, it could be assumed that the usage of IFRS in tax accounting will not affect the compliance with tax rules. However, specific obstacles may arise, hindering thus the usage of IFRS in taxation. Countries, where high quality of financial reporting is historically essential for smooth functioning of capital markets and/or for promoting of investments, build up taxation system relatively independently on accounting. These states (eg, the UK, the Netherlands and Denmark) are more likely to allow IFRS in calculation of taxable profit, as the change in accounting regime shall have hardly registrable effect on tax revenues. On the other hand, countries (eg, Germany, Austria and Italy) which traditionally use financial accounting to manage tax revenue are expected to be reluctant to admit IFRS-based taxation. IFRS are developed by the IASB; an independent body, which does not address tax goals of national policy-makers. Under tight BTC regime, accounting principles distinct from local GAAP may thus alter tax streams immediately and in an unpredictable way.

Furthermore, the literature[4] raises concerns about the appropriateness of IFRS in tax accounting, grounded on fundamental principles of taxation. Neutrality, efficiency, certainty and simplicity, effectiveness and fairness, flexibility, and equity are mostly emphasised prerequisites of an ideal tax system (OECD 2014). From the point of view of taxation theory, the IFRS are mostly refused for the pervasive measurement at fair values. Besides financial instruments, fair values (a) must be applied for property investments (IAS 40), in agriculture (IAS 41), for finance leases (IAS 17); (b) can be applied for remeasurement of tangible (IAS 16) and intangible (IAS 38) assets; (c) are

[4] An exhausting review of analytical papers on this issue is elaborated by Eberhartinger and Klostermann (2007) in Chapter 3 of their paper.

calculated under impairment testing (IAS 36) or disposing assets (IFRS 5). In some instances, market-based fair values are not available and have to be estimated. The estimate based on projected discounted cash flow can be both necessary and sufficient to inform users of financial statements, but it may lack sufficient objectivity to become subject to taxation. The principle of neutrality would be then violated, if estimated unrealised gains included in the financial reporting measure of earnings were taxed. There are also some concerns about deterioration of the effectiveness of tax supervision under IFRS model (Barbe, Didelot and Ashta 2014).

To advance further with discussion on the appropriateness of IFRS in tax accounting, the main features of corporate taxation systems shall be evaluated. We will restrict the scope just on the EU area. For the assessment, we will analyse (a) the text of the Regulation (EC) 1606/2002 on application of international accounting standards and (b) the methods for determination of taxable profits and possible links between financial reporting and taxation under the Regulation. Pursuant the Article 4 of the Regulation (EC), companies, with securities admitted to trading on a regulated market of any member state, shall prepare their consolidated accounts in conformity with the IFRS.[5] In addition, the Regulation gives the member states options relating to annual accounts and/or private companies. Following Article 5, member states may permit or require (a) the companies referred to in Article 4 to prepare their annual accounts, (b) companies other than those referred to in Article 4 to prepare their consolidated accounts and/or their annual accounts, in conformity with the IFRS. Based on the text of Regulation (EC), the EU countries are set free to mandate or allow the application of IFRS for other purposes than in consolidated statements of listed companies. Different countries apply the provisions of Article 5 at a different scope. Some do not use the option at all (eg, Austria); others require/allow the IFRS for almost all companies both in individual and consolidated statements (eg, Denmark, the Netherlands, Ireland). Further, we will just focus on Article 4 and the option in Article 5 (a), ie we will deal with financial reporting of listed companies only.[6]

The main feature of corporate taxation within the EU is that the tax burden is levied on a single legal entity. Despite some recent deliberations about the introduction of consolidated corporate taxation, the current tax systems deals with corporate taxpayers on stand-alone basis. The classification of corporate and tax accounting systems is therefore determined by the link between principles used in annual accounts (separate financial statements) and principles applicable in tax accounting. There are several dimensions shaping the classification structure. Firstly, we shall address the system applied for consolidated financial statements. As we deal with Articles 4 and 5 (a) of the Regulation (EC), IFRS as the exclusive system are mandated for this purpose throughout the EU. The second level deals with the link between consolidated and separate financial statements of listed companies. The Regulation (EC) allows member states to decide whether listed companies preparing consolidated financial statements in conformity with IFRS:

- are required to prepare their individual financial statements in conformity with IFRS; or

[5] As endorsed and approved by the EU.

[6] Keeping with the paper's aim, we will discuss only the scenarios with IFRS consolidated statements of listed companies. However, our analysis and conclusions may be extended also for cases, when the option in Article 5 (b) – ie option for private (non-listed) companies – is exercised.

- are required to prepare their individual financial statements in conformity with local GAAP; or
- are allowed to opt between IFRS and local GAAP.

The third level of classification of corporate and tax accounting systems refers to the link between separate financial statements and tax fillings, as far as the calculation of taxable profits concerns. Depending on whether accounting income from statutory accounts is relevant for the determination of tax base or not, the systems may be sorted out into two extreme groups:

- systems with zero book-tax conformity (ie absolute independence of accounting and taxation system);
- systems with full book-tax conformity (ie absolute dependence of accounting and taxation system).

In reality, some countries following the zero BTC can be identified. On the other hand, the full BTC is rear, as real regimes oscillate within the scale from zero to absolute conformity (ie within high and low number of differences between accounting income and tax profit). This mixed approach is commonly applied by majority of EU states. Consistent with findings of Watrin, Ebert and Thomsen (2014), we assume that most EU countries derive taxable profit by adjusting accounting income reported in statutory accounts in accordance with special provisions set forth in the income tax acts. Based on number of adjustments required, we distinguish:

- high number of adjustments (denoted H), which determines low BTC;
- average number of adjustments (denoted M), which determines average BTC; and
- low number of adjustments (denoted L), which determines high BTC.

Figure 1: Corporate and tax accounting systems of the EU countries after the IFRS adoption (as at December 2013)

Consolidated financial statements of the EU listed companies: IFRS required						
Scenario	**Separate statements**	**Tax fillings**	**EU countries**			
A1	**IFRS required**	**Independent tax rules**	Estonia			
A2	**IFRS required**	**Statutory accounts**	**Number of adjustments**			
			Cyprus (L)	Bulgaria (M)	Croatia (H)	
			Denmark (L)	Greece (M)	Lithuania (H)	
				Italy (M)	Romania (H)	
				Malta (M)		
A3	**IFRS required**	**Other methods**	**Number of adjustments**			
					Czech R. (H)	
B1	**Local GAAP required**	**Independent tax rules**	**xxx**			
B2	**Local GAAP required**	**Statutory accounts**	**Number of adjustments**			
			Austria (L)	Sweden (M)	France (H)	
			Belgium (L)		Germany (H)	
			Hungary (L)		Spain (H)	
B3	**Local GAAP required**	**Other methods**	**xxx**			
C1	**Local GAAP or IFRS**	**Independent tax rules**	Netherlands			
C2	**Local GAAP or IFRS**	**Statutory accounts**	**Number of adjustments**			
			Luxembourg (L)	Finland (M)	Ireland (H)	
				Poland (M)	UK (H)	
				Slovenia (M)		
C3	**Local GAAP or IFRS**	**Other methods**	**Number of adjustments**			
			Latvia (L)		Portugal (H)	
					Slovakia (H)	

Source: Authors' direct analysis of relevant accounting and tax acts: EY 2014; PwC 2014a; PwC 2014b; IASB 2014.

Figure 1 captures the classification of mutual relationship of corporate and tax accounting regimes in the European Union after the IFRS adoption. The classification follows the principles outlined above; each country is assign to respective group with reference to (a) the analysis of legal acts regulating financial reporting and taxation in given country;[7] (b) studies of EY (2014), PwC (2014a), PwC (2014b) and review of jurisdiction profiles by (IASB 2014). Contrary to the model of Watrin, Ebert and Thomsen (2014), our BTC grouping is solely grounded on the provisions of income tax acts, which set the required adjustments of accounting income to calculate taxable profit.[8] The former model is more appropriate for empirical research (eg, in studies detecting tax motivated earnings management); our measure is more suitable for the ordering of regulatory regimes. Watrin, Ebert and Thomsen's (2014) measure captures the real differences between accounting and taxable profit (because of permanent and temporary differences); the observations on company level are then aggregated and averaged on country level. However, factual discrepancies reported by firms cannot measure the level of 'BTC de jure' precisely, as it could be hardly expected that each company be engaged with all potential adjustments requested by legal acts on taxation. In addition, this measure of 'BTC de facto' is of ex-post nature and it varies with changes in business operations, even if both accounting and taxation regimes are stable. Our approach determines the BTC ex-ante, and it is invariant unless an amendment in accounting or tax rules occurs.[9]

We have identified seven real scenarios of mutual relationship between financial reporting and taxation systems relevant for the EU listed companies. Theoretically, nine scenarios may have occurred, as there are three variants for the preparation of separate financial statements of listed companies and three variants of tax regime. Following the option in Article 5 (a) of Regulation (EC), EU member states may decide that listed companies are required, permitted, or prohibited to apply IFRS in their annual accounts. Furthermore, corporate taxation (a) can be based on statutory accounts of firms – highlighted pink at *Fig. 1*; (b) may use completely independent rules – highlighted yellow; (c) may require different set of accounting principles than applied in statutory financial statements – highlighted green. However, two possible scenarios are not followed by any EU country.

Only Estonia and the Netherlands prefer a complete independence of accounting and taxation, thus exhibiting no BTC. Estonia is probably the extreme EU state regarding the corporate taxation, as no taxation of companies' profits is mandated by Estonian

[7] Direct analysis was performed for the majority of new EU countries, which are subject of more frequent misspecifications in empirical models mentioned in this paper. Authors used own knowledge of both languages and the regulatory regimes of these countries. In case of absence of language knowledge and for majority of the old EU members, we refer to two studies (PwC and E&Y) on corporate taxation; and to two studies (PwC and IASB) on the extent of IFRS adoption by countries. We refer to several studies in order to eliminate the risk of errors, which may be contained in a single study.

[8] Using analogy from another field of accounting research concerning with the approaches to measurement of accounting harmonisation, our measure addresses the 'BTC de jure'; Watrin, Ebert and Thomsen (2014) dwell on the 'BTC de facto'.

[9] On the other side, a change in financial reporting or tax legal acts may influence our regulatory-based criterion of BTC, but the real BTC may remain unchanged, if companies are not engaged in transactions governed by the amended legal provisions. Therefore, the approaches of Watrin, Ebert and Thomsen (2014) or Atwood, Drake and Myers (2010) should have priority in empirical research investigating company-specific characteristics, as our measure is incapable to incorporate real business practices.

government; only dividends are taxable on distribution. Other countries follow a more common approach, under which accounting profit is somehow adjusted for tax purposes. Financial standards used in separate financial statements can then decisively determine the tax base. The largest group contains 11 countries, which mandate listed companies to prepare not only consolidated, but also separate financial statements in compliance with IFRS. Majority of them allow calculating tax profit based on statutory income, which results in application of IFRS for taxation, too – see *Scenario A2*. The number of adjustments differs within the group; the association between accounting and tax profit may thus vary significantly. For example, Danish firms may expect that their accounting income will be (almost) equal to their tax profit. On the other hand, a high number of adjustments required eg by Croatian tax rules may loosen the linkage. Despite allowing IFRS to be tax base, the resulting tax obligation could be effectively independent on the figure reported in IFRS income statement in countries with high number of adjustments.[10] The Czech Republic is the only country not permitting IFRS for taxation, despite listed companies must prepare both consolidated and individual statements according to IFRS. For income tax purposes, Czech listed companies have to firstly transform their statutory accounting income (based on IFRS) to accounting income based on Czech GAAP; consequently Czech GAAP income is adjusted (for relatively high number of instances) to taxable profit.

Class B contains seven states, which have not allowed the usage of IFRS in statutory accounts of listed companies. Separate financial statements have to be prepared in accordance with local GAAP. The starting point for tax fillings is statutory income, which is modified according to tax principles. In these countries, IFRS adoption has not any material impact on traditional relationship of corporate and tax accounting, and BTC has remained (almost[11]) the same.[12] Finally, Group C is made up by ten countries (including the Netherlands) passing the Article 5 (a) option on companies. Listed companies may decide whether they will maintain their statutory accounts according to local GAAP or whether they switch to IFRS completely for both sets of statements. This company-wide variability in financial reporting has to be addressed also in the tax area. Six states permit the use of IFRS in tax filling, although with relatively significant extent of adjustments. The Netherlands has an independent tax system and three countries do not tied-up tax profit with statutory accounting income automatically. Latvia and Portugal oblige the companies, if reporting under IFRS regime, to calculate additionally the income according to local GAAP, which is then adapted for tax fillings.[13] Finally yet importantly, Slovak policy-makers permit listed companies applying IFRS in statutory accounts to calculate income tax either according to the IFRS or Slovak GAAP rules. For both cases, many adjustments have

[10] The divergence between both profits may be magnified by the existence of special tax rules for listed companies and other entities reporting under IFRS, as in case of Romania.

[11] There two exceptions resulting from the local GAAP reforms. Germany underwent quite substantial reform of corporate law relating to financial reporting, which aimed at harmonising of German GAAP with IFRS (through Das Bilanzrechtsmodernisierungsgesetz (BilMoG)). Similarly, Spanish GAAP were partially converged with IFRS, too. Consequently, the number of adjustments of accounting income grew, which has loosened the strict conformity between both systems.

[12] Hungary is deliberating the extension of IFRS usage also for separate financial statements of listed companies. However, the taxation shall be still based on Hungarian GAAP. If reform approved, Hungary will follow the same Scenario like the Czech Republic.

[13] The same model as chosen by the Czech Republic. However, Portuguese GAAP are highly converged with IFRS, therefore the conversion should not be too complex.

to be made in tax returns. In addition, specific provisions are applicable in the first fiscal period, for which IFRS-based taxation was selected. A complex set of tax requirements should ensure that tax expense payable would be the same regardless which type of financial reporting[14] and tax regime[15] will be adopted.[16]

Inspired by concerns about inappropriateness of IFRS based taxation, the researchers attempt to evaluate possible effects, which may be elicited by switching to this system of taxation. Eberhartinger and Klostermann (2007) survey confidential tax data of Austrian companies to evaluate the potential impact of IFRS on discounted tax burden under different scenarios of taxation rules. Taking into account relatively a huge BTC in Austria, they did not find any material effect on tax expense surprisingly. In two scenarios, some tax advantages for companies are identified; the last scenario exhibits only immaterial tax disadvantages. Although IFRS are perceived to be less conservative and thus tend to premature recognition of profits, the assumption that IFRS-based taxation would be higher than local GAAP taxation was not confirmed.[17] Another country study was processed by Gavana, Guggiola and Marenzi (2015) on a sample of Italian listed companies. Italian listed companies are required to prepare both consolidated and individual financial statements in compliance with IFRS. However, until 2008, IFRS statements were irrelevant for tax purposes, i.e. listed companies were forced to transform statutory individual statements based on IFRS to Italian GAAP and then to reconcile to tax base.[18] This process was considered unattainable because of complexity and ambiguity of conversion from IFRS to local GAAP, huge divergence of values between both systems, different interpretation of tax rules. Therefore, tax base has been tied on with accounting earnings, regardless accounting system used in statutory individual statements. This variation in taxation setting offers an opportunity to assess the impact on tax burden. The study reveals that the shift to IFRS has produced a quite significant increase in the tax base of about 11 per cent. The last country-specific study of Schanz and Schanz (2010) uses Monte Carlo simulations to analyse the different scenarios for German environment. Depending on the definition of taxable profit (e.g. broad tax base, narrow tax base, cash flow tax base), the simulations yield different results for particular industries. In general, corporate taxation referring to IFRS figures is expected to magnify the tax burden levied on German companies.

There are also several studies calculating the effect on taxation jointly for more countries in order to identify prospective country specifics and differences supposing that a shift to IFRS-based taxation will occur. All models are based on The European Tax Analyzer program (further 'ETA'), which has been developed for the comparison of international tax burden. The model simulates the life-cycle of an hypothetical

[14] Either IFRS or Slovak GAAP.

[15] In case of IFRS in statutory accounts, IFRS or Slovak GAAP in taxation.

[16] Following different structure on income statements under local GAAPs compared to comprehensive income statement by IFRS, different impact on earnings and equity can be expected as a result of IFRS adoption (Cordazzo 2013). Having tax rules constructed to reflect particular accounting regime, the shift to IFRS may enable tax avoidance by different recognition or presentation of certain items (especially gains and losses from revaluations).

[17] However, the perception of higher conservatism of German (or Austrian) GAAP was already broken by the Daimler-Benz case. In connection with the IPO on New York Stock Exchange, the reconciliation of German GAAP profit of DM0.6 billion turned into the loss of DM1.8 billion under US GAAP rules (Zeff 2012).

[18] Until 2008, Italy pursued the same model as the Czech Republic still uses.

enterprise over a ten-year period; tax burden is expressed as the difference between the pre-tax value and the post-tax value of the enterprise at the end of simulation period (Spengel and Oestreicher 2012). The model can control for all relevant tax rules and it contains fundamental tax and accounting data for 27 EU Member States plus the USA and Switzerland. Jacobs et al (2005), Oestreicher and Spengel (2007), Haverals (2007) use the ETA to test their hypotheses related to induced changes in tax calculation after potential shift to IFRS. Because of the same model and underlying data, they derived at similar results across both countries and industries. On average, the IFRS based tax burden is higher compared to the tax expense calculated with reference to local GAAP. The discrepancies in depreciation and in measurement of inventory (finished and work-in-progress) are recognised as the main factors of a potential higher tax burden. A rather different methodological approach, but with the same results, was adopted by Kager, Schanz and Niemann (2011) and Kager and Niemann (2013). Reconstructing tax balance sheets of Austrian, German and Dutch companies, they estimate that the introduction of IFRS would boost the tax burden. The main sources of increase are intangible assets and provisions; inventories, accounts receivable and accounts payable do not have any material impact on variation in taxation.

Finally, De Simone (2013) investigates the actual impact of IFRS adoption on income tax-motivated profit shifting by multinational entities, which are allowed/required to apply IFRS in their separate financial statements. Using data on the EU separate financial statements and ownership over 2001 to 2010, a significant 16.2 per cent tax-motivated change in reported pre-tax profits was identified following the IFRS adoption by multinational entities, relative to no material change in opportunistic tax behaviour of non-adopters. This is the first study, which empirically challenges the prevailing arguments and empirical evidence against the book-tax conformity analysed in Chapter 2. It demonstrates that the introduction of IFRS has alleviated the tax discipline. Using data from separate financial statements, De Simone (2013) overcomes the methodological shortcomings of Tang (2015) and supplements the results of Watrin, Ebert and Thomsen (2014).[19] The paper's conclusions cannot be, although, utilised to confirm that the IFRS adoption has facilitated the companies to bypass the counterbalance of accounting income and taxable profit. Despite revealed deterioration of fiscal tax revenues because of profit shifting within multinational entities, De Simone (2013) does not address whether the companies were also engaged in opportunistic earnings management in financial statements (both individual and consolidated). If the tax optimising behaviour were compensated by lower accounting earnings, then Desai's (2005) beliefs on trade-off could be advocated. However, if tax avoidance were accompanied with boosting of accounting profits, then the conclusions of Frank, Lynch and Rego (2009) about insufficient cost levied on companies by legal acts so that they do not have to sacrifice higher accounting earnings to lower taxable profits and vice versa. The findings of De Simone (2013) may then be explained that IFRS-adopters just (ab)used the opportunity given by radical changeover in institutional environment, for which policy-makers and tax authorities had not been prepared sufficiently.[20] In any case, additional empirical evidence is desirable to obtain conclusions that are more convincing.

[19] However, once again with certain misspecifications of model regarding the IFRS entities in Slovakia.

[20] A similar remark on unintended consequences of the IFRS adoption by China on public tax revenue, which may overweight capital market benefits, is expressed by Chan, Lin and Tang (2013).

4. CONCLUSION

The uncertainty of future economic development results in absence of unequivocal definition of income. Consequently, decision-specific measures of income are required as solutions of distinct economic problems call for differentiated characteristics of a firm's performance. The main goal of financial reporting is to provide users of financial statements with information useful in their decision-making, which covers various kinds of investment decisions and contractual arrangements. Furthermore, the selection of financial reporting standards by a company may transmit valuable signals about the economic prospects privately observed by the company's management. The decision-usefulness; contracting, and signalling function of accounting contributes to mitigate the information asymmetry within the economy, characterised by dispersed incomplete information leading to the existence of moral hazard and adverse selection. Any exogenous regulatory interference mandating the reporting of uniform measure of income can thus debilitated the social value of accounting. On the other hand, concept of income, which is subject to taxation, shall be unambiguous. Taxation infers property rights and therefore the definition of taxable profit shall meet the criteria of simplicity, legal certainty, neutrality, and especially of equality. The same measure of taxable profit is essential in order not to discriminate the taxpayers of the same economic condition.

On the other hand, existence of accounting choices facilitates the management to behave opportunistically and abuse the choices at expense of other parties. Managers may manage either accounting earnings in order to increase their compensation, to avoid penalties from non-compliance with contractual obligations, to meet market expectations. Furthermore, the autonomy of tax regime profit enables managers to drive tax profits in a reverse direction than accounting earnings in order to avoid the tax burden. To merge accounting and tax profit into a single measure used in both systems is believed to an efficient remedy how to restrict the misbehaviour of management. However, the potential benefits of reduced opportunism are accompanied with the loss of informativeness and decision usefulness of accounting information, if managers decide to prioritise the tax profits.

Our paper reviewed the relevant literature on book-tax conformity. We analyse and summarise the advantages and disadvantages of weak compared to tight linkage between financial reporting and taxation definition of income. We thus contribute to current debate, whether accounting and taxation systems shall be constructed dependently or not. The theoretical findings can be relevant also for policy-makers, especially in connection with the IFRS adoption. Despite IFRS are designed primarily for the reporting at capital markets, many countries around the world have decided to mandate or permit the usage of IFRS in separate financial statements. Therefore, IFRS are applied not only for consolidated statements of listed companies, but also in statutory accounts of public and even private companies. As statutory accounts are traditional starting point for the calculation of tax profit in majority countries, policy-makers face a cardinal challenge, whether to allow IFRS-based taxation or not. The degree of book-tax conformity may substantially determine the impact on fiscal revenues from corporate income tax. The deliberations are further complicated by international capital mobility, which facilitate the cross-border profit shifting. The growing number of opportunities to relocate profits to more favourable jurisdiction is available especially to multinational corporations, which report just under the IFRS

regime. This may be risk, but also opportunities for small open economies, which struggle to retain control over taxation.

The previous findings highlight the need to examine, whether and how the adoption of IFRS has affected the relationship between taxation and accounting. The process may influence both the regulatory frameworks (i.e. legal changes) and the business practices of companies. Empirical research (focusing mainly on the EU countries) has already unveiled that companies abused the changeover to IFRS to avoid taxation at some extent. However, these findings are restricted because of partially incorrect research design (Tang 2015) or some misspecification in classification of accounting and tax regimes of certain countries (De Simone 2013; Watrin, Ebert and Thomsen 2014). As the misspecifications relate mostly to the regimes of new EU countries, we analysed regulatory frameworks for financial reporting and corporate taxation for the whole EU with emphasis on the new member states from Central and Eastern Europe. Based on the analysis, we classify the mutual relationship of financial reporting and taxation of EU countries into nine theoretical subgroups. However, the real systems were assigned only to seven subgroups. The proposed classification can serve as the basis for further clustering of countries following similar patterns in construction of taxation system in relation to financial reporting. Finally, the classification can be employed in research studies, when the control for different aspect of 'de jure book-tax conformity' is needed.

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A typology of sales tax noncompliance: Targeting enforcement to diverse intentions

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Abstract

This paper presents a study of taxpayer rationales for evasion and theft in a sales tax environment. It is based on content analysis of 375 criminal investigation case files in multiple industries and author interviews with business owners facing criminal investigations. The evidence examined supports the development of a typology of sales tax noncompliance that informs a more targeted, responsive and effective enforcement regime informed by the specific peculiarities of the sales tax environment. The study suggests that such an approach could result in rehabilitation of a substantial number of noncompliant taxpayers without reliance on incapacitating deterrence measures.

Keywords: Compliance enforcement, responsive regulation, sales tax, tax administration, tax evasion, tax theft

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1. INTRODUCTION

Sales tax enforcement efforts in the states are structurally similar to the income tax enforcement model utilised by the Internal Revenue Service (IRS). Adoption of this structure assumes the same voluntary reporting scheme with enforcement carried out through punishing deterrence policies linked to delinquency identification and audit capabilities. This paper documents an exploration of how this adaptation of enforcement regime to sales tax systems does not recognise that sales tax compliance enforcement issues are very different from income tax enforcement issues because of the fiduciary nature of sales tax collection. Theft of sales tax, as opposed to evasion, is the more pressing issue and the efficient and effective third-party reporting regime that is relied upon so heavily for income tax enforcement allows for the possibility of theft of state funds in the sales tax environment. In this respect, sales tax theft is more akin to the theft of withheld payroll taxes by employers, but without the added control of being able to compare withholding amounts reported by the employer to employee reporting on their individual income tax returns.

This paper also explores how sales tax evasion and theft are generally confined to specific industries and taxpayer types and why that is so. As a result of the nature of the sales tax environment it is important to more finely target enforcement efforts and to understand that sales tax theft and evasion are not one-size-fits-all. People steal or evade sales tax for a variety of reasons, and their motivation to steal or evade has an impact on the selection of appropriate enforcement tools. Some steal or evade without the overt intention to commit a crime. The typology of sales tax noncompliance presented herein represents an attempt to provide a workable framework for better understanding of the fraud risk and to assist with more effective targeting of enforcement efforts, including less punishing interventions where possible.

This paper will proceed with a discussion of tax evasion generally and some of the differences between income tax enforcement and sales tax enforcement; a description of the methodology used in the development of the typology; presentation of the typology of sales tax noncompliance; and a discussion of current enforcement tools with a proposal for improvement based on the typology.

2. TAX EVASION IN THE LITERATURE

Perhaps the most enduring model of tax enforcement was set forth by Allingham and Sandmo (1972). Known as the deterrence model, the authors theorised that the choice by a rational person to evade taxes is based on the expected gains (money saved) or losses (severe penalties) associated with the decision to evade. The deterrence model became the underlying premise for nearly all approaches to tax enforcement for decades and remains in wide use in practice, even though it has been somewhat discredited in theory consistent with general criticisms levelled against expected utility theory and more specifically with respect to rationality. People generally do not behave as rationally as the deterrence model would predict in that taxpayers do not fully understand their alternatives or the related consequences of their actions (Tanzi & Shome, 1993). Perhaps the most important criticism is that the deterrence model would predict much lower rates of compliance than presently achieved given low audit levels and the very small probability of getting caught evading taxes. For this reason, the deterrence model is deemed a very poor predictor of evasion activities (Jones,

2003; Mikesell & Birskyte, 2006; Korobow, Johnson & Axtell, 2007). Results of surveys and experiments suggest that most taxpayers would never consider tax evasion even though the probabilities of audit are tiny (Long & Swingen, 1991). Varma and Doob (1998) found that harsh penalties under the deterrence model are ineffective in controlling tax evasion if people do not believe they will get caught.

Braithwaite (2011) argues that regulators tend to rush toward law enforcement solutions to compliance enforcement problems before giving adequate consideration to the full range of possible approaches that support building more compliance capacity on the part of the noncompliant business. The concept of responsive regulation holds that beginning the enforcement process with less dominating, more respectful options tends to provide legitimacy for the more coercive processes of deterrence should they become necessary after less harsh measures fail.

In the continuing search for a robust theory of tax evasion, researchers have evaluated cultural, administrative and individual factors that act as potential determinants of evasion behaviour. Among these factors are the quality of services provided by the government, the existence of high tax rates, the complexity of tax laws, social norms, morality, tax amnesty policy, income levels, size of businesses, tax ethics and source of income (Madeo, Schepanski & Uecker, 1987; Reckers, Sanders & Roark, 1994; Alm, 1999; Cummings et al, 2004; Torgler & Murphy, 2004; Christian & Frank, 2006; Hyun, 2006). These determinants can be thought of as contributors to tax morale, defined by Torgler and Murphy (2004, p.4) as 'the intrinsic motivation one has to pay their tax'. All of these determinants have been empirically shown to have a statistically significant impact on tax evasion, but Alm (1991) noted that theoretical models are not capable of including very many of these factors in a single analysis, which limits their explanatory power.

Income tax enforcement efforts are greatly enhanced by the level of third-party reporting required. Based on data from the IRS 2007 Statistics of Income, 82.59 per cent of reported income items and 72.66 per cent of adjustments for adjusted gross income are subject to some type of third-party verification (Internal Revenue Service, 2007). Based on IRS tax gap data, the majority of the tax gap is related to income that is not subject to such third-party verification, as presented in Table 1 (Internal Revenue Service, 2012).

Table 1: IRS Tax Gap and Information Reporting Status

Information Reporting Status	Misreporting Percentage
Little or no information reporting	56
Subject to some information reporting	11
Substantial information reporting	8
Substantial information reporting and withholding	1

The impact of third-party reporting with respect to such a large portion of gross income is likely a better explanation of why more people do not evade income taxes than any fault found with the deterrence model. Research indicates that third-party

verification plays an important role in compliance enforcement on several levels. The 1982 Taxpayer Compliance Measurement Program (TCMP) found a positive correlation between under-withholding of income tax and a subsequent underreporting of the tax liability (Chang & Schultz, 1990). Martinez-Vazquez, Harwood and Larkins (1992) observed that people with liquidity problems were less likely to pay commercial debts and theorised that liquidity problems may have the same effect on the behaviour of taxpayers. Utilising experimental methods they found that if the possibility of evading taxes in a safe manner existed, a near-majority of people would take that chance, and the proportion of individuals choosing to evade who were in an illiquid position was significantly larger. Blanthorne (2000) found that taxpayers who have the opportunity to underreport income actually underreported more, in both frequency of underreporting and in the amount underreported, and had lower tax reporting ethics than taxpayers who did not have the opportunity to underreport. Carnes and Englebrecht (1995) found that tax compliance increases as the visibility of income to the taxing authority increases. Antonides and Robben (1995) found that the probability of tax evasion was related to the opportunity available to the taxpayer to conceal income.

2.1 Evasion and theft in sales tax systems

There is a generally implied assumption that there is virtually no opportunity for evasion with respect to sales tax because it is collected, and thus ostensibly verified, by third-party business entities. This assumption dismisses an important point: in a retail sales tax system there is no mechanism to verify that all of the sales tax collected by these third parties is actually remitted to the government. Therefore, the larger issue is not sales tax evasion; it is sales tax theft by the parties who collect the tax as an agent of the state[2].

In a sales tax system, retail businesses become collection agents for the government and agency theory provides some important insights in evaluating sales tax compliance enforcement efforts. Two primary concerns addressed by agency theory are the problems of adverse selection and moral hazard (Droege & Spiller, 2009). Adverse selection occurs when a principal selects an inappropriate agent based on false or inaccurate information. Moral hazard refers to situations where the agent does not provide appropriate effort to achieve the goals of the principal. Agency theory assumes adverse selection can be controlled if the principal has access to all available information, and further assumes that the required information can be obtained for a price. The principal must balance the cost of acquiring that information with the potential gain derived from selecting an appropriate agent. The principal can control moral hazard through either behavioural contracts designed to control the activities of the agent, or through outcome-based contracts, which are designed to align the goals of the principal and agent and allow the principal to monitor specific outcomes produced by the agent rather than the agent's activities (Droege & Spiller, 2009).

The state will encounter problems with both adverse selection and moral hazard in its dealings with sales tax collection agents since the state cannot filter agents (all

[2]This is not to imply that sales tax evasion does not exist: it exists in the form of a business refusing to collect the tax or through the application of inappropriate exemptions, usually as a form of achieving a competitive pricing advantage over competing retailers; losses through this type of evasion can be substantial depending on the structure of the sales tax system. Of course, both evasion and theft have the same result: lower tax revenues collected by the state.

businesses are generally required to register, collect and remit sales tax) and cannot provide appropriate incentives to align principal and agent goals and priorities or monitor each of the millions of agents collecting the tax. Agency theory makes an implicit assumption that the agent is dishonest, and this somewhat 'politically incorrect' assumption contributes to the theory's power to predict poor results for the principal when control over agent dishonesty is not perfected (Bohren, 1998). Government is left with auditing being the primary tool used to counter evasion and theft. Unfortunately, state governments are able to audit less than 1 per cent of accounts each year for compliance. The problem of inadequate audit rotation is compounded by the fact that audits are normally based on strategic lead development programs rather than random sampling (Murray, 1995; Alm, Blackwell & McKee, 2004). This means that a business that understands how to 'fly below the radar' with respect to strategic evidence of fraud, will likely never be caught through the standard audit regimen. In an environment where there are no third-party controls to help enforce remittance of sales taxes collected, government cannot reasonably assume that sales tax theft will not occur regularly.

Research related to evasion in value-added consumption taxes (VAT) provides some context to studies of the American retail sales tax. VAT obligations are assumed to be more easily enforced because the tax is collected at multiple stages during the production process. Taxes not collected at one stage can still be collected at a subsequent stage of production. More importantly, the VAT calculations at each stage of production leave a paper trail that makes it easier to find and prove evasion, and provides an incentive for proper reporting because of the built-in credit structure (Garner, 2005). However, studies have shown that even given the extensive paper trail that exists in a VAT system evasion and theft is still common and estimated to be very high (Reckon LLP, 2009; Center for Social and Economic Research & Central Planning Bureau, 2013). Yet, because of this trail, it may be easier for a tax authority to quantify evasion and theft though not necessarily easier to recover stolen taxes due to the cross-border techniques utilised in VAT fraud. This verification and incentive structure does not exist with a retail sales tax making it both more difficult to identify theft and more difficult to estimate tax gaps.

Sales tax theft is primarily a small business problem (Christian, 2013). In this respect, sales tax theft and evasion is similar to the income tax. As noted in the IRS tax gap discussion and data, it is underreporting by small businesses and individuals that accounts for 83.5 per cent of the tax gap (Internal Revenue Service, 2012). According to Morse, Karlinsky and Bankman (2009) there are at least two simple reasons why this is so. First, small business owners who cheat tend to do so because they can cheat successfully since there is no reporting of their income (in the case of the income tax) or tax collected from customers (in the case of the sales tax) to the government by third parties. It is a function of opportunity and those who evade income taxes also tend to evade or steal sales tax and employment taxes collected. Second, small businesses tend to collect more of their revenues in cash, which is easier to hide from authorities during an audit. However, we must be careful how we define a 'small business'. A focus on the existence of internal controls is a more valid indicator of sales tax theft potential (and likely of income tax evasion potential as well, though that is not the focus of this study). Public companies and the majority of larger private enterprises have internal controls in place that make it more difficult to retain sales tax monies collected from customers and, at a minimum, would require a high degree of collusion among multiple positions within the business to accomplish the theft and

conceal it. Larger businesses tend to rely instead on exploitation of the 'grey areas' of the law to reduce liabilities, which may in some cases rise to the level of evasion, but outright theft is rare. In many smaller businesses, whether incorporated, operating as partnerships, or sole proprietorships, the owner or owners exercise more control over all aspects of operations, and internal controls are generally lacking. This enables the theft of state funds without collusion, which is important since employees in many cases, though certainly not all would have less incentive to participate in theft.

Does a lack of internal controls result in actual theft of taxes collected as an agent of the government? Employment taxes withheld from employee salaries represent a type of fiduciary relationship at the federal level that is similar to the state sales tax principal–agent relationship. During 2012 the IRS issued 1.6 million delinquency penalties related to employment taxes, 3.9 million penalties for failure to remit employment taxes, and 1.5 million penalties for violations of federal tax deposit rules with respect to employment taxes (Internal Revenue Service, 2012). State experience shows that theft is similarly an issue with respect to sales tax. Disagreements exist over the amount of sales tax stolen annually with estimates ranging from 1 per cent to 19 per cent (Office of Performance Evaluations, 1996; American Economics Group, Inc, 2002; State of Washington Department of Revenue, 2010; Institute for Wisconsin's Future, 2010; Due, 1974), but it is clear that the amounts are large enough to warrant greater understanding since theft at only a 5 per cent rate would represent $15 billion annually nationwide.

Morse, Karlinsky and Bankman (2009, 43) note that there is a lack of 'thick qualitative description of the actions and attitudes' of small businesses that fail to pay a sizable portion of their taxes. This is still the case and the research void applies equally to taxes collected in a fiduciary capacity as it does to income taxes. This study furthers their line of inquiry and provides one of the first complete descriptions of those small businesses and the reasons they fail to meet their tax obligations. Additionally, this study clearly shows that sales tax theft, as well as evasion related to other taxes, occurs not only with respect to cash-basis revenues, but extends to all revenues of the small business enterprise, a result made possible by miniscule audit rates.

3. METHODOLOGY

The discussion and conclusions in this paper were developed based on data gathered during a mixed methods field study carried out over a two-year period within the Florida Department of Revenue (DOR). The author worked onsite and was immersed in the compliance enforcement environment during the entire period. The author had full access to agency personnel at all levels and full access to documentary materials of all types. The typology developed in this paper is but one part of the overall study of sales tax enforcement undertaken during this period and the methodology presented herein applies only to the development of the typology of sales tax noncompliance.

All discussions herein related to the compliance enforcement environment, enforcement tools, and how those tools are used are based on participant observation, informal interviews and discussions with DOR field personnel, and through review of current and historical management data, reports, audit and investigative results, and other relevant documents covering a period of ten years.

The typology of sales tax noncompliance was developed primarily through content analysis of interviews of subjects in criminal investigations from Miami–Dade County from the years 2003 through 2012. The focus of this paper is on sales tax evasion and theft; therefore criminal cases are the appropriate context for this study. In Florida, audits that uncover evidence of evasion or theft are referred to Criminal Investigations and all audit activities immediately cease. Therefore, all tax evasion and theft will ultimately be dealt with through criminal investigation rather than audit. There were three types of criminal investigation files used in developing the typology:

1. complete case files for cases that were referred for prosecution;
2. case disposition forms and various investigative reports for cases closed without prosecution that were available only online in the Case Management System (CMS); and
3. files for current, ongoing investigations. Each type of file and its contribution to the typology will be discussed in the following sections.

3.1 Criminal investigations referred for prosecution

There were 375 cases in various industries that proceeded to prosecution. Complete files existed on site for these cases and were reviewed. These files contain subject and witness interviews, financial statements and analyses, copies of all federal and state returns filed, an historical record of liens filed and correspondence with the taxpayer, documentation of inventory purchases from third-parties, bank statements for the business and the owners, and other types of documentation required based on the specific circumstances of the case. The industry represented and general descriptive information about the cases is presented in Table 2.

Table 2: Summary of Criminal Cases Reviewed

Miami–Dade County 2003–2012

Industry	Tax Liability ($)	No of Cases	Average Unremitted Tax ($)	Median Unremitted Tax ($)
Auto dealers	13 051 885	70	186 455	78 512
Convenience stores	1 812 029	10	181 202	36 551
General retail	8 462 680	217	38 999	19 563
Security services	1 573 870	15	104 925	23 884
Third party (accountant, employee)	281 568	4	70 392	84 177
Bars & restaurants	3 814 492	59	64 652	28 765
Totals	28 996 525	375	77 324	26 864

3.2 Cases closed without prosecution

Case closings without prosecution occur where there is insufficient evidence to prove all of the elements of a crime, but often do result in the collection of substantial unremitted tax as a result of the investigation. If the failure to remit tax is due to, for example, a lack of understanding of the law, illness of the taxpayer, or mistakes by accounting personnel within the organisation, there is generally no evidence of intent to commit sales tax theft or evasion, which is required for criminal prosecution. Taxes and penalties would still be due, but the amounts not paid would be collected using civil rather than criminal procedures. In other cases it may be rather obvious to the investigator that a crime was committed, but there is no evidence available with which to prove the crime. These types of criminal cases would be closed without prosecution. About 80 per cent of all criminal investigations are closed without prosecution. While the full case files for these cases were archived and not available for review, the author was able to review case disposition forms, case summaries and other investigative reports in the online CMS which were sufficient to support the typology developed in this study. Case disposition forms generally describe why the case was closed without prosecution and give an indication of where the case would fit within the typology. Additionally, closed case files generally contain little information that is not available in the CMS since these cases are primarily closed due to a lack of evidence.

3.3 Files for current investigations

Desiring to paint a more complete picture of noncompliance through direct interaction with subjects in criminal cases, case files for an additional 59 business owners who were involved in current ongoing investigations were reviewed and the subjects in these cases or, in some instances, their representatives, were interviewed by the author. In some instances the subjects agreed to discuss their cases with the author while not consenting to a formal interview and, in other cases, the subject's attorney agreed to speak with the author. These 59 cases represent the only open cases where either the subjects or the subjects' attorneys would consent to speak with the author. Most of these subjects ultimately either paid the unremitted tax due outright or entered into agreements to pay the balances due in instalments. Based on a review of prior prosecution referrals and closed case summaries available in the online CMS the author was able to determine that the 59 open cases under review were representative of the normal criminal investigations caseload and consistent with prior cases under review. The total amount of unremitted tax from these taxpayers was $5 746 329, or an average of $97 395 per case with median unremitted tax of $54 921. The breakdown of these cases by outcome is presented in Table 3.

Table 3: Summary of Additional Open Cases Reviewed

Outcome	No of Cases	Tax Not Remitted ($)	Average per Case ($)	Median Per Outcome ($)
No crime; payment or payment plan	39	2 133 378	54 702	44 064
Theft by third party identified	5	544 637	108 927	69 381
Prosecution decision pending	15	3 068 314	204 554	68 857
Totals	59	5 746 329	97 395	54 921

The interviews and interactions with business owners currently under criminal investigation, the evaluation of prior criminal prosecution cases, and the review of case disposition forms in CMS allowed each instance of sales tax noncompliance to be categorised and classified based on reasons for noncompliance identified during the investigation. Interviews and interactions with subjects in a sales tax criminal investigation are designed to allow the subject to rationalise their actions. The interview questions are chosen to establish that the subject understood their responsibilities to collect and remit the tax to the government, and to provide them an opportunity to explain why they did not carry out those responsibilities. All interviews follow this predetermined approach to enable investigators to prove the elements of the crime. As noted by Cressey(1953) individuals caught embezzling funds, a similar crime to sales tax theft, will almost always feel the need to explain why they stole the money: in this case, sales tax collected and not remitted. Most do not realise that their rationalisations are tantamount to an admission of guilt. The structure of the interview process and its standardisation in approach provides a valuable tool for the classification and categorisation of the reasons subjects fail to remit collected taxes. The interview will generally begin with questions designed to establish that the subject was the person responsible for collecting and remitting the tax, fully understood their responsibilities, and actively decided not to remit the taxes collected. This line of inquiry would include a large number of questions that establish knowledge and control such as:

1. Who manages the business operations of ... ?
2. Who is responsible for accumulating the amounts of taxes collected?
3. Who prepares the sales tax returns?
4. Who signs the sales tax returns?
5. If you do not prepare the returns, do you review them before you sign them?
6. Who signs the cheque to pay the taxes?
7. Can you tell me how you determine what is taxable and what is not?
8. Are you current on your payments to vendors and for other expenses?

Ultimately, questions are asked that allow the subject to rationalise his or her failure to properly account for and remit the taxes collected, such as:

1. Can you explain why you have failed to file returns (on specific occasions)?

2. Can you explain why you failed to remit the sales taxes you have collected to the Department of Revenue?

3. Can you explain why you have not replaced cheques written to the Department that were dishonoured by your bank?

A complete example of prepared interview questions used by investigators generally and used in this study specifically is attached in Appendix 1. While not all interview questions are exactly the same and the content will vary based on investigator knowledge of specific taxpayer- or case-related circumstances, all interviews are designed to acquire evidence of the elements of the crime and are therefore similar in intent if not exact wording. The result of this categorisation and classification based on direct interviews, content analysis of interviews and, in some cases, follow up discussions with subjects is part of the typology of sales tax noncompliance.

The completion of the typology required a thorough review of the non-subject interview evidence in the case. Interviews of witnesses, link analysis to identify related parties, and reviews of other documentary evidence collected by investigators were important with some classifications. For example, the two subclasses within the 'Criminal' type could only be classified through thorough review of all of the evidence in the case. While rationalisation provides evidence for typology in those cases where the subject is contrite and cooperates, those classified in the 'Criminal' type will generally decline to be interviewed or will strongly deny all allegations and refuse to provide any justification for a crime they swear they did not commit. As a result, the typology begins with two overall types:

1. those who attempted to explain that they had no intention to commit a crime; and

2. those who understood all along they were committing a crime and were relatively confident the crime could not be proven.

Review of the non-subject interview evidence in each case was also important as a means of verifying rationales provided by the subject. For example, some subjects may lie during their interviews in an attempt to explain why their behaviour does not rise to the level of a crime. In those cases other evidence found in the case files will generally expose inaccuracies in subject interviews and allow an accurate classification. For example, if a subject claims tax was not remitted properly due to accounting errors, a review of interviews of witnesses who are familiar with the business that are also contained in the case files, such as interviews of employees, may show this explanation to be false and indicate a different classification.

4. THE TYPOLOGY OF SALES TAX NONCOMPLIANCE

Just as it is with income tax evasion, sales tax theft and evasion is not one-size-fits-all: people steal or evade for different reasons and in different ways. This study suggests

that some are noncompliant with no overt intent to evade while others carefully map strategies to steal large amounts of sales tax collections. The results of this study suggest a typology of sales tax noncompliance to help guide the appropriate choice of enforcement measures and provides a basis from which a realistic evaluation of current and proposed enforcement methodologies can be derived. A summary of this typology is presented in Table 4 and is followed by a discussion of how the characteristics of each type of noncompliant agent might inform enforcement choices. The typology suggests that current enforcement methodologies are inadequate for addressing theft and evasion by most types of evaders, and particularly those evaders most likely to steal and/or evade large amounts of sales tax over extended periods of time.

Table 4: Typology of Sales Tax Noncompliance

Type	Subtype	Description
Delinquent		The most understood type. They either fail to file a return or file a return and fail to pay the taxes reported on the return. This type of noncompliance is called a 'delinquency'. Delinquents are registered, have a filing history, and the amounts due are generally known.
Deficient	Inadequate training	These individuals exhibit a lack of understanding of at least some portion of their responsibilities for sales tax collection and remittance, and as a result, either fail to collect all of the taxes required, or fail to remit all of the taxes collected.
	Poor business skills	These individuals may run their business from a chequebook, ie 'if there is money in the account, I must be profitable'. They maintain no, or very poor, sales records, resulting in poor reporting compliance and under-remitted sales tax.
	Illness of the owner	Reporting and remitting of sales tax suffers because of the extended medical problems of the primary responsible party. Family members or friends may assist, but they are generally not well trained in the paperwork aspects of the business.
	Untrained bookkeeper	The deficient business owner hires an untrained bookkeeper who prepares returns from bank statements, failing to realise that many small businesses, especially bars, restaurants, convenience stores and many general retail stores, do not deposit all of their cash and often pay vendors with cash from the register.
Negligent	Absentee owners	Those who trust others to manage their business but do not institute adequate internal controls to prevent theft or evasion by those entrusted.
	Poor control over associates	Those who share their business name, licenses and other resources for a fee, but do not maintain control over associate tax reporting. Sometimes this occurs in an industry where proper licensing is necessary to conduct that business but the associates cannot qualify for the license.
Stressed	Survivor	These individuals evade in order to remain competitive in their industry. In many cases, 'Survivors' were found to have knowledge of widespread theft and evasion in their industry and had given up on remaining compliant, reflecting the 'if you can't beat them, join them' mentality.
	Borrower	These individuals do not intend to convert state funds permanently, but reduce remittance of sales tax to 'tide them over' until their financial condition improves.
Criminal	Hardcore	This group has learned, through experience or counselling, to 'fly below the radar' to conceal their sales tax theft. They conceal the theft by appearing to comply. They always file a sales tax return and pay the reduced tax reported. When caught, they will generally become compliant for a time, but will return to noncompliant behaviour at some point, likely through a new entity.
	Proficient	While similar in some respects to the 'Hardcore' group, this group has taken theft to a new level. 'Proficient' evaders make every effort to conceal their theft of state funds, and have become quite proficient at eliminating all indicators of fraud, thus avoiding identification through strategic lead development programs. This group is the most difficult to catch evading, and when caught, will adjust their methods rather than become compliant.

4.1 Current enforcement tools

Before looking more closely at the typology, it may be useful to review the tools currently used by state revenue agencies to enforce the sales tax laws. There are a number of general enforcement tools available. First, the agency's collections personnel are the initial line of defence against delinquent taxpayers. Collections staff instantly address any failure to file a return or failure to pay amounts reported as due on returns received without an accompanying payment. Second, the agency audits companies that are identified via a strategic lead development process that utilises data from a variety of sources to identify potential underreporting of sales tax. Many states use sophisticated data analytics to generate strategic leads, such as link analysis, anomaly detection and predictive models. In Florida, approximately 72 per cent of all audits result in a tax adjustment, so audits are a productive endeavour. If (during the collections process, the lead development process, or later during an audit) it is suspected that a company may be involved in fraudulent activities or evasion, then the third enforcement tool comes into play as companies may be referred for criminal investigation. Criminal investigations may also be launched based on third-party complaints from outside the agency. Finally, discovery operations are designed to identify companies that are not registered with the agency for the tax obligations that relate to their specific business operations and to collect use tax on major purchases. It should also be noted that certain types of data matching are done automatically each year. For example, even a state like Florida that has no individual income tax obtains data from the IRS for matching revenues reported for federal income tax purposes to revenues reported by unincorporated businesses for sales tax purposes. Such an analysis is useful to catch the 'low-hanging fruit' but accomplished thieves are rarely caught through such a straightforward analysis.

4.2 Status of enforcement tools based on the typology

Current enforcement methodologies are adequate for addressing the 'Delinquent' evader type and generally result in favourable outcomes. The majority of compliance enforcement efforts, and the majority of compliance enforcement personnel, are focused upon and dedicated to resolution of delinquencies. For example, in Florida more than 80 per cent of compliance enforcement personnel are tasked with collection of delinquencies or other non-verification activities. The handling of 'Delinquent' taxpayers is consistent with the concept of responsive regulation in that these taxpayers are generally given opportunities to become compliant before incurring large penalties. They are also offered training if it becomes apparent they have such a need. In this study it was noted that companies involved in sales tax theft were careful not to become delinquent.

Sales tax evasion by 'Deficient' evaders is generally discovered only when delinquencies occur or an audit is performed on the business. Agency educational initiatives properly applied can counteract evasion as a result of lack of knowledge of the sales tax rules but the major obstacle to the success of such initiatives is that they must generally be requested by the taxpayer, rely on voluntary attendance by the taxpayer, and are generally not required as a condition of obtaining a sales tax license. Due to the lack of sophistication of 'Deficient' evaders, the collections process (for delinquencies) and the strategic lead generation process are generally sufficient enforcement efforts for this group.

The 'Negligent' evader is normally discovered only when an audit or criminal investigation is undertaken and detailed analysis of the business source records is performed. Even if the 'Negligent' evader becomes delinquent, collections activity will generally not be sufficient to identify the additional tax due. When pressed to file a return or provide sales and tax collection information, the owner will provide information with respect to his or her 'official' sales only, not those of his or her associates, or sales accumulated from their inadequate accounting systems, and those sales will likely be consistent with prior filings, ending any further inquiry on the part of collectors.

'Stressed' evaders are motivated by finance-related pressures on their business. 'Survivor' subtypes do not generally set out to evade sales taxes: many do so to compete. A business stealing sales tax gains a 4–11 per cent profit advantage over their competitors. In many business models, particularly in industries with low profit margins, this advantage results in doubling profit or better. Many 'Survivor' business owners interviewed indicated that they engage in intelligence gathering and know when these anticompetitive situations are created and which competitors create them. A business owner faced with this situation must decide whether to compete by becoming noncompliant also or by taking alternative action, such as cooperating with the authorities to address the noncompliant behaviour of their competitors. Even when an unfair tax advantage is not specifically identified by the compliant competitor, the impact of unfair competition may nevertheless force the same choice.

The preferred tool for ensuring compliance among 'Survivors' is the fair application of the law to everyone and immediate attention to complaints of unfair competition through evasion. If it becomes impossible to fairly apply a specific statute, then it is imperative that the statute be changed so that it can be enforced, or repealed if changes are likely to be ineffective. A lack of fair enforcement causes distortions in the market and damages the tax morale of compliant businesses, making them more likely to be noncompliant generally. Equity theory, for example, posits that when the system of taxation is considered fair, compliance will be high, or at least higher than when the system is considered unfair (Thibalt, Fredland & Walker, 1974). An example of states changing laws to make them easier to enforce is the change many states made in the handling of fuel taxes. Compliance with fuel tax requirements for collection and remittance at retail was routinely a problem, so most states now require payment of the fuel tax 'at the rack' or at the point of wholesale distribution rather than at the point of retail sale. This change in the law eliminated the ability of retailers to gain competitive advantage through theft of fuel tax.

'Borrower' evaders do not begin with the intent to convert sales taxes collected to personal use permanently. They are usually confronted with severe cash flow problems that force them to make a decision between paying the rent or mortgage, paying vendors, paying employees, or sending in the full amount of sales taxes collected during the previous month. They understand that the state has no way of knowing how much sales tax was collected during the previous month, nor how much their sales were for that period of time. They fear an audit or other enforcement efforts, so the intent is not to steal but to 'adjust' the timing of their remittances. They 'borrow' the money from the state, mentally pledging to repay the taxes when financial conditions improve. In rare cases the borrower may actually repay the borrowed tax money by reporting and remitting more sales tax than was actually collected in a subsequent period. However, in most cases, if they are not caught they

will simply keep the money, assuming that if they are audited they can explain a single month deviation as an error and not intentional. In the worst cases, they learn from not getting caught and begin 'borrowing' some of the tax money every month, making the transformation from 'Stressed' to 'Criminal'.

True borrowers keep only a portion of the sales tax collected and do so only when financial pressures require. They continue to file a sales tax return every month reporting less sales tax collected than actual for those months where borrowing occurs, and faithfully remit the amount of tax they report. There are no delinquencies to raise alarms.

This type of 'borrowing' occurs now at the federal level with respect to the payroll trust fund taxes even though employers understand that their 'borrowing' may be uncovered once employees file their income tax returns and claim their withholding credits. There is no such 'check and balance' with respect to sales tax 'borrowing'.

'Criminal' evaders are classified as either 'Hardcore' or 'Proficient'. 'Hardcore' evaders learn through experience (or counselling by their advisors in many cases) that filing a return on time every month and reporting and paying a reasonable amount of tax collected virtually guarantees little scrutiny from the tax authorities. They understand that delinquent returns or payments receive immediate attention and should be avoided. These evaders are betting against being selected for audit as long as the amounts they report are relatively reasonable, ie they are playing the 'audit lottery'. Generally theft by 'Hardcore' evaders is only discovered if they are selected for audit or criminal investigation based on other strategic indicators of fraud or based on a criminal complaint initiated by a third party.

'Proficient' evaders are careful to cover every potential indication of fraud and have become very adept at sales tax theft. They understand how to use the laws to their advantage and generally limit their exposure to misdemeanours rather than felonies by manipulating the types of evidence available if they are caught. For example, in many cases they will raise prices and refuse to charge sales tax, a misdemeanour, rather than charging the sales tax and retaining it, a felony. The company receives the same amount of money from the customer but structures the transaction to manage the risk. They file sales tax returns and report relatively low amounts of sales tax collected. When audited or investigated, the records have been maintained in a manner that guarantees they cannot be used to prove fraud. While an assessment may be issued in an audit, the assessment will remain unpaid, buried in a chain of succeeding corporations owned by straw owners. The owner of a 'Proficient' evader remains behind the veil. The owner will not hold title to the property directly and actual ownership may lead offshore and be untraceable, or the property will be simply rented from a third party who knows nothing of the fraud. If the individual committing the fraud is not the owner of the property upon which the business sits, liens generally cannot be placed on the property. In many cases, the owner already owns multiple locations, making it fairly easy to change and move operations at will. One case was observed where the owners of such an enterprise owned more than 300 convenience stores and gas stations across Florida, Georgia, Alabama, Louisiana, Arkansas and Texas. Search warrants executed on 30 of these locations failed to gather solid evidence of felony sales tax theft, but enough circumstantial evidence was obtained to ultimately charge one of the owners with Racketeer Influenced and Corrupt Organizations Act (RICO) violations. When caught, 'Proficient' evaders do not become compliant; they adjust their methods and continue to steal sales tax.

'Proficient' evaders frequently close businesses that have been in operation for several years, even though they have never been audited or investigated, and open new business entities owned by relatives or straw owners, understanding that closed corporations pose more difficult enforcement scenarios for tax authorities and help to bury the audit trail (churning). Most 'Proficient' evaders operate businesses that deal with substantial amounts of cash, and use cash to pay bills rather than depositing cash into bank accounts, which would leave evidence of greater sales than have been reported.

Criminal investigations are most productive with respect to 'Criminal' type evaders as one might expect, but few resources are available for investigations. For example, Florida has only 30 investigators state-wide, and some state revenue departments do not have a criminal investigations component at all.

4.3 Better targeting of enforcement based on the typology

Proactive methodologies are required to address 'Negligent', 'Stressed', and 'Criminal' noncompliant types. Given that most theft occurs in several specific industries, an effective proactive methodology is to direct strategic lead development activities into specialised, targeted industry enforcement programs specifically designed to identify advanced evader types. The interpretation of fraud indicators can vary quite widely by industry and an analyst who does not have fairly in-depth knowledge of specific industries may not be capable of interpreting fraud indicators consistently from industry to industry. This study advocates a more specifically focused approach labelled as 'Targeted Industry Lead Development' (TILD). TILD refers to lead development activities designed to consider all applicable fraud indicators for a particular industry that has been targeted because of its high-risk nature with respect to theft.

TILD focused upon specific industries provides a number of benefits. First, enforcement personnel assigned to specific industries can develop expertise within that industry. Such expertise increases the probabilities of being able to identify outliers and anomalies within the data that might indicate fraud or evasion. Second, lead development data will be more directly comparable within industries than across industry lines, making recognition of patterns that indicate fraud and evasion easier. Third, industry focus helps the agency develop sophisticated indicators of fraud within each industry, addressing the issue that fraud takes many forms and, in many cases, those forms are suggested or dictated by peculiarities of the industry. Fourth, the major portion of sales tax evasion and fraud occurs within specific industries. Some industries have relatively low rates of fraud. As a result, the allocation of resources to an industry rather commonly known to have little fraud is a waste of resources.

It is further recommended that a substantial portion of audit activities be redirected from strategically developed audit leads to a completely random audit process designed to identify those noncompliant types who have been successful in eliminating outward signs of fraudulent activities, primarily the 'Criminal' type. Stealing sales tax has become part of the business model for this type and represents a significant source of profit. Often these businesses are part of a controlled group or criminal enterprise, and the identification of one business can lead to the identification of many others if the procedures for identifying related companies are used appropriately (link analysis). Since 'Criminal' types are the most accomplished thieves, they are much less likely to be discovered through existing strategic lead

development activities currently in place. Few of the criminal cases reviewed had been initiated through strategic lead development efforts: most were the product of external complaints or were developed by the investigators themselves. As a result, a random element to enforcement is needed. A random element has an alternative benefit as well: it will allow generalisation of audit findings to the population for purposes of generating a tax gap profile for the sales tax, and to do so by industry if the random element is stratified. To accomplish this purpose, however, stratified sampling must be used to a fairly low level. For example, all retail stores as one stratum is not refined enough. Industries where theft is known to be rampant must have their own stratum with generalisation of results done industry-by-industry.

Converting some audits to a random selection process may appear to be taking a step backward in enforcement since current audit activities yield adjustments in 72 per cent of all audits (in Florida).[3] Strategic lead development processes as they exist in the states are quite sophisticated and do result in generally high adjustment rates. However, it is critical to understand that the most prolific sales tax evaders and thieves do not leave clear trails for strategic lead development processes. As a result, the worst offenders often escape detection. A stratified random audit process focused on industries known to have high rates of noncompliance would likely result in much higher yields and very little reduction in the rate of audits resulting in an adjustment. For example, the average audit assessment is $6900 (General Tax Administration, 2008) whereas the average criminal investigation, which is more heavily focused on 'Hardcore' and 'Proficient' evaders, yields an average assessment of more than $77 000 with a median of almost $27 000 (see Table 2). It should be noted that audit assessments in these cases would be higher since the evidence required to support restitution in court is much more stringent than required for an audit assessment. Additionally, the author does not advocate converting all audit activity to a random process: just the portion needed to ensure good coverage of problematic industries.

4.4 Enforcement tool sequencing

Collection activities and most discovery operations should continue to operate as they do now. These activities function well as standalone operations. The audit, criminal investigations, and strategic lead development processes should be reorganised with a greater level of collaboration to better address the needs suggested by the typology set out herein.

The enforcement process should begin with the selection of the stratified random pool of taxpayers for audit. Selection for audit in the random pool will remove a taxpayer from consideration by the TILD process. Failure to select a taxpayer for random audit

[3] The performance measure 'per cent of audits resulting in an assessment' is not considered to be a rigorous indicator of performance since it does not consider the cost of producing assessments. Florida ceased using this performance measure in the fiscal year beginning July 2015 and has moved to measuring performance with an 'enforcement cost per dollar assessed' indicator. While the cited assessment rate of 72 per cent would appear to argue against conversion of any audits to a stratified random audit process, it should be noted that 14 per cent of audits produce assessments of less than $1000. Further, 70 per cent of all sales tax assessments during the study period were generated from out-of-state audits, which would not be affected by the substitution of stratified random audits for audits generated through the strategic lead development process. Additionally, the Florida assessment rate is not necessarily representative. Georgia, for example, realises assessments on 52 per cent of the audits they conduct.

does not mean a taxpayer will not be audited: additional strategically-selected audit leads will be generated from within the TILD process. For example, audit resources could be tasked 30 per cent to performing audits related to strategic leads generated through the TILD program, and 70 per cent to purely random audits. In the case of Florida, approximately 400 000 business locations operate in industries where sales tax evasion and theft are high. Initiating a stratified random audit regime and assuming seven strata with respect to those businesses would require a sample size of approximately 2636 businesses (95 per cent confidence level with a 5 per cent confidence interval). In 2008, the Florida Department of Revenue completed 3679 audits using 410 auditors (General Tax Administration, 2008). Therefore, stratified random audits would have represented about 72 per cent of the total audit workload. The appropriate mix of strategic versus random audit can be adjusted over time based on the results of each type of enforcement effort.[4]

The TILD process will drive the remainder of the compliance enforcement effort. Lead development will be refocused to those industries where most theft occurs and designed to seek out those noncompliant types that are most difficult to identify. TILD shares similarities to current discovery operations that utilise external data compared to internal data to identify potential noncompliance. For example, discovery operations are used to locate potentially unregistered businesses through comparing internal registrations to business and occupation licenses; to identify use tax due on imports of large purchases into the state through comparison to transportation company shipping records; to police the proper payment of sales tax on non-dealer auto sales based on comparing fair market values of vehicles sold to amounts reported on titles transferred; and to identify commercial property rental locations not remitting sales tax through comparison of internal registrations and property records. Existing discovery programs are often situated at the state level, as they are in Florida, and some are executed only periodically. TILD enforcement programs as envisioned in this study are planned and executed wholly at the local level (county or region) by local employees, and represent a continuous process rather than an isolated compliance exercise that may not be repeated for several years. The employees given responsibility for a particular industry will not approach their task as a linear process of research, target identification, and intervention, but as one of continuous research and target identification simultaneous with engagement. The approach is one of consistent compliance pressure on an industry utilising a minimum amount of resources prepared with the maximum amount of knowledge and information, and supported by the sophisticated technology that currently exists in the state-level strategic lead development program. As noted previously, not all industries will require dedicated TILD enforcement action, since many industries do not engage in taxable activities[5] and some have fewer opportunities for noncompliance due to the nature of the industry.[6] Industries where compliance is a greater problem are well known by revenue agencies, can be identified quite easily by reference to previous audit and criminal investigations activities, and are targeted specifically with TILD

[4] Each state will need to determine how much of their audit resources are to be devoted to stratified random audits. States that are unsure of the impact of the process can limit the percentage of audits devoted to a random process each year by cycling the audits over, for example, a three-year period, or by selecting only one or two strata each year. Since conditions can vary dramatically from state to state, the application of this process will vary as well.

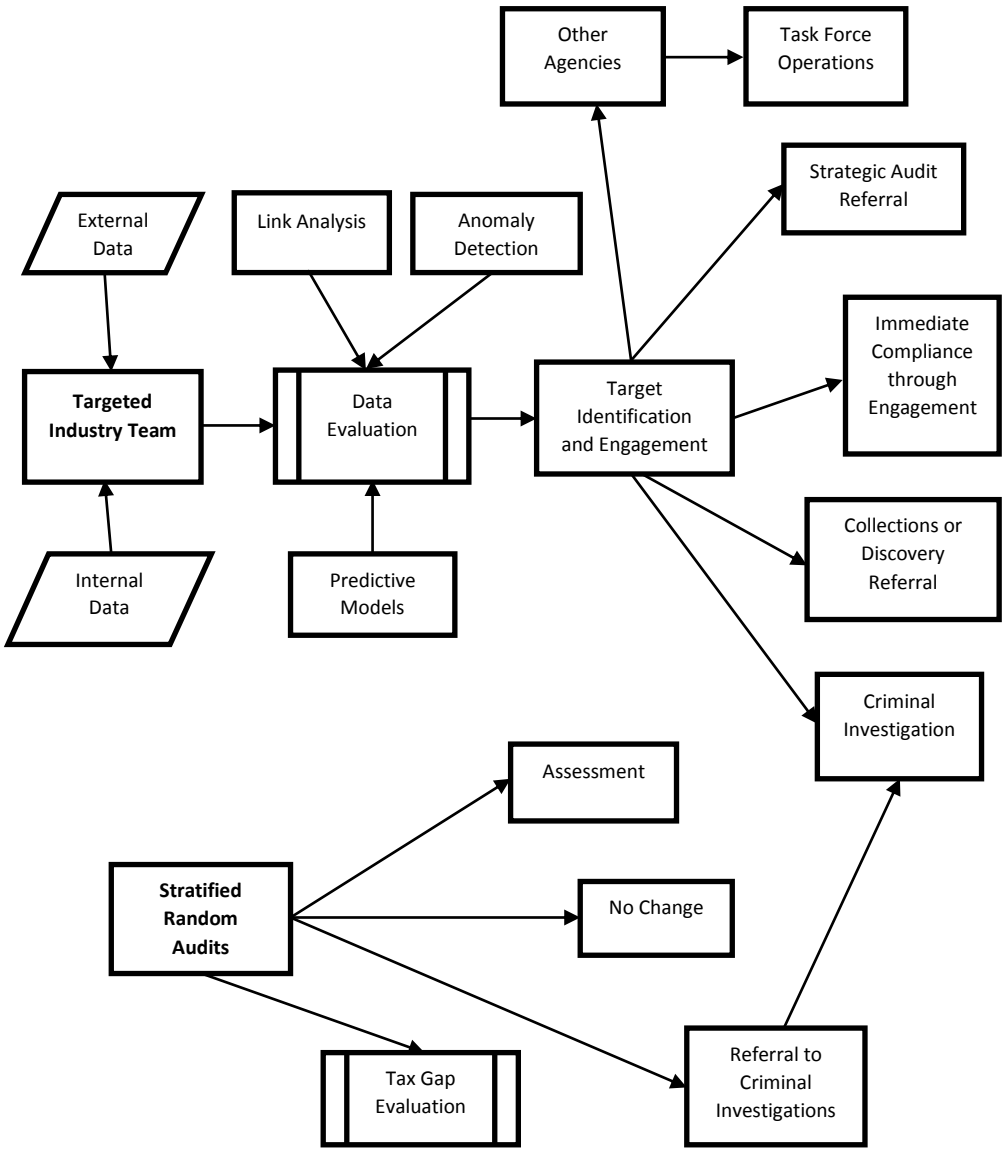
[5] For example, wholesalers, financial institutions, law firms, accountants, real property construction, etc.

[6] For example, certain contractors who are not allowed a resale certificate but rather pay the tax when they purchase taxable materials.

and stratified random audits. The least compliant industries will receive the most generous allotments of personnel resources devoted to TILD. A separate TILD team will focus on reviewing the remaining pool of businesses, those not in high risk industries, using common fraud indicators across industry lines, so businesses will not escape all types of review just because they are located in a low-risk industry. Existing staff levels should be adequate for implementation of TILD and the stratified random audit processes.

Where possible, TILD analysts, or an employee on the industry team specifically trained for the assignment, should be tasked with the first contact with noncompliant taxpayers identified through the process because this will increase the quality of the leads developed. Through first contact, false positives can be eliminated, some cases may be resolved on the spot requiring less resources, and leads to be passed on to other processes can be further developed. More importantly, engagement with the taxpayer allows the implementation of more responsive regulation by giving the first responder the ability to educate and work with the noncompliant taxpayer to rehabilitate them and return them to a compliant state without incapacitating penalties and criminal punishment. The exceptions to the process of engagement are those cases where the intent to defraud is virtually certain, that involve large potential tax liabilities, and where preliminary engagement could endanger successful prosecution of a potential fraud case. TILD analysts will be trained to recognise and respect the profile of cases where preliminary engagement should not take place. The key is activity informed by intelligence that is accurate and actionable. Figure 1 presents a simplified illustration of how the TILD and random audit processes would work and interact.

Figure 1: TILD Program and Random Audit Process



5. CONCLUSION

It is well known, though not well publicised, that the majority of sales tax theft occurs in a relatively few industries by companies that share a fairly similar profile. It stands to reason that the perennially stretched compliance enforcement resources available to states should be vigorously targeted to those industries. The typology of sales tax noncompliance presented herein is a first step toward creating a framework for more efficient enforcement based on a more thorough understanding of who steals sales tax and why. It allows the taxing authority to attempt to rehabilitate taxpayers where the profile indicates that noncompliance is due to lack of education or incapacity for reasons that are beyond the taxpayer's control to some extent. Rather than an immediate application of punishing deterrence, the tax authority can consider the more measured approaches of responsive regulation.

A limitation of this study is that it was carried out within a single state.[7] While there is no reason to believe the results would differ, this type of study should be replicated elsewhere. State revenue departments represent a 'black box' to researchers because of confidentiality laws, but efforts should be made to foster more collaboration between researchers and the state with greater access to data made available to researchers. There is no need for confidentiality to be breached in carrying out this type of study. Additionally, this type of study could be carried out with respect to other taxes internationally, especially in those cases where the tax in question involves third parties acting in a fiduciary capacity with respect to the collection and remittance of taxes. There appears to be a fairly common profile of noncompliant taxpayers across various tax systems.

Finally, as Varma and Doob (1998) note, deterrence has an impact if people can be convinced they will be caught. The use of TILD represents a method for applying constant pressure to an industry which magnifies the feeling that the enforcement capabilities of the state are greater than they actually are.

[7] While this study was focused in Miami–Dade County, results were confirmed to be common state-wide.

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APPENDIX 1 – SAMPLE INTERVIEW QUESTIONS

RECORDED INTERVIEW FORMAT
(SUSPECT)

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1. SECTION I

This is Department of Revenue Case #____. The date is _____.
The time is _____(AM/PM).

The following is a tape-recorded interview of _____, who is a Suspect, involved in the investigation of a business which is or was operating under the name of _____ d/b/a _____. This interview is being conducted at _____ by _____. Also present during this interview is _____.

Please state your name and **spell** it for me.

Please state your **address**

Please state your telephone number.

Are you employed? (Yes/No)

Please state your employer's business name and address.
Are you aware that this interview is being recorded?

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2. SECTION II

I am a Notary Public of the State of Florida and am authorized to administer oaths or affirmations. I would like to place you under oath. Please raise your right hand. Do you solemnly swear the statement you are about to make is the truth, the whole truth and nothing but the truth?

3.

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4. SECTION III

Use this section if person being interviewed is a **Suspect before Questions and Responses.**

Before I ask you any questions, or you make any statements, I must advise you of certain rights.

I am a **(insert title here)** for the Florida Department of Revenue and as such, I am investigating tax matters that involve you and/or your business and the possibility of criminal violations of Florida tax laws and other related offenses.

I would like to ask you some questions. Before I do, however, I am obligated to advise you of the following:

- Under the Constitution of the United States and the State of Florida, you cannot be compelled to answer any of my questions or submit any information that you believe might incriminate you in any way.
- Anything you say and documents you submit may be used against you in a criminal proceeding.
- If you so desire, you may obtain the assistance of an attorney before responding to any of my questions.
- You do not have to answer my questions and you are free to leave or discontinue this interview at any time you wish.

Do you understand your rights as I have read them to you?

Do you wish to contact your attorney at this time?

Do you waive your right to have an attorney present at this time?

Have you been threatened or coerced in any way to make a statement or to consent to this interview?

Have any promises been made to you?

Do you wish to voluntarily answer my questions and/or submit the requested information at this time?

5.

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6. SECTION IV

7. (**QUESTIONS & RESPONSES**)

1. Who manages the business operations of _____, which is doing business as _____?

2. Who prepares the cash register summaries of sales and taxes collected at the end of each day?
3. Who is responsible for accumulating the amount of taxes collected during the month?
4. Who is responsible for completing the sales tax return each month?
5. Who signs the sales tax returns before they are filed?
6. Who remits the sales tax payments to the Florida Department of Revenue?
7. What is your relationship to _____, Inc.?
8. How are you related to the owners of _____, Inc.?
9. Who is authorized to sign checks on the bank accounts of _____, Inc.?
10. (If he indicates he is not an authorized signer, show him a copy of one of the _____ checks issued to DOR with his signature). If you are not authorized to sign checks on the bank account of _____, why are you remitting taxes for _____ using a _____ check signed by you?
11. Why does the bank honor checks on the _____ account that you sign?
12. Are you current on your payments of other expenses of _____, such as rent, electric, telephone, payments to food wholesalers and so forth?
13. If not, what type of arrangements have you made for these payments?
14. (If necessary) How do you stay in business without paying these vendors?
15. How do you pay these vendors? (For example, cash, money order, _____ check).
16. Can you explain why you have failed to file so many sales tax returns for _____ and continue to fail to file?
17. Can you explain why you have failed to remit the sales taxes you have collected to the Department of Revenue?
18. Can you explain to me why you have not replaced or otherwise paid checks written to the Department of Revenue that were dishonored by the bank?
19. How long has _____ been in business?
20. When did _____ leave the _____ Mall location?
21. Where did _____ move to when it left _____ Mall? (Trace to current opening in _____ Mall. Evidence indicates progression is _____ Mall, _____ Mall, _____ Mall, _____ Mall).

22. How many _____ locations are currently open and operating?
23. Where are they located?
24. Were proceeds from _____ sales deposited into the _____ account?
25. Were funds generated by any other businesses deposited into the _____ account?
26. _____ had more than $500,000 deposited into its bank account after leaving _____ Mall. If _____ was no longer in business, what was the source of these funds?
27. Even while _____ was doing business at the _____ location, bank deposits were much higher than the gross sales reported by _____. From January 2009 through October 2009, _____ reported less than $100,000 in sales but more than $400,000 was deposited into the bank account. What was the source of the additional $300,000 during the year 2009?
28. How many bank accounts does _____ currently have open?
29. Who are the authorized signers on these accounts?
30. What is your relationship with signers other than yourself?
31. (If the existence of the _____ Mall and _____ Mall locations has not been disclosed): I am aware that _____ has locations open and operating in _____ and _____. I am also aware that substantial sales have been made at these locations since October 2009. Have you been collecting sales taxes at these locations as required by law?
32. Why have these locations failed to file sales tax returns and remit the taxes collected to the State?
33. Why was the decision made not to file the tax returns and pay the tax?
34. Who made this decision?
35. Overall, are there any other factors or problems you want to tell me about that might explain your failure to file returns and properly pay the tax due at all of these locations?

8.

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9. SECTION V

In Closing:

1. Mr._____, let me ask you again: Have you been threatened or coerced in any way to make a statement or to consent to this interview?
2. Have any promises been made to you?

3. Please state your full name as though you were signing a legal document.
4. Present and assisting during this interview is/are _____(name person(s). *Have the person(s) state their name, title, and agency*.
5. The date is _____. The time is _____.

10. END OF STATEMENT

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The net benefit of increasing alcohol taxation in Thailand

Bird Chonviharnpan[1] and Phil Lewis[2]

Abstract

The purpose of this paper is to calculate the effects of increasing alcohol taxation in Thailand. Standard economic analysis is applied to data from a range of sources. Results suggest that alcohol taxes in Thailand have only a small impact on consumption. Thus an alcohol tax increase results in only a modest rise in deadweight loss and a small reduction in social costs. Increasing the tax rate on alcohol generates higher expenditure and government tax revenue. Overall taxes on alcoholic beverages result in net benefits to the Thai economy.

Keywords: alcohol taxation, social costs, net benefits

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1. INTRODUCTION

Drinking alcohol in moderation may give protection to health (World Health Organisation, 2004), while excessive consumption levels lead to problems of intoxication (drunkenness), alcohol dependence and other biochemical effects. In Thailand, alcohol consumption is a cause of acute and chronic problems. Alcohol consumption has been attributed to the death of 20 842 people or 8.6 per cent of overall deaths in 2012 (Centre for Alcohol Studies, 2013). If the number of deaths is converted to the number of year life loss (YLL), it is over 400 000 years or 11 per cent of total YLL. Alcohol consumption also causes chronic conditions among drinkers, who accumulate disabling conditions – over 500 000 years or 24 per cent of years of life disability (YLD) in 2012 (Centre for Alcohol Studies, 2013).

In economic theory, consumers are assumed to weigh the personal benefits and costs when purchasing goods and services. They buy goods and services when the benefits outweigh the costs of consumption. Alcoholic beverages are like any other commodities. Drinkers gain satisfaction and enjoyment when consuming alcoholic beverages. The amount of alcohol consumed continues rising as long as the satisfaction and enjoyment from an extra unit exceeds the price paid, including possible adverse occurrences (eg, death and disability) taking place. Whether responsible or problem drinkers consume alcoholic beverages, all are regarded as gaining benefits from alcohol consumption (Jha and Chaloupka, 1999).

It can be said that most drinkers, especially heavy drinkers, do not appropriately take into account the social costs incurred in alcohol consumption. The consequences of harmful use of alcohol are partly borne by other people in any given society. Those supporting greater taxing of alcoholic beverages wish to reduce the adverse effects of excessive alcohol consumption, which, in turn, leads to a reduction in private and social costs (Pogue and Sgontz, 1989). The opposing view points out that, although a higher tax rate can decrease alcohol consumption by heavy drinkers, responsible drinkers are also indiscriminately impacted on, which results in a reduction in satisfaction gained by drinkers as a whole.

Alcohol taxes should have a role in addressing spillover costs on societies associated with alcohol abuse (Australian Government Treasury, 2015). It is argued that an individual with abusive consumption should have a cost (tax) be imposed on a per-drink basis, at the rate equal to the cost of harmful drinking imposed by the individual consumer. This could reduce the amount consumed by heavy drinkers who give rise to the costs.

In fact, excise tax on alcoholic beverages cannot work in the situation described above because it is levied equally on all alcohol consumers. To deal with alcohol abuse, tax increases cause consumers to face higher prices, while it would not target those who are most likely to cause social harm. Non-abusive drinkers are affected by reducing their well-being.

Although there is a large volume of literature for many highly developed countries, the effects of alcohol and the impact of tax policy on alcohol consumption on a newly industrialised country, such as Thailand, is relatively little researched. This paper attempts to redress this somewhat and aims to investigate the effects of alcohol excise taxes in Thailand and whether they make Thai society better or worse off. Section two describes the literature on the estimation of economic cost of alcohol consumption.

Section three explains the methods used to calculate the levels of consumption, deadweight loss, total expenditure, total government revenue, total consumer surplus and total net benefits. Section four describes the data used in estimating the amount consumed by heavy drinkers. Section five presents the results derived from simulating tax rate rises of, respectively, 5 and 10 per cent under assumed price elasticity estimates. Section six draws conclusions from the analysis.

2. ESTIMATING ECONOMIC COST OF ALCOHOL CONSUMPTION

The traditional economic approach assumes that people are rational agents who maximise their own individual welfare (Lightwood et al, 1999). If drinkers know all the information regarding health risks from alcohol consumption and they pay the full cost of health care, they will not over-consume amounts of alcohol because they will include these private costs in their decision on how much to consume. However, in most cases, they do not bear the cost to society of health risks. For alcoholic beverages, costs are regarded both as negative externalities and private costs because of mistaken decisions arising from imperfect information. This means both society and individuals bears the cost of alcohol consumption.

Manning et al. (1989) distinguished internal and external costs and stated the goal of an economically efficient tax on drinking should make drinkers bear the costs that they impose on others when deciding how much to drink, ie. internalising the externality. However, there is disagreement on whether individuals pay taxes equal to the full costs needed to compensate those who actually bear the final cost.

Measuring externalities is complicated. For example, a drunk driver is unlikely to bear the full costs to societies for his action (Gruber, 2011). Given the issue of the measuring costs (external or internal) of drivers, the Cost of Illness (COI) has been developed to estimate total external and private costs, including the costs of lost earnings and suffering experienced by abusers. Taxes should rise to reflect total costs of consumption by abusers rather than just pure external costs, as it depends on how broadly or narrowly external costs (who does activities, where and under what circumstances) are defined. Accordingly, costs do not only consist of the damage caused by the alcohol consumers to societies, but also the damage they cause to themselves. In addition, the COI framework differs from the neoclassical economics approach because it only considers the expenses incurred by private and public agents without looking at the benefits of alcohol consumption.

This study considers the costs of alcohol consumption based on the COI approach and evaluating the effects of rising alcohol taxes on both costs and benefits to Thai society.

The study of the economic costs of substance abuse usually involves a survey, such as the COI study that shows the extent of the impact of substance abuse on the welfare of a society (Single et al, 2003). This is estimated by examining the costs of resources expended on treatment, prevention, research and law enforcement plus losses of production due to increased morbidity and mortality and plus some measure for the quality of life, years of life lost relative to a counterfactual scenario in which there is no alcohol abuse using the international guidelines for estimating the costs of substance abuse (Single et al, 2003). The COI also links to the concept of burden of disease which is defined as the gap between current health status and an ideal situation

in which everyone lives to old age free of disease and disability (World Health Organisation, 2004).

Excessive alcohol consumption generates adverse health effects and social consequences. These are associated with health care (liver cirrhosis, cancers and foetal alcohol spectrum disorder); society productivity (premature death and lost worker productivity); criminal justice (violent crime); increasing costs for society services (property damage from fire and motor vehicle crashes) (Jarl et al, 2008) decreasing quality of life for both drinkers and families measured by Disability Adjusted Life Years (DALYs). They measure the overall burden of disease for a given population by summing years of life lost due to premature mortality as well as years of life lost due to time lived in less than full health (World Health Organisation, 2004).

The Alcohol Attributable Fractions (AAFs) are commonly expressed as a number of diseases attributable to alcohol consumption (World Health Organisation, 2004). Each AAF measures the average proportion of the occurrence of a disease attributable to drinking. Liver cirrhosis is a high risk with alcohol consumption and depends upon the volume of drinking. It is important to note that there are many diseases that are attributable to alcohol, but few of them are fully attributable to alcohol (World Health Organisation, 2004). The diseases fully attributable to alcohol include alcoholic psychoses, alcohol-dependence syndrome and alcohol abuse etc.

The AAFs can be derived by direct and indirect ways. The direct estimates are related to most acute problems, for example road accidents for which drivers are tested for the degree of blood alcohol concentration (World Health Organisation, 2004). On the other hand, indirect estimates are related to most chronic diseases which have been analysed using meta-analyses combining country-specific diseases. The AAFs are estimated by the demographic structure, general health, drinking habits and history of the population and the characteristics of drinkers. Finally, these estimates are used to calculate healthcare costs etc.

The general issues in estimating costs of alcohol consumption are as follows. First, most studies require the choice of discount rates because they mostly report the estimated costs of substance abuse over a particular period of time. Discount rates used in calculating indirect costs are different in a number of studies (Jarl et al, 2008;Konnopka and Konig, 2007;Nakamura et al, 1993) and the actual cost estimates can be sensitive to the chosen discount rate. Most literature adopts a range of discount rates of between 2 and 10 per cent. Second, there is an issue of whether to include future expected costs. For example, decreased life expectancy of drinker relates persons who die early will reduce healthcare costs, but a government will receive less tax revenue.

Third, there is an issue of computing gross versus net costs. The gross costs are defined as all costs of treating attributable diseases (Lightwood et al, 1999). The net costs are a comparison of the life costs of drinkers versus those of non-drinkers. They take account of the fact that drinkers tend to die younger than non-drinkers and then avoid some health care costs and forego some pension benefits in old age.

Fourth, there are different viewpoints of how costs are reported. Gross costs are reported in terms of aggregate costs (assuming fixed population and drinking prevalence), for instance as a fraction of the Gross Domestic Product (GDP). Another

way of reporting costs is as the cost per unit of alcohol consumed (Manning et al, 1989).

Literature on estimating costs of alcohol consumption has applied AAFs under two main methodologies. A widely used methodological approach employed in estimating cost of alcohol consumption is the prevalence-based approach. In deriving the cost of health care, this approach estimates the number of cases of death and hospitalisations attributable to alcohol consumption in a given year, the costs that flow from death and hospitalisations and costs of prevention, research and law enforcement (Single et al, 2003). This method relates current costs to the extent of all current and past drinking. The prevalence-based approach is considered as cross-sectional approach.

An alternative method that is used in studies is called the incidence-based approach. The incidence-based approach estimates the number of new cases of deaths and hospitalisations in a given year and applies a lifetime cost estimate to these new cases. This approach is also known as the life-cycle approach. The approach calculates costs for drinkers and non-drinkers over their entire expected lifetimes. The estimated lifetime costs of the existing population of drinkers and non-drinkers are compared with the hypothetical non-drinkers population. The estimates of current and future costs that flow over time are used to calculate the net present value.

There have been studies of economic costs of alcohol consumption, mainly from developed countries. They have calculated costs of alcohol consumption by applying the age and gender specific AAFs. Studies that have applied the AAFs with either prevalence- or incidence-based approaches under the COI framework are described below.

Konnopka and Konig (2007) used the prevalence-based approach with age- and gender-specific AAFs for morbidity and mortality to estimate the direct and indirect costs of attributable risks to alcohol consumption in Germany in 2002. The AAFs for morbidity and mortality were calculated from prevalence of alcohol consumption of survey participants aged 18–59 years and relative risk data obtained from international studies. Those aged more than 59 years were assumed to have the same prevalence as those aged 50–59 years. In their study, the AAFs for morbidity and mortality included a number of selected diseases. Alcohol consumption was estimated to account for 5.5 per cent of all deaths and 970 000 years of potential life loss. Total costs were estimated to be €24 398 million, amounting to 1.16 per cent of GDP. Direct medical and non-medical costs were €8441 million. Indirect costs were €15 957 million (69 and 31 per cent, respectively, for mortality and morbidity). In contrast, the authors reported that low level of alcohol consumption (no more than four standard drinks on any single day for men and women, but can cause problems if drinkers drink too quickly, have health problems or are old) contributed protective health effects, saving €4439 million a year.

Nakamura et al. (1993) estimated the economic burden of alcohol abuse in Japanese society in 1987. The overall cost of alcohol abuse was estimated at ¥6600 billion, representing 1.9 per cent of the GDP. The attributable costs of medical care were estimated at ¥1100 billion, representing 6.9 per cent of total national medical expenditure. The attributable mortality costs were estimated at ¥900 billion. Reduced productivity related to alcohol abuse was estimated at ¥4300 billion. The number of alcohol attributable deaths was 21 015 in men (5.1 per cent of total male deaths) and 8173 in women (2.4 per cent of total female deaths).

Jarl et al. (2008) estimated the societal cost (direct, indirect and intangible) of alcohol consumption in Sweden in 2002 and the effects on health and quality of life using the COI methods. The AAFs for some chronic diseases and accidents are wholly attributable to alcohol. Alternatively, the AAFs for some chronic diseases are derived by information on the prevalence of consumption and the relative risk of diseases, number of deaths and health care episodes attributable to alcohol consumption. The net cost was 20.3 billion Swedish kronor (SEK), accounting for 0.9 per cent of GDP and the gross cost (counting only detrimental effects) was 29.4 billion, 1.3 per cent of GDP. The main direct costs were health care costs (2189 million), social service costs (4364 million) and crime costs (2850 million). The majority of productivity costs include mortality (3069 million), long-term sickness absence (3167 million), early retirement (2423 million) and short-term sickness absence (1175 million). Additionally, a net loss of YLL plus YLD from alcohol consumption was estimated to be 121 800 years.

Fenoglio et al. (2003) made use of death or hospitalisation records for France in 1997 and employed pooled relative risk estimates from meta-analyses combined with prevalence data by age and gender. The proportion attributable to alcohol is then used to estimate the cost of alcohol consumption. Alcohol consumption gave rise to total cost of ₣115 billion (francs) (1.4 per cent of GDP) and represented more than half of the social cost of drugs. The greatest share of total cost was lost productivity (₣58 billion) followed by costs due to premature death (₣53 billion), morbidity (₣3.8 billion) and imprisonment (₣503 million) respectively.

Bouchery et al. (2011) measured the economic costs of excess drinking in the USA in 2006 using the US Public Health Service Guidelines. Alcohol-attributed deaths and years of potential life loss due to excessive alcohol consumption were estimated by recently updated data from Alcohol Related Disease Impact (ARDI) survey. The estimated economic cost of excessive drinking was US$223.5 billion (72.2 per cent from lost productivity, 11 per cent from health care costs, 9.4 per cent from criminal justice costs and 7.5 per cent from other effects). In addition, binge drinking resulted in US$170.7 billion (76.4 per cent of the total), underage drinking US$27 billion, and drinking during pregnancy US$5.2 billion. Also the cost to government was US$94.2 billion (42.1 per cent of the total).

Collins and Lapsley (2008) estimated the social costs of alcohol in Australia in 2004/05. Total costs were estimated to be A$15.3 billion: tangible costs accounted for A$10.8 billion and intangible cost for A$4.5 billion respectively. The individual categories of tangible costs consisted of labour costs (total of A$3538 million from the sum of reduction in workforce (A$3210.7 million), absenteeism (A$367.9 million), premature death (A$1423.9 million) and sickness (A$146.9 million), less consumption resources saved (A$1611.3 million)); healthcare costs (total of A$1976.7 million from medical (A$540.7 million), hospital (A$662.2 million), nursing homes (A$401.2 million), pharmaceuticals (A$297.6 million) and ambulances (A$74.8 million)); cost of road accidents (A$2202 million) and crime costs (total of A$1424 million from police (A$747.1 million), criminal courts (A$85.8 million), prisons (A$141.8 million), property (A$67.1 million), insurance administration (A$14.3 million) and productivity of prisoners (A$368 million) and resources in abusive consumption (A$1688.8 million)). For intangible costs of alcohol, pain and suffering (road accidents) and the value of loss of a year's living was estimated to be A$353.6 and A$4488.7 million respectively. The burden of alcohol was split among

households (A$2558.2 million), business (A$5576.3 million) and government (A$2923.2 million).

Luce and Schweitzer (1978) adopted a cross-sectional approach for the USA in 1976 with disease specific AAFs for neoplasms, circulatory system, respiratory system, fire losses, motor vehicle accident losses, costs of violent crime to estimate gross costs of alcohol abuse in the USA. The total estimated costs were US$44.2 billion, which corresponded to US$20.6 billion for lost earning, US$11.9 billion for direct healthcare costs, US$0.38 billion for fire losses, US$6.6 billion for motor vehicle accident losses, US$2.1 billion for cost of violent crime and US$2.7 billion for cost of certain social responses.

Single et al. (1998) used death and hospitalisation records due to substance abuse in Canada in 1992. The total cost of misuse of alcohol in Canada was estimated to be approximately C$7.52 billion, consisting of C$4.14 billion for lost productivity, C$1.36 billion for law enforcement and C$1.3 billion in direct health care costs respectively.

Further, two of the papers above consider who bears the burden of cost of alcohol consumption (Bouchery et al, 2011;Fenoglio et al, 2003). In 2011, Bouchery et al. noted that governments, heavy drinkers and families bear the costs of drinking in equal proportions. By contrast, Fenoglio et al. (2003) reported that households and private companies share greater proportions, 45 and 40 per cent of the total cost of drinking respectively, while around 15 per cent of the cost is borne by the government.

Alcoholic beverages are popular among many in the Thai population. The trend of adult per capita alcohol consumption rose from less than one litre of pure alcohol in 1961 to six litres of pure alcohol by 1980 and the amount consumed per capita remained above six litres over the period of 1980–2009. Although the alcohol consumption per capita is not as high as the amount consumed in high income countries, Thailand has been considered as a country with high adult per capita alcohol consumption relative to other nations in South East Asia; and this consumption has resulted in increased alcohol-related problem in the Thai society. According to the World Health Organisation (2011) database, in the Philippines alcohol consumption was 4.77 litres per capita in 2000 and fell to 4.6 litres per capita in 2009. In Singapore, 2.08 litres per capita alcohol consumption was reported in 2001, and 1.99 litres were consumed per capita in 2010. In Vietnam, there has been a rising trend of alcohol consumption, from 0.7 litres per capita to 1.88 litres per capita during 2000–2009.

Thavorncharoensap et al. (2010) relied on the COI framework and data on the number of in-patient admissions, out-patient visits and unit costs as well as applying AAFs (disease attributable to binge consumption for calculating health care cost) to estimate the economic costs of alcohol consumption in Thailand in 2006.

Total costs of alcohol consumption were estimated to be approximately 156 billion baht (THB) or about 2 per cent of the total GDP, of which THB104, 45 and 5 billion were the highest three costs generated, the costs of productivity loss due to premature mortality, the costs of reduced on the job productivity and the health care costs respectively. Other costs include THB0.8 billion for property damage due to traffic accidents, THB0.2 billion for court costs and THB0.1 billion for police costs.

Total external costs of alcohol consumption were estimated to be THB156 billion in Thailand in 2006 (Thavorncharoensap et al, 2010). This amount adjusted for inflation is THB167 billion in 2009. Cost of premature mortality is the largest component, amounting to THB111 billion. Cost of reduced productivity and health care costs are the second and third largest items, amounting to THB48.6 and 5.87 billion. Cost of property damage due to traffic accidents, court costs and police costs are equal to THB0.83, 0.17 and 0.09 billion respectively.

The above studies suggest that alcohol consumption imposes significant costs on individuals and society. There is therefore the potential for taxes on alcohol to reduce these costs by reducing consumption. However, the prevalence of alcohol consumption suggests that increased taxes also would reduce benefits to consumers. The following analysis seeks to estimate the net effects of increasing taxes on alcohol in Thailand.

3. METHOD

The method employed to measure the effect of changes in alcohol taxes is to calculate the impacts on consumption, consumer surplus, costs and taxation revenue.

Consumption after an increase in tax is calculated by:

$$Q_2 = Q_1 + \Delta Q$$

Change in consumption or $\Delta Q = \in (P_2 - P_1)/P_1$

Where $\in = \Delta Q/Q \div \Delta P/P$ is price elasticity of demand, $Q_2$is quantity consumed after a tax rise, $Q_1$is quantity consumed before the tax rise, P_2 is price after tax and P_1 is price before tax.

Consumer surplus (CS) is defined as the difference between the amount that consumers are willing to pay and the amount they actually pay:

$$\Delta CS = \frac{1}{2}(Q_2 + Q_1)(P_2 - P_1)$$

Deadweight loss is defined as the net loss of consumer and producer surplus associated with any increase in tax rates. In measuring excess burden, the Harberger Triangle has been adopted as for calculating the cost of alcohol excises (Harberger, 1974). Since all the tax is assumed to be passed on in higher prices there is no change in producer surplus.

$$DWL = \frac{1}{2}T\Delta Q$$

Where $T = P_2 - P_1$is tax imposed and ΔQ is the change in quantity consumed of alcoholic beverages.

Total expenditure, TE, is

$$TE = P_2 \times Q_2$$

Where TE is total expenditure, P_2 is price paid after a tax rise and Q_2 is quantity consumed after the tax rise.

Increase in tax revenue is:

$$\Delta T = t_2 Q_2 - t_1 Q_1$$

Where ΔT is increase in tax revenue, t_2 is new tax rate, t_1 is old tax rate, Q_2 is quantity consumed after tax and Q_1 is quantity consumed before tax.

Total net benefit after an increase in tax refers to changes in expenditure plus a reduction in costs (both private and external) minus deadweight loss.

$$TB = TE + \Delta External\ costs + \Delta T(\Delta CS + \Delta PS)$$

Since $\Delta CS + \Delta PS = \Delta T + Deadweight\ loss$

$$TB = TE + \Delta External\ costs - Deadweight\ loss$$

4. DATA

To estimate total benefits of increasing alcohol taxation we simply need total expenditure (after tax), the change in external costs and deadweight loss. We first need to know prices of alcohol both before and after tax. The 2009 Socio-Economic Survey of Thailand provides household expenditure on alcohol (National Statistics Office, 2009). Quantity consumed of alcohol is available from the databases of the WHO (World Health Organisation, 2011). Prices of alcoholic beverages can be calculated from the existing expenditure and quantity consumed (National Statistics Office, 2009;Tax Planning Division, 2012;World Health Organisation, 2011).

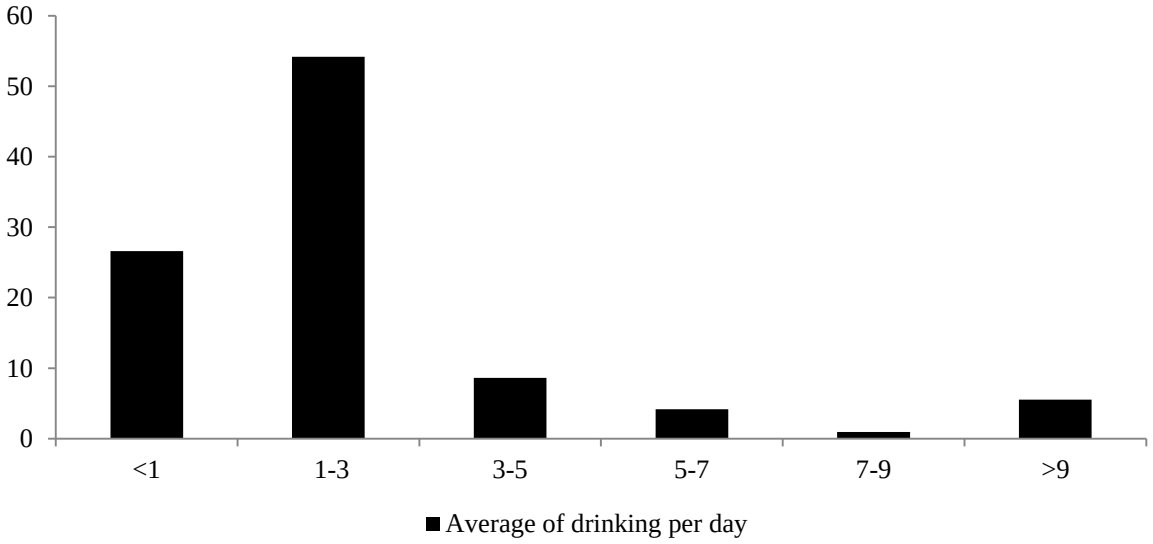
Our derived prices of alcoholic beverages are the price inclusive of excise taxes and need to be separated into prices before tax and prices after tax. The ratio of tax to price is calculated by using total government revenue as a proportion of total expenditure. THB161.66 per litre is the price of alcohol before tax. Tax per litre of pure alcohol is calculated to be THB301.2 per litre. Thus, price of alcohol after tax is THB462.86 per litre.

Our estimated demand elasticities are taken from the study of Chonviharnpan and Lewis (2015), where the price elasticity of demand for alcoholic beverages was estimated to be -0.25.

Total estimated cost of alcohol consumption is approximately THB167 billion, adjusted for inflation (Thavorncharoensap et al, 2010).

The amount of alcohol consumed by heavy drinkers is calculated by using the Alcohol Drinking Reports for 2007 (National Statistics Office, 2007). These two reports contain the information on the numbers of abusive drinkers. They also report the number of drinkers based on average of drinking per day and type of unit (glasses). Our study uses the definitions of heavy drinker based on the published documents of the WHO.

Figure 1: Average drinking per day in litre, 2007 (per cent)



Source: National Statistics Office (2007)

The 2007 report of alcoholic drinking behaviour in Thailand has shown the distribution of drinkers in terms of amounts of alcohol drinking per day. From Figure 1, the trend shows there are few drinkers who consume at greater amounts of alcohol per day on the average, for example five glasses or more per day on the average. There is evidence of greater proportions of drinkers with nine glasses and over compared with those five to seven glasses and seven to nine glasses. The survey shows that majority of drinkers consume one to three glasses per day on the average. This is followed by drinkers who consume less than one glass per day and three to five glasses per day respectively.

In order to calculate the average of alcohol drinking per day, we make use of data on several types of units (glasses) provided by the survey of alcoholic drinking behaviour in 2007. The detail is as follows:

1. shot (30 cc)
2. small bottle/wine glass (150 cc)
3. can/middle size bottle (300–350 cc)
4. big size bottle (600–750 cc)
5. glass no1 (200 cc)
6. glass no. 2–3 (230 cc)
7. glass no. 3 (285 cc) and
8. glass no. 4–5 and no. 6–8 (325 cc)

We multiply various units (glasses) above by number of unit consumed per day, ie:

1. less than 1 unit
2. 1 unit but less than 3 units
3. 3 units but less than 5 units
4. 7 units but less than 9 units and
5. over 9 units

and also multiply by number of drinkers from various groups given in this report.

A heavy drinker is defined as a person who consumes 60 or more grams of pure alcohol per drinking occasion and drinks at least a day monthly (World Health Organisation, 2004;2014). Sixty or more grams of pure alcohol is approximately 1300 cc of beer drinking per day or 200 cc of whisky drinking per day (Assanakornchai et al, 2000). We make use of the data on the number of drinkers, the minimum amount consumed and types consumed to find the amounts consumed by heavy drinkers as a proportion of total consumption. According to the distribution of overall Thai drinkers (Figure 1), our assumed number of heavy drinkers is around 8 per cent of the overall drinkers and consume approximately 19 per cent of total amount of alcohol (per day on the average).

We attempt to incorporate some sensitivity to our analysis to account for the assumption that heavy drinkers have different responses to tax increases and account for more of the costs of alcohol consumption. We do not have an estimate of price elasticity for heavy drinkers. However, since our estimated price elasticity of demand for the whole population is -0.25, the estimates of heavy drinkers should be lower than this. The reason for this is that the heavy drinkers are less responsive to price changes compared with responsible drinkers. Therefore, the amount consumed by heavy drinkers is estimated by using two price elasticities, namely, -0.1 and -0.25. This higher value assumes heavy drinkers have the same price elasticity as regular drinkers.

5. EMPIRICAL RESULTS

This present study is based on, respectively, 5 and 10 per cent tax increases. Using the modest tax rates to investigate the behaviour of demand given tax changes is more appropriate than an increase in price at an extreme level.

Table 1 presents the effects of alcohol tax increases of 5 and 10 per cent on changes in consumption, deadweight loss, expenditure, government revenue, consumer surplus and net benefit. These are calculated based on the current tax revenue and consumption of alcoholic beverages, given our -0.25 price elasticity of demand for alcoholic beverages. In 2009, the Royal Thai Excise Department reported that alcohol tax revenue and consumption was approximately THB89.87 billion and 298.38 million litres of pure alcohol, respectively. In that year, the average tax rate was around 65 per cent on beer, liquor and wine.

Table 1: Estimated change in benefit of alcohol consumption

	Change in tax rate in per centage	
	5	**10**
Increase in price in baht per litre (THB/L)	15.06	30.12
Decrease in consumption in million litres (ML)	2.43	4.85
Change in deadweight loss in billion baht (bnTHB)	-0.02	-0.07
Increase in expenditure (bnTHB)	3.33	6.59
Increase in government revenue (bnTHB)	4.46	8.84
Change in consumer surplus (bnTHB)	-4.48	-8.91
Total change in benefit (bnTHB)	3.31	6.52
Decrease in external costs (bnTHB)	1.36	2.71
Increase in net benefit (bnTHB)	4.67	9.23

Note: It is assumed here that heavy drinkers have the same price elasticity of demand as responsible drinkers.

Now consider that in increasing alcohol tax rates by 5 and 10 per cent, prices are increased by THB15.06 and 30.12 per litre, respectively. With the new prices, consumption falls by 2.43 and 4.85 million litres. A 5 per cent increase in the tax rate causes a reduction in economic surplus, known as the deadweight loss, amounting to THB0.02 billion. The price rise through 10 per cent tax increase will greatly increase deadweight loss to THB0.07 billion. Tax is regarded as an efficient instrument as the changes in the deadweight loss relative to expenditure is very small.

A 5 per cent increase in tax will increase total expenditure by THB3.33 billion and the Royal Thai Government (via the Excise Department) will gain an additional THB4.46 billion in tax revenue. Increasing the tax rate by 10 per cent nearly doubles the increase in total expenditure and taxation revenue compared to a 5 per cent tax increase. For tax increases of 5 and 10 per cent, consumers experience a fall in consumer surplus of THB4.48 and 8.91 billion, respectively; part of which becomes increased tax revenue for the government and part is deadweight loss.

As excise taxes on alcoholic beverages are increased by 5 and 10 per cent, respectively, total external costs, assuming all drinkers bear total costs, fall by THB1.36 billion (2.43 million litres at THB558.98 per litre) and THB2.71 billion (4.85 million litres at THB558.98 per litre). These are equivalent to 1.2 and 2.5 per cent of total costs but are high proportionally to the deadweight loss. These numbers are also less than the increase in alcohol tax revenues. Finally, total benefit grows by THB4.67 and 9.23 billion, respectively, indicating that Thai society gains a net benefit from increasing alcohol taxes.

Table 2: Estimated decrease in cost of alcohol consumption (billion baht)

	Change in tax rate in per centage	
	5	**10**
Health	0.048	0.095
Court	0.0014	0.0027
Police	0.0008	0.0015
Traffic accident	0.0068	0.014
Loss premature mortality	0.9	1.81
Productivity loss	0.4	0.79
Total external costs	1.36	2.71

Note: It is assumed heavy drinkers have the same price elasticity of demand as responsible drinkers.

Table 2 presents estimates of the impact of alcohol tax increases of 5 and 10 per cent, respectively, on various costs. As alcohol consumption falls, private and social costs of alcohol also decline. In this case, drinkers reduce their own costs by reducing alcohol consumption and partially bear the costs of externalities by paying higher prices.

There have been proportionately larger reductions in costs of due to premature mortality, productivity loss and heath care compared with costs of traffic accidents, court and police. The loss due to premature mortality is the largest cost reduction, accounting for THB0.9 and 1.81 billion or 67 per cent of the reduction in total external costs. The reduced productivity loss is the second largest savings, equivalent to 0.4 and 0.79 billion baht or 29 per cent of the reduction in total external costs. Health care costs are reduced by THB0.048 and 0.095 billion, respectively. The reduced cost of property damage due to traffic accidents, court costs and police costs are also relatively small.

Table 3: Estimated change in benefit of alcohol consumption, for light drinkers only

	Change in tax rate in per centage	
	5	**10**
Increase in price (THB/L)	15.06	30.12
Decrease in consumption (ML)	1.96	3.92
Change in deadweight loss (bnTHB)	-0.015	-0.06
Increase in expenditure (bnTHB)	2.69	5.33
Increase in government revenue (bnTHB)	3.6	7.14
Change in consumer surplus (bnTHB)	-3.61	-7.2
Total change in benefit (bnTHB)	2.68	5.27
Decrease in external costs (bnTHB)	0	0
Increase in net benefit (bnTHB)	2.68	5.27

Drinkers who consume less than three glasses of alcoholic beverages per day are viewed as light drinkers. These consumers account for approximately 81 per cent of total alcohol consumption. Table 3 presents the effects of alcohol tax increase of 5 and 10 per cent on various economic indicators for light drinkers only. As a consequence, tax increases cause consumption and consumer surplus to fall, but expenditure, tax revenue and net benefit to rise, assuming these responsible drinkers impose no external costs. There is a falling deadweight loss given its small proportion to increased expenditure, while falling consumption due to a tax rise reduces the impact on benefits.

Table 4: Estimated change in benefit of alcohol consumption of 5 and 10 per cent tax increase, under different price elasticities of heavy drinkers only

	Change in tax rate in per centage			
	5		**10**	
Price elasticity of demand	0.1	0.25	0.1	0.25
Increase in price (THB/L)	15.06	15.06	30.12	30.12
Decrease in consumption (ML)	0.19	0.47	0.37	0.93
Change in deadweight loss (bnTHB)	-0.0014	-0.0035	-0.0056	-0.014
Increase in expenditure (bnTHB)	0.775	0.64	1.54	1.27
Increase in government revenue (bnTHB)	0.862	0.857	1.717	1.701
Change in consumer surplus (bnTHB)	-0.863	-0.861	-1.724	-1.715
Total change in benefit (bnTHB)	0.774	0.638	1.54	1.25
Decrease in external costs (bnTHB)	0.54	1.36	1.09	2.71
Increase in net benefit (bnTHB)	1.32	1.99	2.62	3.97

Note: It is assumed heavy drinkers have, alternatively, -0.1 and -0.25 price elasticities of demand.

Table 4 shows the effects of increasing alcohol taxation of 5 and 10 per cent, respectively, with either -0.1 or -0.25 price elasticities of demand for alcoholic beverages among heavy drinkers. When the alcohol tax rate is increased by 5 per cent, the price increases THB15.06 per litre which causes a modest decrease of 0.19 million litres for drinkers with -0.1 price elasticity of demand compared with a large decrease of 0.47 million litres for those with -0.25 price elasticity of demand. Drinkers with the lower price elasticity of demand for alcoholic beverages are obviously less responsive to price change than those with the higher price elasticity of demand. For Table 4, a 10 per cent tax increase with price elasticity of demand of -0.25 produces greater effects shown by each indicator. The alcohol tax increase imposes a deadweight loss ranging from THB0.0014 billion for the first group and THB0.0035 billion for the second group. Here, the small reduction in consumption results in lower deadweight loss, showing the efficiency of excise alcohol taxation.

Since heavy drinkers (with the lower elasticity) are less sensitive to price changes compared to other drinkers, the change in total expenditure, amounting to THB0.775billion,is greater. For given changes in total expenditure, the Royal Thai Government collects additional tax of THB0.862 billion. The consumer surplus declines somewhat because heavy drinkers are more willing to pay a higher price with little effect on consumption. The amount lost in consumer surplus is transferred to tax revenue and deadweight loss.

Alcohol tax increases reduce in total costs of alcohol consumption by only THB0.54 billion compared to THB1.36 billion if demand for heavy drinkers was as elastic as demand for drinkers as a whole. Alcohol tax increases also reduce total costs (private and external), outweighing the deadweight loss. Total net benefits estimates increase from THB1.32 billion to THB1.99 billion, under the assumption that heavy are less sensitive to price changes.

Table 5: Estimated decrease in cost of alcohol consumption of tax increase (billion baht)

	Change in tax rate in per centage			
	5		**10**	
Price elasticity of demand	0.1	0.25	0.1	0.25
Health	0.019	0.048	0.038	0.095
Court	0.00054	0.0014	0.001	0.0027
Police	0.0003	0.0008	0.0006	0.0015
Traffic accident	0.0027	0.0068	0.0054	0.014
Premature mortality	0.36	0.9	0.72	1.81
Productivity loss	0.16	0.4	0.32	0.79
Total external costs	0.54	1.36	1.085	2.71

Table 5 shows the estimated decrease in total external costs with respect to the change in 5 per cent alcohol tax with assumed -0.1 and -0.25 price elasticity estimates for heavy drinkers. Falling consumption produces a reduction in total costs of between THB0.54 billion and THB1.36 billion. The top cost reduction is the cost of premature mortality, varying from THB0.36 billion to THB0.9 billion. The alcohol tax increase reduces cost of productivity loss from between THB0.16 billion and THB0.4 billion. This rising tax rate also reduces health care cost by between THB0.019 billion baht and THB0.048 billion. There are smaller reductions in cost of property damage due to traffic accidents, court costs and police costs associated with alcohol-related harm as well.

In general, the premature mortality and productivity loss are estimated to account over 95 per cent of the decline in external costs.

6. CONCLUSION

This paper aims to estimate the benefits and costs of alcohol consumption given increases in alcohol taxation. The estimates in this paper are for consumption of alcoholic beverages, deadweight loss, total expenditure, tax revenue, consumer surplus and total net benefits. The estimates make use of estimated price elasticities of demand for alcoholic beverages, the data from the 2009 Socio-Economic Survey of Thailand and the report of alcohol drinking published by the National Statistics Office, Thailand, consumption data from the database of the WHO, alcohol tax revenue and quantity data from the Excise Department of Thailand and the estimated cost of alcohol consumption per unit from the study of Thavorncharoensap et al. (2010).

The main findings are that the effects of increasing alcohol taxation result in deadweight loss, increased total expenditure, increased tax revenue, increased total net benefits and reduced costs (ie. cost of premature mortality, cost of productivity loss and health care costs).

Assuming different price elasticities of demand among heavy drinkers, it is evident that the lower the price elasticity of demand, the less reduction in consumption, deadweight loss and total net benefits, but the more total expenditure and tax revenue is generated.

It is noted that an increased tax rate would result in a significant increase in tax revenue for the Royal Thai Government. Alcohol taxation in Thailand is a powerful policy measure for generating higher government revenue, but does not greatly reduce consumption.

The net effects are that increases in alcohol taxes increase the welfare for Thai society even if there is a change in consumer surplus (all increases in deadweight loss are offset by the greater reduction in the external costs).

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The hidden compliance cost of VAT: An exploration of psychological and corruption costs of VAT in a developing country

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Abstract

A Value Added Tax (VAT) is seen as critical in providing the tax revenue base for governments, especially developing nations. However, prior research about VAT compliance costs has largely occurred in developed nations and has generally excluded psychological and corruption costs.

This article reports a study which measures and reflects upon the psychological costs both in quantitative and qualitative terms for small and medium enterprises in a developing nation, Bangladesh. The cost of corruption is also considered. The findings of this study provide valuable insights as to what is the true compliance cost for VAT in a developing country.

Keywords: Small business; VAT; compliance cost, Bangladesh

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1. INTRODUCTION

Small and Medium Enterprises (SMEs) are considered as a key engine of economic growth in developing countries.[5] Due to the importance of the SME sector to a country's economy, governments around the world have commonly emphasised the importance of a healthy SME sector and geared public policy toward fostering SME development and growth.[6] Bangladesh is no exception; SMEs create large scale and low-cost employment opportunities using mainly locally available inputs and technologies, and develop entrepreneurship by mobilising private savings.[7]

In Bangladesh, 768 922 listed SME establishments[8] account for about 45 per cent of the total value-added in manufacturing; 80 per cent of industrial employment; about 25 per cent of the total labour force;[9] and 90 per cent of all businesses.[10]

VAT has been generally chosen for its revenue-raising potential for financing governmental services.[11] It has become one of the most important revenue-mobilising instruments in advanced industrialised countries as well as developing countries.[12] However, for a VAT system to achieve these economic aims, compliance costs should not be burdensome. International evidence suggests that VAT compliance costs are often regressive, that is, disproportionately higher for small businesses than large businesses (Coolidge, 2012). Consequently, to make the VAT system an effective tool for revenue-raising, measures have to be directed towards the aim of gaining trust and confidence of the taxpayers and encourage them to pay the correct amount of VAT as a social obligation.

Evans points out that the costs of operating a tax system consist not only of the costs expended by taxpayers in complying (or not complying) with their tax obligations, but also the administrative costs for government of collecting its taxes.[13] In a broader

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[5] P Shome, *Tax Administration and the Small Taxpayer* (Policy Discussion Paper No PDP/04/2, The International Monetary Fund, Fiscal Affairs Department, 2004). For the Bangladesh manufacturing sector, a small and medium business is one with the value/replacement cost of durable resources other than land and factory buildings being less than 100 million taka (BDT) (USD1.3 million). Note a 'small' enterprise for manufacturing means an industry in which the value/replacement cost of durable resources other than land and factory building is less than BDT15 million (USD200 000). In a non-manufacturing context, a SME means an enterprise with up to 100 people employed (Bangladesh Bureau of Statistics, 2005). Note a 'small' enterprise for the non-manufacturing sector means an enterprise in with fewer than 25 people work (eg, family members working together in a cottage industry).

[6] A Hansford, J D Hasseldine and C Horworth , 'Factors affecting the costs of UK VAT compliance for small and medium-sized enterprises' (2003) 21 *Environment and Planning: Government and Policy* 479–92.

[7] Bangladesh Bank, *Annual Report 2006–2007* (Bangladesh Security Printing Press) .

[8] National Board of Revenue, *Annual Report 2011–2012* (NBR, 2014).

[9] Finance Minister Abul Maal Abdul Muhith, 'Budget Speech 2013' (Speech delivered at the National Parliament House, Dhaka, Bangladesh, 2013).

[10] S Alam and A Ullah, 'SMEs in Bangladesh and Their Financing: An Analysis and Some Recommendations' (2006) 34(3) *The Cost and Management* 57–72.

[11] D Williams, 'Value Added Tax' in V Thuronyi, *Tax Law Design and Drafting* Vol 1 (International Monetary Fund, 1996).

[12] R Eccleston, *Taxing Reforms: The Politics of the Consumption Tax in Japan, the United States, Canada and Australia* (Edward Elgar Publishing, 2007).

[13] C Evans, 'Taxation compliance and administrative costs: An overview', in M Lang et al (eds), *Tax compliance costs for companies in an enlarged European Community* (Linde Verlag and Kluwer Law International, 2008) 447–68.

sense, the compliance costs to government as a whole include the wages and salaries of personnel engaged by government institutions such as tax authorities, tax policy makers, legislators and the judiciary (which may involve local and national tribunals and/ or appeal commissions and courts).[14]

Pope identified that compliance costs include three major components, namely monetary costs, time costs and psychological costs to the taxpayers.[15] Monetary costs include money spent on tax professionals and expenses relating to taxation guides, books, communication and other incidental costs. Time costs relate to record keeping for tax purposes, completing the tax return and preparation of tax details for tax authorities or for tax professionals. In economic terms, the psychological costs of taxation are the net economic costs of the pressure, anxiety and stress[16] encountered when taxpayers seek to submit their tax returns in a timely and correct manner.[17]

In terms of empirical studies about VAT, the international evidence suggests that in most countries the introduction of a VAT results in significantly higher compliance costs for taxpayers than other forms of taxation, and that VAT compliance costs are disproportionately higher for small businesses than large businesses.[18] However, most of these studies have considered developed nations, such as the United Kingdom, Australia and the United States of America.

The World Bank Group (WBG) conducted large-scale semi-structured questionnaire-based studies into tax compliance costs in transitional and developing countries (such as South Africa, Vietnam, Ukraine, Yemen, Peru, Nepal, Uzbekistan and Kenya) from 2006 to 2011, not only in relation to the time and costs spent on compliance with VAT, but also with income tax and payroll tax.[19] Semi-structured questions were used to ask taxpayers about the following: their bookkeeping practices; computer and internet access; experience with tax inspections and audits; taxpayer morale; their reasons for any non-compliance (including failure to register for VAT); and their perceptions of the competence, fairness, consistency and integrity of tax authorities and tax officers. This study also found that tax compliance costs are regressive in nature.[20]

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[14] W A Yesegat, *Value added tax in Ethiopia: A study of operating costs and compliance*, PhD Thesis, University of New South Wales; L Barbone, R Bird and J Vázquez-Caro, 'The Costs of VAT: A Review of the Literature', *CASE Network Report No. 106/2012*, Warsaw.

[15] J Pope, 'The compliance costs of taxation in Australia and tax simplification: the issues' (1993) 18(1) *Australian Journal of Management* 69–90.

[16] Positive events or experiences help to neutralise or offset the distress caused by negative events (eg debts owed, financial responsibility, fear of rejection, and unexpected visits from tax officers). This 'netting' effect in relation to psychological costs is explored further in section 3.

[17] Ibid; C Sandford, M Godwin and P Hardwick *Administrative and Compliance Costs of Taxation* (Fiscal Publications, 1989); C Evans, J Pope and J Hasseldine (eds) *Tax Compliance Costs: A Festschrift for Cedric Sandford* (Prospect Media, 2001); Hansford, Hasseldine and Horworth, above n 6.

[18] S Cnossen, 'Administrative and Compliance Costs of VAT – a review of the evidence' (1994) 8 *Tax Notes International* 1649–68.

[19] Investment Climate Advisory Services of the World Bank Group, *Tax Perception and Compliance Cost Surveys: A Tool for Tax Reform* (March 2011) World Bank Group Investment Climate <https://www.wbginvestmentclimate.org/uploads/TPCCS_Consolidated_Web.pdf>.

[20] Ibid; K Ritchie, 'The Tax Compliance Costs of Small Business in New Zealand' in C Evans, J Pope and J Hasseldine (eds) *Tax Compliance Costs: A Festschrift for Cedric Sandford* (Prospect Media Pty Ltd, 2001) 297–315; and H Abdul-Jabbar, *Income tax non-compliance of small and medium enterprises*

In Bangladesh, Saleheen conducted a field survey in 2012 and showed that 49 per cent of the surveyed population considered that VAT Law in Bangladesh was not at all clear, and 45 per cent considered the VAT law to be complex and not trade-friendly.[21]

More recently Faridy et al (2014) found, in terms of Bangladesh SME compliance with VAT law, that the complexity of the law can influence taxpayers' ability to comply.[22] Because of the complexity of the tax system, some businesses (those who can afford it) may engage expert tax professionals to help them with sophisticated tax planning to minimise tax payments. In addition, Faridy et al found that negative perceptions about government policy and spending of tax revenue may contribute to non-compliance.[23] Other negative influences on compliance include perceptions of tax officers being unfair, corrupt and abusing the discretionary power afforded to them.[24]

In terms of actual compliance cost, Faridy et al (2014) found that the reported compliance cost for non-complying VAT payers was higher than that reported by complying VAT payers (see Table 1 and Table 2). While Faridy et al touched upon some initial findings in respect of potential psychological costs, these were not explored in detail. It is, however, interesting to note that, for Group 2 in both Tables 1 and 2, compliance costs were higher for complying taxpayers than for non-complying taxpayers. The reason for this apparent anomaly is that Group 2 compliant taxpayers were comprised mainly of manufacturers, who felt more government pressure to remain compliant. As a result, their psychological costs were higher than those for non-compliant (non-manufacturer) taxpayers in Group 2.

in Malaysia: Determinants and tax compliance costs (PhD Thesis, Curtin University of Technology, 2009).

[21] A M Saleheen, 'Reigning Tax Discretion: A Case Study of VAT in Bangladesh' (2013) 16(2) *Asia-Pacific Journal of Taxation* 77–91.

[22] N Faridy et al, 'Complexity, Compliance Costs and Non-Compliance with VAT by Small and Medium Enterprises (SMEs) in Bangladesh: Is there a relationship?' (2014) 29(2) *Australian Tax Forum* 281–328.

[23] Ibid 297–98.

[24] Ibid 298 and 306.

Table 1: Average Compliance Costs of Compliant Taxpayers

Group	VAT Payment Group (BDT)	VAT Compliance Costs for CT		
		Monetary Costs (BDT)	Time Costs (Total Hours)	Psychological Costs (BDT)
1	Under 400 000	27 822	97	4648
2	400 001 to 500 000	57 136	143	10 106
3	500 001 to 600 000	70 545	187	12 727
4	600 001 to 700 000	68 000	213	11 527
5	800 001 to 900 000	78 666	286	13 888
6	900 001 to 1 000 001	92 947	189	19 238
7	More than 1 000 001	179 265	336	31 176

Source: Faridy et al (2014)

Table 2: Average Compliance Costs of Non-Compliant Taxpayers

Group	VAT Payment Group (BDT)	VAT Compliance Costs for NCT		
		Monetary Costs (BDT)	Time Costs (Total Hours)	Psychological Costs (BDT)
1	Under 400 000	35 091	113	6622
2	400 001 to 500 000	52 466	276	6916
3	500 001 to 600 000	77 500	230	14 583
4	600 001 to 700 000	82 500	245	15 625
5	800 001 to 900 000	92 000	290	17 916
6	900 001 to 1 000 001	109 800	451	19 166
7	More than 1 000 001	227 655	448	33 045

Source: Faridy et al (2014)

According to Franzoni (2000), businesses may resent tax authorities for high levies and too complex a tax system. Franzoni argues that such taxpayer resentment may be associated with a weakening of taxpayers' 'moral consciences', even to the extent of emboldening them to evade in order to 'punish' tax authorities for imposing such high levies and complex rules on taxpayers. Murphy (2008) also argues that taxpayers who feel resentment in response to tax authorities' attempts at enforcement are more likely not to comply with tax regulations in the future.[25] To the extent that taxpayers cannot

[25] See K Murphy, 'Enforcing tax compliance: to punish or persuade?' (2008) 38(1) *Economic Analysis and Policy* 113–35.

or do not 'let go' their feelings of resentment, the costs of coping with resentment can form part of psychological costs[26] (the other part being anxiety).[27]

While there is some research into compliance with consumption taxes in developed economies, there is a paucity of research into VAT compliance generally in developing countries, and in particular in Bangladesh. In addition, while the literature has paid more attention to the psychological component of compliance costs in recent times, relatively little attention has been paid to psychological costs when compared with other elements of compliance costs. This relative lack of evidence does not suggest that psychological costs are unimportant, but rather reflects practical concerns about how best to measure them.

The current study explores the 'hidden cost' of VAT compliance for Bangladeshi SMEs, in particular psychological and corruption costs. The literature suggests that, in the case of transition economies, higher levels of corruption are associated with lower tax and regulatory compliance.[28] This study looks at two subsets of psychological costs, anxiety and resentment, as well as providing some preliminary monetary values for psychological costs in a developing country context. These results may be relevant to other developing nations, insofar as they show that expected benefits of a sound VAT system – perceived as a fundamental cornerstone of governments' ability to extract adequate tax revenue for public spending – may be undermined by psychological and corruption costs. Both form part of compliance costs.[29]

The remainder of the article is organised as follows. The next section briefly discusses the Bangladeshi VAT system. Section 3 reviews the literature regarding the psychological and corruption costs of VAT. This discussion is followed in section 4 by an outline of the methods used in this study, namely a survey and in-depth interviews. Section 5 analyses the results of the study, while section 6 makes recommendations for VAT policy and administration in Bangladesh. Section 7 sets out the limitations of the research and provides avenues for future investigation, before the conclusions of the study are presented in section 8.

2. BANGLADESH: THE VAT IN PRACTICE

The VAT Law was introduced in Bangladesh on 1 July 1991 amid government claims that it would help develop the overall economy and enhance transparency of the Bangladeshi taxation system.[30] The VAT replaced both excise duties on domestically produced goods and services, and sales tax on imported goods. Bangladesh's VAT is

[26] Cf F L Gardner and Z E Moore, 'Understanding clinical anger and violence: the anger of anger avoidance model' (2008) 32(6) *Behaviour Modification* 897–912; and J G Murphy, 'Forgiveness and Resentment' 7(1) *Midwest Studies in Philosophy* 503–16.

[27] L A Franzoni, 'Tax evasion and tax compliance' in B Bouckaertand and G DeGeest (eds), *Encyclopedia of law and economics* (Elgar, 2000) Vol 4, 52–94.

[28] A Alon and M A Hageman, 'The Impact of Corruption on Firm Tax Compliance in Transition Economies: Whom Do You Trust? (2013) 116 *Journal of Business Ethics* 479–94; F Méndez, 'Can corruption foster regulatory compliance?' (2014) 158 *Public Choice* 189–207.

[29] The roles played by psychological costs and corruption costs as part of overall compliance costs are explored further in section 3 below.

[30] Finance Minister Mohammad Saifur Rahman, 'Budget Speech 1991–92' (Speech delivered at the National Parliament House, Dhaka, Bangladesh, 1992).

consumption-based, with goods and services generally taxed at the point of destination, rather than the point of origin. VAT is imposed on goods and services sold at the manufacturing, wholesale and retail stages, as well as at the point of importation.[31] The National Board of Revenue's (NBR) is the government statutory body which administers the VAT system.

The VAT has collected on average 37 per cent of total tax revenue in last 15 years.[32] While the introduction of a VAT in Bangladesh has proved to be successful in terms of increasing tax revenues as well as expanding the tax base, some evidence suggests that there is potential for improvement.[33] For example, the tax base is narrow compared to other developing countries, and the tax revenue is still very low as a percentage of gross domestic product (GDP). In 2005, the average tax/GDP ratio in the developed world was approximately 35 per cent, while in developing countries it was 15 per cent and in the poorest of these countries, the low income countries, tax revenue was 12 per cent of GDP.[34] In 2005, the tax/GDP ratio was less than 10 per cent in Bangladesh and in 2011 to 2012 the ratio was 11 per cent.[35] The gap between potential VAT revenue and actual VAT revenue is estimated to be more than 40 per cent.[36]

In Bangladesh the standard rate of VAT for home consumption goods and services is 15 per cent, with exports and 'deemed exports' zero-rated. However, there are some other rates in practice that emerge due to different methods of calculation. The tax is generally imposed on the invoiced price, but where invoices are unavailable a so-called 'fixed value addition' on a 'truncated base' (in effect, a notional value added) is used to assess the appropriate VAT. For those businesses at wholesale and retail levels which do not declare any input tax credits, a deemed 1.5 per cent VAT (the so-called 'Trade VAT') is imposed on the total value of the goods or services sold, in lieu of the standard 15 per cent VAT.

Another variation is that small business suppliers, defined as those with an annual turnover is less than BDT6 million (USD80 000) have the option of paying a tax at 3 per cent of their annual turnover, in lieu of the standard 15 per cent VAT. However, choosing this option precludes the claiming of input tax credits.

In addition, small business 'consumers' (that is, purchasers) at the wholesale and retail level pay a fixed annual dollar amount of VAT, the quantum of which depends on the geographic location of their business. For example, if a small retail shop is based in the capital city (Dhaka) or one of the two major port cities (Chittagong or Khulna), it would pay BDT6000 (USD80) per year in deemed VAT. In contrast, a small retail shop based in a remote small town would pay BDT2400 (USD32) per year in deemed VAT. Firms in cottage industries – defined as those firms with annual turnovers of

[31] Finance Minister Mohammad Saifur Rahman, 'Budget Speech 2005' (Speech delivered at the National Parliament House, Dhaka, Bangladesh, 2005).

[32] N Faridy, *Progressivity of Value Added Tax (VAT) in Bangladesh* (Unpublished Master's Dissertation, Keio University, 2011).

[33] A M Saleheen, 'Presumptive Taxation under Bangladesh' (2012) 23(5) *International VAT Monitor* 316–21.

[34] C Fuest and N Riedel, 'Tax evasion, tax avoidance and tax expenditures in developing countries: A review of the literature' (Paper prepared for UK Department for International Development, Oxford University Centre for Business Taxation, 2009).

[35] Finance Minister, above n9.

[36] Faridy, above n 22, 45.

less than BDT2.4 million (USD32 000) and capital machinery of up to BDT300 000 (USD4000) in value – and their consumers are exempt from VAT and turnover tax. Finally, for some taxable products listed in the NBR's 'special regulatory orders',[37] if the NBR considers that market prices have increased too much, it can determine and set a lower so-called 'tariff value' so that relevant market prices (and the VAT payable) are artificially reduced. Businesses which pay VAT on this tariff value are not entitled to claim input tax credits.

Under the same legislative provisions, the NBR also has the power to determine and set a higher tariff value if it considers that market prices have fallen too much.[38] Through this mechanism, the VAT payable is artificially increased for some taxpayers.

Another power delegated to the NBR is the power to produce secondary legislation.[39] Section 72 of the *Value Added Tax Act 1991* (*VAT Act*) confers upon the NBR the power to make rules 'for carrying out the purposes of this Act'. NBR has the power to make rules on a wide range of areas, including the determination, price declaration, assessment and collection of VAT. In addition to that, all VAT Officers (except the Assistant Revenue Officers at the operational level) have quasi-judicial powers to adjudicate offences committed under the *VAT Act*.[40]

Withholding VAT is another feature of the Bangladesh's VAT system. These withholding obligations are imposed upon government organisations, semi-government organisations, non-government organisations (NGOs) and limited companies in respect of acquiring some services including construction, printing, advertising, accounting and auditing services, and leasing professional services. While VAT replaced the excise duty, excise duty still applies to a limited range of items such as domestic air tickets and bank deposits.

The usual practice of paying the VAT due (that is, the excess of output tax over input tax) to the government is by registered taxpayers submitting a return at the end of each month on a self-assessment basis. The Bangladesh VAT has four distinct methods of paying VAT for different business transactions: advance payment through an Account Current, payment along with VAT returns, advance VAT for commercial goods at the importation stage, and as a withholding tax.

Consequently, the Bangladeshi VAT system is not just a simple 15 per cent rate, but rather is subject to a number of exceptions and qualifications. In addition, the NBR and its VAT Officers have a considerable discretionary power as to how it operates. Such characteristics could contribute to the VAT compliance costs in Bangladesh. While Faridy et al (2014) provided a detailed study about the VAT compliance costs of Bangladesh SMEs, they provided little evidence of psychological costs and how these potentially influenced compliance by this important sector.[41] The aim of this

[37] Products in this category include powdered milk, refined soybean oil, machine-made biscuits, tomato paste, fruit juice, hand-made cigarettes, LPG, petroleum bitumen imported in bulk, various types of paper, bricks, cold-rolled corrugated iron sheets, mild steel products produced from re-rollable scrap metal, and electrical transformers (GOB, 2013).

[38] Saleheen, above n 33.

[39] Saleheen, above n 21.

[40] Finance Minister, above n 30.

[41] Above n 22.

study is to provide some initial empirical evidence about the hidden costs of VAT, namely psychological and corruption costs. To do this, it is important to understand what psychological costs are, and what role corruption plays in a tax system.

3. PSYCHOLOGICAL COSTS AND CORRUPTION COSTS

As noted earlier, psychological costs and corruption costs form part of overall tax compliance costs. There are relatively few compliance cost studies that have considered psychological costs, and due to measurement problems, these are largely qualitative studies. Psychological costs are particularly important in the context of SMEs, for whom business owners and managers are often the same people, and psychological costs are likely to be borne by the owner directly, distracting them from their core business activities. In addition, in the case of transition economies, higher levels of corruption are associated with lower tax and regulatory compliance.[42]

The compliance costs of taxation have been defined by Sandford as follows:

> Tax compliance costs are the costs incurred by taxpayers in meeting the requirements laid on them by the tax law and the revenue authorities. There are costs over and above the actual payment of tax and over and above any distortion costs inherent in the nature of the tax. These costs would disappear if the tax law was abolished. They include the costs of collecting, remitting and accounting for tax on the products and profits of the business and on the wage and salaries of its employees, and also the costs of acquiring and updating the knowledge to enable this work to be done, including knowledge or legal obligations and penalties.[43]

Such costs may take the form of financial commitments for specialist staff and their associated resources; time costs associated with completing relevant forms and paperwork, and 'psychological' costs.

3.1 Psychological costs

According to Sandford,[44] three of Adam Smith's four maxims of taxation are concerned wholly or partly with compliance costs, and include 'psychological' costs of compliance.[45] For example, according to Smith's second maxim, the tax which each taxpayer is bound to pay ought to be certain and not arbitrary. The timing of, and manner in which outstanding tax needs to be paid, ought all to be clear and plain to the taxpayer and to every other person. Any uncertainty surrounding tax payments can create feelings of helplessness in taxpayers, which could be reflected in 'psychological costs'. Smith's third maxim states that feelings of 'inconvenience' associated with tax compliance may generate some kind of resistance and resentment among the taxpayers. These could be stated as the negative emotional feelings of 'psychological'

[42] A Alon and M A Hageman, 'The Impact of Corruption on Firm Tax Compliance in Transition Economies: Whom Do You Trust?' (2013) 116 *Journal of Business Ethics* 479–94; F Méndez, 'Can corruption foster regulatory compliance?' (2014) 158 *Public Choice* 189–207.

[43] C Sandford (ed), *Taxation Compliance Costs: Measurement and Policy* (Fiscal Publications, 1995) 1.

[44] C Sandford, 'The Costs of Paying Tax' (June 1986) *Accountancy* 108–11.

[45] A Smith, *An inquiry into the nature and causes of the wealth of nations* (William Benton, first published 1776, 1952 ed).

costs. Smith's fourth maxim is apposite for other key 'psychological' elements of compliance costs:

> [B]y subjecting the people to frequent visits and the odious examination of the tax gatherers, it may expose them to such unnecessary trouble, vexation and oppression; and though vexation is not, strictly speaking, expense, it is certainly equivalent to the expense of which every man would be willing to redeem himself from it.[46]

Smith notes that the 'insolence' and 'oppression' of the tax gatherer can be more burdensome than the tax itself. Overall, it must be appreciated that the 'psychological' cost of compliance is a multi-faceted notion reflecting many different characteristics that are perceived to be important. Feelings of uncertainty, powerlessness, inconvenience, trouble, vexation and oppression are things with which taxpayers would certainly prefer to not to have to deal. Such feelings can be classified into two sub-sets of 'psychological' cost, namely anxiety and resentment. The first factor of 'anxiety' relates to stress, fear and uncertainty. The second factor of 'resentment' concerns invasion of privacy, inconvenience, trouble, vexation and oppression.

Both of these factors are negative emotional responses to the particular fiscal environment that the taxpayer inhabits, although measuring them is problematic. The Meade Committee reported that the worry and anxiety borne by the taxpayers in relation to their tax affairs are almost impossible to value.[47] It is this valuation issue that is largely the reason behind the paucity of research in this area. Even so, the psychological cost of tax compliance may be very real for those affected.

Stress is not an easy concept to define or measure and most attempts to do so have originated from the field of health psychology and behavioural medicine, which includes psychological medicine. Literature suggests that there are some practical and theoretical limitations in seeking to measure the impacts of specific stressors. For example, there is evidence that people often misattribute their feelings of stress to a one source when the stress is actually caused by another source.[48]

The World Health Organisation (WHO) defines 'occupational or work-related stress' as the response people may have when presented with work demands and pressures that are not matched by their knowledge and abilities, and which challenge their ability to cope. For example, the need to frequently deal with new legislation and cope with new rules is considered a source of significant workplace stress.[49] Life events and difficulties both contribute to an individual's stress.[50] Cox argues that an individual's ability to deal with the mismatch between perceived demands and

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[46] Ibid 362.

[47] Meade Committee, *The Structure and Reform of Direct Taxation* (Allen and Unwin, 1978).

[48] I Gochman, 'Arousal, attribution and environmental stress' in I G Sarason and C D Spielberger (eds), *Stress and Anxiety* (Hemisphere, 1979) Vol 6, 67–92; J Keating, 'Environmental stressors misplaced emphasis' in I G Sarason and C D Spielberger (eds), *Stress and Anxiety* (Hemisphere, 1979) Vol 6, 55–66; S Worchel and C Teddlie, 'The experience of crowding: A two factor theory' (1976) 34 *Journal of Personality and Social Psychology* 30–40.

[49] R Woellner et al, 'Taxation or vexation – measuring psychological costs of tax compliance' in C Evans, J Pope and J Hasseldine (eds), *Tax Compliance Costs: A Festschrift for Cedric Sandford* (Prospects Media, 2001) 35–51.

[50] G Brown and T Harris, *Life and Illness*, (Unwin Hyman, 1989).

resources is an important factor when assessing stress levels.[51] It is recognised by researchers that positive events help neutralise the distress caused by negative events, and that life's daily hassles are better predictors of stress than major life events.[52] Kanner et al described concerns about owing money, financial responsibility, fear of rejection, and unexpected company as the daily hassles of life.[53] Epstein and Kanner et al noted that pleasant experiences and 'daily uplifts' can help to reduce and prevents anxiety and stress for both humans and infra-humans.[54] Cousins mentioned that positively toned experiences (such as uplifts) might serve as emotional buffers against stress disorders.[55]

In the context of compliance cost research, there is limited research into the psychological costs of tax compliance.[56] However, some attempts have been made for a qualitative assessment of such costs. For instance, Diaz and Delgado qualitatively measured psychological costs of taxation in Spain and found that older and retired taxpayers experience higher psychological costs because they find it more difficult to understand tax law.[57]

Smith cautioned that subjecting people to frequent visits by, and 'the odious' examinations of tax-gatherers may create unnecessary trouble, vexation, and oppression for taxpayers.[58] According to Smith, vexation has a cost, which is equivalent to the expense that every taxpayer would be willing to pay in order to be relieved of it. Based on this idea, an Australian survey undertaken by McKerchar found that experiences of stress and anxiety were very real for taxpayers.[59] Her survey asked respondents to indicate how much they would be willing to pay to have someone else complete their tax return. Some 29 per cent of respondents replied 'zero', whereas 55 per cent replied 'less than $100'. McKerchar concluded that the fact that a high percentage of taxpayers would choose not to incur monetary costs in order to complete their tax returns did not necessarily mean that they had no costs associated with anxiety and stress when completing the returns themselves.[60]

Lopes, Basto and Martins assessed individual income tax payers' psychological costs in the context of individual compliance costs in Portugal, by using a Likert scale to elicit respondents' anxiety levels before and after completion of their tax returns.[61]

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[51] T Cox, *Stress* (University Park Press, 1978).

[52] R Woellner et al, 'Can simplified legal drafting reduce the psychological costs of tax compliance? An Australian perspective' (2007) 6 *British Tax Review* 717–34.

[53] A Kanner et al, 'Comparison of two modes of stress measurement: daily hassles and uplifts versus major life events' (1981) 4 *Journal of Behavioral Medicine* 1–39.

[54] S Epstein, 'Anxiety, arousal and the self-concept' in I G Sarason and C D Spielberger (eds), *Stress and Anxiety* (Hemisphere, 1976) Vol 3, 185–224; Kanner et al, above n 53.

[55] N Cousins, 'Anatomy of an illness (as perceived by the patient)' (1976) 295 *New England Journal of Medicine* 1458–63.

[56] Woellner et al, above n 52.

[57] M Diaz and M Delgado, 'Personal income tax compliance costs in Spain' in C Sandford (ed), *Tax Compliance Costs – Measurement and Policy* (Fiscal Publications, 1995) 210–26.

[58] Smith, above n 45.

[59] M McKerchar, *The Impact of Complexity upon Tax Compliance: A Study of Australian Personal Taxpayers* (Research Study 39, Australian Tax Research Foundation, 2003).

[60] Ibid.

[61] C M Lopes, J Basto and A Martins, 'Compliance Costs of Individual Income Taxation: Some Empirical Evidence from Portugal' (2012) 12(4) *Journal of Higher Education Theory and Practice* 151–64.

Some 20 per cent of all taxpayers reported psychological costs, although 80 per cent of all taxpayers reported no psychological costs. At first glance, these results appear to indicate that taxpayers in Portugal experience relatively low levels of psychological cost in relation to tax compliance.[62] However, elderly taxpayers (those aged 56 years or more) and less educated taxpayers (particularly those with only a primary school education) incurred higher psychological costs than younger ones. None of the very young taxpayers surveyed (ie those aged 18–24 years) experienced any psychological costs with tax compliance, although this may be due to all of these respondents being dependents of taxpaying parents.[63]

Another recent study by Lopes and Martins qualitatively measured the stress and anxiety incurred by Portuguese income tax taxpayers when complying with their tax affairs.[64] They concluded that elderly and less educated taxpayers have higher psychological costs. However, the study did not consider the monetary value of psychological costs, due to valuation issues. In the context of VAT in Ethiopia, Yesegat found (in a semi-structured interview-based study) that psychological costs are a significant component of the total costs of VAT compliance in that country, although again no monetary value was given.[65]

Woellner et al conducted studies in Australia that evaluated psychological costs in a qualitative manner, relating to the behaviour and attitudes of taxpayers.[66] They concluded that using external tax assistance and advice decreases psychological costs for individual taxpayers, but increases the monetary costs of tax compliance. The study also indicated that a valuation of psychological costs is extremely difficult, but not impossible.[67] One such measure of psychological costs could be the price which people are prepared to pay in order to be rid of the trouble of interpreting and applying the law.[68]

The complexity of the tax system and uncertainties about tax law may increase compliance costs for taxpayers, as well as generate some anxiety in the process of paying taxes. As a result of tax complexity, psychological costs may increase and it is important to include them in the estimation of compliance costs. Psychological costs are influenced, however, not only by whether a tax system is enforced, but how it is enforced. Tax regulators commonly adopt one of two main approaches to enforcing the law: a stricter 'rule-based' approach, and somewhat softer 'principle-based' approach.[69] The first approach is the traditional 'enforcement' paradigm, in which regulators view taxpayers as prospective criminals whose potentially illegal behaviour must be detected through regular audits, and punished with strict penalties. The second approach is based on a less strict 'service' paradigm. It recognises that while enforcement necessarily has a role, tax authorities also need to take

[62] Ibid.

[63] All children aged 25 years or younger (with no dependents) are themselves treated as dependents in Portugal: see Lopes, Basto and Martins (2012, 160).

[64] C M Lopes, and A Martins, 'The Psychological Costs of Tax Compliance: Some Evidence from Portugal' (2013) 14(2) *Journal of Applied Business and Economics* 53–61.

[65] Yesegat, above n 14.

[66] Woellner et al, above n 49; Woellner et al, above n 52.

[67] They added that, in most cases, it is sufficient to identify taxpayers who incur this type of cost.

[68] Woellner et al, above n 49, at 40.

[69] E Kirchler, *The Economic Psychology of Tax Behaviour* (Cambridge University Press, 2007).

account of social or community norms that can be utilised to help encourage greater tax compliance through the administrative services provided by the tax authority.[70]

3.2 Corruption costs

Perceptions about fairness and corruption have been identified as crucial factors in tax compliance.[71] Feld and Frey argued that taxpayers show more willingness to comply with tax law when governments are seen to be fair, not corrupt, and to treat taxpayers respectfully.[72] Taxpayer willingness to comply with tax authorities' requirements is also related to the degree of satisfaction with public services.[73] Kirchler noted that mutual respect and trust between tax authorities and taxpayers has an important role in voluntary compliance. Trust is (inversely) related to perceptions of corruption.[74] In 2012, a survey of the European Commission revealed that 57 per cent Europeans believed that corruption is a major problem in Europe, and that bribery and the abuse of power for personal gain were widespread among the politicians. Corruption and tax evasion (intentional non-compliance) are certainly two major problems globally, which obstruct socio-economic progress in developing countries and erode welfare programmes in developed countries.[75] These two economic delinquencies sometimes occur together and sometimes substitute for one another, depending on the situation and economic condition of a country. Corruption and taxpayer non-compliance are significantly interrelated and reinforce each other in causing negative effects on government finances, growth and wealth distribution.[76] Prior literature on developing countries reveals that at least half of the taxes that could (or should) be collected by government authorities in those countries remains uncollected because of corruption and tax evasion.[77]

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[70] J Alm and J Martinez-Vazquez, 'Tax Morale and Tax Evasion in Latin America' (International Studies Program Working Paper 07-32, Andrew Young School of Policy Studies, Georgia State University, 2007).

[71] B Torgler, 'Tax Morale, Trust and Corruption: Empirical Evidence from Transition Countries' (Working Paper No 2004–05, Centre for Research in Economics, Management and the Arts, < http://www.crema-research.ch/papers/2004-05.pdf>, 2004); M Wenzel, 'Tax Compliance and the Psychology of Justice' in V Braithwaite (ed) *Taxing Democracy*: *Understanding Tax Avoidance and Evasion* (Ashgate, 2003)41–70;

[72] L Feld, and B Frey, 'Trust Breeds Trust: How Taxpayers are Treated' (2002) 3 *Economics of Governance* 87–99.

[73] J Alm et al, 'Taxpayer Information Assistance Services and Tax Compliance Behavior' (2010) 31 *Journal of Economic Psychology* 577–86.

[74] Kirchler, above n 69.

[75] O O Julius, 'Tax Evasion, Tax Avoidance, and Corruption: An Interface with Source of Revenue for Development in Nigeria' (The Third Emerging Scholar Colloquium, IPA, 2006) 1–59.

[76] A Litina and T Palivos, 'Explicating Corruption and Tax Evasion: Reflections on Greek Tragedy' (Discussion Paper Series, University of Namur, <http://www.fundp.ac.be/eco/economie/cred/CORRUPTION%20AND%20EDUCATION%20LITINA.pdf>) 1–31.

[77] P R Krugman et al, *Transforming the Philippine Economy* (APO Production Unit Inc, 1992); R Bird, *Tax Policy and Economic Development* (The Johns Hopkins University Press, 1992); J Alm, R Bahl and M N Murray, 'Tax Base Erosion in Developing Countries' (1991) 39(4) *Economic Development and Cultural Change* 849–72.

Flatters and Macleod have identified three agents in developing countries that can be involved in corruption.[78] They are the Minister of Finance (or government or President) who sets the revenue target; the collector who collects the revenue for the Ministry of Finance; and the taxpayer who pays the tax to the collector. The first agent might inadvertently facilitate or exacerbate the risk of corruption by formulating complex tax law and policies, while the last two agents might be directly involved in corruption and tax evasion.[79] In the case of most developing countries, tax officials can be lowly paid, the monitoring system is inefficient, and the taxation system is complex. In addition, the tax system can be manually operated and the tax collectors might overlook various types of intentional non-compliance activities in exchange for bribes from taxpayers.

Obid has examined the effect of corrupt tax administration on tax compliance.[80] She points out that a poorly paid tax official with poor ethics might choose to maximise personal benefit by colluding with taxpayers, including by utilising the complexities of the tax system and the inadequate resources of the tax administration to their advantage. She argues further that corruption negatively affects the equity and fairness of the tax system, as well as the efficiency of the tax administration.

Despite its importance, very little empirical research has been conducted to date on corruption and taxpayers' non-compliance in Bangladesh. Monir exposed the absence of a tax culture among income earners, inadequate taxpayer service, complexities and unfairness in income tax estimation, weak enforcement and the negative image of the income tax department work as influential driving forces for tax non-compliance.[81] The empirical findings of that study also revealed that corruption was facilitated by inappropriate relationships between self-interested, rent-seeking income tax officials, taxpayers and tax agents.[82] However, Monir's study was limited to income tax evasion in the socio-economic and administrative context of Bangladesh, and the extent to which her findings can be generalised to the issue of VAT non-compliance by SMEs in Bangladesh is uncertain.

With this in mind, this study sought to explore these two hidden costs – psychological and corruption costs – of VAT compliance for SMEs in a developing nation, Bangladesh.

4. METHODOLOGY

This study adopted a mixed methods approach, utilising quantitative and qualitative methods. This type of mixed methods approach is most likely to maximise, as far as is practically possible, the internal and external validity of the results.[83] While much of

[78] F Flatters and W B Macleod, 'Administrative Corruption and Taxation' (1995) 2 *International Tax and Public Finance* 397–417.

[79] F Alamgir, T Mahmud and Iftekharuzzaman, 'Corruption and Parliamentary Oversight: Primacy of the Political Will' (Paper presented at the Seminar on the International Anti-Corruption Day, Organised by Transparency International Bangladesh, 9 December 2006) 1–21.

[80] S N S Obid, 'The Influence of Penalties on Taxpayers' Compliance: A Comparison of the Theoretical Models' (2004) 12(1) *International Journal of Economics, Management and Accounting* 1–31.

[81] N R Monir, *Political Economy of Corruption: The Case of Tax Evasion in Bangladesh* (Unpublished PhD Thesis, Monash University, 2012).

[82] Ibid.

[83] S W Huck, W H Cormier and W G Bounds, *Reading Statistics and Research* (Harper & Row, 1974).

the earlier empirical literature on tax compliance costs and tax non-compliance utilised quantitative research methods, more recent studies have used a combination of quantitative and qualitative methods.[84]

Permission was obtained from the NBR to obtain lists of SMEs taxpayers that filed monthly VAT returns in financial year 2011–12. Participants were divided into three groups:

- SME taxpayers who have no non-compliance history and registered with VAT for at least three years (Referred to as Compliant VAT payers, and abbreviated to CT);[85]
- SME taxpayers who had VAT non-compliance cases decided against them and who had already paid the fines and penalties imposed on them (referred to as Non-Compliant VAT payers, and abbreviated to NCT);[86] and
- NBR's VAT Officials from field level to policy level and who have been working with the NBR at least for eight years (Referred to as VAT Officials, and abbreviated to VO).

The study was conducted in three stages. Stage 1 involved focus group discussions (FGD) with VAT payers of the SME sector (both CTs and NCTs) and VAT Officials. After completing the focus group discussions, a survey was designed through three stages: a first draft of the survey, pilot testing, and a revision of the initial draft survey. The revised survey was then submitted to independent readers for checking before commencing the actual survey. Stage 2 involved the mailing of a survey, seeking qualitative and quantitative data, from both complying and non-complying SMEs taxpayers. Participation was voluntary and no financial incentives were given for their time. Stage 3 involved in-depth semi-structured interviews with NBR officers and taxpayers. Those taxpayers who filled out a questionnaire in Stage 2 and who expressed their willingness to take part in in-depth interviews were included in the face-to-face interview in Stage 3. As this study used human subjects, it was necessary to ensure that ethics approval was received before commencement of each stage.

The overreaching research questions of this study are:

- Do Bangladeshi SME taxpayers' compliance costs include the costs of psychological impacts?

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[84] B Tran-Nam and J Glover, 'Estimating the Transitional Compliance Costs of the GST in Australia: a Case Study Approach' (2002) 17(4) *Australian Tax Forum* 499–536; J Glover and B Tran-Nam, 'The GST recurrent compliance costs/benefits of small business in Australia: a case study approach' (2005) 1(2) *Journal of Australasian Tax Teachers Association* 237–58; McKerchar, above n 59; E C Loo, 'Tax knowledge, tax structure and compliance: A report on a quasi-experiment' (2006) 12(2) *New Zealand Journal of Taxation Law and Policy* 117–40; Yesegat, above n 14.

[85] Compliant taxpayers (CTs) were those who had paid VAT to the NBR and who had no dispute in respect of their VAT payments; or taxpayers who had had a dispute with the NBR but had subsequently been vindicated by the NBR, the Tribunals, or the Courts.

[86] Non-compliant taxpayers (NCT) were those who had either not paid the correct amount of VAT to the NBR (as assessed by NBR's VAT Inspectors) and who had had a dispute in respect of their VAT payment but who ultimately lost their appeals through the NBR, the Tribunals, or the Courts. For ethical reasons, taxpayers who were still engaged in ongoing dispute with the NBR in respect of their VAT payment were excluded from the study.

- What is the value of any psychological costs, as a proportion of taxpayers' total compliance costs?
- What factors contribute to psychological costs among taxpayers?
- What effect does corruption have on VAT compliance cost?

It appears that most previous studies of psychological costs were qualitative in nature. In this study, an attempt has been made to estimate psychological costs both qualitatively and quantitatively. Having said that, our psychological cost estimates must be interpreted in the light of the myriad of difficulties faced by researchers seeking to measure them.

Surveys relating to tax non-compliance are also complicated by the sensitive nature of the topic and the threat of penalties, prosecution and stigmatization, which can induce taxpayers either to lie about their tax evasion behaviour, or refuse to take part in the study.[87] A number of strategies were adopted to try to minimise this. For example, many questions were raised in the third person rather than posed directly to the taxpayer; and participants were de-identified in all transcripts and responses.

4.1 Focus Group Discussions (FGDs)

The focus groups were conducted in Dhaka, the capital city of Bangladesh, because of the respondents' location. A total of 45 participants participated in the FGD, comprising 15 CTs (11 business owners and 4 VAT Directors of the businesses); 15 NCTs (12 business owners and 3 VAT consultants from selected enterprises); and 15 VAT Officials (9 Joint Commissioners of VAT and 6 Second Secretaries of VAT from the NBR). Because very few participants were fluent in English language, the discussions were conducted mainly in Bangla, the common language especially among SMEs. The discussions were recorded for transcription, although any identifying names or references were removed from the transcriptions. The confidentiality and anonymity of the recorded data was confirmed by coding the participant and not using participants' names. The findings of the FGDs are presented later in this article.

4.2 Survey design

In Stage 2 a survey was mailed to compliant and non-compliant SME taxpayers, with a view to gathering both quantitative and qualitative information on factors affecting VAT compliance, and for the estimation of VAT compliance costs. The questionnaire was designed using mainly closed-ended questions in order to gather numerical data, in the form of information which could be verified against documentation (such as the value of fees paid to professional advisers); in categorical form (such as tax rates applicable to different product categories); or in integer format (such as taxpayers' ratings of their perceptions on a 1–6 Likert scale). Other open-ended questions were also included in the survey, including those relating to taxpayers' perceptions of the integrity of VAT Officials and suggestions for improving the VAT in Bangladesh.

After the pilot test and refinement of the survey instrument, a total of 500 questionnaires were distributed to SMEs VAT payers from June 2013 to September

[87] J Houston and A Tran, 'A Survey of Tax Evasion Using the Randomized Response Technique' (2001) 13 *Advance Taxation* 69–94.

2013. The SME VAT payers were selected based on purposive sampling from NBR's taxpayers list. Out of this total, 200 questionnaires were distributed to NCTs group and remaining 300 questionnaires were distributed to CTs. Two reminders were sent to the taxpayers to improve the response rate. This process yielded 240 usable sets of responses (152 from CTs and 88 from NCTs). This represented an overall response rate of 48 per cent, comprising a response rate of 51 per cent from CTs, and a response rate of 44 per cent from NCTs.

Since VAT extends to the whole of Bangladesh, mail survey data were collected from the target population resident in the business regions of the city corporation area, as well as the district town and Upazilla areas. A summary of the participants' characteristics is shown in Table 3. Most of the respondents of mail survey were well qualified in terms of academic qualifications, 35 per cent holding a master's degree and 38 per cent holding a bachelor's degree. Some 50 per cent of respondents were from manufacturing business units and an average 45 per cent were sole business proprietors. Regarding their manner of keeping accounting records, 43.1 per cent from the compliant group and 34.1 per cent from the non-compliant group indicated that their systems were fully manual. The rest noted that either their accounting systems were fully or partially computerised, or their external accountants or tax advisors kept their accounting records.

Table 3: Summary of Stage 2 Participants' Characteristics

Characteristics	Compliant (N=152) n (%)	Non-Compliant (N=88) n (%)
Location of business / enterprise		
City corporation area (Dhaka)	33 (21.7)	35 (39.8)
City corporation area (Other)	60 (39.5)	26 (29.6)
District town	33 (21.7)	15 (17.1)
Upazilla area	26 (17.1)	12 (13.6)
Primary business / enterprise		
Manufacturing	75 (49.3)	44 (50.0)
Construction Units	16 (10.6)	12 (13.6)
Service Rendering Units	36 (23.7)	16 (18.2)
Traders (local, importers, exporters, commercial importers)	25(16.4)	16(18.2)
VAT related record keeping practice		
A manual / paper system	65 (43.1)	30 (34.1)
A partially computerised system	58 (38.41)	39 (44.3)
A fully computerised system	18 (11.9)	18 (20.5)
Tax adviser / external accountant	10 (6.6)	1 (1.1)
Average monthly VAT paid in FY 2011–12 (BDT)		
Under 400 000 (Under USD5172)	45 (29.6)	28 (31.8)
400 001–600 000 (USD5173–USD7759)	27 (17.8)	11 (12.5)
600 001–800 000 (USD7760–USD10 345)	12 (7.9)	10 (11.4)
800 001–1 0000 000 (USD10 346–USD12 930)	19 (12.5)	10 (11.4)
More than 1 000 001 (More than USD12 930)	49 (32.2)	29 (33.0)
Education level		
Below SSC	0	1 (1.14)
HSC	19 (12.5)	14 (15.90)
Certificate	2 (1.32)	3 (3.41)
Diploma	11 (7.24)	7 (7.95)
Bachelor's degree	58 (38.15)	33 (37.50)
Master's degree or above	60 (39.47)	24 (27.27)
Others (CA, LLB, MBA, PhD)	2 (1.32)	5 (5.68)

4.3 In-depth interviews

A face-to-face in-depth interview was chosen for Stage 3, consistent with Patton's fundamental principle of interviewing – namely, to provide a framework within which respondents can express their own understandings in their own terms.[88] Guest, Bunce and Johnson suggest that for data collection using interviews, the minimum sample is 12 participants and if the sample is highly homogenous, a sample of 6 interviews could be sufficient to enable a meaningful theme to appear.[89] To better understand the issues of psychological costs faced by SME taxpayers in Bangladesh, 12 in-depth interviews were conducted with VAT Officials. In addition, 14 SME taxpayers were interviewed to better appreciate their perceptions about the psychological costs of VAT.

5. FINDINGS

To explore the issue of VAT compliance costs, the findings for the focus groups (Stage 1), the survey (Stage 2) and the in-depth discussions (Stage 3) are presented below.

The general results of this survey are reported elsewhere, but the focus of this article is to analyse and present in-depth results relevant to psychological costs and corruption.[90] The general results suggest that a majority of compliant SME taxpayers considered complexity in VAT Law and compliance costs as two important factors influencing VAT non-compliance by SMEs. On the other hand, NCTs emphasised the positive relationship between VAT Officials and taxpayers who exhibited compliant behaviour. The likelihood of audits, penalties and sanctions were found to have less effect on VAT non-compliance for NCTs. In comparison, greater monitoring and penalties were viewed as ways of encouraging even greater compliance by compliant taxpayers.[91]

5.1 Estimate of psychological costs

During the FGDs, there were some statements that suggested that participants from the taxpayers' group had not previously considered the potential psychological costs of VAT:

> I think the majority of the general taxpayers have no idea. There'd be a small portion who understand it, but I think as many as 90 per cent have no idea. **(CT 9)**

> I think there are a lot of taxpayers out there who don't even know the exact definition of VAT compliance costs, let alone the psychological costs of VAT. **(VO 5)**

To try to tease out further discussion, possible psychological costs of taxation were discussed. This generated discussions about complexity in the VAT Law, taxpayer

[88] M Q Patton, *Qualitative Research & Evaluation Methods* (Sage Publications, 2002).

[89] G Guest, A Bunce and L Johnson, 'How many interviews are enough? An experiment with data saturation and variability' (2006) 18(1) *Field Methods* 59–82.

[90] Above n 28.

[91] Ibid.

dependency on the VAT consultants, the nature and extent of connections with the NBR and political parties, the honesty (and dishonesty) of the VAT Officials, surprise visits by NBR Officials, the discretionary power of VAT Officials, and the nature of VAT audits.

Complexity of the VAT law was considered by most of the participants (CT and NCT) in the FGDs to be one of the main drivers of the psychological costs of VAT compliance. This was supported by in-depth interviews in Stage 3. The CTs expressed that the VAT Law in Bangladesh is very complex and difficult to understand. A few compliant participants stressed that they could not cope with the changes to the law. Price declarations, complicated rebates and refund procedures that required many accounts to be maintained, made the VAT Law very complex and stressful for participating SMEs. The following statement is indicative of the 'uncertainty' underpinning taxpayer anxiety:

> If the VAT record-keeping system were less complicated with a simpler payment system, compliance costs and mental pressure would be lower. I think then the business community would deposit the right amount of VAT owing. **(CT 1)**

A strategy adopted to reduce this complexity was to employ VAT advisors and VAT accountants to assist with VAT obligations. Gaining assistance from advisors or accountants was seen as providing some relief from tension or anxiety, although it clearly increased VAT compliance costs in monetary terms:

> As the VAT Law is complicated in Bangladesh, I usually get help from VAT consultants. An experienced consultant can help us with price declarations and getting proper refunds. So their fees are very high. I don't mind to pay higher salary to VAT consultants, as they are helping me to get a hassle-free business life. I can concentrate more on my business now. **(CT 8)**

> My VAT advisor looks after everything to do with my VAT affairs and all the costs related to VAT. But I think the extra cost related to VAT is higher than other tax-related payments. Although my advisor is helping me to keep away from tension and anxiety, I think I would have invested more money into my business if I didn't have to pay my VAT advisor. **(CT 4)**

This notion of employing others is consistent with the notion of paying others to remove the stress of compliance.[92]

Some respondents during the Stage 3 in-depth interviews took the view that psychological costs related to 'resentment' were (or should be) included in VAT compliance costs. They reported that 'hassles' from VAT Officials, 'financial dealings' with VAT consultants and revenue officials, and 'worries' about NBR decisions added to the level of stress of their lives. Some NCTs admitted that dealing with higher VAT Officials in relation to objections for non-compliance was the most unpleasant thing for them. Fear of confrontation and rejection, or the possibility of losing money through fines or penalties, triggered psychological pressure for taxpayers. To cope with feelings of resentment, some taxpayers bribed officials to 'make the problem go away':

[92] McKerchar, above n 59.

> VAT Officials are unfriendly and unfair. If you don't maintain a lawful relationship with them, you feel rejected. I had a bitter experience with them over a VAT audit case. Irregularities were raised on the basis of whim, rather than on substantial grounds. Whenever I raised the issue, they became arrogant with me. I felt so disgraceful that I needed to consult with a psychiatrist twice to forget that incident. Finally, I thought it might be better to give them some money and settle the case 'unofficially'. **(NCT 4)**

Taxpayers also resented how they were treated at a basic level:

> Last year I had a hearing with the Commissioner of VAT in his office. I had to wait an extra five hours to meet with him. The Commissioner was so rude, saying that I am not a taxpayer, I am a thief. I was shocked. I realised that I made a mistake in my tax planning. I should have employed a VAT consultant to mitigate the case. It would have cost me more, but I might have been saved from this disgraceful behaviour. I think VAT compliance costs include this type of adverse psychological effect, which actually costs a lot. **(NCT 1)**

Half of the taxpayers in Stage 3 (7 out of 14) indicated that they had encountered problems in dealing with the VAT Law and had employed a VAT consultant. It was apparent that, from the perspective of the respondents, complexity existed and increased the VAT compliance costs along with psychological costs. For many to reduce their anxiety over VAT compliance, they employed others. The participants considered that the psychological costs of a business owner should include the costs of tax professionals and also psychiatrists:

> I use a consultant to achieve the feeling of confidence that my VAT return has been completed and submitted correctly. I also feel that to get assistance from a consultant is time-effective and less worrying for me. **(CT 5)**

> I have always lodged my VAT return on time every month since I started my business. Last month I was busy due to my business's relocation. Consequently, my VAT return submission was late. I am very surprised the Divisional office did not value my previous record and my unintentional delay. I received a phone call from a VAT Officer with an angry voice. I found myself feeling threatened. It surprised me, because I know of others who haven't ever submitted VAT return on time and have been rarely chased up by the VAT Officer. One of my close friends suggested I go on a monthly arrangement with the local VAT Office for a hassle-free business, or hire a consultant to contact the VAT Office on my behalf. I think that, to get rid of all these unwanted hassles, we have to accept extra costs. These costs should include the psychological costs of VAT. **(CT 4)**

The employment or engagement of an advisor was also used to put the taxpayers on a more equal footing with tax officials:

> The NBR assumes taxpayers are guilty of tax evasion until the taxpayer proves himself innocent. I pay an accountant in my business do my VAT-related work and VAT returns, because it assists me to prove my innocence to the NBR and keep myself mentally peaceful. The VAT system is loaded against SME taxpayers. **(NCT 3)**

One important issue is apparent from the above comments that many taxpayers want to comply with the VAT Law and relief from stress is a significant issue for them. They are ready to pay VAT consultants and sometimes VAT Officials to get relief from anxiety and stress.

The importance of VAT consultants was also evident from the mail survey (Stage 2). In this survey, 55 per cent of the CTs and 42 per cent of NCTs paid an external adviser to assist with VAT compliance. Reasons for using VAT consultants included the complexity of the VAT Law (72 per cent of CTs, and 69 per cent of NCTs agreed or strongly agreed). It appears that CTs are more motivated to comply, as 70 per cent of CTs (compared to 54 per cent of NCTs) agreed or strongly agreed that they used external help to ensure compliance with VAT obligations.

5.2 Sector Wide Psychological Costs

This study sought to estimate the psychological costs, if any, associated with VAT compliance. Woellner et al described psychological costs of tax compliance as the negative experiences (such as anxiety and frustration), or stress, caused by tax compliance.[93] In developed economies, people who suffer from the psychological effects of stress or anxiety may self-medicate through alcohol and/or smoking; consult a psychologist or psychiatrist; possibly take prescribed medication; or, in some cases, take illicit drugs. Due to Bangladesh being predominately a traditional Muslim country, Bangladeshis experiencing stress or anxiety tend not to drink. The empirical indicators used to try to estimate psychological costs associated with the VAT compliance were the average annual cost per taxpayer of sleeping pills, tobacco, consulting psychologists or psychiatrists or similar medication used to relieve the symptoms of anxiety or stress connected with such compliance. While this is not a perfect indicator of the psychological costs, it does provide some important initial evidence in this regard.

In this analysis, VAT taxpayers were divided into five categories, namely small firms which paid less than BDT400 000 in VAT (Group 1); intermediate SMEs which paid BDT400 001-–600 000 in VAT (Group 2), and BDT600 001–800 000 (Group 3); and large SMEs which paid BDT800 001–1 000 000 in VAT (Group 4), and BDT exceeding 1 000 000 (Group 5). Respondents were also divided into different sectors, namely manufacturing, construction, services and traders. Sector-specific monthly average psychological costs, based on the monthly VAT paid by compliant and non-compliant SME taxpayers, are presented in Table 4 and Table 5.

[93] Woellner et al, above n 49; Woellner et al, above n 52.

Table 4: Average Psychological Costs of CTs

Group	VAT Payment Group (expressed in BDT)	Sector wide Psychological Costs of VAT for CTs			
		Manufacturing Units (BDT / USD)	Construction Units (BDT / USD)	Service Rendering Units (BDT / USD)	Traders (BDT / USD)
1	Under 400 000	6 995 / 93	3732 / 50	2362 / 31	5643 / 75
2	400 001–600 000	16 222 / 216	13 125 / 175	12 500 / 166	13 409 / 179
3	600 001–800 000	16 666 / 222	none	14 305 / 191	14 389 / 192
4	800 001–1 000 000	24 259 / 323	13 125 / 175	21 666 / 289	20 833 / 278
5	More than 1 000 001	41 585 / 554	36 250 / 483	34 881 / 465	32 023 / 427

Psychological costs in the Table are quoted first in BDT, and then in USD (the relevant exchange rate being 1 USD = 75 BDT). Thus, for example, psychological costs for compliant taxpayers in the manufacturing sector paying less than BDT400 000 in VAT during the relevant period averaged BDT6995 or USD93.

Table 5: Average Psychological Costs of NCTs

Group	VAT Payment Group (expressed in BDT)	Sector Wide Psychological Costs of VAT For NCTs			
		Manufacturing Units (BDT / USD)	Construction Units (BDT / USD)	Service Rendering Units (BDT / USD)	Traders (BDT / USD)
1	Under 400 000	5138 / 69	4166 / 55	4583 / 61	7234 / 96
2	400 001–600 000	8250 / 110	7666 / 102	6333 / 84	6439 / 86
3	600 001–800 000	18 750 / 250	15 000 / 200	15 277 / 204	13 289 / 177
4	800 001–1 000 000	19 723 / 263	16 666 / 222	12 500 / 166	18 724 / 250
5	More than 1 000 001	41 666 / 556	33 208 / 443	27 600 / 368	33 323 / 444

Again, psychological costs in the Table are quoted first in BDT, and then in USD (the relevant exchange rate being 1 USD = 75 BDT). Thus, for example, psychological costs for non-compliant taxpayers in the manufacturing sector paying less than BDT400 000 in VAT during the relevant period averaged BDT5138 BDT or USD69.

These results indicate that the psychological costs of VAT in Bangladesh in the year under consideration were generally higher for the manufacturing sector than other sectors.[94] There are five main reasons why greater psychological costs are generally likely to be incurred by VAT payers in the manufacturing sector than traders or other businesses. First, more NBR and taxpayer discretions apply to manufacturing than other sectors (eg, in relation to valuations for VAT purposes[95]), and uncertainty about how these discretions might be applied by the NBR are likely to generate anxiety. Partly because of these manufacturing-specific discretionary powers, NBR Officials tend to visit and audit manufacturers more frequently than traders or other businesses, creating further stress for manufacturers.

Second, manufacturers, many of which are foreign-owned, are more likely to engage (and be able to afford) a tax accountant in order to transfer the stress of VAT compliance away from management (a cost which taxpayers therefore include in the psychological costs of VAT compliance).[96]

Third, manufacturers typically pay more in bribes than traders and other businesses in Bangladesh because more things can go wrong with VAT calculations and assessments in manufacturing, which is more complex than many other businesses in Bangladesh; and because they need to deal harmoniously with more stakeholders (see below).

Fourth, manufacturers typically claim for refunds and rebates more than traders and other businesses in Bangladesh, who tend not to make such claims, and manufacturers' anxiety (and possibly resentment levels) increase when NBR Officials question these claims. Because all claims processing at the NBR is performed manually, manufacturer-taxpayers must travel to the nearest VAT Office in order to have their refunds and rebates processed. In comparison, traders and other businesses that do not claim refunds or rebates need not travel to VAT offices, thereby avoiding the stress associated with such visits.

Fifth, as a socio-cultural phenomenon, manufacturers (often foreign-owned) are more likely to pay bribes to local political leaders (and sometimes local police) to facilitate business (eg, for town planning applications to extend a factory) than traders or other

[94] This is subject to one exception, namely that non-compliant manufacturers paying less than BDT400 000 in VAT reported lower psychological costs than traders. These traders were mainly owners of 'super shops' in city areas ('super shops' being smaller versions of the discount supermarkets found in many western economies). These traders paying less than BDT400 000 were legally required to maintain both manual and computerised records (although traders in higher VAT payment brackets needed only to keep computerised records). Group 1 traders' efforts to maintain both manual and computerised records resulted in record-keeping discrepancies between the two sets of accounts (manual and computerised). As a result, these traders were considered non-compliant by the NBR and their anxieties over this, together with their anxiety about the costs of settling their cases with the NBR over their alleged non-compliance, are likely to be reasons for these traders' higher psychological costs.

[95] For example, the suppliers of VAT-able goods in Bangladesh, before making a supply, have to make a declaration, on a prescribed form, of the selling price of their goods. The declared price is supposed to be the price for the assessment of VAT. The prescribed value declaration Form (Mushak-1) requires the supplier to provide information to the VAT office with a description of the goods, the unit of supply, the name and quantity of raw materials and packaging materials used for each unit of the good along with the percentage of wastage, cost of inputs including customs duty, supplementary duty, letter of credit fees and other charges, as applicable.

[96] See the discussion after Table 6 below.

businesses, and some manufacturers believe that such costs of doing business are (or should be) part of the psychological costs of VAT compliance, or even that these costs should be reflected in the VAT they pay.[97]

Further in this regard, during an in-depth interview one respondent claimed that the owners of manufacturing firms also have to tolerate extra costs, both monetary and psychological, in order to run a manufacturing unit because of the larger number of stakeholders involved:

> As I am the owner of a manufacturing firm, I have to look after so many things related to VAT. We not only have to satisfy the VAT Officials. We have to think about income tax issues. I have also to talk with my income tax consultant before submitting my monthly VAT return. We have to satisfy the local political leaders and in some cases local police also to run my business smoothly. I can't show them in black and white. So I think VAT compliance costs and psychological costs related to VAT are relatively higher in Bangladesh for manufacturers. **(CT 1)**

The discretionary power of VAT Officials was acknowledged as one of the main reasons for manufacturers' higher psychological costs in Bangladesh:

> The discretionary power of VAT Officers is really terrifying to me. They can set our prices, seize our products any time at any place, they can visit your business premises even at midnight. How powerful are they? I think most taxpayers feel very worried when they visit us. My psychological cost of VAT becomes higher when I submit my price declaration documents to them. **(CT 7)**

Such sentiments reflect not only anxiety (given the inconvenience and trouble caused for taxpayers), but also resentment (eg, from a perceived invasion of privacy or even oppression). It may be no coincidence that, despite living in a developing economy where many taxpayers could presumably ill-afford it, 19 per cent of respondents (ie almost one in five) had consulted a psychologist or psychiatrist because of stress in relation to VAT.[98]

Other drivers of taxpayer (manufacturer) anxiety over VAT issues were also reported. Another respondent claimed that they have to go the VAT offices five times on average to manage the VAT Officials to get the approval of value declaration, input tax credit or for refund. The need for, and frequency of, such visits cause higher VAT compliance costs for manufacturers in Bangladesh. In addition, some of the CT respondents indicated that their concerns about VAT are increased by 'estimated assessments' which are far in excess of the actual liability, or by surprise visits from local VAT Officials or the audit team. This could be due to an unequal power between VAT Officials and SMEs, which can foster anxiety and resentment. One way to manage such stress is to 'transfer' it by hiring VAT consultants:

> We, the taxpayers, do not often go to the VAT experts for tax savings; we come mostly to lift the burden of worrying about VAT. **(NCT 5)**

[97] See the discussion following Table 6 below.

[98] Taxpayer responses regarding the types of remedies they took in order to reduce their stress and anxiety from VAT issues are explored below.

Our findings about stress arising from the discretionary power of VAT Officials are consistent with previous literature. Because of a general belief that VAT Officials wield very strong powers and sometimes use all the powers at their disposal to obtain outstanding VAT, business organisations such as the Federation of Bangladesh Chambers of Commerce and Industries (FBCCI) and the Dhaka Chamber of Commerce and Industries (DCCI) have proposed that VAT Officials' discretionary powers be curtailed in the new VAT Law, in order to reduce the compliance burden for business.[99] The majority of NBR Officials believed that these powers were necessary to maximise compliance and to act as strong deterrents.[100] However, a few (2 out of 12) NBR Officials believed that excessive power was not effective in preventing intentional non-compliance as long as those taxpayers have few ethical concerns about not paying the correct VAT:

> I believe we should have some discretionary power to handle the non-compliant taxpayers. But ethics is very important for voluntary compliance. As long as the taxpayers are not willing to pay VAT ethically, the situation will not improve. I think complexity, compliance costs, ethics and some discretionary powers of VAT Officials all are equally important to make taxpayers interested in paying the right amount of taxes. (**VO 8**)

The FBCCI and DCCI proffered their proposed amendments to the VAT Law in 2012. Since that time, the VAT Law has been amended to curtail somewhat the discretionary powers of NBR Officials, and the new VAT legislation is being implemented from 1 July, 2015. Examples of the NBR's curtail discretionary powers include a truncated base for assessment of the VAT, and removal of the power of determination of turnover taxes. However, discretions around the provision of tariff values, the use of stamp and *banderole*, the input-output coefficient for manufacturers, and section 26 of the existing VAT Law (ie the power of make 'surprise' visits to taxpayers' premises) will continue. Moreover, the NBR will now have vested additional powers to recover VAT, including freezing a tax debtor's bank accounts, placing a lien on the tax debtor's property, and holding company directors liable for paying unpaid taxes. Thus, while some action has been taken to implement the FBBCI's and DCCI's 2012 proposals to curtail the NBR's discretionary powers, the risk remains that NBR Officials might continue to misuse their powers and perpetuate alleged corruption.

Respondents were asked to indicate the types of remedies that they took to reduce stress and anxiety in relation to VAT. The most common ways in which taxpayers coped with the psychological costs of VAT compliance were taking medicine such as sleeping pills (27 per cent), taking tobacco (22 per cent), consulting with a psychologist or psychiatrist (19 per cent), or self-medicating (7 per cent).[101] Out of the remaining 25 per cent of respondents, 13 per cent took part in activities such as

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[99] Financial Express, *FBCCI for Reducing VAT Officials' Discretionary Power* (10 May 2012) <http://print.thefinancialexpress-bd.com/old/more.php?date=2012-05-10&news_id=129179>; Finance Minister Abul Maal Abdul Muhith, 'Budget Speech 2013–2014' (Speech delivered at the National Parliament House, Dhaka, Bangladesh, 2013)

[100] A M Saleheen, 'Presumptive Taxation under Bangladesh' (2012) September/October *International VAT Monitor*, , 316–21.

[101] In developed Western economies, people who suffer from the psychological effects of stress or anxiety may self-medicate through alcohol and/or smoking; consult a psychologist or psychiatrist; possibly take prescribed medication; or, in some cases, take drugs that are not prescribed. In Bangladesh, the findings have some similarities regarding consulting with a psychologists or psychiatrist, as 19 per cent of respondents took this as a remedy from psychological pressures of the VAT.

vacations, being with family, socialising, eating out, shopping, travelling, entertainment, and using alcohol. Some 12 per cent pointed out that their use of a VAT adviser meant they never felt any stress or anxiety, as they thought their VAT consultants were very efficient in relation to VAT. This supports an inference that, for many, using VAT advisers is a way of mitigating the psychological costs of VAT compliance.

In addition to the measure of psychological costs, VAT taxpayers were asked to consider the question: 'If you could claim from the VAT Authority for your stress or anxiety in the 2011–12 financial year about complying with VAT for your business, how much would you have claimed?'

Results showed that the figures which taxpayers would claim (if they could) from the NBR for stress or anxiety (Table 6) were higher, by a factor of 8 to 10, than their previous estimates of psychological costs as set out in the preceding Tables 1, 2, 4, and 5. For example, while Group 1's estimates of psychological costs for VAT were BDT4648, the amount they would like to claim (if they could) from the NBR was BDT35 000. This is an amount greater than their total VAT compliance costs. Indeed, the amount that Groups 4 and 5 would like to claim (if they could) from the NBR was almost double their total VAT compliance costs (Table 6).

Table 6: Difference between Psychological Costs and Taxpayers' Claims to NBR

Components of Average Compliance Costs	**Average Money Spent by CTs (BDT)**				
	Group 1	Group 2	Group 3	Group 4	Group 5
Psychological costs for VAT	4648	13 521	11 495	22 861	31 176
Total VAT Compliance Costs (monetary costs plus psychological costs)	32 470	75 149	86 110	117 439	210 441
The amount taxpayers would claim to VAT authority for stress and anxiety	35 000	50 000	65 000	250 000	400 000
	Average Money Spent by NCTs (BDT)				
	Group 1	Group 2	Group 3	Group 4	Group 5
Psychological costs for VAT	6622	7985	16 273	19 444	33 045
Total VAT Compliance Costs (monetary costs plus psychological costs)	41 713	61 836	91 273	122 344	260 700
The amount taxpayers would claim to VAT authority for stress and anxiety	50 000	63 000	85 000	275 000	520 000

At first glance, this discrepancy appears to betray inconsistency in the way taxpayers perceive and value the psychological costs of their VAT compliance. For example, it could be that taxpayers are inconsistent in their estimates of psychological costs if they are asked to estimate total amounts holistically (a top-down approach), rather than individual cost components (a bottom-up approach). On closer reflection, however, it is more likely that the responses given are driven by the way in which the question was framed. If taxpayers are asked what amounts they would claim for stress from the NBR, it would be rational for them to interpret the question as meaning 'If you find the entire process of VAT compliance stressful, how much would you be

willing to pay to make this entire process go away if you knew the NBR would reimburse you?' 'Psychological' cost estimates by taxpayers could then understandably include the costs of engaging VAT advisors or accountants to transfer the stress away from taxpayers,[102] as well as the value of bribes or 'speed money' paid to VAT Officials to progress matters. It is also possible that the figures which taxpayers report they would claim (if they could) from the NBR for stress or anxiety are simply ambit claims, although this seems unlikely given the level of candour and transparency exhibited by respondents.

This result is supported by findings from FGDs and in-depth interviews when the respondents were asked to indicate how much they would be willing to claim from the VAT authority for their stress or anxiety. Most of their responses were, 'The amount I paid my VAT Consultant, VAT advisor, or the "speed money" I paid the VAT Officials'. However, about 20 per cent of CT respondents and 21 per cent of NCTs noted that they did not want to claim anything from the VAT authority. This was because they thought that stress is part of running a business or is compensated by 'getting it right':

> I know doing VAT-related work by me is disappointing, but I find no means to pay others from my business's profit. I faced problems while doing this, but it's my duty as a businessman. I don't want to claim anything from NBR. **(CT 7)**

> There is no doubt that I had stress and anxiety for my tax-related work. I had to spend lots of hours to complete those. But when I finished everything, I felt very relaxed. I realise that I can argue with the VAT Officials if they chase me. I have that confidence within me. I don't believe in the concept of claiming from the VAT authority for my stress and anxiety. I think good behaviour or a compliment from the VAT Officials is enough for me. **(CT 4)**

It was found that psychological costs appear to account for 15.5 per cent of total VAT compliance costs in Bangladesh. The results suggest that psychological costs may be a substantial component of VAT compliance costs for SMEs in Bangladesh, with little difference between CTs and NCTs. However, it was not possible to compare whether 15.5 per cent (being an estimate of psychological costs as a proportion of total VAT compliance costs) has changed significantly over time, since there is no prior study on the monetary value of psychological costs in Bangladesh.

Woellner et al report that simplified legal drafting reduces the psychological costs of tax compliance.[103] Regarding the stress and anxiety (psychological costs) that VAT causes, Yesegat points out those Ethiopian taxpayers perceived the burden of psychological costs to be high and very high.[104]

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[102]In this context, the costs of engaging external advisors, while they may be useful in transferring stress or anxiety away from taxpayers, would appear to boost taxpayers' cost estimates considerably. The cost of external advisers is reflected in the fact that only 17 per cent of the SMEs in Group 1 used assistance from external VAT consultants, whereas 72 per cent of the SMEs in Group 4 and Group 5 used external advice for compliance. One interpretation is that only relatively wealthy taxpayers can afford the cost of external advice.

[103]Woellner et al, above n 52.

[104]Yesegat, above n 14.

In the present study six attitudinal statements were included in the survey relating to psychological costs (stress and anxiety) of VAT compliance, as shown in Table 7.

Table 7: Psychological Costs of VAT

Psychological Costs of VAT (CT = 152, NCT = 88)	Agree / Strongly Agree		Disagree / Strongly Disagree		Not Sure / Neutral	
	CTs	NCTs	CTs	NCTs	CTs	NCTs
There are no psychological costs (stress/anxiety/ sleepless nights) in complying with VAT.	18%	13%	63%	73%	19%	14%
Psychological costs have significantly affected the amount of time and effort that I can put into my business.	64%	82%	18%	4%	18%	16%
The psychological costs relating to VAT are excessive when compared to other taxes in Bangladesh.	40%	62%	37%	11%	23%	27%
The VAT authority's timely information and friendly attitude towards taxpayers can reduce psychological costs.	82%	85%	3%	10%	15%	5%
Significant promotion of NBR prosecutions of non-compliant taxpayers would increase psychological costs among other SME taxpayers.	68%	61%	4%	22%	28%	17%
Significant promotion of NBR prosecutions of non-compliant taxpayers would increase compliance among other SME taxpayers.	72%	36%	5%	42%	23%	22%

The results demonstrate that only around 15 per cent of respondents felt there were no psychological costs in complying with VAT. The taxpayers who were either fully compliant or had competent hands to deal with VAT matters might not feel any stress or anxiety about VAT compliance. Moreover, non-compliant taxpayers might underestimate the psychological costs of VAT, or feel that they can manage everything by bribing the VAT Officials.

About half of the respondents agreed or strongly agreed that the psychological costs relating to VAT are excessive when compared to other taxes in Bangladesh. This may be because in Bangladesh, income tax returns have to be submitted once a year, so that income taxpayers get sufficient time for income tax calculation and return preparation. On the other hand, registered Clearing and Forwarding Agents (C&F Agents) look after the customs-related activities on behalf of importers for import taxation. In the case of VAT, in order to submit a monthly VAT return, all transactions of sales need to be included. Input tax credits, record keeping, and the collection of VAT at different stages of production also result in more formal paper work. Because many Bangladeshi SMEs do not utilise computerised accounting systems in their businesses, the record-keeping required for VAT can be burdensome. As noted, only 15 per cent of respondents had a fully computerised record-keeping practice (Table 3). In addition, variability in the calculation of Bangladesh's VAT across taxpayers and the uncertainty surrounding such determinations could create higher stress in relation to VAT than that for other taxes. Stress in relation to VAT could also be increased by

VAT Officials' surprise visits to business premises and on-the-spot examinations, which could generate greater stress and anxiety for SME taxpayers compared to other taxes. Overall, about 63 per cent of compliant and 73 per cent of non-compliant VAT payers disagreed or strongly disagreed with the notion that 'There are no psychological costs (stress/anxiety/sleepless nights) in complying with VAT'.

In relation to the six attitudinal statements in Table 7, the significant differences between responses by CTs and NCTs may be because psychological costs impact NCTs (82 per cent) more than CTs (64 per cent) – this could be due to NCTs having to go through an audit and/or appeal process, and may also be because they know they are at fault. It appears one way to possibly reduce psychological costs is for the VAT authority to provide timely information and have a friendly attitude towards taxpayers, as 82 per cent of compliant and 85 per cent of non-compliant VAT payers strongly agreed or agreed with this. The importance of co-operation of VAT Officials was also apparent in respondents' comments during in-depth interviews:

> I felt less confused, less frustrated, more confident and more satisfied when I got proper attention from local VAT offices and VAT Officials. I think the simplification of VAT Law is not sufficient to reduce our stress, anxiety or sleepless nights; professional co-operation from the revenue administration is very important to make the taxpayers more compliant. **(NCT 5)**

> I felt calmer when I had successful interactions with the VAT Officials. I know they (VAT Officials) have discretionary powers. To maintain a good relationship with them is really important for me to keep myself stress-free. **(CT 7)**

This may be because establishing a better relationship between the taxpayers and NBR can encourage voluntary compliance and help businesses manage their level of tax-related worries effectively. Strengthening relationships between tax inspectors and taxpayers is seen as a way of encouraging taxpayers to fulfil their obligations willingly.[105]

The survey results also indicated similar perceptions among CTs and NCTs: 68 per cent of CTs and 61 per cent of NCTs strongly agreed or agreed that the significant promotion of NBR prosecutions of NCTs would increase psychological costs among other SME taxpayers (Table 7). However, different taxpayer groups had different opinions about the effects of significantly promoting NBR prosecutions on compliance. For example, 72 per cent of CTs agreed or strongly agreed that significant promotion of NBR prosecutions of non-compliant taxpayers would increase compliance among other SME taxpayers, while only 36 per cent of non-compliant VAT payers thought similarly. This may be due to the fact that NCTs tend to be risk-takers in making compliance decisions, because penalties and fines imposed by the VAT authority are seen as risks worth taking. Alternatively, it may be because NCTs do not think there is a risk of detection by the NBR (eg, because they can bribe NBR Officials).

[105]Kirchler, above n 69.

5.3 Role of VAT officers with psychological costs and corruption

Casanegra de Jantscher observed that in developing countries, tax administration is largely seen as tax policy.[106] Senior-level officers from NBR have the unique opportunity of playing the dual role of policy formulator and implementer.[107] However, such concentration of power could lead to opportunism and/or corruption. Interviews with NBR officials working both at the policy and implementation levels reveal that there is a growing awareness about the importance of VAT compliance costs within the policy levels. During FGD, most of the VAT Officials mentioned that they are always concerned to keep the compliance burden minimal for the taxpayers. However, a majority of the VAT Official participants (12 out of 15) argued that sometimes they were powerless to make the taxpayers compliant unless they used the threat of fines and penalties or a surprise visit to their business premises. While these initiatives may cause worry and anxiety to taxpayers, the VAT Officials perceived these steps to be more effective than others:

> In my 15 years of service life with the VAT department, I had never seen a taxpayer wanting to deposit the right share of VAT willingly. Most of the times they want to avoid our requests to pay VAT. Finally when they are given threat by the VAT Officials about an audit, surprise visit or stock check, they get worried and conscious and then pay VAT. But in most cases, they pay a little more than before, not the right amount. **(VO 5)**

VAT Officials were aware of cash flow problems by some SMEs in meeting their VAT obligations, although they saw it as their duty to collect the right amount:

> I don't understand exactly why the taxpayers' behaviour is so disappointing when I am very gentle and cool to make them understand to pay the right amount of VAT. They are ringing the same bell year after year that their businesses are running very hard. But when I am bothered and adamant to collect the right share of VAT and visit their business premises frequently, they became compliant. **(VO 12)**

Deterrent theory is seen as an influential factor with the tax compliance decision.[108] Penalties and punishment by a legal system communicate to the individual that the legal system views intentional tax non-compliance as a crime. Some taxpayers may be more sensitive to the threat of penalties than others. For them, the penalties must be demonstrated in concrete sentences that they perceive as relevant to their own lives. The VAT Officials interviewed strongly agreed that the NBR's firm position against VAT evasion creates psychological pressure amongst taxpayers, and that significant deterrent effects from NBR prosecutions of NCTs increase the psychological costs to other taxpayers. However, this was seen as the price for greater overall compliance:

> It's not the complexity of the VAT Law and compliance costs. Significant promotion of the NBR's prosecutions of non-compliant taxpayers increases psychological pressure among other SME taxpayers and therefore increases

[106] M Casanegra de Jantscher, 'Administering the VAT' in M Gillis, C Shoup and G P Sikat (eds), *Value Added Taxation in Developing Countries: A World Bank Symposium* (World Bank, 1990).

[107] Saleheen, above n 33.

[108] M Allingham, and A Sandmo, 'Income Tax Evasion: A Theoretical Analysis' (1972) 1 *Journal of Public Economics* 328–38.

> voluntary compliance and enforced compliance among other SME taxpayers. **(VO 13)**

However, some NCTs questioned whether these fines and penalties were genuine or just 'hype':

> Fines, penalties and sanctions have a deterrent effect for the taxpayers concerned and other taxpayers. The result is a better understanding and better compliance of VAT Law. But in Bangladesh all [fines, penalties and sanctions] are show-off [hype]. **(NCT 3)**

As noted, fines and penalties appeared to have greater influence on CTs rather than NCTs. In this regard, a number of focus group participants (taxpayers) also confessed that they had paid more income tax and VAT during the 2007–2008 period due to tremendous pressure from the NBR, and because of media reports that influential business owners were victimised by the military-backed government. The revenue-collection scenario from the caretaker government and some of the initiatives taken by that government, such as the Citizen Charter of the NBR, were acknowledged by Saleheen in his paper regarding good governance and the VAT in Bangladesh:[109]

> We have watched TV and read newspapers reporting that some of the civil officials are openly assaulted by army officers. As they [army personnel] can be so rude to the civil servants, they can go to any extent with the general taxpayers. Naturally, I was afraid and deposited more VAT than before, even though I had a loss in my business at that time. **(NCT 8)**

Brennan and Buchanan argue that any country's laws and regulations are likely to be ineffective if citizens perceive that their politicians and bureaucrats are corrupt.[110] This can mean that taxpayers who bribe politicians and civil servants are not afraid of the enforcement agencies. Some participants recognised that business owners' illegal associations with the NBR and political parties reduced the deterrent effects and psychological pressures among taxpayers. For instance, a businessperson who evades VAT may be approached by a VAT inspector with demands for bribes in exchange for a promise of protection. Official corruption, primarily bribery, reduces the likelihood of punishment and consequently the effectiveness of punishment as a deterrent.[111] Comments from participants in in-depth interviews supported this, but noted that SMEs may not have the financial resources for bribes:

> I think there would be strong demonstration and deterrent effect in our taxation sector if political institutions worked properly. Connections with NBR and political parties allowed the old and more established groups to totally dominate and monopolise markets. These groups can buy anyone. We, the SME taxpayers, may fear the NBR, but the large taxpayers are not afraid of violating the Law. They know that money can buy anyone in Bangladesh. **(CT 14)**

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[109] Saleheen, above n 21.

[110] G Brennan and J M Buchanan, *The Reason of Rules: Constitutional Political Economy* (Cambridge University Press, 1985).

[111] C Moskos, 'How to Clean up Foreign Militaries: Subsidize and Control their Pay and Pension' (1998) December–January *U S News & World Report* 51–2.

It appears that bribes reduce the effectiveness of audits and prosecutions:

> In Bangladesh, roles and relationships prevail over rules and regulations. Informal relationships are more important than formal rules and regulations. When a VAT official is paid informally by a businessman, the latter will never be afraid of the former. We know that we can manage them [VAT Officials] anyhow. Therefore, significant demonstration effects from NBR prosecutions of non-compliant taxpayers usually do not increase psychological costs among other taxpayers. **(NCT 10)**

Much of the discussion with respondents indicated that the deterrent effect could be improved in Bangladesh if the NBR and other enforcing agencies could be appropriately constrained by law and be free of corruption. However, the Bangladeshi political system, judiciary, and revenue department appear to be subject to a high level of corruption. For example, the Transparency International Bangladesh (TIB) report noted that that 76 per cent of the respondents thought corruption in the public sector was the major problem, while 40 per cent thought personal relationships were more important in getting public service.[112] These findings are consistent with prior literature which demonstrates that most of the citizens in developing African countries are not afraid of the enforcing agencies because their politicians, civil servants and legal systems are generally corrupt.[113]

To tease out perceptions of corruption and VAT compliance, a number of questions were asked: Table 8. It appears that the reduction of corruption would have the biggest influence on complying taxpayers,[114] although it would still have some positive impact on non-complying taxpayers. This impact of corruption is at all levels from big business, government officials, VAT Officers and politicians.

[112]Transparency International Bangladesh, *Annual Report 2013* (Transparency International Bangladesh, 2013).

[113]J M Mbaku, 'Bureaucratic Corruption and Policy Reform in Africa' (1994) 19(2) *Journal of Social, Political and Economic Studies* 149–75.

[114]As noted, compliant taxpayers (CTs) were those who had paid VAT to the NBR and who had no dispute in respect of their VAT payments; or taxpayers who had had a dispute with the NBR but had subsequently been vindicated by the NBR, the Tribunals, or the Courts. Thus the 86 per cent figure in Table 8, representing compliant taxpayers who would be willing to pay the 'correct' amount of VAT if they saw less corruption by government officials, could include taxpayers who had not paid the VAT amount initially required by the NBR (but whom a court, tribunal or an NBR review panel nevertheless later vindicated). These taxpayers might perceive the initial VAT assessment by the NBR (later found to be incorrect) as somehow tainted by corruption.

Table 8: Corruption and Voluntary Compliance

Statement about Corruption (CT= 152, NCT= 88)	Agree / Strongly Agree		Disagree / Strongly Disagree		Not Sure / Neutral	
	CTs	NCTs	CTs	NCTs	CTs	NCTs
If I saw less corruption by Bangladeshi big business, I would be willing to pay the correct amount of VAT.	78%	53%	10%	27%	12%	20%
If I saw less corruption by government officials, I would be willing to pay the correct amount of VAT.	86%	55%	10%	16%	4%	29%
If I saw less corruption by VAT Officials, I would be willing to pay the correct amount of VAT.	85%	69%	12%	9%	3%	22%
If I saw less corruption by Bangladeshi politicians, I would be willing to pay the correct amount of VAT.	83%	49%	14%	27%	3%	17%

It appears that a reduction in corruption would have the biggest positive influence on CTs, although it would still have some positive impact on NCTs. In particular, less corruption by VAT Officials could have the largest influence for both CT (85 per cent) and NCT (69 per cent), followed by less corruption of government officials. It is interesting that more than 20 per cent of NCTs are in the position of 'not sure' or 'neutral' about the statements relating to corruption, whereas only 10 per cent of the CTs are in this position. This may be because a larger portion of NCTs did not want to comment about the corruption of VAT Officials or politicians, as they had taken part in the corruption process to gain favour. Only 11 per cent of CTs and 20 per cent of NCTs disagreed or strongly disagreed that less corruption on the part of politicians, civil servants (ie government officials and VAT officials) and big businesses would increase voluntary compliance among taxpayers. These findings that the corrupt practice of politicians, government officials, VAT Officials and big businesses encourage VAT non-compliance are consistent with prior literature based on income tax corruption in Bangladesh.[115] Overall, the findings also suggest that perceived corruption by VAT Officers, politicians and other government officials reduces the effectiveness of audits and fines and penalties and decrease the level of voluntary compliance.

Auditing emerged as an important theme relating to the deterrent effect and psychological costs of VAT in Bangladesh. Auditing plays a crucial role in deterrence. Economic theories of tax compliance suggest that taxpayers are in general amoral utility-maximisers: that is, a taxpayer's decision to pay or evade taxes depends on the probability of detection and the consequences thereof.[116] The Bangladeshi VAT Law has specific provision for carrying out audits of business transactions. In addition, the NBR has issued a number of general orders detailing the audit

[115]N R Monir, *Political Economy of Corruption: The Case of Tax Evasion in Bangladesh* (Unpublished PhD Thesis, Monash University, 2012).

[116]L O Marti and M SWanjoh, 'Taxpayers Attitudes and Tax Compliance Behaviour in Kenya' (2010) 1 *African Journal of Business & Management* 112–23.

mechanism in 1999 and then published an Audit Manual in 2006. According to the VAT Audit Manual, each VAT unit [registered business] is supposed to be audited at least once in three years.[117] However, as with many other developing countries that have adopted VAT, auditing is yet to evolve as an effective monitoring mechanism in Bangladesh. Less than 1 per cent of VAT businesses were audited in 2012.[118] While audit is a major tool of tackling non-compliance in most developed countries, in Bangladesh the reverse scenario appears to be the case. Saleheen found a taxpayer who indicated that audits would be effective if audit officers were highly skilled and honest. However, they found that many officers are arrogant and discourteous.[119]

According to the respondents from the taxpayers' group in Stage 3, auditing appears yet to take professional shape in Bangladesh. Taxpayers discussed how the Audit wing has a low social standing. In Bangladesh, a posting in the Audit division of the NBR or the Audit Directorate is considered to be a 'punishment posting'.[120] In addition, comparatively inefficient inspectors and superintendents are posted to this division, due to the job's low status. The Audit division has a poor image among taxpayers, who are well aware that officers in the division are neither as efficient nor knowledgeable as their counterparts in other divisions of the NBR. This can mean that taxpayers do not regard VAT auditing as an effective tool for compliance:

> Before starting business, the word 'audit' struck fear in my mind. But my business has not been audited by the VAT department for the last four years. I know the loopholes of my business. But I am doubtful about their [the VAT audit team's] efficiency. It's true if there was any meritorious officer in that team, I might be caught. So I am continuing to be in a very good relationship with the local VAT Office. I hope they will inform me before they start any audit, so that I can get enough time to arrange everything. **(CT 3)**[121]

It may be that VAT Officers do not have sufficient training to conduct audits or knowledge of the VAT law:

> My enterprise was audited last year. The problem was that, from the beginning of the audit, the team commenced with an attitude that they had come to catch a thief. At the beginning I was very worried. I even needed to visit a psychiatrist. But sorry to say, when I understood two of the members of that team had minimum knowledge about VAT law, I became relaxed. My VAT consultant helped them to write their report. I realised from that time that we should not be afraid of VAT audits. **(NCT 6)**

These deficiencies are even acknowledged by VAT Officers:

> It is a fact that there have been always some meritorious detection of irregularities, but many of the objections were ill-conceived, without an adequate understanding of VAT rules and regulations. So in most of the

[117]NBR, *Audit Manual* (National Board of Revenue, 2006).

[118]NBR, *Annual Report 2010–2011* (National Board of Revenue, 2012).

[119]Saleheen, above n 21.

[120]A M Saleheen and N A Siddiquee, 'Tax Innovation or Excise Duty in Disguise? Deviations and Distortions in Value-Added Tax in Bangladesh' (2013) 36(6) *International Journal of Public Administration* 381–96.

[121]It would appear that this complying taxpayer could be non-complying but is yet to be audited.

> cases, we can't establish our claims. So taxpayers are not very much concerned about VAT audits. **(VO 9)**

While it appears that many taxpayers use tax advisors to decrease their psychological cost and help them to comply, the NBR believes the use of tax advisors actually increases compliance costs due to the complex tax-minimising strategies implemented. In addition, it appears that the NBR believes tat taxpayers should rely on the NBR's advice, rather than external advice:

> A very small percentage of SME taxpayers in our country rely on the VAT office. They are always finding a tax consultant or lawyer who can minimise their VAT paid, someone who can take advantages the grey areas of VAT Law. They (taxpayers) are always looking for a consultant who is well networked, and a well-networked VAT consultant usually charges more than others. But taxpayers can easily get proper help from the local VAT office. We are not so bad that they assert. I don't think anyone has passed sleepless nights for tax. They are exaggerating the issue. **(VO 8)**

These attitudes and responses from taxpayers and VAT Officials suggest that there exists an antagonistic climate and a lack of trust between the two groups in matters of VAT compliance. This could explain why some taxpayers seek external help, rather than taking assistance from VAT Officials. Even though SME taxpayers are aware of the cost of a VAT consultant, they are willing to pay this in order to feel secure and comfortable that they have met their VAT compliance obligations. Indeed, some taxpayers could consider the value of the fees paid to a VAT professional to be included in the psychological costs of VAT compliance:

> I am not losing my sleep due to tax. I am paying sufficient money to my VAT consultants to keep myself away from all stress and anxiety. I think the fees of VAT consultants should be included in the psychological costs of VAT. **(NCT 5)**

Overall the findings suggest that while psychological costs are difficult to quantify, they are very real for many taxpayers in Bangladesh. Indeed, the use of VAT advisors is seen by many taxpayers as an effective way to mitigate psychological cost, even though this results in a direct monetary expense. In addition, perceived corruption by VAT Officers contributes to compliance costs, reduces the effectiveness of audits, and impairs the relationship between the NBR and taxpayers.

6. RECOMMENDATIONS

Given these findings, there are a number of possible recommendations relating to discretionary powers, corruption, NBR communication, knowledge and complexity. Each of these is discussed below.

6.1 Decrease discretionary power

Given the findings of this research, it is important that the discretionary powers of VAT Officials be curtailed. These discretionary powers not only add to psychological costs, but are perceived to result in opportunities for corruption. This recommendation is supported by the International Monetary Fund (IMF), which suggested that the

NBR's power to set tariff values for VAT concentrates too much power in the hands of the NBR and its officials.[122] The IMF argues that, without other legislative checks and balances, this aspect of Bangladesh's VAT system is vulnerable to political and bureaucratic opportunism.[123] This is supported by the country's apex chamber, the Federation of Bangladesh Chambers of Commerce and Industry (FBCCI), which proposed a reduction of the discretionary power of VAT Officials in a bid to improve business conditions.[124] Under the new VAT Law, some of the existing discretionary power will be eliminated. For example, the price declaration provision, the truncated base for assessment of VAT, and the power of determination of turnover taxes will be removed. However, discretions around the provision of tariff values, the use of stamp and *banderole*, the input-output coefficient for manufacturers, and section 26 of the existing VAT Law (ie the power of make 'surprise' visits to taxpayers' premises) will continue. In addition, under the new VAT Law, the NBR will have additional powers to recover VAT, including freezing a tax debtor's bank accounts, placing a lien on the tax debtor's property, and holding company directors liable for paying unpaid taxes. While the removal of some discretion is constructive, there continues the possibility of misusing this additional power and perpetuating the alleged corruption of VAT officials. It is therefore recommended that there be greater checks and balances around these discretionary powers, including taxpayer rights to appeal NBR decisions. In addition, a corruption hotline and more stringent disciplinary procedures for corrupt VAT officials could be introduced.

6.2 Reduce corruption

Corruption appears to be part of the administration of VAT in Bangladesh, and is in part due to the NBR's discretionary powers discussed above. It is critical that measures are introduced to reduce corruption of VAT Officials. Measures could include disciplinary proceedings, better education, and better employment conditions. In addition, it is important that disciplinary proceedings are made transparent to the public, in order to improve public perceptions of the integrity of the NBR and its staff. Indeed, corruption at all levels – big business, government officials, VAT Officers and politicians – needs to be addressed. To lessen the temptation for corruption, one possible reform could be to improve the wages and conditions for NBR Officers. Any increase in wages would need to be accompanied by the prosecution of corrupt VAT officials. Special service rules and regulations for NBR officials also need to be reinforced in order to ensure the provision of punishment for any corruption by public officials.

6.3 NBR communication

It is important that there should be a long-term goal for an improved tax culture between the NBR and taxpayers, since such an improvement could increase voluntary compliance. The NBR should set up a better exchange of information with taxpayers to help taxpayers understand that NBR audits and surprise visits to ensure proper VAT record-keeping are not only legal, but also a safeguard of transparency. When conducting such visits or communicating, VAT Officials should be respectful and timely.

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[122] IMF, *Bangladesh: Selected Issues* (IMF Country Report No. 07/230, 2007), 1–84.

[123] Ibid.

[124] Financial Express, above n 99.

The NBR has recently established a help desk at all VAT commissionerates and local VAT offices, with the aim of providing services to assist taxpayers in complying with the VAT Law. The NBR's use of this help desk concept should be extended in order to increase the collection rate, to reduce the cost of collecting taxes, and to increase voluntary compliance by SME taxpayers. The NBR should also consider establishing a SME businesses 'Support Service Unit' to provide assistance and advice on VAT issues to SME taxpayers who are not represented by VAT consultants. In doing so, they should be sensitive about the power differential between the NBR and SMEs.

6.4 Improve VOs' VAT knowledge

It appears from the study that a substantial portion of taxpayers are not comfortable with the VAT Officials, and consider VAT Officials' knowledge about the VAT Law to be lacking. The level of knowledge at the NBR needs to be improved by recruiting skilled officers and by giving intensive training to Officials, not only to enhance their expertise, but also to improve their communication skills when explaining VAT matters to SME taxpayers. As a corollary, rules and regulations need to be enforced if key weaknesses and loopholes in the VAT system in Bangladesh are to be properly addressed.

The NBR should consider treating the two taxpayer groups (compliant and non-compliant) differently. Compliant taxpayers should be given more assistance from NBR and local VAT offices. This includes being more understanding about inadvertent breaches. However, the NBR should be stricter with NCTs by undertaking regular audits or imposing fines and penalties to increase pressure on them to be compliant. However, the extent to which this would be effective is questionable, given NCTs' attitudes towards risk and compliance.

6.5 Decrease complexity

The complexity of the VAT law was acknowledged by most taxpayers as a key contributor to their psychological costs. A simplified VAT Law for SMEs would allow these operators to allocate more resources to operational areas of their businesses, rather than those resources being used for meeting the compliance burden of a VAT which is arguably too complex for SME taxpayers. In a developing economy such as Bangladesh's, it is therefore critical that the VAT system be reviewed in order to determine ways in which the VAT Law and its administration could be simplified for SMEs.

7. LIMITATIONS AND AVENUES FOR FUTURE RESEARCH

As in all research, there are limitations that must be acknowledged. Each of these limitations provides guidance for researchers about potential topics for future investigation. As this is the first study of the estimation of psychological costs of VAT in Bangladesh and it does not cover multiple years, it is unknown whether the psychological costs of SMEs in Bangladesh are decreasing or increasing over time. In addition, any international comparison needs to be treated with caution because of

differing tax systems, tax cultures, the different years in which studies were undertaken, and different socio-economic characteristics.[125]

Another limitation is the estimation of compliance costs, which may not be entirely accurate insofar as they are self-reported and historical estimates.[126] Furthermore, it is acknowledged that the measures used for psychological costs are rudimentary, but given the paucity of practical measures available, they nevertheless provide interesting material for reflection.

This study did not include those SMEs operating solely within the 'cash economy' – that is, those SMEs not currently within the VAT system, even though registration may be mandatory for them. It could be that these cash economy SMEs have different motivators than the non-complying VAT payers surveyed. Finally, the psychological costs investigated here are those of SMEs only. The psychological costs of VAT for large taxpayer units, as well as customs duty or individual taxpayers, need to be explored to obtain a more thorough picture of the tax compliance costs of Bangladeshi taxpayers.

8. CONCLUSIONS

As with other countries, SMEs are an important part of Bangladesh's economy and future prosperity. Unfortunately issues surrounding the burden of tax compliance, particularly the VAT compliance burden surrounding SMEs and even larger businesses, are largely unknown in Bangladesh. To address this gap, this study researched important components of VAT compliance costs, being the psychological and corruption costs of VAT for the SME sector in Bangladesh.

The findings of this study provide some insights into how respondents judge the Bangladeshi VAT system. The NBR and SME taxpayers did not demonstrate a positive attitude towards each other, with dealings between the two marked by a clear sense of frustration. This frustration appeared to have been more influential than other factors in contributing to the psychological costs of Bangladesh's VAT. The findings also demonstrated that some people in business did not pay their 'fair share' of VAT because they had very little respect for the NBR. Indeed, they bribed VAT Officials in order to manage their VAT compliance.

It was also revealed that taxpayers engaged tax consultants not only for compliance purposes, but also to reduce the psychological costs of worrying about VAT compliance. Analysis of the survey results suggested that psychological costs of VAT in Bangladesh in the year under consideration were found to be higher for the manufacturing sector than other sectors. Part of the reason for this could be the high level of discretion in this sector in terms of the value to which VAT applies. The

[125] B Susila and J Pope, 'The tax compliance costs of large corporate taxpayers in Indonesia' (2012) 27(4) *Australian Tax Forum* 719–72.

[126] While it would have been useful to further triangulate the data (ie more than by using survey and interview responses to cross-check results), this was not practicable. In terms of data triangulation, the absence of prior data made comparisons over time impossible; and in terms of investigator triangulation, resource and language constraints made the use of multiple investigators impracticable (only one field investigator, rather than multiple investigators, could be employed in Bangladesh).

findings also suggest that psychological costs are a substantial component of VAT compliance costs for SMEs in Bangladesh at around 15 per cent.

The findings of this study are important for tax policy researchers, policy makers and VAT administrators in Bangladesh and in other developing countries when designing an effective but simplified VAT system. It is important to acknowledge the hidden costs of VAT compliance, since without acknowledging these the VAT system may not be achieving its goal of providing an efficient revenue base for governments to be able to improve the prosperity of their countries.

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The evolution of electronic filing process at the UK's HM Revenue and Customs: The case of XBRL adoption

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Abstract
Electronic filing was introduced to HM Revenue and Customs (HMRC) in the United Kingdom (UK) over fifty years ago. The filing process at HMRC evolved from relying on a simple batch system in the 1960s for performing simple data-processing tasks to adopting an open-source reporting technology, Extensible Business Reporting Language (XBRL), in 2010. HMRC championed the use of XBRL to standardise the processing and presentation of data in the Corporation Tax's supporting documents (accounts and computations). XBRL aims to improve the efficiency of case management, enhance the data quality, and add value to the evidence-based decision-making at HMRC. This research chronicles the evolution of HMRC's electronic filing process, which ultimately drove the agency's decision to develop Inline XBRL (the advanced version of XBRL). The UK government required all private, limited, not-for-profit and charity organisations to file their tax returns using Inline XBRL from April 2011. This case study captures and analyses HMRC's remarkable shift in perceptions and strategies towards using reporting technologies in processing information in tax filings. In addition, it contributes to the extant literature on government agencies' adoption of emerging technologies by examining HMRC's "XBRL Project." The findings showcase the essence of championing reporting technologies, continuously committing to develop them, and strategically engaging with multiple stakeholders (top government, software industry and professional accounting institutions) based on HMRC's experience with XBRL adoption process.
Keywords: HMRC, electronic filing, XBRL, adoption.

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1. INTRODUCTION

The utilisation of reporting technologies in the filing systems of government agencies is an integral part of those agencies' operating systems. Ebrahim and Irani (2005) and Heeks (2006) define electronic government as not only the usage but also the adoption process of Information and Communications Technologies (ICTs) including Internet-based technologies and network and communication infrastructure by government agencies. Technology improves the informational and transactional exchanges between the government and stakeholders such as individuals, businesses and information technology suppliers (Heeks, 2006). Technology also supports a variety of government needs ranging from government operations to improved interaction with stakeholders. Additionally, technology helps to reduce both regulatory burden and the cost of delivering governmental services (Garson, 2004; Brown, 2005).

The utilisation of ICTs enhance data processing and add value to decision-making process in regulatory authorities (Mousa, 2010). Many important decisions depend on information provided by tax professionals. In the UK, HMRC receives and processes different forms of tax filings by individual and corporate taxpayers. Corporate taxpayers file their annual tax returns (CT600) along with the supporting accounts (eg, taxable income) and computations in non-standardised formats. Given the apparent complexity and richness of the data in these supporting documents, HMRC strives to standardise data processing. The processing of such data drives the agency to make an informed decision whether to select certain cases for conducting further tax analysis and/or assess certain financial risks. The use of a reporting technology liberates HMRC staff from performing tasks such as data processing and validation, and encourages them to focus on more complex activities such as compliance and risk assessment. However, the UK is home to 2 million companies, as well as 100 000 tax agents and payroll professionals. This made the agency fully aware of the need to have a functional reporting system that could utilise technologies that will facilitate processing the vast number of tax returns. Particularly, the complexity of the data structure and the lack of the standardisation of tax data in the Corporation Tax returns' supporting documents (accounts and computations) was the driving force behind HMRC's decision to adopt Extensible Business Reporting Language (XBRL) to support risk assessment by implementing 'XBRL Project'. HMRC became the first government agency to embrace the functionalities of XBRL technology in regulatory tax reporting. The agency also developed its advanced version, Inline XBRL, to support the seamless presentation of data in tax filings so it can be both human and machine-readable. HMRC required all companies to file their Corporate Tax (CT600 accounts and computations) in Inline XBRL from April 2011.

While HMRC's Inline XBRL adoption is considered the world's largest-scale 'live' implementation of the reporting technology (Monterio, 2011a) and its advanced version of Inline XBRL, this technology has gradually been gaining momentum in the global tax-reporting domain. The Irish Tax & Customs authority closely watched HMRC's experience and mandated a phased filing of Inline XBRL-based financial statements for corporate taxpayers starting in October 2013 (Boyle, 2012). In Australia, the government introduced the Inline XBRL-based Standard Business Reporting (SBR) program in 2010. Preparers file their financial and tax returns required by the Australian Taxation Office (ATO), the Australian Prudential Regulatory Authority (APRA) and State Revenue Offices using Inline-XBRL technology. [i] According to the annual report published by the Australian

Commissioner of Taxation (2014–2015), the ATO estimates that the cost savings of using Inline-XBRL-based SBR amounted to AUD400 million due to the remarkable number of processed SBR transactions, which exceeded 15 million in 2015.[ii] Other international tax authorities have opted for a 'wait-and-see' strategy, mainly observing HMRC's experience, to determine XBRL applicability to their tax processing systems. For example, regulatory authorities in Denmark, Germany, Ireland, Japan and the Netherlands are still investigating the capabilities and functionalities of XBRL to support the tax filing process by private and public companies.[iii] They are also actively working on developing XBRL taxonomies that will incorporate the variations of GAAP and IFRS. The inclination of tax authorities to leverage the power of XBRL is deeply rooted in those authorities, such as in the Netherlands, which strive to minimise the compliance burden of providing financial and business information reports by filing companies to the governments (Monterio, 2011a). This also works in favor of those governments' systems, which have to be adequately equipped for streamlining and processing business and financial data filed by millions of companies.

In the United States (US), the Internal Revenue Service (IRS) is still investigating XBRL's potential, despite the agency's long involvement in utilising XML standards in tax filing. The IRS's Chief Information Officer, Terence Lutes, expressed the need to adopt XBRL to be part of the agency's e-file program as 'receiving data from reporting entities such as banks and corporations in a common data format makes the entire [filing] process faster and easier' (Hannon, 2006). This resonates with HMRC's initial motivation to adopt XBRL, which should hold more potential for a possible XBRL adoption at the IRS. Some XBRL advocates indicate that XBRL could standardise data gathering and reporting; provide better audit filing requirements, faster settlement of tax enquiries and effective risk management (Hannon, 2006; Monterio, 2011b). Other XBRL experts have even proposed a potential usage for XBRL to file the paper-based Form 990 (Organization Exempt from Income Tax), which is filed manually by 230 000 charitable organisations with the IRS (Strand et al., 2001). They believe that XBRL can eliminate 920 000 reporting errors, assuming that there is a 1 per cent keying error rate among filing organisations (230 000 organisations multiplied by 400 pieces of information per organisation). There will be no additional cost incurred as the data is entered into the filers' operating systems and filed electronically with the IRS, which could eliminate the keying errors for both the filing companies and the IRS (Strand et al., 2001). Despite all these espoused benefits, the IRS is still skeptical of XBRL. This reluctance could be due to the IRS's reliance on its existing electronic filing systems to process tax filings and the absence of a need or motivation to develop these systems. However, as the technology is being seriously considered and implemented by international tax authorities and gaining critical mass, the IRS could re-consider its reporting strategies.

The purpose of this case study is to chronicle the evolution of HMRC's electronic filing process from the 1960s until the implementation of XBRL and the development of Inline XBRL to support the filing of the Corporate Tax (CT600 accounts and computation). This case study contributes to the literature of technological innovations in tax authorities as it provides an in-depth analysis of HMRC's experience, strategies, decisions and focuses on the agency's collaboration with key stakeholders who played key roles in XBRL adoption process. It also provides practical insight and guidance to potential XBRL regulatory tax adopters, policy

makers and IT specialists, who are involved in adopting and developing reporting technologies in their organisations.

2. RESEARCH METHODS

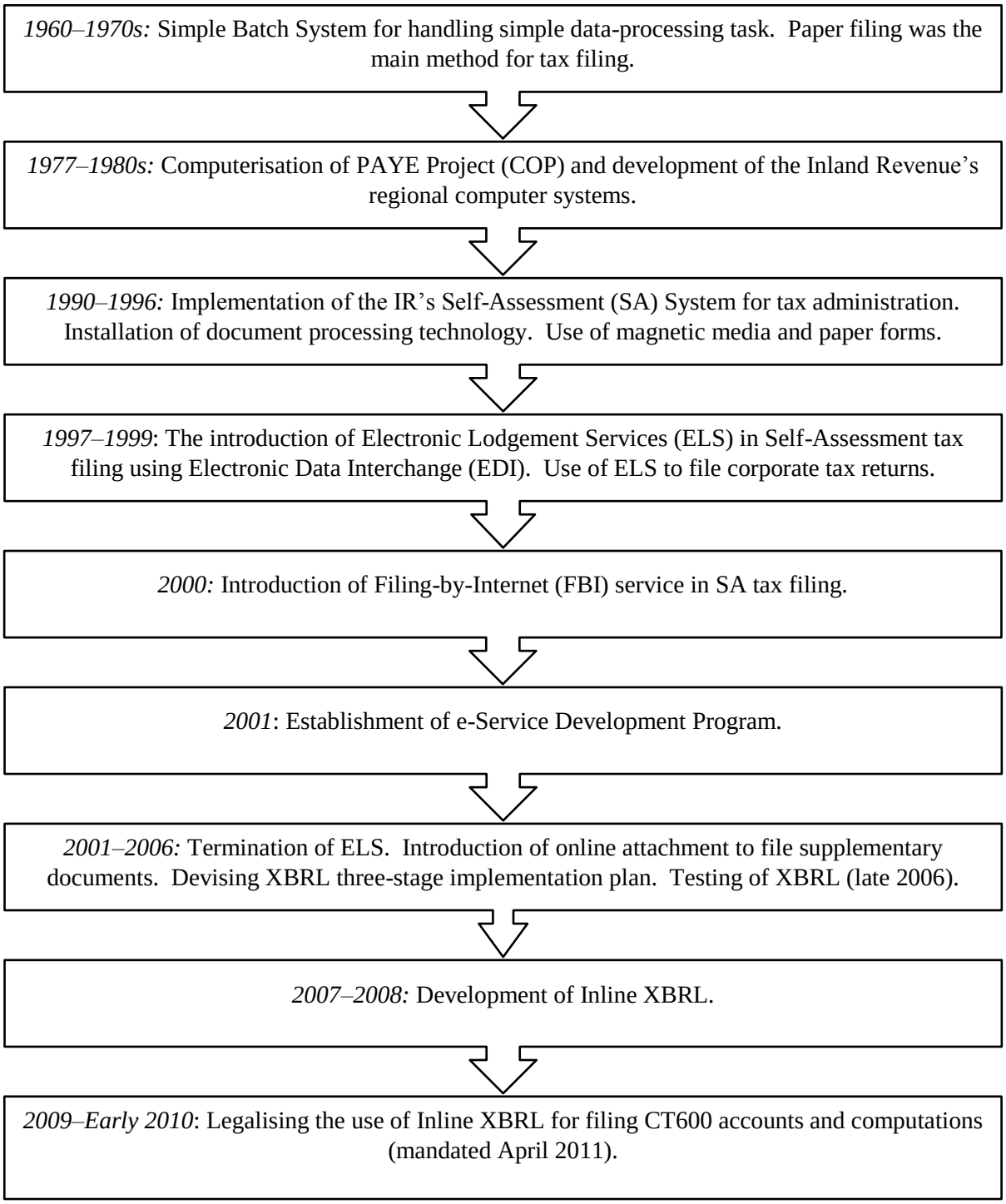
This paper provides an in-depth case study that involves longitudinal examination of HMRC's electronic filing history (Davey, 1991; Yin, 2003). Yin (2003, 2) indicates that case studies are concerned with the "rigorous and fair presentation of empirical data." Also, according to Yin (1994) and Benbasat, Goldstein and Mead (1987), the case study method can be used for exploring an emerging technology (Paré, 2004), making the main research focus is on the organisational setting instead of technical issues.

The case study has been fundamentally supported by the use of semi-structured interviews and documentation analysis. Case studies and interviews are cited as the most popular research method in XBRL adoption research (Perdana, Robb and Rohde, 2015). Three semi-structured interviews were conducted in three locations of HMRC (Telford, Peterborough and London) with members of the XBRL project during May to November 2008. Recorded interviews comprise the core part of the "oral history" of HMRC's electronic filing reporting process with particular emphasis on the participants' experience in implementing 'XBRL Project'. Literature indicates that oral historians can seek a "purposeful" rather than a random selection of research participants (Facio, 1993). This view is supported in this research as the participants were selected based on their job affiliation and role in HMRC's IT services division and particularly, XBRL adoption.[iv] The oral history is a dynamic and creative research technique, which involves preserving the "knowledge of historical events as recounted by participants" (Baum, 1977, p.5). An interview process generally consists of a well-planned interview, which allows the interviewer to question the interviewee on their views and elicit their personal commentaries, which are of historical significance to the research issues (Ritchie, 2003). In support of using oral history in accounting, Collins and Bloom (1997) emphasise the importance of interviewing the 'major personalities in the development of the [accounting] field' (Hammond and Sikka, 1996, 79). It also greatly contributes to the understanding of the 'construction and refinement of accounting techniques and practices' (Hammond and Sikka, 1996, 91). Exploring HMRC's electronic filing history reveals the agency's long-standing experience with electronic data processing practices. All interviews were digitally recorded and transcribed. The researcher followed Hoque's suggestion by using taped interviews in qualitative accounting research (Moll, Major and Hoque, 2006). The taped interviews offer the advantage of using specific interviewee quotes to improve the data credibility, while providing the researcher with the rare opportunity to be attentive to the subtle interactions with the interviewees. However, transcribing taped interviews was difficult because they had to be transcribed verbatim while the interview was still fresh in the researcher's mind. The researcher faced the risk of allowing another person to transcribe the interviews, which could undermine the integrity and accuracy of the transcribed data. To mitigate this risk, the researcher decided to personally transcribe all the taped interviews; a procedure that is often very time-consuming to researchers conducting similar qualitative case studies. HMRC's identifiers were removed from the transcripts and a code was assigned as a means of identification. A separate list of participants and the codes assigned to them is kept confidential. From the transcripts, a qualitative analysis was conducted to identify the

major research themes. Nvivo, a popular qualitative data analysis software tool, was used to support the data analysis of the interviews (Welsh, 2002). All interview transcripts were loaded and saved in Nvivo as documents. Nodes were created prior to the data analysis to reflect the research themes. Coding was used to generate those themes that contain pointers to the actual data (Morse and Richards, 2002; Richards, 2005). The coding process was carried out using descriptive codes (Miles and Huberman, 1994; Morse and Richards, 2002), where phrases, words and sentences from interview transcripts were labeled using relevant words according to the research themes identified in the literature. Axial coding was used to systematically develop the research themes. This helped in reducing the data that would be analysed. Throughout the coding process, the transcripts were frequently revisited to ensure that the axial codes and meanings were interpreted in context. One of the main challenges associated with conducting historical case studies is the possibility of facing gaps in the observations and information provided by the research participants (interviewees in this research). To overcome this concern, the researcher ensured that the data was carefully observed to identify any potential gaps. Gap analysis was conducted to determine the differences between the information provided in the interviews and the literature reviewed throughout the documentation analysis.

Benbasat, Goldstein and Mead (1987) critiqued that a significant majority of information technology implementation studies in public sector organisations rely on data collection from a small number of sources. To overcome this shortcoming, the researcher used an in-depth longitudinal documentation analysis of HMRC's electronic filing history. Longitudinal analysis was described as a demonstration of an 'exemplary effort of data collection' in case study research (Benbasat, Goldstein and Mead, 1987, 381). Documentation analysis is widely supported as one of the main methods of qualitative research analysis (Yin, 2003). The researcher built over the course of three years multiple databases of documentation, which validated and augmented the evidence collected from the interviews. Documentation included government reports, consultation documents, organisational presentations, HMRC's annual reports, white papers, and archived reports issued by major UK professional bodies and academic papers. These databases were structured by following a particular line of inquiry, so evidence associated with each inquiry is presented in the same place.[v] The archived documents were retrieved as they explain some of the issues discussed and referenced by the interviewees. This allowed the researcher to conduct a comprehensive analysis of HRMC's electronic filing process. The appendix includes tables showing the interviewees' details and a sample of archived documentation.

Figure 1: Timeline of HMRC's Electronic Filing History



3. INLAND REVENUE ELECTRONIC FILING: 1960S–1970S

The former Inland Revenue (IR) began investing in information technologies in the 1960s. The IR developed its filing system and ran one of the largest administrative computer networks in Europe (NAO, 2000). The IR's first computer system was responsible for performing simple data-processing tasks. In 1965, the initial plan to computerise the main tax system was drawn up as a batch system[vi] for the Pay-As-You-Earn (PAYE) system, a mechanism used for withholding and collecting personal income tax to employees, which would run from nine computer centers across the UK (Margetts, 1999). The first, *Center 1*, was established in Scotland in 1968 and a second center, *Center 2*, was built and staffed in Liverpool. However, in 1970, the government planned radical changes to the tax system to include a tax credit system, with a single interface of financial transactions between the government and citizens (Margetts, 1999). This policy change meant a merger of revenue, national insurance and benefits. The batch system for PAYE was deemed inappropriate for the policy changes and *Center 2* was never opened. In 1974, the government abandoned plans for the tax credits because it proved to be too expensive to implement. Then-Secretary of Inland Revenue, Sir William Pile said, 'the manual system was close to break' and that service would decline with the 'sheer weight that is being put on it' (Dyerson and Roper, 1992, 304).

In 1977, the IR reconsidered its original plans to automate the tax system. Steve Matheson of the Treasury Department was tasked with investigating new possibilities for computerising the batch system for PAYE. An approval was granted to initiate 'a very limited on-line system' (Matheson, 1984, 92), and a feasibility study was conducted from 1978 to 1979.

4. COMPUTERISATION OF PAY-AS-YOU-EARN PROJECT: 1980S

In 1980, a decision was made to implement the 'Computerisation of PAYE' Project or COP Project to 'improve the service to the public through greater accuracy, reliability and speed response to communications … and to create a system offering greater flexibility for the implementation of future changes within the present tax structure' (NAO, 1987, 7). In April 1984, the COP Project was extended to include assessment of Schedule D Tax, the personal income tax for the self-employed on trading income, income from professions, interest and overseas income.

During the implementation of the COP Project, the IR suffered from shortages of skilled labor for the development of the agency's computer systems. This prompted the IR to train the local office employees as programmers. Despite the high cost, this training strategy contributed to elevating the technical skills of the staff members, which added greater value to the COP Project (Dyerson and Roper, 1992). Furthermore, the involvement of staff at the highest level of the organisation was evident. Dyerson and Roper (1992) indicate it was unusual for a government IT initiative to display a high level of personal commitment given by the senior management at the IR on the COP Project. A committee structure was established to manage the COP Project and a coordinating committee chaired by the Project Director met on a monthly basis to monitor the progress. Matheson, who directed the COP Project from the initiation of the feasibility study in 1978 until 1984, became the COP Project 'champion'. IT support contracts with two external consultancy firms,

Computer Sciences and Pactel, were signed at the beginning of 1981 to review the implementation of the COP Project (NAO, 1987, 15).

The COP Project's completion coincided with the end of the government's preferred procurement policy favoring British IT service suppliers. Matheson recommended in the feasibility study that the COP Project should be left for an open tender (Morris and Hough, 1987). He also recommended integrating a full mainframe system and a full distribution system to streamline the reporting process across the UK. The integration was needed to keep the local computer systems synchronised with the central one. No software vendor was capable of this synchronisation. ICL, an American supplier of computer hardware for the COP Project, offered to engage in such a task, but the supplier wanted to create new hardware and software from scratch (Morris and Hough, 1987). However, ICL had no experience with distributed systems, and it did not develop suitable recovery software to prevent database corruption. Despite the concerns over the reliance on a foreign IT supplier, the IR was told to 'refashion' a system specification, which ICL could do. The IR's contract with ICL marked an important step towards the agency's IT implementation strategy, as it highlighted the need to seek external non-UK IT support to implement large-scale IT projects in the future. This was evident with the IR's decision to implement the latest technologies in tax filing, which was the main highlight of the 1990s era in the IR's filing system history (Margetts, 1999).

5. THE IR'S ELECTRONIC FILING SYSTEMS: 1990S

In April 1991, the Information Technology Office (ITO) of the IR was established as an Executive Office of the Inland Revenue to oversee the COP Project (Margetts, 1999). The ITO was also responsible for developing, maintaining and operating all IR's computer systems. During 1991to 1992, the ITO ran all IR's computer systems with an annual budget of £250 million and operated 13 regional computer centres (NAO, 2000). The centres were split into smaller and more manageable systems to reduce complexity. These smaller systems were still capable of working seamlessly together to maintain an efficient and coherent support system (Inland Revenue, 1992, 42).

The IR initiated its biggest tax reform through the introduction of a Self-Assessment system of tax administration during the period 1992 to 1993 (Beynon-Davies, 2005). The system was similar to the one used in the US, where taxpayers estimate their own tax liability and file their tax returns to the IR along with payment. The system was planned to apply to nine million higher-rate taxpayers[vii] and the self-employed who had to file individual tax returns, in an attempt to cut 'red tape', reduce costs and make the system more accurate. The National Audit Office (NAO) noted that the IR's computer systems became more complex over the years and 'they [systems] cannot be enhanced to provide the functionality needed to support all the changes the Department wants to make' (NAO, 1996, 19). To improve the functionality of its IT system, the IR spent nearly £80 million in 1991 to 1992, including £17 million on IT consultancy support (HM Treasury, 1992, 63).

In July 1992, the Director of the Information Technology Office (ITO) announced a strategic partnership with Electronic Data Systems (EDS), making it IR's sole IT services provider at the time (Inland Revenue, 1992, 42). From 1994, all the computers and information systems of the ITO were provided by EDS (Beynon-

Davies, 2005). The IR also studied possible uses of optical character recognition (OCR), electronic data matching and imaging technologies. However, there was little effort to implement any of these technologies at a decentralised level (Margetts, 1999). Document-processing technology was tested but problems with the technology deterred the implementation of any plan.

In 1994, tax software vendors introduced tax-filing packages.[viii] The software showed a copy of a tax return complete with the IR's own guidance notes. According to the *Independent,* tax agents used computerized versions of tax returns instead of paper forms for about a million personal taxpayers, but the electronic filing of such forms was not enabled.[ix]

The IR's strategy to reform its tax administration systems was guided by then-Prime Minister Tony Blair, who announced in 1997 that by 2002, 25 per cent of government services would be electronically enabled, and by 2005, 100 per cent of such services would be digitised (Beynon-Davies, 2005). In late 1997, and following the UK's e-government initiative[x], the IR established a new Electronic Business Unit (EBU) to provide support to customers that is compatible with the agency's own electronic services (NAO, 2002). The agency set out key features for its 'e-business' strategy that included using intermediaries such as software developers to provide bespoke services to taxpayers and tax agents. The strategy also emphasised transforming its staff roles to embrace the extensive use of electronic tools (Beynon-Davies, 2005).

6. INTRODUCTION OF THE ELECTRONIC LODGEMENT SERVICE: 1997

Until October 1997, the IR relied on magnetic media and paper forms for tax filing. Data communication problems such as keying and processing taxpayers' data and information were encountered. This resulted in rendering 60 per cent of taxpayers' records inaccurate, generating delays and further paper work (NAO, 1999). The EBU's team worked alongside the EDS to develop a new means of electronic communication with employers and payroll operators to solve these problems. In 1997, the Electronic Lodgement Service (ELS) was introduced to enable tax agents and accountants to file Self-Assessment's annual returns electronically on behalf of their clients using an Electronic Data Interchange (EDI) service.[xi] This service reduced the burden on employers of compliance with regulations and minimised the routine manual data processing. Beynon-Davies points out that, 'over 267 000 returns were submitted through ELS in 2000-2001, [which is] equivalent to 7 per cent of the target audience' (15).

The on-line self-assessment regime of the Corporation Tax was introduced in July 1999 as part of the ELS system. According to the Office of National Statistics, there were 2.15 million business enterprises in 2009, 52 per cent of which represented corporate businesses.[xii] The IR deals with 2400 of the largest businesses through Large Business Service (LBS) division (NAO, 2007). Of the 2400 businesses, the LBS division deals with Corporation Tax for 900 businesses in the banking, insurance, retail and telecommunications sectors. Each UK Company has to prepare an annual return of its taxable income by filing the Corporation Tax Return (CT600 Form). The CT600 form also includes statutory accounts (such as income statement) and supporting documents (such as computations). Agents and tax filers dealing with Corporation Tax had the choice to either file CT600 returns using the Self-Assessment web-filing facility or complete returns in paper forms.

The IR commissioned a research study to assess potential business interest in ELS by its corporate users. It was found that ELS did not offer added value to the users.[xiii] In addition, users had high expectations that ELS would 'enable them to complete their return quickly, in less than 15 minutes' (NAO, 2002, 16). The agency was alarmed because of the significant low take-up of ELS as only 49 out of 660 organisations were utilising ELS. The rest of the organisations approached the agency to enquire about using the service, but they were found to be too small to accommodate EDI's needs for filing tax returns (NAO, 2002).

During the assessment of ELS, the agency had five account managers at the EBU who supported and promoted the usage of the facility. After ELS became widely available in April 2000, 'these managers received a substantial number of enquiries' (NAO, 2002, 16). They also did not initiate contact with many companies, which were unaware of the ELS service. The IR provided additional resources to its EBU to meet the EDI's needs of the large business organisations segment. In addition, the IR struggled with the 'availability of EDI's payroll software applications' that required functionality in the payroll products (NAO, 2002, 30). Agents filing attachments (accounts and computations supplementing the Corporation Tax) complained about the form's small space designated for computations and comments. There was a need for an electronic system, which has built-in filing functionalities such as additional space for information disclosure in the tax forms.

7. INTRODUCTION OF FILING-BY-INTERNET SERVICE: 2000

The IR started to use the Internet as a medium for electronic filing service as part of the larger Government Gateway Project.[xiv] The Gateway Project was the cornerstone of the Government's electronic communication infrastructure and a key to meeting then-Prime Minister Blair's target of enabling the electronic delivery of government services by 2005. In 2000, the Government Gateway Project encountered a technical problem as the digital certificates system, which was central to the project, blocked all non-Microsoft users (Lettice, 2001). As a result, it became unclear when an online filing service would become available through the Gateway. The IR realised the importance of supporting its ELS during the peak period of the tax-filing season by providing an alternative electronic filing channel (NAO, 2002). In April 2000, IR introduced Filing-by-Internet or FBI. The new filing system was tested and some security problems were detected, which delayed the full implementation of the system until July 2000.

The FBI service became an integral part of the agency's 'Agents on-line project' (Hansford, Lymer and Pilkington, 2005 and 2006). The IR supported the usage of the new online filing service to encourage the population of filers (90 per cent of Self-Assessment return filers) to file their tax returns using IR-approved tax software packages. The FBI service reduced the time for processing tax returns and receiving confirmations from a day with ELS to a few seconds with the FBI service. Additionally, it instantly captured the data in the tax filings and minimised keying errors by the IR's staff.

8. ESTABLISHMENT OF THE IR'S E-SERVICE PROGRAM: 2001

In 2001, the Committee of Public Accounts published its fifty-second report on the performance of the IR's electronic filing services.[xv] The report assessed the progress of the FBI service and revealed that only 32 per cent of individual taxpayers and 28.5 per cent of tax agents used the facility during the period 2000 to 2001. Key factors behind this low take-up included problems encountered by users trying to gain access. Four out of five attempts to submit tax forms electronically were unsuccessful. Some taxpayers found it difficult to register because they did not know their tax number, and Mac users were unable to use the service. Tax agents received error messages while using the service and faced issues in viewing client lists and enabling the online agent authorisation.[xvi] In recognition, the IR implemented an e-Service Program between 2001 to develop the performance of the FBI facility (NAO, 2002).

9. DEVELOPMENT OF CORPORATION TAX FILING AND THE INTRODUCTION OF XBRL: 2001–2005

As part of implementing the e-Service Program, the IR introduced a Corporation Tax filing portal to enable companies and their agents identify the types of payments made and which tax liabilities remained. Stephen Banyard, who managed the agency's Business Customer Unit (business taxpayers) at the time, was one of the agency's key figures involved in the e-Service Program.[xvii] He also had substantial experience with tax agents and advisors through working as part of 'Working Together E-group'.[xviii] Banyard established the 'Carter Agent Steering Group', part of which is the 'Working Together Group', to start a dialogue with tax agents and representative members of different professional accounting bodies. Through these meetings, tax agents, representing large business companies, complained about the difficulty of filing large volumes of supplementary documents, which typically accompany the Corporation Tax (CT600) tax returns.

In recognition, the IR introduced the 'online attachments' option to the CT600 tax return filing service in early 2003.[xix] Tax agents were allowed to complete CT600, attach supporting documents and post them using CT600 online application forms. Electronic returns and supporting documents were also filed using third-party tax software applications. However, by the end of the 2005–2006 tax year, only 2 per cent of companies took advantage of this facility.[xx] The 2 per cent represented 900 'Large Business Services Group' of companies (providing UK £18 billion of tax revenue), which were allowed to send their accounts and supporting documents as online attachments. Companies filed these online attachments in non-structured formats, which undermined the agency's data processing system to capture and process the data effectively.

For the IR, the information contained in the accounts and tax computations was crucial for the risk assessment process carried out by a network of 68 tax inspectors and risk assessment offices. This network dealt with 1.1 million tax returns filed by companies, who paid £15 billion in 2004to 2005.[xxi] The Corporation Tax work costs the agency £220 million or 1.4 pence per pound of revenue.[xxii] Each risk assessment area is responsible for assessing non-compliance risks. Cases selected for further tax enquiries are usually required to submit additional supporting information, which is disclosed in the selected company's accounts and tax computations documentation. This documentation cannot be filed electronically as the systems cannot process the

data in the attachment. The IR normally conducts two types of tax enquiries in such cases (HoC, 2005). *Full Enquiries* focus on the disclosure of accounting for the entire income and assets of a business, and this is typically associated with small companies. *Aspect Enquiries* examine the accuracy and tax treatment of one or more particular features of complex CT600 tax returns, which is associated with larger companies. However, *Aspect Enquiries* could be also applied to smaller companies if only limited aspects of the tax returns are considered necessary to examine. Enquiries may result in securing additional Corporation Tax or profit adjustment for IR.

The IR found that even though *Aspect Enquiries* generated lower yield than *Full Enquiries*; they produced a higher payback rate because they are much less costly than *Full Enquiries*. Table 1 presents a comparison between the *Full* and *Aspect Enquiries*.[xxiii]

Table 1: Cost/Yield Analysis of Full and Aspect Corporation Tax Enquiries

	Full Enquiries	***Aspect Enquiries***
Number completed	4500	39 200
Average Yield	GBP 26 700	GBP 12 300
Average Staff Cost	GBP 5600	GBP 500
Average Yield/Cost Ratio	4.8:1	22.6:1
Proportion of enquiries resulting in a tax or profit adjustment	81%	58%

This variation in yield and cost of case enquiries prompted the agency to deploy additional resources into the processing of *Aspect Enquiries* which deal with Corporation Tax for the large companies (HoC, 2005). It explored different options to improve the risk assessment techniques to expedite the processing of the case enquiries. One such way would to allow companies to submit their accounts and computations in a structured format that could facilitate risk assessment process. The IR's technical experts worked on identifying a functional reporting medium, which would accommodate processing the non-structured complex data structure of the CT600's accounts and computations. The agency developed its Corporation Tax portal and started the adoption of an XML-based reporting technology, the XBRL. During the decision-making process, the then-Chancellor of the Exchequer, Gordon Brown, officially announced the government's decision to merge Inland Revenue and HM Customs and Excise into a single entity, HMRC. The HMRC was established in 2005 as the UK government agency responsible for the administration of income tax, corporation tax, capital tax gains as well as custom duties and a number of other types of taxes.[xxiv]

XBRL is an extension of XML, which was initially mandated by the UK government to be used for delivering all government online services (Cabinet Office, 2000]). XBRL was technically developed to possess the same tagging feature of XML by using XML schema to describe the structure of business and financial reports. This particular interest in XML as a reporting technology demonstrates XML's ability to tag data in business and financial reports to describe their use and their relationships with other data in the report. This would provide better data integration and easier access to information (Cabinet Office, 2001). XBRL also introduces additional business 'semantics' or meanings, which were not provided by XML alone (Hoffman and Strand, 2001). These semantics can link each data element with multiple resources (such as definitions and calculations) and can be communicated to, and used

by, other users enabling data exchange between humans or electronic reporting systems (Debreceny and Gray, 2001). Tagged data could be automatically captured, processed and manipulated by a variety of computer programs, which can understand the same tags by using Taxonomy. Taxonomy is a financial and business dictionary of all data elements commonly reported in financial statements that follow country-specific Generally Accepted Accounting Principles (eg, UK GAAP). When a particular data element is not defined in the taxonomy, a taxonomy extension will be created to meet the specific needs of the company. This extensibility is one of the main features of XBRL, as it allows for wider uses of XBRL by many corporate filers. The HMRC's technical team determined that corporate users could also utilise the automatic validation feature of XBRL-compatible software packages to send their tax filings, which improves the efficiency of data processing with minimum human intervention.[xxv]

Since the inception of the e-Services Program in 2001, HMRC started developing the first draft of XBRL taxonomy containing approximately 1500 data elements reported in the main financial statements and a substantial range of accompanying notes (XBRL Progress Report, 2002). Standardising the data formats in the CT600 accounts and computations was essential for conducting effective risk assessment and implementing case enquiries, so XBRL had the potential to achieve this target. XBRL UK organisation[xxvi] discussed the idea of introducing XBRL with the Interoperability Unit of the Technology Strategy Group of the e-Envoy Office, which immediately recognized the data standardisation potential for HMRC (Hamscher, 2002). HMRC's membership in XBRL UK organisation provided an ample opportunity for HMRC's technical experts to discuss XBRL implementation issues with other XBRL UK's members including large companies, accounting firms, software vendors and professional accounting bodies during the first global meeting of XBRL International in London during February 2001.

The Institute of Chartered Accountants in England and Wales (ICAEW) is one of the active institutional members of XBRL UK, which explored the potential practical applications of XBRL for the agency and users. The ICAEW was the first UK professional body to raise XBRL awareness in its published progress report on digital reporting, describing XBRL as 'Level 2 Digital Reporting' (ICAEW, 2004). The report also introduced HMRC's electronic filing strategy to file CT600 accounts and computations in XBRL format. This strategy was discussed at length during a Proposal Review Workshop in January 2002, attended by representatives from the IT Faculty of the ICAEW and XBRL UK (Appendix, Table 2, H3). On 30 April 2003, HMRC followed up with a Scoping Workshop that resulted in drafting a three-phase implementation plan of XBRL filing to be carried out over the period of 2003-2005 (Table 2, H5). The plan was spearheaded by HMRC's technical experts, who founded XBRL Project.

Following the proposals discussed during the Scoping Workshop, HMRC started developing XBRL taxonomy, which could work seamlessly with its existing XML-based CT600's reporting platform. The platform was developed to enable data tagging and define the business relationships of such tags in the accounts and computations. Over the period 2002 to 2004, the technical infrastructure of XBRL filing was designed by XBRL Project members and supported by third-party software developers to assess the scope and structure of CT600 computation taxonomy.[xxvii] XBRL Project team members also worked with XBRL UK, which published an initial

draft of UK GAAP's taxonomy in May 2004. The project members secured sufficient feedback through their stakeholders to determine the most appropriate presentation of XBRL-based statutory accounts using Style sheets.[xxviii] Additional financial information, which was not formally defined by UK GAAP taxonomy could be included by extending the taxonomy itself to add additional financial elements where necessary. The team also worked on introducing the required electronic tools for the agency's tax inspectors to view XBRL documents and conduct case enquiries.

Top government and professional bodies supported HMRC's XBRL initiative. In April 2002, the Cabinet Office recommended the use of XBRL by UK government agencies as part of the UK E-Government Interoperability Framework (E-GIF) initiated by the Cabinet Office (Hamscher, 2002). The E-GIF was designed to define the technical policies and specifications governing information flow across government agencies, which cover interconnectivity, data integration, electronic services access and content management. The Cabinet Office subsequently authorised its use via GovTalk to include a wider endorsement in the future versions of the E-GIF. GovTalk is a UK government initiative sponsored by the Cabinet Office, designed to encourage the efficient usage of Internet and modern electronic reporting technologies by government agencies. HMRC's Manager of Online Services, a member of XBRL Project team, met with representatives of the HM Treasury and secured the financial support for XBRL project. In addition, the idea of XBRL adoption was also advocated by the Association of Chartered Certified Accountants' (ACCA) report that supported the reduction of compliance costs faced by businesses.[xxix]

In July 2005, the Office of HM Paymaster General[xxx] asked Lord Carter to conduct an assessment of HMRC's online services. The assessment examined different methods of adopting electronic filing services by users that would increase the efficiency of the electronic filing process for HMRC, focusing on compliance and customer support issues (HMRC, 2006). The report recommended the delivery of 'robust' online services, focusing on the PAYE collection mechanism and the core taxation area of Corporation Tax. The report also introduced the mandatory use of XBRL by companies to submit their CT600 accounts and computations by April 2011. This recommendation was a result of several consultations with representatives of professional bodies, including the ICAEW, Institute of Chartered Accountants of Scotland (ICAS), the Chartered Institute of Taxation (CIOT) and the Association of Chartered Certified Accountants (ACCA), and key figures from the Treasury and the Cabinet Office to discuss budgetary and legal requirements.

The HMRC started building a public business case for using XBRL in its reporting systems. In a meeting of the Committee of Public Account in the House of Commons in 2005, Sir David Varney, the Chief Executive of HMRC, announced that the use of XBRL would bring cost savings equivalent to 30 staff members through savings in data processing area by 2008. Banyard, who managed HMRC's Business Customer Unit, also supported the use of XBRL to tag the data elements in the accounts and computations to facilitate data standardisation and processing for risk assessment purpose. Banyard emphasised the importance of building of an extensive database of financial data elements in the CT600 accounts and computations reports (Banyard, 2009). These databases would be used to assist the automated risk assessment and provide HMRC with the opportunity to focus its resource deployment on non-compliant businesses.

10. XBRL TESTING: MID 2006

During an XBRL UK conference in 2006, a live demonstration of XBRL filing was conducted by Adobe Systems and CoreFiling, which became HMRC's main IT business partners in XBRL adoption process.[xxxi] CoreFiling played an important role in assisting HMRC by introducing its 'True North' validation and processing engine. This tool was necessary in validating and processing XBRL content. CoreFiling also provided specialised support in 'converting HMRC's business needs, expressed as preliminary taxonomies prepared in Microsoft Excel, into a fully compliant XBRL taxonomy.'[xxxii]

In subsequent meetings with its IT partners and specialists, HMRC's XBRL project team members started developing XBRL's technical capabilities of XBRL-based accounts and computations. HMRC conducted several live XBRL demonstrations with tax software vendors, after which, it was determined that tax inspectors would face some difficulties in viewing the submitted data in a human-readable form. In March 2006, HMRC provided a viewer of the XBRL tax computation, which would be used by potential corporate users. However, the process of generating XBRL style sheets was very slow and computations were not easily understood due to the poor display of data as indicated by HMRC's Technical Architect. In addition, many data elements were omitted from the computation style sheets.[xxxiii] HMRC's Technical Architect further explained the problem facing HMRC's tax inspectors who collect data, typically stored in HMRC's databases, to analyse it for risk assessment purposes. He indicated that the human element is essential to the risk assessment process along with the assistance of technology to run assessment checks on certain companies. He also pointed out that in some cases, risk assessment services do not work according to risk rules, which require human intervention to solve such a problem. Another difficulty was faced because the information reported in the accounts and computations had to be understandable by both tax inspectors and the corporate filers' systems. This necessitated the need to render XBRL data in a way that it can be 'human-consumable' and machine-readable. Traditionally, this was done by creating the style sheets that transfer XBRL document into HTML or printed format that is human consumable. However, style sheets technology and XBRL did not work together seamlessly. The problem of rendering XBRL data required developed the capabilities of XBRL technology to produce human-readable forms.

11. DEVELOPMENT OF INLINE XBRL: 2007–2008

The rich structure of the tax computations and accounts did not lend itself to the way style sheets work, leading to the generation of 'un-maintainable style sheets' as indicated by HMRC's Technical Architect and member of the XBRL project team. There are 12°000 financial data elements[xxxiv] of XBRL taxonomy, style sheets' sizes could reach 9 MB, which was complex to understand by tax inspectors. The style sheets took a long time to be generated, which did not contribute to the efficiency of the risk assessment process and data processing. A group of software vendors co-founded the 'Rendering Working Group' as part of XBRL International Organization. This group worked primarily on solving the data-rendering problem. HMRC's XBRL project members collaborated with the Rendering Group to develop XBRL processing capabilities to accommodate the data requirements of accounts and computations.

In late 2008, HMRC cooperated with its IT partners and members of the Rendering Group to develop a human-readable form of XBRL, known as 'Inline XBRL'. Before Inline XBRL, it was essential to undertake strenuous data rendering to convert tagged tax filings into a readable document. This has resulted in variations in rendering approaches, which involved the risk of converting a document that could look substantially different from the original report, which could compromise the data integrity. Inline XBRL solved this data-rendering dilemma. It provided the data preparers (companies and tax agents) with the opportunity to maintain the reporting layout and presentation of data, while the reports themselves would incorporate computer-readable tags. Therefore, the same set of XBRL filing can be easily understood by the data preparers and HMRC's tax inspectors. Mark Holden, the Director of HMRC's Carter Program, described Inline XBRL as, 'HMRC strategic solution for filing accounts and corporation tax computation. It preserves all branding and formatting, so that HMRC sees exactly what taxpayers send – that was important to our customers and so it is important to us' (CoreFiling, 2009).

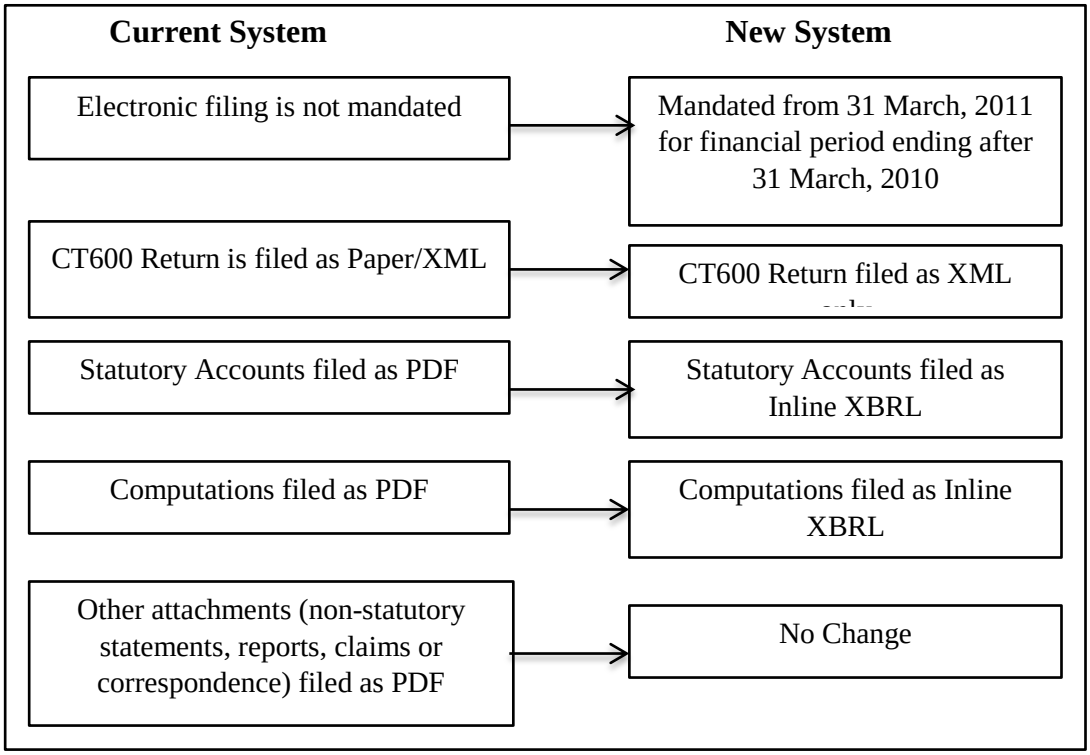
While working on the data rendering issues, HMRC updated the XBRL taxonomy to reflect the changes in accounting regulations, based on the feedback solicited from XBRL stakeholders during the workshops organised by HMRC.[xxxv] Following XBRL conference held in London in June 2006, XBRL UK introduced UK GAAP and UK IFRS XBRL taxonomies.[xxxvi] In January 2007, XBRL UK released UK GAAP taxonomy and common data taxonomy for trial use and review by all preparers and users including investors, accountants, and software vendors. The UK GAAP taxonomy covers the main data content and technical features required for UK GAAP reporting by unlisted companies, whereas the common taxonomy represents standard information such as company name, address and commonly used information in financial reporting. Initially, HMRC developed its taxonomy to conform with UK GAAP, UK IFRS, UK Common data[xxxvii] and HMRC CT600 Computational for tax companies. However, with the development of 'Inline XBRL', the agency realised that all XBRL tags have to be used for tax returns submitted by April 2011.

12. DEVELOPMENT OF INLINE XBRL TAGGING: 2009–2010

Lord Carter indicated the importance of HMRC's collaboration with the software industry and corporate users. Software developers needed time to re-design their tax software applications to be Inline XBRL-compatible.[xxxviii] In addition, business and financial users' community, including preparers and analysts, expressed their concerns over the time and effort required to familiarise themselves with Inline XBRL-enabled software applications to file company tax returns (Dunne et al., 2009; Singh, 2009; ICAS, 2010). The users' community denoted that they need technical training and resources to tag financial reports in Inline XBRL. It was evident that businesses would ultimately bear the compliance cost of installing Inline XBRL-compliant tax software applications and training their staff members to use it (Mousa, 2010). Therefore, HMRC faced the challenge of implementing a technology that would allow seamless filing of Inline XBRL-based forms while shielding the corporate users from having to face the complexities of integrating it into their internal reporting systems. In recognition, HMRC reduced the tagging requirements for tax accounts and computations. The agency moved gradually to full tagging for the tax accounts (UK GAAP and UK IFRS) in 2013. In preparation for the Inline XBRL mandate in April 2011, HMRC sought legal approval for receiving CT600 accounts and computations

in Inline XBRL format. In December 2009, the approval was granted and was included in the amendments of the law governing electronic communication and data handling techniques employed by HMRC. [xxxix] Figure 2 summarises HMRC requirements for filing in Inline XBRL.

Figure 2: HMRC Requirements for Filing in Inline XBRL



13. RESEARCH FINDINGS

The case study showcases HMRC's main IT strategy as a strong regulatory investor in reporting technologies over the fifty years. That keen interest in reporting technologies started with the batch system, which automated the tax filing system in the late 1970s. The agency implemented the computerised Pay-As-You-Earn system to boast the accuracy and reliability of communication and filing. The agency's belief in reporting technologies was greatly exemplified by the introduction of the Filing-By-Internet (FBI) service in the mid-2000s to develop and boost the efficiency of the self-assessment system. It also provided an added value that was not offered by previous reporting technologies because the FBI validated the data filed by taxpayers and agents, which helped minimise keying errors. This pushed the agency to improve the capabilities of the FBI facility, which paved the way for the future adoption of XBRL technology.

Another important finding is that HMRC was driven largely by its goal to receive 'better quality access to data' rather than having everything filed in paper format. XBRL was viewed as a remarkable reporting tool, which would not only generate high quality data, but also move data seamlessly between systems. This expanded the

previously limited internal access and ability to use CT600 filings to facilitate the risk assessment process. According to HMRC's Manager of Online Services, it has *always* been HMRC's goal of adopting XBRL as a potential filing solution for CT600 accounts and computations. This goal was also supported by NAO's report on HMRC's e-Revenue project initiated in 1999 (NAO, 2002). HMRC's XBRL project team members were diligent to promote XBRL potential as not just a government-mandated electronic filing medium, but also an 'e-filing solution' that would facilitate the flow of data between tax preparers and HMRC's filing systems. The use of technology in tax reporting contributes to reducing tax preparation time (Hampton, 2005). This is consistent with HMRC's experience with previous technologies when the agency prioritised the need for achieving efficiencies through the development of ELS and FBI to provide additional processing power and reduce the compliance burden on taxpayers.

As government agencies are often faced with limited financial resources, especially during tough economic conditions, careful spending cuts have to be undertaken to alleviate the financial burden. In that regard, HMRC was not any different from financially-strained tax regulators. HMRC perceived the adoption and mandating of XBRL technology as an innovative response to manage its administrative costs. The agency made a strategic decision to use XBRL after it identified the variation in yield and cost of case enquiries, which motivated the agency to deploy additional resources into the processing of *Aspect Enquiries* of the Corporation Tax. This strategy bolstered HMRC's efforts in expediting the collection of corporate tax revenue while maintaining lower operating staff costs.

HMRC was also essentially driven by the need to receive and process CT600 accounts and computations in standardised form. HMRC realised XBRL's capability to accommodate the complexity of the rich data structure of CT600 accounts and computations, which were traditionally filed in non-standardised formats by tax agents and companies. XML (a form-based reporting language) has been used effectively for filing CT600 tax returns. However, the non-standardisation of the accounts and computations did not work efficiently with XML. HMRC believed that XBRL would have an advantage over XML because XBRL would allow tax inspectors to have electronically tagged data in the computations, which can be easily linked to the main tax returns. XBRL has been perceived to enhance the readability and processing of business and financial data by tax inspectors and companies and support the risk assessment process. Peter Calvert of XBRL UK pointed out that regulators receiving XBRL information 'will be able to automate and introduce far more wide-ranging and effective analysis than they can achieve now' (Tilbury, 2009, 2). As Wilson and Sangster (1992) indicate, the availability of micro-computers has introduced a paradigm shift in increasing the use of modeling and decision support techniques. XBRL has also introduced a comparable shift in enhancing the human and machine readability of XML-based financial data. This has contributed to the enhancement of quality data, which would greatly support the risk assessment process. Effective risk assessment adds value to the evidence-based decision-making process that could determine whether a company has to be audited.

The case study reveals HMRC's strong collaboration with its IT partners represented by the software industry. This was evidenced by HMRC's working relationship with IT consulting firms to develop the COP Project. The collaboration was also central to the implementation of the self-assessment system when HMRC selected EDS as the

sole information technology provider for the self-assessment system at the time. During the adoption of XBRL, HMRC ensured that all XBRL-enabled software packages are vetted before offering them to the general public. It worked extensively with Adobe Systems and CoreFiling to develop the technical infrastructure of XBRL taxonomy, which is the most difficult task in XBRL adoption process due to the complexity of the data in accounts and computations filings.

HMRC has also strengthened its ties with government bodies, XBRL UK, accounting firms and professional entities. Stakeholder participation is regarded as one of the 'success' factors in the adoption of any electronic government initiative. For example, Hirschheim, Klein and Lyytinen (1995) argue that the adoption of new technologies by government agencies is contingent on the ability of government agencies to collaborate and meet the needs and expectations of stakeholders. In particular, stakeholder engagement in the XBRL adoption process has been depicted in XBRL literature (Doolin and Troshani, 2007; Troshani and Rao, 2007; Mousa and Chen, 2012). HMRC was initially aware of the potential of XBRL through their meetings with representatives of ICAEW during the first global meeting of XBRL International organisation in February 2001. The ICAEW played a major role in forming a broad-based steering group in London to develop, in cooperation with the software industry, the UK XBRL taxonomy for financial reports. The ICAEW's advisory role was also evident when it discussed the practical applications of XBRL for HMRC. In addition and in response to Lord Carter's report that mandated the use of Inline XBRL, HMRC conducted several consultations with representatives of the ICAEW, ICAS, CIOT and the ACCA. HMRC utilised its network stakeholders to solicit the industry's perception of XBRL benefits, challenges and applications for all potential parties affected by the mandate. HMRC worked with the Treasury and the Cabinet Office to discuss the budgetary and legal requirements of disclosing and presenting the data in the accounts and computations in XBRL format. A positive outcome of all these collaborative efforts allowed HMRC to devise a three-stage phase plan (2003–2005) to implement XBRL.

The case study also shows HMRC's efforts in overcoming the main obstacles during XBRL adoption process. HMRC faced the problem of rendering data in the accounts and computations, which undermined the readability of the reports. HMRC has responded by conducting consultations and organising workshops to seek technical support from its IT partners. The development of Inline XBRL was the outcome of these successful consultations and meetings. The case study shows that both traditional XBRL and Inline XBRL deliver the advantage of tagging and structuring the data in the accounts and computations. However, the XBRL realises that these tax filings are not just analysed by electronic reporting systems, but also by tax preparers and risk assessment employees, which would give Inline XBRL an advantage over traditional XBRL.

One of the most interesting findings of this case study is that government agencies, rather than corporate users, remain the primary 'champions' for XBRL. While XBRL has been adopted at HMRC to standardise the data in the CT600 supporting documents, many corporate users are concerned about the XBRL potential for the private sector in the UK (Dunne et al. 2013). In a comparable study, Cordery et al. (2011) indicate that many business organisations in New Zealand are concerned about the compliance cost of filing corporate income tax in XBRL format. However, this notion can be refuted. Technically, XBRL is not drastically different from any other

traditional XML-based filing facility. The key difference between XBRL and any another electronic reporting technology is that XBRL is 'widely agreed upon by accountants' (Hamscher, 2002). In addition, as the case with any technology adoption, there is always a potential resistance to change, which could be lessened by building better awareness of the technology's realised benefits.

The case study shows that most important obstacle faced during XBRL adoption was building XBRL's technical infrastructure (taxonomy). The sheer number of financial data elements that have to be tagged in XBRL, and the possibility of extending the taxonomy to incorporate company-specific tagging added an additional challenge. The tagging process is tedious, as it requires great investment in technical resources and expertise. A UK-based research conducted by Dunne et al. (2009) indicates that many potential corporate users are deterred by the proliferation of XBRL taxonomy. This was also supported by findings of Cordery, Fowler and Mustafa (2011), who surveyed a group of New Zealand's government agencies and business organisations. In the Australian context, large business organisations pointed out the significance of mobilising technical and financial resources to build XBRL taxonomy infrastructure. They were concerned about the sophistication of XBRL as a technology and whether they have the technical expertise to build a taxonomy structure that would accommodate the tagging of hundreds of financial elements in financial reports using XBRL (Doolin and Troshani, 2007). The challenge is amplified as companies would be required to extend certain financial data elements based on their needs to disclose corporate information.

Finally, the case study fosters the importance of project 'champions' in implementing technological innovations in regulatory authorities. The key role of project 'champions' has been acknowledged by prior literature. Turner and Apelt (2004), who have examined the adoption of an electronic filing initiative in Australia, supported the importance of cultivating project championship culture in tax authorities. The existence of XBRL project 'champions', represented by HMRC's manager of online services and technical architect, has provided a great example of resourceful leadership and technical excellence. Their rich experience (amounting to a combined 60 years) was one of the most success factors that supported the process of building XBRL taxonomy structure. They worked with their IT partners to build, tag and define 12°000 data elements in the accounts and computations documents. Championing the technology and possessing the right IT skill-set for XBRL set the tone of XBRL adoption process. It also steered the process of XBRL development into the right direction when HMRC faced rendering issues with the older version of XBRL, which affected the data presentation of the XBRL-based accounts and computation.

14. CONCLUSIONS

The case study contributes to the body of knowledge on the adoption of emerging technologies at the UK's HM Revenue & Customs. The study found that the agency has developed a long-standing strategy of embracing reporting technologies to accommodate the processing of complex data in tax filings. It ensured that its IT strategy would keep up with monumental developments happening in Inline XBRL domain. The adoption of Inline XBRL was mainly driven by HMRC's need to have better quality data in the supporting documents of the Corporation Tax (accounts and

computations). In addition, the agency embraced the technology to standardise the presentation and processing of tax data, add value to the risk assessment process and accelerate the corporate tax revenue collection. Furthermore, the case study reveals the pivotal roles of the stakeholders (top government bodies, software development partners, XBRL UK organisation and UK accounting professional organisations) in the adoption process. The agency's highly regarded technical experts, members of XBRL Project, have effectively steered the adoption and development of Inline XBRL. They performed an exemplary role of leadership and dedication. The UK government formalised HMRC's decision to implement the technology when it mandated that all companies must file their CT600 accounts and computation in Inline XBRL starting April 2011.

The findings of this research demonstrate the broader context of the importance of having strong collaboration with the software industry and accounting professional bodies that is very apparent in XBRL adoption process. HMRC's experience provides great insights to some international tax authorities, which are currently considering the adoption of emerging technologies in general and Inline XBRL in particular to support their filing systems. It also provides guidance to IT experts in regulatory authorities who could be facing issues and challenges with their existing XBRL-enabled systems as has been found in HMRC's case with data rendering. The findings of this study reveal HMRC's awareness of the technology challenges and its ability to leverage its collaboration with stakeholders to overcome those challenges.

The case study provides great evidence that the UK is a front-runner in embracing progressive reporting technologies such as Inline XBRL. HMRC's Inline XBRL Project is the largest live implementation of this technology in the world. A comparative analysis of HMRC's electronic filing process with international tax authorities will be an opportunity for future researchers as Inline XBRL is gaining a critical mass among regulators. Future research could also examine the social and behavioral aspects of Inline XBRL adoption and elevate our understanding of different aspects of the electronic filing process through which emerging reporting technologies could evolve.

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[ii] https://www.xbrl.org/sbr-in-australia-by-the-numbers. Accessed 10 May, 2016.

[iii] For more information, please visit: https://www.xbrl.org/the-consortium/about/jurisdictions. Accessed 10 May, 2016.

[iv] A summary of the interviewees' details could be provided upon request.

[v] A list of all the organisational archived documents that were provided by the interviewees to support the case study is available upon request.

[vi] Information systems use batch and transaction processing systems. Transaction processing continuously updates tax files as orders are entered. At the end of the day, batch-processing system generates selected data lists for the data warehouse. Final output reports could be generated and printed as they are "batch processed" at the end of certain period.

[vii] Basic rate taxpayers pay 20 per cent income tax rate for those earning (£0 – 34,370). Higher-rate taxpayers pay 40 per cent income tax rate for those earning (£34 371-150 000). Non-basic rate taxpayers who are not self-employed do not have to pay any personal income tax in the UK, whereas in other countries such as the US and Australia, all taxpayers must do so.

[viii] For example, Quicktax for Windows application showed a copy of a tax return complete with the IR's own guidance notes (Margetts, 1999).

[ix] The Independent, 21 April 1994.

[x] In 1997, modernising the structure of the public sector was one of the main targets of UK government, with a particular interest in developing the process of e-government as part of a wider modernisation agenda. The Cabinet Office's e-Envoy Office was established later in 1999 to develop and enable the electronic delivery of government services by 2005 and coordinate the UK's e-government agenda across different central departments, including HMRC.

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[xxxvii]Common data taxonomy is adjunct to the UK GAAP. It provides a number of reporting concepts such as the name of the business entity, language, currency and reporting period.

[xxxviii]For more information on corporate compliance with iXBRL, please visit: http://www.accountingweb.co.uk/tax/hmrc-policy/a-guide-to-integrated-accountsct-ixbrl-tools and http://www.fsn.co.uk/channel_financial_reporting/xbrl_for_tax_is_a_ticking_time_bomb.html. Accessed 10 May, 2016.

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18. APPENDIX

Table 1: Summary of Interviewees' Details

Interviewee	Position	Relevance to the Case Study
HMRC 1	Manager of Online Services	Responsible for leading XBRL project. The participant has 37 years of experience working for HMRC, and has been involved in many of HMRC's major information technology projects. Since 2001, HMRC 1 has been involved in HMRC electronic filing projects and initiated HMRC's first online CT system.
HMRC 2	Technical Architect	Works as a system strategy architect for HMRC's CT online service. HMRC 2 is Chartered Information Technology Professional with over 28 years of experience as a software engineer.
HMRC 3	Process Advisor	Used to work as a corporation tax inspector in the Large Business Services area at HMRC. Currently, HMRC 3 works in the Corporation Tax and VAT Directorate, and is responsible for interpreting tax elements that comprise the taxonomy, and advise tax software developers.

Table 2: Sample of Archived Documentation

H1:	Corporation Tax e-Service Program. Information Technology Solutions Breakout Group Workshop, Inland Revenue, 2001.
H2:	Corporation Tax e-Service Program. Customers and Intermediaries Breakout Group Workshop, Inland Revenue, 2001.
H3:	CT e-Filing Proposal Review Workshop – Outcome, Inland Revenue, 19 February 2002.
H4:	Corporation Tax e-Service Program. Business Process Change, Breakout Group Workshop, Inland Revenue, 2003.

H5:	Corporation Tax e-Filing Scoping Workshop, Inland Revenue, April 2003.
H6:	e-Services Program, XBRL and Company Tax e-filing. Presentation delivered at XBRL International Conference, Amsterdam, May 2003.
H7:	E-Filing of Company Tax Return. Presentation delivered at XBRL International Conference, London, 2006.
H8:	XBRL Consultation document for Birmingham Business School, University of Birmingham, 2008.
H9:	Corporation Tax Compulsory Online Filing: The HMRC Perspective. Presentation delivered by Jen Little, HMRC Carter Program, 2009.
H10:	HMRC Online Services. Presentation delivered by Julian Hatt and Anne Marie McNab, HMRC Carter Program. 26 March 2009.
H11:	Online Filing for Corporation Tax. Presentation delivered at the 2nd Annual Conference on XBRL and Online Reporting: Developing the Interface. Birmingham Business School, University of Birmingham. 13 November 2009.

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A psychological perspective on tax avoidance: Deferential avoidance vs. defiant avoidance

Minjo Kang[1]

Abstract

Is a taxpayer's act of tax avoidance deemed compliant or non-compliant? Academic researchers, investigating tax compliance behaviour, address the term tax avoidance differently for a variety of purposes. In order to gain insight into compliance behaviour, it is important to get a clear understanding of the meaning of tax compliance. In addition, how to classify and perceive the various behavioural responses to taxation is of crucial importance not only for academic researchers and policy makers, but for ordinary taxpayers whose tax behaviour is embedded in social structure and influenced by social representations. In this paper, I discuss relevant issues regarding the conventional conceptualisations of tax avoidance, and present a distinguished concept of tax avoidance which represents two different statuses with insights from psychological approaches to tax behaviour in general and motivational posture in particular. I argue that the term tax avoidance itself should be regarded as neutral. Defiant avoidance refers to potentially unacceptable avoidance, which has the capacity to be challenged by the tax inspector and disallowed by the tax courts. On the contrary, deferential avoidance is in compliance not only with the provision of the law, but also with the spirit and purpose of law and fiscal policy. The bottom line is that the concept of tax non-compliance should necessarily include defiant avoidance, but exclude deferential avoidance as being legally, morally and socially approved.

Keywords: tax compliance, tax avoidance, motivational posture, deferential avoidance, defiant avoidance

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1. INTRODUCTION

In modern societies, taxes are the most important source of financing the public goods, and taxation is usually the most powerful economic tool to encourage socially desired activities and/or reduce inequality of income distribution. However, tax avoidance as well as tax evasion is known to be a universal and pervasive phenomenon in all societies. Tax non-compliance entails not only a reduction in public services owing to the loss of tax revenues, but distortion of income distribution as taxpayers have different opportunities for paying less tax.

Facing different opportunities for evasion and/or avoidance, taxpayers may end up with disrespect for the authority and feelings of unfairness, which, in turn, dampen their willingness to pay taxes. Thus, it is of great interest for the government to implement a fiscal policy that strengthens tax compliance. In order to design an optimal tax policy, it is important to understand the decision process of taxpayers and the underlying motivations that influence their behaviour. In this regard, the way to classify and treat the various behavioural responses to taxation is of crucial importance not only for academic researchers and policy makers, but for ordinary taxpayers whose tax behaviour is embedded in social structure and influenced by social representations (Kirchler, 2007).

For several decades, researchers of various disciplines have paid much attention to the problem of tax compliance. Scientific studies of tax compliance predominantly investigate individual income taxes because they rest primarily on taxpayers' honesty and integrity; individuals can decide whether and to what extent to comply with the law. In order to gain insight into compliance behaviour, it is important to get a clear understanding of the meaning of tax compliance. Although it has long been studied within economics, accounting, law, sociology and psychology, researchers still have difficulty in finding well-defined concepts of tax evasion and tax avoidance which are directly associated to the meaning of tax compliance. To avoid embarrassment, researchers have been quick to classify 'avoidance' as legal tax planning and 'evasion' as illegal tax planning as if one can determine the legality of a tax structure easily (Weisbach, 2004).

The main purpose of this study is to offer a refined conceptualisation of tax avoidance as an important taxpayer behaviour in compliance decision making. To this end, I review relevant literature from various disciplines, gain insight from them, and provide a differential treatment of tax avoidance. In the following sections, I discuss relevant issues regarding the conventional conceptualisation of tax avoidance, and present a distinguished concept of tax avoidance which represents two different statuses with the insight from psychological approach to tax behaviour. I argue that the term tax avoidance itself should be regarded as neutral term. I coin the terms 'defiant avoidance' and 'deferential avoidance' to represent the two different forms of tax avoidance. Defiant avoidance refers to the potentially unacceptable avoidance, which has the capacity to be challenged by tax inspectors and disallowed by tax courts. On the contrary, deferential avoidance is in compliance not only with the provision of the law, but also with the spirit and purpose of law and fiscal policy. The bottom line is that the concept of tax non-compliance should necessarily include defiant avoidance, but exclude deferential tax avoidance as being legally, morally and socially approved.

2. CONVENTIONAL DEFINITION OF COMPLIANCE, EVASION, AND AVOIDANCE IN TAXATION

Roth et al. (1989) claim that tax compliance is accomplished provided the taxpayer files all required tax returns at the proper time, and that the returns accurately report tax liabilities in accordance with the internal revenue code, regulations and court decisions applicable at the time the return is filed. In short, tax compliance consists of the timely filing of any required return, the accurate reporting of income and tax liability, and the timely payment of all tax obligations (Plumley, 1996). In its simplest form, tax compliance is a term which describes the taxpayers' willingness to pay their taxes (Kirchler, 2007).

Non-compliance represents any failure to meet tax obligations whether it is intentional or inadvertent. Although non-compliance consists of three parts: non-filing of tax returns, underreporting of tax, and underpayment of tax, most of studies have focused on the underreporting problem as a deliberate non-disclosure. Taxpayers can fail to comply either because they made a mistake when filling their tax return, or because they wished to reduce their tax liabilities. Unintentional non-compliance could also result from such factors as complexity and ambiguity in tax legislation or tax procedure (Jackson and Milliron, 1986). Even though both cases may end up with non-compliance, intentional non-compliance is of interest to researchers because the underlying motivation to reduce taxes may lead to various behavioural responses. In most studies, intentional non-compliance has been discussed under the concepts of tax evasion and tax avoidance.

Tax evasion (or tax cheating) refers to intentionally paying less tax than the law requires, as a deliberate act of non-compliance (Elffers et al., 1987). Individuals can evade income tax by underreporting income and/or by over-claiming deductions. Tax avoidance, on the other hand, is almost always deemed an intentional and legal response to taxation in which taxpayers undertake tax planning activities so as to reduce tax liability. Stiglitz (1985) distinguishes tax avoidance strategies within income tax such as postponement of taxes, tax arbitrage across individuals facing different tax brackets, and tax arbitrage across income streams that face different tax treatment. Hasseldine (2005) underlines that tax minimisation by which taxpayers comply but structure transactions so as to pay less tax can be distinguished from non-compliance. In terms of this point of view, tax evasion is illegal, while tax avoidance is legal and would therefore be considered as tax compliance.

The distinction between legal tax avoidance and illegal tax evasion may be clear in theory, but in practice, there are many grey areas that are subject to interpretation of rules. A body of rules, however dense it might be, offers loopholes for those individuals seeking to act according to the letter of the law, but not according to its spirit (Alm et al., 2012). Tax avoidance usually includes the reduction in tax burden by means of practices that take full advantage of legal ambiguity, sometimes exploiting loopholes in the tax laws. Sandmo (2005) argues that in engaging in tax avoidance, the taxpayer has no reason to worry about possible detection, although he points out tax law ambiguity which might have the avoidance transaction unacceptable to the tax collectors. That is to say, tax avoidance captures both certain tax positions, as well as uncertain tax positions that may or may not be challenged and determined illegal. As Hanlon and Heitzman (2010) point out, a problem with tax shelters is that

it is almost always ambiguous whether the transaction is permissible or not. In many cases of tax avoidance, one cannot easily determine the legality of a tax structure. The definition of tax avoidance provided by OECD[2] reflects the tricky business:

> [Tax] avoidance is a term that is difficult to define but which is generally used to describe the arrangement of a taxpayer's affairs that is intended to reduce his liability and that although the arrangement could be strictly legal it is usually in contradiction with the intent of the law it purports to follow.

3. ECONOMIC APPROACH TO TAX AVOIDANCE

From an economist's point of view, avoidance is considered as the reduction in tax burden by means of practices that take full advantage of the tax code such as income splitting, postponement of taxes and tax arbitrage (Alm, 1999). Economic rationality, that puts a great emphasis on efficiency, encourages tax avoidance without additional risk because it increases the taxpayers' utility for those who try to maximise their own profit. In fact, tax minimisation schemes that entail no more risk are often perceived as a clever strategy. In consequence, micro-economic analysis of tax law enforcement usually addresses the non-compliance problem with tax evasion decisions as a straightforward application of the economics of crime (Becker, 1968). The basic assumption of traditional deference models is that the taxpayers potentially wishes to hide their actions from the tax collector, whereby the tax evasion decision is analogous to portfolio allocation; they can either choose a safe portfolio (truthfully declaring their gross income and paying the full tax liability), or a risky portfolio (evading taxes by underreporting their gross income) (Sandmo, 2005).

When tax avoidance is addressed in a context of non-compliance, it usually refers to strategies to exploit legal ambiguities which lead the taxpayer to an uncertain tax position about legality. For example, the primary aggregate non-compliance measure, 'tax gaps' — generally defined as the difference between actual tax collected and the potential tax collection under full compliance with the tax code — includes (legal) avoidance and/or (illegal) evasion (Gemmell and Hasseldine, 2014). This form of tax avoidance as non-compliance is sometimes called 'aggressive tax planning (ATP)'. Although a precise and widely accepted definition of ATP is probably not available (Alm, 2014), it is often seen as a tax avoidance transaction that complies with the letter but not the spirit of the law and the intention of fiscal policy (OECD, 2011).

Seldon (1979) points out that there is virtually no distinction between aggressive tax avoidance and evasion because their causes and their consequences are basically the same. Likewise Kirchler et al. (2003) underline that they have similar desire to reduce the tax burden, and similar effects to reduction of revenue yields. Plus, both activities are contrary to the intention of the government and have the effect of bringing about an unintended and undesired redistribution of income (van de Braak, 1983). Similarly, Alm (2014) argues that economic justification of an ATP scheme is generally limited, and even non-existent.

However, the problem of 'aggressiveness' consists in its subjective interpretation of uncertainty in terms of a tax position. Hanlon and Heitzman (2010, p.137) underline

[2] http://www.oecd.org/ctp/glossaryoftaxterms.htm

that the degree of aggressiveness depends on individual perceptions and attitudes toward risk; different people often have different opinions about the aggressiveness of a transaction as the beauty is in the eye of the beholder. Thus, aggressiveness seems not to be a satisfactory conceptualisation of the non-compliant aspect of tax avoidance.

4. MORAL ASPECT OF TAX AVOIDANCE

Tax evasion and tax avoidance have previously been treated as though they were mutually exclusive. Cross and Shaw (1981) point out that this dichotomy is to be explained by the desire to keep separate criminal from non-criminal activity. However, Sandmo (2005) suggests that the borderline between what seems morally right and wrong does not always coincide with the border between what is legal and illegal. He illustrates the compliance dilemma: the poor house painter who does a bit of extra work via the black economy violates the law, while the wealthy investor who engages a tax lawyer to look for tax havens does not (Sandmo, 2005, p. 646).

While tax evasion is more closely related to horizontal equity and depends on the taxpayer's degree of risk aversion or honesty, tax avoidance causes the problem of vertical inequity because the rich people have more opportunities of avoidance. Song and Yarbrough (1978) report that taxpayers are known to complain that the government provides unequal opportunities to different income groups in terms of reducing the tax burden. Here we can see that it seems to ordinary taxpayers that tax avoidance is predominantly the prerogative of rich. Put differently, tax avoidance means a transfer of collective costs from sophisticated to unsophisticated taxpayers, and tax evasion a transfer from dishonest to honest tax-payers (van de Braak, 1983).

This situation raises a moral concern, and the avoidance is often referred to as 'abusive' or 'morally repugnant'. Brock and Russell (2015) argue that the subset of tax avoidance practices that are problematic from a normative perspective is captured by 'abusive tax avoidance'. In reality, however, it can be very difficult to determine whether a complex strategy is in fact abusive. Tax compliance is more than the technical meeting of the letter of the law for the purpose of game playing with that law. It is a willingness to act 'within the spirit as well as the letter of tax law and administration, without the application of enforcement activity' (James and Alley, 1999).

5. LEGAL ASPECT OF TAX AVOIDANCE

In law, evasion is characterised by deception and concealment: avoidance by honest disclosure (McBarnet, 1991). Tax evasion involves failing to disclose income to the tax authorities. In this case, the question is whether the omission was as a result of criminal intent or honest error. The legal consequence of the two types of evasion is of huge difference: the formal, which is considered financial fraud, may culminate in criminal penalty such as physical imprisonment, while the latter usually entails a fine. In reality, however, taxpayers who are accused of underreporting are rarely subject to the severe punishment because it is very difficult to prove criminal intent. Thus, most people do not feel that violations constitute so serious a crime; Song and Yarbrough

(1978) reported that the typical taxpayer considers tax evasion only slightly more serious than stealing a bicycle.

McBarnet (2003) views game playing as a particular kind of attitude towards the law, in which one regards the law as something to be utilised to meet one's purposes rather than as something to be respected as defining the limits of acceptable activity. Similarly, Salter (2010) addresses the game playing with of society's rules which involves the use of technically legal means to subvert the intent of society'. He argues that a rule-following game (or compliance game) involves the actual exploitation of these gaming opportunities. This involves following the letter of the law but not necessarily its intent or spirit, as well as violating grey areas of the law in ways that are not easily understood or recognised as violations. In this regard, tax avoidance can be characterised as a rule-following game in tax compliance decisions. McBarnet (2003) also argues that one of the functions of creative compliance is 'fraud insurance': a tax planning device may fail in court without being branded a tax fraud. He refers to the creative compliance (tax avoidance) 'whiter than white collar crime' in that it differs from tax evasion in form rather than substance, purpose or effect (McBarnet, 1991).

Nevertheless, legality does not offer a practical guideline between compliance and non-compliance. The legality of tax avoidance has a contingent nature insofar as a tax minimisation scheme exploiting loopholes might be either successful or not. No one can certainly expect that an avoidance scheme shall be proved legal or illegal *ex-ante*; it merely has the potential to be illegal or legal since the determinations typically are made *ex-post* through the challenge of the tax inspector and curt decision. Furthermore, for most of the cases which are not subject to the legal action, the legality is undeterminable. Similarly, the terms 'aggressiveness' or 'abusiveness' in terms of legality are subject to hindsight bias, which is only determined by an *ex-post* enforcement process. The contingent nature of tax avoidance is the key attribute that makes the legal distinction line blurry.

6. MARKET FOR TAX AVOIDANCE: THE ROLE OF TAX PRACTITIONERS

Acknowledging the limit of a purely rule-based approach, some countries have adopted a general anti-avoidance rule (GAAR) which requires the transaction to be arranged for any *bona fide* purpose other than to avoid tax. Likewise the tax benefit obtained must be consistent with the object, spirit or purpose of the provisions relied upon. Brock and Russell (2015) argue that a tax avoidance arrangement is abusive when it reduces explicit taxes in a manner not intended by lawmakers. But how can we know the intent of lawmakers or the spirit of the laws? It is also subject to various interpretations, and even professionals, who have a legitimate and efficient function as intermediaries between taxpayers and the tax authority (Hasseldine et al., 2011), may well disagree about the spirit or purpose of a particular provision. Even the tax scheme sold by tax professionals may be interpreted *ex-post* as a vehicle for tax avoidance in regard to exploiting the spirit of the tax law (Murphy, 2004). The practitioner's stance, therefore, cannot be regarded as correct or incorrect until it is proven so by the judiciary.

Tax practitioners may assist their clients in devising strategies to exploit legal ambiguities (Erard, 1993). Salter (2010) reports that many business people and their

lawyers and accountants view testing the outer limits of the law as a natural and acceptable feature. As entrepreneurial businesses, accountancy firms have developed organisational structures and strategies to sell tax avoidance schemes to corporations and wealthy individuals, which they refer to as tax solutions or tax strategies (Sikka and Hampton, 2005). As Braithwaite (2003a) points out, the industry of tax avoidance primarily rests on the talents of financial advisors. Furthermore, the tax preparer has a direct interest in whether a position is determined *ex-post* in an IRS audit to be overly aggressive. An overly aggressive position may result in a loss of client goodwill or a preparer penalty in such a jurisdiction as the US (Kaplan et al., 1988). Brock and Russell (2015) further illustrate the role of professionals in designing, promoting and implementing abusive tax avoidance strategies as the prerogative of wealthy individuals and large corporations.

7. MOTIVATIONAL POSTURES OF TAX AVOIDANCE: DEFERENTIAL AVOIDANCE AND DEFIANT AVOIDANCE

In some cases, avoidance is encouraged by legislation granting favourable tax treatment to specific activities and no additional risk exposure to be challenged as illegal. For example, investing in municipal bonds or paying into superannuation schemes to minimise tax is explicitly encouraged, whereas off-shore tax havens are explicitly discouraged and put the taxpayer in an uncertain tax position. Thus, a tax planning activity or a tax strategy as an act of tax avoidance could be anywhere along the continuum of tax compliance depending upon *ex ante* intentions as well as *ex-post* enforcement. Seldon (1979) coined the term 'avoision' to capture the problem associated with differentiating legal and illegal tax schemes. Braithwaite (2003b) argues that it is possible to divide the strategies of tax avoidance in terms of the degree to which they push the limits of legality. James and Alley (2004) argue that the meaning of compliance can be seen as a continuum of definitions: the meaning of tax compliance can be defined from narrower economic rationality to wider behavioural cooperation. Van De Braak (1983) argues that tax resistance, conceived of as an amalgam of negative reactions towards public revenues, does not only include (legal and illegal) efforts to minimise tax payments but also attitudes towards taxation. McBarnet (2003) calls this creative compliance, whereby taxpayers adhere to the strict letter of the law but find loopholes and caveats to minimise their tax without regard for the spirit of the law. All these attempts to understand the clear meaning of tax compliance shed light on the conceptualisation of tax compliance behaviour reflecting the taxpayers' attitudes towards the legitimacy of avoiding taxes.

People exhibit great diversity in their motivations and in their tax compliance behaviour. Braithwaite (2003b, p. 18) refers to 'the interconnected sets of beliefs and attitudes that are consciously held and openly shared with others' as motivational postures. She suggests five motivational postures: commitment, capitulation, resistance, disengagement and game-playing. In particular, game playing involves 'playing games' with the tax office and taking advantage of particular laws and loopholes. She reports that the postures most strongly related to the aggressive minimization of tax were game playing and resistance. In short, while commitment and capitulation reflect 'deference', the others represent 'defiance' towards tax authorities. Kirchler and Wahl (2012) also provide empirical evidence of the positive association between tax avoidance exploiting legal loopholes and defiant motivational

postures such as resistance and game playing. Now, with the two broad motivational postures — deference and defiance — we are capable of dividing the mixed concept of avoidance into two different contents of avoidance: deferential avoidance and defiant avoidance. Evasion is the option for those who hate to pay taxes and have located themselves outside the reach of the law (McBarnet, 2003). While deferential avoiders stand firm within the boundaries of the law, defiant avoiders who engage in potentially abusive tax schemes (Brock and Russell, 2015) try to push the boundaries of the law's intent by self-serving in terms of law interpretation without obviously crossing those boundaries.

8. CONCLUSION

Owing to the poor knowledge and misunderstanding of tax evasion and tax avoidance, some people have the misconception that when they reduce the tax bill, they are breaching the tax laws and may get entangled in legal action. People can rationalise their underreporting (cheating) by the fact that tax evasion is widespread and any kind of tax avoidance is potentially illegal. The concept of tax avoidance is thus confusing not only to ordinary taxpayers but to scholars and policy makers. The complex meaning of tax avoidance is due partly to academics inasmuch as they use it differently for a variety of purposes. Traditionally, efforts within tax law to minimise tax payments are usually described as tax avoidance, whereas efforts outside the law are described as tax evasion. I believe that this confusion is mainly caused by the misleading conceptualisation of tax avoidance as well as tax compliance.

Tax avoidance can be defined in a broadest way to include tax evasion (Mo, 2003). In this way, tax evasion can be perceived as avoiding taxes with obviously illegal means. Considering the technical meaning of avoidance as a deliberate act to pay less tax, it can also include tax saving with obviously unobjectionable consumption or investment decisions. Scholars have considered tax evasion and tax avoidance from many perspectives, such as the legal, ethical and economic. They may as well be considered from a psychological perspective because it will provide a better understanding of taxpayer compliance behaviour in terms of academic research, legislation and administration.

Individuals take a variety of actions to reduce their tax liabilities. Weisbach (2004, p. 2) argues that we cannot assume pre-existing definitions of tax avoidance and evasion: working less, elaborate financial structuring and plain old cheating are all merely responses to taxation. In a similar vein, I would say those are all merely behavioural responses to taxation motivated by tax avoidance, thereby they can all fall into the category of avoidance. The difference depends on their attitude towards taxes, risk preference, tax knowledge and opportunity. Now, back to the question? Is tax avoidance a compliant or non-compliant behaviour? In my opinion, neither is correct answer.

The term 'tax avoidance' can be used in a broadest way, including within the definition any activity, arrangement or transaction that reduces the total amount of explicit taxes. In that regard, tax evasion is also best conceptualised as avoidance with an intention to violate tax law. A taxpayer who aspires to avoid taxes can have various tax strategies depending on their attitude towards taxes, knowledge and willingness to hire tax professionals etc. These strategies vary from complying with

the letter to gaming with the law, and also to cheating the government. The thesis is that avoidance in itself should not imply any negative connotation.

As noted above, some researchers have tried to differentiate two different aspects of tax avoidance such as aggressive tax planning or abusive tax planning. However, the aggressiveness and abusiveness rest primarily on subjective interpretations of attitudes towards risk and morality, respectively. Essentially, they fail to capture the different behavioural intentions of a taxpayer in terms of compliance with the provision and spirit of the law. Defiant avoidance refers to the potentially unacceptable avoidance, which has the capacity to be challenged by the tax inspector and disallowed by the tax court. On the contrary, deferential avoidance is in compliance not only with the provision of the law, but also with the spirit and purpose of the law and fiscal policy. In this respect, tax evasion can be conceptualised as illegal avoidance, whereby the term avoidance itself should be treated as being neutral. Therefore, the concept of tax non-compliance should include defiant avoidance and illegal avoidance (tax evasion), but exclude deferential avoidance.

Although traditional economic models of tax evasion tend to frame the evasion decision as rational taxpayers' gambling with tax authorities (Baldry, 1986), it seems more like a 'cheating' rather than a fair gambling. The real gambling situation is prominent in case of defiant tax avoidance because both the taxpayer and the tax authority are confronted with uncertainty about the *ex-post* legality of transaction which ultimately depends on a court decision. The meaning of tax compliance must include both compliance with the letter of the law and a respectful attitude towards the spirit of the law and fiscal policy (James, 2012). The proposed conceptualisation based on two different motivational postures will help to understand the meaning of tax avoidance and tax compliance not only for academic researchers and policy makers, but for ordinary taxpayers as well.

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Appendix: a conceptual differentiation of tax avoidance

Three categories of tax avoidance	Deferential tax avoidance	Defiant tax avoidance	Illegal tax avoidance (Tax evasion)
Comply with the form of tax laws	Yes	Yes	No
Comply with the spirit and purpose of tax laws	Yes	No	No
Similar concepts	Tax saving; tax minimization; tax planning	Abusive tax avoidance; aggressive tax planning; creative compliance	Tax fraud; tax cheating
Legality	Legal	Contingent on audit and court decision	Illegal
Motivation to reduce tax liability	Yes	Yes	Yes
Knowledge	Common knowledge	Private knowledge especially from tax professionals	Deception
Strategies	Real substitution of labour, consumption and investment usually recommended by the tax laws	Tax sheltering, restructuring	Concealment of income, over-claiming of deduction
Motivational postures	Commitment, capitulation	Game playing, resistance	Resistance
Compliance	Tax compliance	Tax non-compliance	Tax non-compliance