The Impact of IFRS Adoption on Public Sector Financial Statements

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Abstract
Following a sector neutral approach to standard-setting, New Zealand has adopted International Financial Reporting Standards (IFRS) for all sectors including the public sector. This study examines the impact of adoption of IFRS on New Zealand public sector entities’ financial statements. We analysed the note disclosing the reconciliation between IFRS and pre-IFRS NZ GAAP reported in the first IFRS annual reports of all New Zealand public sector entities. We compared the changes to financial statement elements from pre-IFRS NZ GAAP to NZ IFRS. The results indicate that there have been significant increases in assets and liabilities, and significant decreases to equity overall and some sub-sectors of the public sector. These changes were caused by adjustments that include employee entitlements (IAS 19), the recognition of derivative financial instruments (IAS 39) and the recalculation of deferred tax (IAS 12). In addition, public sector entities were required to make many reclassifications that did not impact the aggregate financial elements in the entities’ financial reports.

Key words: IFRS, GAAP, Public sector, New Zealand
1. Introduction

Public sector or governmental accounting has become a topical issue in the last two decades, and more so recently in New Zealand with the adoption of International Financial Reporting Standards (IFRS). Previous studies that examined the impact of IFRS adoption on the financial statements of private sector entities in New Zealand indicate that IFRS adoption had significant impacts on assets, liabilities and equity. This study examines the impact of IFRS adoption on the financial statements of New Zealand public sector entities.

Public sector reforms occurred in many countries including New Zealand throughout the 1970’s and 1980’s due to perceived inefficiencies in the public sector (Ryan, 1998). Part of this reform in New Zealand included the adoption of accrual accounting in the public sector and sector neutral accounting standards in the 1990’s (Ellwood & Newberry, 2007). When IFRS was adopted in New Zealand for private sector financial reporting the decision was made that New Zealand public sector entities would also be required to prepare their financial reports according to a modified version of IFRS but not International Public Sector Accounting Standards (IPSAS). The relevance of the sector neutral approach to accounting standards has been increasingly questioned in the last few years and in particular the suitability of IFRS for the public sector in New Zealand (Brady, 2009). New Zealand and Australia led the world in the application of sector neutral accounting standards (Robb & Newberry, 2007). Recent proposals by the New Zealand Accounting Standards Review Board (ASRB) indicate a possible further change to reporting in the public sector by adoption of IPSAS.

Rixon and Faseruk (2009) examined the impact of adoption of IFRS by some Canadian public sector entities and found that it had unexpected impacts on public sector entities’ financial statements. This is because these entities interpreted the standards differently from each other leading to incomparable statements. Kabir et al. (2010) found that the adoption of NZ IFRS by New Zealand private sector entities increased total assets, total liabilities and surplus. The main adjustments which caused these increases were found to be increases to goodwill and investment properties.

This study assesses the impact NZ IFRS has had on the financial reports of New Zealand public sector entities. This study finds that there have been significant increases to some assets in the overall public sector sample and local government entities. There have been also increases to liabilities in the overall public sector and the central government, local government, commercial and health subsectors. This study also finds that there have been significant decreases in equity on adoption of NZ IFRS by public sector entities in the central government and commercial subsectors. The impacts are found to have been caused by the requirement to recognise a provision for sick leave, long-service leave, and derivative financial instruments in all subsectors, and adjustments to deferred tax in the local government, crown and commercial subsectors. This study also finds that public sector entities were required to make many reclassifications on adoption of NZ IFRS that did not change the aggregate financial elements in the financial position of the entities.

This study contributes to the literature on the impact the adoption of IFRS has had on public sector financial reporting. There has been some previous research on the impact of IFRS adoption on the New Zealand private sector (Kabir et al., 2010; Griffin et al., 2009) and limited research on the impact adoption of IFRS has had on a limited range of public sector entities (Rixon & Faseruk, 2009) and audits of public sector entities (Botica-Redmayne & Laswad, 2010). In addition, no previous study has assessed the impact IFRS has had on a variety of public sector entities financial reporting in
New Zealand. This study, unlike previous studies, also investigates the impact of IFRS adoption on components of assets and liabilities. In this way this study adds empirical evidence to the discussion on the suitability of IFRS for public sector financial reporting.

The remainder of this study is structured as follows. Section 2 considers the background to the adoption of IFRS and public sector reforms in New Zealand and globally. Section 3 presents a discussion of previous literature. Section 4 contains the research questions. Section 5 presents the methodology used in this study. The analysis and results are discussed in section 6. The conclusion is presented in the final section, section 7.

2. Background

Public Sector Reform

During the 1970’s and 1980’s members of the Organisation for Economic Co-operation and Development (OECD) were concerned that the reduced economic growth that was being experienced by OECD member countries was caused by the relatively large size of the public sector. Government agencies were seen as being inefficient and lacking accountability (Ryan, 1998). There was a belief that commercial practices are better than bureaucracies at achieving economic outcomes. Neo-liberal reforms of the public sector were introduced globally (Newberry, 2003; Ellwood & Newberry, 2007). The focus of public sector accounting has traditionally been on probity, compliance and control but the public sector reforms have now changed this focus to efficiency, effectiveness, cost saving and streamlining (Broadbent & Guthrie, 1992). New Public Management (NPM) and New Public Financial Management (NPFM) were introduced to improve public sector performance. The public sector reform was at times criticised and a number of issues were outlined. Newberry (2003) claimed that systems arising from the reform had an underlying purpose of privatisation. Since the 1980’s the public sector has been required to focus on profit in addition to providing services to the public (Broadbent & Guthrie, 1992). Performance indicators were introduced, but Broadbent and Guthrie (1992) and Rutherford (1990) argued that these were not suitable for the public sector and may have in fact created some inefficiency.

The public sector reform in New Zealand was comprehensive and change occurred relatively quickly when compared to other countries such as the United States where changes are more gradual (Lye, Perera & Rahman, 2005). The National government of New Zealand between 1975 and 1984 initially resisted the neo-economic public sector reform that was sweeping much of the world. Finally in May 1984 the Prime Minister Robert Muldoon approved the establishment of a committee to develop an accruals based financial management and accounting system (Ellwood & Newberry, 2007). Just two months later a new Labour government was elected into power, and convinced of the urgent need for public sector reform immediately commenced rapid implementation of the neo-liberal economic policies (Ellwood & Newberry, 2007; Bradbury & Baskerville, 2007). As with other international public sector reforms a reduction in government size and expenditure was emphasised through macro-level controls such as privatisation (Ellwood & Newberry, 2007) and commercialisation (Newberry, 2003). Important legislation that was introduced during this time included the State Sector Act 1988 with a goal of increasing departmental accountability, and the Public Finance Act 1989 which required the use of accrual accounting at both government and agency level (Carlin, 2005; Ellwood & Newberry, 2007).
Accrual Accounting introduced as part of the Public Sector Reform

The introduction of accrual accounting to the public sector formed an important part of the public sector reforms and followed a global trend (Carlin, 2005). Cash based accounting was the traditional form of accounting in the public sector and still is in many countries. It records receipts and payments at the time cash is exchanged. Cash accounting was replaced in New Zealand by accrual accounting which recognises revenues and expenses in the period in which they are earned or incurred (Guthrie, 1998). Accrual accounting was introduced to the public sector in New Zealand as it was believed that cash accounting distorted the cost of services provided when compared to private sector entities that were required to include non-cash expenses in their costs.

Accrual accounting was expected to provide a more accurate assessment of the costs of services and be a better indicator of efficiency in the public sector (Guthrie, 1998). Guthrie (1998) identified a number of benefits of accrual accounting including a more comprehensive identification of costs, cost control and efficiency measurements, better pricing policies, increased productivity, greater accountability, intergenerational equity, restrictions over government indebtedness and greater comparability. Accrual accounting was also considered more suitable for long-term projects and accounting for assets as it extends the focus of accounting to include transactions that have occurred but have not involved the transfer of cash (Robb & Newberry, 2007).

Subsequently, Guthrie (1998) and Carlin (2005) argued that many of the benefits of accrual accounting were not felt by public sector departments. Most of the benefits of accrual accounting are not relevant when the purpose of public sector entities is not to make a profit. Guthrie (1998) argued that any benefits experienced by public sector entities arise from the wider public sector reform and concluded that accrual accounting is not able to provide solutions to the issues faced by the public sector any better than cash accounting. Accrual accounting in the United Kingdom (UK) public sector has been modified so that it now resembles cash accounting rather than accrual accounting (Hodges & Mellet, 2003). The United States (US) also uses a modified version of accrual accounting in the public sector (GASB, 2006). It has been argued in the US that accounting rules developed in the private sector cannot be adopted directly into the public sector as some fundamental sector differences exist (Carlin, 2005; Hodges & Mellet, 2003).

One of the major issues arising from the public sector reform and use of accrual accounting in the public sector continues to be the lack of a conceptual framework specifically developed for the public sector. There is currently no conceptual framework for accounting in the public sector; instead and as a consequence of sector neutrality in financial reporting the conceptual framework developed for private sector accounting is also applied in the New Zealand and Australia public sectors. Private sector conceptual frameworks are based on an underlying objective of decision-usefulness, while it has been proposed that a more appropriate objective for the public sector is accountability (Pallot, 1992; Rutherford, 1990). The justification for the variation in the conceptual framework has been given by perceived differences in need for accounting information. Users of public sector financial reports generally require information to make political and social decisions in addition to the usual requirement of users of private sector financial reports which are used primarily for economic information (GASB, 2006). While a single conceptual framework can be applied to all entities definitions are interpreted differently by the public and private sectors (Newberry, 2001).
The recognition and measurement of assets is a problematic area for most entities, but the public sector in particular. Some assets qualify as assets in the private sector but not in the public sector due to ownership issues, different obligations, the flow of benefits (Pallot, 1992) and control (Barton, 2002). Some assets require special treatment as they are unique to the public sector and are not included in the traditional definition of assets. These unique assets include infrastructural, cultural, environmental and heritage assets (Barton, 2002; Pallot, 1992). These assets provide future non-economic benefits to the public such as the use of roads or parks; however the private sector conceptual framework definition of an asset is restricted to future economic benefits (GASB, 2006). The measurement of liabilities and equity has also been identified as a problematic area for the public sector (Warren, 2004). Newberry (2001) argued that public sector financial statements are misleading as they appear similar to private sector financial statements, but are based on different interpretations of the conceptual framework. Therefore while the conceptual framework appears sector neutral, it is not (Newberry, 2001; 2002). There have been calls for a separate conceptual framework and accounting standards for the public sector due to the significant differences between the sectors (Barton, 2002; Carson, 2008; Rutherford, 1990).

During this time the New Zealand professional accountancy body also began to take an interest in the public sector. In August 1981 a public sector working group was created by the New Zealand Society of Accountants (NZSA) (Bradbury & Baskerville, 2007). This group became the Public Sector Accounting Standards Board in 1986 and had the responsibility of researching and preparing exposure drafts for the public sector. A conceptual framework especially for the public sector was in the process of development, however it was subsequently rejected (Ellwood & Newberry, 2007). In 1990 the New Zealand Financial Reporting Standards Board (FRSB) proposed and subsequently approved that there should be a single set of standards applicable to all New Zealand entities. At the time it was perceived that private and public sector entities share common transaction features (Bradbury & van Zijl, 2007; Newberry, 2003). The Financial Reporting Act 1993 created the ASRB with the role to review and approve accounting standards developed by the FRSB (Bradbury & Baskerville, 2007). The development of the FRSB standards considered all sectors and became known as Financial Reporting Standards (FRS). FRS’s followed accrual accounting as they were applicable to the public sector and this was widely accepted as being sector neutral (Brady, 2009).

Adoption of International Financial Reporting Standards in New Zealand

In 1997 the FRSB announced all future New Zealand Standards would be based on standards issued by either the Australian Accounting Standards Board (AASB) or the International Accounting Standards Committee (IASC) (Bradbury & van Zijl, 2007). In June 2002 the Australian Financial Reporting Council (FRC) instructed the AASB that Australian entities would be required to prepare their financial reports according to IFRS for accounting periods beginning on or after 1 January 2005 (Brady, 2009). As a result of the Australian decision, in October 2002 in New Zealand the ASRB decided all listed issuers, meaning private sector companies and entities, would be required to comply with IFRS from 2007 with the option to comply earlier from 2005.

Consultation with the public sector occurred in New Zealand over the following two months with the result being a very strong support for the adoption of IFRS by the New Zealand public sector and continuation of sector neutral accounting standards (Bradbury & van Zijl, 2007). Consequently, in December 2002 the ASRB announced that all reporting entities in the public and private sectors
would be required to comply with NZ IFRS for periods beginning on or after 1 January 2007, with an option to comply with NZ IFRS for periods beginning on or after 1 January 2005.

The adoption of NZ IFRS was the best option available to the New Zealand public sector in the early 2000’s. Sector neutral standards had previously been widely accepted in New Zealand before the introduction of NZ IFRS. Amendments were made to IFRS for the benefit of public sector entities as it was accepted that the adoption of NZ IFRS would have some issues for the public sector. It was hoped the amendments would solve most outstanding issues. IPSAS were not developed to a high enough standard at the time of NZ IFRS adoption for the New Zealand public sector to adopt them. The ASRB is now considering making changes to public sector financial reporting and one of those changes could be the future adoption of IPSAS (Scott, 2010) as IPSAS were developed specifically for the public sector.

3. Literature Review

The adoption of IFRS in the New Zealand and Australian public sectors has resulted in the relevance of sector neutral accounting standards to be increasingly questioned over the past few years (Brady, 2009; Ryan et al., 2007). The debate has increased substantially in New Zealand since the mandatory adoption of NZ IFRS by all reporting entities in 2007. While public sector support for NZ IFRS was initially strong it has since declined. NZ IFRS are considered to be sector neutral accounting standards as they are applied by all reporting entities in New Zealand, regardless of many amendments applied only to public sector reporting. Sector neutral accounting standards were adopted in New Zealand as most transactions undertaken by both the private and public sectors were considered similar (Bradbury & van Zijl, 2007; Newberry, 2003).

Bradbury and van Zijl (2007) consider that sector neutrality in New Zealand is already lost. The amendments made to recognition and measurement of NZ IFRS applies only to the public sector. Therefore the private and public sectors in New Zealand are effectively following separate standards. Bradbury and Baskerville (2007; 2008) outline the development of public sector accounting standards in the public sector culminating with the adoption of NZ IFRS. Bradbury & Baskerville (2007) conclude that sector-neutral accounting standards can lead to a wider set of robust standards and it is hoped this value will not be lost with the demise of sector neutral standards. Bradbury & Baskerville (2008) argue the amendments which have been made to NZ IFRS mean the private sector are not following pure IFRS and progress on issues relevant to the public sector has been slowed. They conclude that sector neutral accounting standards are not leading to optimal standards for either the public or private sectors. For example IAS 36 Impairment of Assets is difficult to apply to the public sector without additional guidance (Bradbury & Baskerville, 2008).

Bradbury & Baskerville (2007 & 2008) analysed the amendments made to IFRS in the creation of NZ IFRS for the benefit of public benefit entities. Bradbury & Baskerville (2007) divide these amendments into three categories. Amendments that modify profit-oriented recognition, measurement & disclosure standards are amendments on the issues of: non-cash generating assets, control, assets acquired at no cost and revaluations, and depreciation. The second category is amendments that provide additional guidance to public benefit entities. The final category is amendments that provide public benefit entities with exemptions. These exemptions are applied to standards not deemed useful or relevant to public benefit entities. In addition to these amendments public sector entities are required to make all relevant mandatory exceptions and are allowed to
make additional optional exemptions to NZ IFRS in the preparation of their financial statements (Deloitte, 2009). There are four mandatory exceptions which entities are required to make when completing the reconciliation of NZ GAAP to NZ IFRS and sixteen optional exceptions.

Table 1: List of amendments adapted from Bradbury & Baskerville (2007)

<table>
<thead>
<tr>
<th>Amendments</th>
<th>Categories of Adaptation</th>
<th>Standard</th>
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<tbody>
<tr>
<td>Modifying profit-oriented recognition, measurement and disclosure standards</td>
<td>Non-cash generating assets</td>
<td>NZ IAS 36</td>
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<td></td>
<td>Control</td>
<td>NZ IAS 2</td>
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<td></td>
<td>Assets acquired at no cost and revaluations</td>
<td>NZ IAS 20</td>
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<td></td>
<td>Depreciation</td>
<td>NZ IAS 16</td>
</tr>
<tr>
<td>Providing additional guidance to public benefit entities</td>
<td></td>
<td>NZ IAS 2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NZ IAS 7</td>
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<tr>
<td></td>
<td></td>
<td>NZ IAS 10</td>
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<tr>
<td></td>
<td></td>
<td>NZ IAS 16</td>
</tr>
<tr>
<td>Providing public benefit entities with exemptions</td>
<td>Segment Reports</td>
<td>NZ IAS 14</td>
</tr>
<tr>
<td></td>
<td>Government Grants</td>
<td>NZ IAS 20</td>
</tr>
<tr>
<td></td>
<td>Social Policy Obligations</td>
<td>NZ IAS 37</td>
</tr>
</tbody>
</table>

Kevin Brady, former New Zealand Controller and Auditor General between 2002 and 2009, released two reports (Brady, 2007 & 2009) expressing concerns about IFRS adoption in the public sector. Brady (2007) argued that the adoption of NZ IFRS by the public sector entities entails high costs but does not provide many benefits. He further argued that the reporting issues most relevant to the public sector are not being addressed. Brady (2007) concludes changes must be made to the current sector-neutral approach or there will be demands for separate financial reporting standards. Similarly Brady (2009) is concerned about the quality of financial reporting applying to the public sector. It is a major concern that IFRS have been designed to meet the needs of large profit-oriented entities’ users rather than the needs of public sector accounting reports. Ryan et al. (2007) argue that the private sector has always dominated the public sector’s reporting needs in Australia. Additionally there has been little change and guidance given in NZ IFRS for the public sector. Brady (2009) concludes that there needs to be a change in the development of accounting standards for the public sector in New Zealand to ensure financial reports are relevant and meet the needs of users.

The literature on sector neutral accounting standards demonstrates there are growing concerns about the relevance of NZ IFRS for the public sector. It is suggested that NZ IFRS do not meet the needs of the public sector (Brady, 2009; Bradbury & Baskerville, 2008; & Ryan et al., 2007) and there are increasing calls for the public sector to develop their own standards (Ryan et al., 2007). As a result of these concerns the ASRB is now considering making changes to public sector financial reporting (Scott, 2010). This research investigates the magnitude and causes of impact the adoption of NZ IFRS has had on New Zealand public sector entities’ financial statements.

**Previous studies assessing the Impact of IFRS**

A number of studies have analysed the impact of IFRS on private sector entities.
Daske, Li (2007) and Li (2010) both analyse the effects of IFRS adoption on international capital markets. Daske et al. (2007) provide a comprehensive study of the effects of mandatory IFRS adoption for profit-oriented entities. They find firms adopting IFRS in the year of mandatory adoption experience large increases in market liquidity but mixed results for cost of capital. These effects are only present in countries with strong legal enforcement and are likely to be heterogeneous across countries. They conclude the results from this study are likely the joint results of IFRS adoption and improved enforcement and governance regimes (Daske et al., 2007). In a similar study Li (2010) examines the effects of IFRS on the cost of equity capital in the European Union. Contrary to Daske et al. (2007), Li (2010) finds mandatory adopters of IFRS experience significant reductions in the cost of capital in the years of mandatory adoption. However, this is only significant in countries with strong legal enforcement (Li, 2010).

There is also literature studying the effects of IFRS adoption on the quality of accounting standards in the private sector. Goodwin and Ahmed (2006) analysed the impact of IFRS in Australia in relation to the size of entities. They argue IFRS provides little change or more benefits for smaller firms. These benefits include few adjustments required upon adoption and increases in net income and equity. In contrast larger firms are found to require increasing numbers of adjustments, negligible increases to net income and a decrease in equity. Goodwin et al. (2007) is a similar study of the effects of IFRS on the quality of accounting for Australian firms. They find on average IFRS has caused increases in liabilities and the leverage ratio and decreases in equity and earnings. Further, Barth, Landsman & Lang (2008) find an increase in accounting quality resulting from the adoption of IFRS in 21 countries that previously used domestic GAAP. Entities that prepare their financial accounts under IFRS are, according to Barth et al. (2008) exposed to less earnings management, more timely loss recognition, and more value relevance of accounting amounts than those entities domestic GAAP. They conclude that the quality of accounting information is higher for firms that apply IAS than for those that do not. Overall it appears from research so far that the adoption of IFRS generates positive effects on market liquidity and accounting quality of private sector entities. The question still remains what effects there are of adoption of IFRS in the public sector.

When it comes to public sector research few studies on IFRS and public sector accounting have been undertaken. Rixon & Faseruk (2009) completed a public sector study focusing on the impact of IFRS on Canadian Workers Compensation Boards (CWCB). IFRS applies to all Canadian public sector entities classified as Government Business Enterprises. They find that the implementation of IFRS by these Canadian entities has decreased comparability rather than improved it. This is because these entities interpreted certain IFRS standards differently which resulted in different classifications, particularly of financial instruments. Some entities classified their financial assets as available for sale while others classified them as held for trading. This resulted in unrealised gains and losses being recognised for some entities but not for others. Rixon and Faseruk (2009) argue that this lack of comparability was caused by a lack of guidance given in the accounting standard for this group of public sector entities. In addition the alternative methods allowed under IFRS to calculate the CWCB’s funded position resulted in further reduced comparability. They conclude that IFRS has had an unforeseen impact on the entities’ financial statements in the Canadian public sector. They argue requiring the use of IFRS by entities other than those it was designed for (all non-profit oriented entities) may result in unexpected challenges if appropriate guidance is not provided for these groups. This finding supports some of the Brady (2009) claims about the suitability of IFRS for public sector reporting.
There have been three New Zealand studies on the impact of NZ IFRS adoption on audit fees. Griffin et al. (2009) analysed the effect of regulatory changes and IFRS adoption on the audit fees of the New Zealand private sector. They find a significant increase in mean audit fees between 2002 and 2007 and a decrease in non-audit fees. The increase in audit fees was largest around the introduction of IFRS so they concluded it was a result of the adoption of IFRS. In a similar study Hart, Rainsbury & Sharp (2009) analysed the change resulting from the adoption of audit fees on listed New Zealand companies. They find the median audit fees increased by 48% upon adoption of IFRS indicating the change in accounting standards had an impact on the audits of these companies. In a similar study Botica-Redmayne & Laswad (2010) analysed the impact of NZ IFRS on New Zealand public sector audit fees and audit effort. The results were similar to Griffin et al. (2009) and Hart et al. (2009) as they find a significant increase in audit fees and audit effort in year of adoption in the public sector. In that way the Botica-Redmayne & Laswad (2010) study provides some preliminary evidence on the cost of IFRS adoption in the New Zealand public sector.

Brady (2009) compared NZ IFRS with previous financial reporting standards and identified the standards expected to have a major impact on the New Zealand public sector. NZ IAS 12 Income Taxes was expected to have a major impact as the method of calculating income tax changed under IFRS. However this is unlikely to impact all public benefit entities as many are not required to pay income tax. NZ IAS 19 Employee Benefits was also expected to have a major impact on public sector entities’ financial statements. This is because of the introduction of the requirement to recognise a liability for unused sick leave under IFRS. The final accounting standard expected to have had a major impact on the public sector is NZ IAS 39 Financial Instruments: Recognition and Measurement. This accounting standard requires derivatives and financial guarantees to be recognised for the first time. Overall Brady (2009) suggested that NZ IFRS contain many small changes from NZ GAAP, mostly in the higher number of required disclosures with a reduced amount of guidance provided.

On a more detailed level, Kabir et al. (2010) studied the impact of IFRS adoption on the accounts and earnings quality of New Zealand private sector entities. The sample for that study was drawn from firms listed on the New Zealand stock exchange. The first research question in Kabir et al. (2010) is of particular relevance to the current study as it focuses on the impact of IFRS adoption on the more detailed level in the accounts of these firms. They find that IFRS caused an increase in total assets, total liabilities and profit over previous NZ GAAP. The main adjustments which caused these increases were found to be associated with increases in goodwill and other intangible assets, and increases in investment properties. Further, employee benefits and share based payments reduced profits while adjustments to tax, employee benefits, revenue and provisions were found to reduce equity (Kabir et al., 2010).

In conclusion previous private sector studies found that the adoption of IFRS causes increases on a more detailed level to total assets, total liabilities and profit over previous NZ GAAP (Kabir et al., 2010). However IFRS applied in the public sector appears to have had some unforeseen impacts on financial statements particularly to financial assets and liabilities (Rixon & Faseruk, 2009). This study, following findings of Kabir et al. (2010) explores the impact of the adoption of NZ IFRS on the financial statements of New Zealand public sector entities.
4. Research Questions

Following from previous literature, the primary research question for this study is: Did the adoption of NZ IFRS have an impact on financial reporting by public sector entities?

This research question is examined by analysing the differences to the financial statements between previous NZ GAAP and NZ IFRS. Similarly to Kabir et al. (2010) the impact is analysed in relation to total assets, total liabilities, equity and surplus. The analysis is conducted for the overall New Zealand public sector based on the New Zealand government’s public sector directory and also the subsectors. The impact of NZ IFRS adoption is assessed based on changes between the financial elements of total assets, current assets, non-current assets, total liabilities, current liabilities, non-current liabilities, equity, surplus/deficit, revenues and expenses as a result of adoption of NZ IFRS.

In addition this study investigates the standards that had the biggest impact on the financial statements of public sector entities on adoption of NZ IFRS.

5. Methodology

Consistent with Kabir et al. (2010) this study analyses the impact of IFRS adoption on the assets, liabilities, equity and surplus of New Zealand public sector entities. The data from these categories is extracted from the notes to the financial statements of New Zealand public sector entities in accordance with the reconciliation between NZ GAAP and NZ IFRS required by NZ IFRS 1 First-time Adoption of New Zealand Equivalents to International Financial Reporting Standards.¹ Data presented in this reconciliation note was used to assess the impact of the adoption of NZ IFRS in the public sector. The previous New Zealand literature in the private sector suggests total assets, total liabilities and profit increased on adoption of NZ IFRS (Kabir et al., 2010). The notes to the reconciliation were analysed to explore which standards had the biggest changes on adoption. The New Zealand Auditor-General at the time of IFRS adoption in the New Zealand public sector also suggested that the standards expected to have the biggest impact on adoption for New Zealand public sector entities are NZ IAS 12, NZ IAS 19 and NZ IAS 39 (Brady, 2009). The current study analyses whether the adoption of NZ IFRS had similar effects to Kabir et al. (2010) and following Brady (2009) on New Zealand public sector entities’ financial statements.

The details of the entities subject to investigation in this study are obtained from the New Zealand Governments Public Sector Directory (PSD). The PSD contains a comprehensive list of New Zealand Government organisations. Included in this directory is the head office for each organisation in the

¹ NZ IFRS 1 must be followed by all New Zealand entities when NZ IFRS are adopted for the first time. NZ IFRS 1 as issued in 2004 and became effective from 1st January 2005. NZ IFRS 1 was amended in 2008 but the reconciliation requirements remained largely unchanged. The 2004 version of NZ IFRS 1 is the standard relevant to this study as it covers the period of NZ IFRS adoption in New Zealand. NZ IFRS 1 paragraph 38 requires an entity to explain how the adoption of NZ IFRS affected its financial position, financial performance and cash flows. Specifically paragraph 39 (a) requires a reconciliation of equity reported under previous GAAP to equity reported under NZ IFRS for both the date of transition to NZ IFRS and the most recent annual financial statements under previous GAAP. Paragraph 39 (b) requires a reconciliation of the profit or loss reported under previous GAAP for the latest period to profit or loss under NZ IFRS for the same period. Paragraph 40 requires the reconciliations to be provided in enough detail to enable users to understand the material impacts of adoption of NZ IFRS on the balance sheet and income statement.
state sector and local authorities. The sectors included in the Public Sector Directory are: Public Service Departments, Non-Public Service Departments, District Health Boards, Crown Agents, Autonomous Crown Entities, Independent Crown Entities, Crown Research Institutes, Other Crown Entity Companies, Universities, Polytechnics/Institutes of Technology, Wanangas, The Correspondence School, State Owned Enterprises, Offices of Parliament, Trusts, Conservation Sector Organisations, Other PFA 4th Schedule Organisations, State Sectors, Regional Councils, City Councils and District Councils (New Zealand Government, 2010). The initial list of entities obtained from the New Zealand Government’s Public Sector Directory included 297 entities. These entities form the initial population for this study and represent a comprehensive list of New Zealand public sector entities. Entities included in the sample are detailed in appendix 1. Primary and secondary schools and Statutory and Significant Non-Statutory Organisations associated with Ministerial Portfolios are not included in the Public Sector Directory list as they are not considered part of the state sector. These entities are therefore also excluded from the sample for this study.

There is a large range of entities included in the sample. The mean total assets closing balance under NZ IFRS for sample entities is $852 million. The mean closing balance for total liabilities under NZ IFRS is $310.5 million. The average total equity closing balance under NZ IFRS is $547 million, and the mean surplus under NZ IFRS is $20.4 million.

Table 2: Range of public sector entity sizes included in the sample

<table>
<thead>
<tr>
<th>Closing balance NZ IFRS</th>
<th>Minimum ($000)</th>
<th>Maximum ($000)</th>
<th>Mean ($000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total assets</td>
<td>401</td>
<td>20,961,000</td>
<td>852,004</td>
</tr>
<tr>
<td>Total liabilities</td>
<td>56</td>
<td>19,525,000</td>
<td>310,518</td>
</tr>
<tr>
<td>Total equity</td>
<td>-5,570,974</td>
<td>11,863,800</td>
<td>547,026</td>
</tr>
<tr>
<td>Surplus</td>
<td>-414,745</td>
<td>1,787,812</td>
<td>20,420</td>
</tr>
</tbody>
</table>

To analyse the impact IFRS has had on the financial statements of these entities it was necessary to access the annual report of each entity for the year which NZ IFRS was first adopted. Seven entities were immediately excluded from analysis as they were formed since IFRS was adopted in New Zealand and therefore are unable to provide information regarding the transition to NZ IFRS. That reduced the entities under observation to 290 entities. The annual reports for the entities were accessed from the entities’ websites, from the New Zealand Parliament website, from the Massey University Library or directly from the entity. Two New Zealand Government security entities were excluded as the only publically available information available on these entities is in the form of a brief financial summary. Eleven entities were excluded as the relevant annual report could not be obtained. A further two entities were removed as the annual report did not contain all the necessary disclosures. The final sample analysed in this study contains 275 New Zealand public sector entities.

The reconciliation under NZ IFRS 1 was extracted from each of the 275 entities’ financial statements. Data of interest from the reconciliation of the balance sheet included total assets, current assets, non-current assets, total liabilities, current liabilities, non-current liabilities and equity for both the date of transition (the beginning of the year before adoption) and the comparative balance sheet (the end of the year before adoption). The surplus, revenue and expenses for the previous year were extracted from the reconciliation of the income statement. The change in value, percentage change and direction of the change of these categories were then calculated. Additional information
collected for all 275 entities includes the date of IFRS adoption and explanatory notes to the reconciliations.

Subsequent to data collection and for the ease of analysis in this study the entities were further classified into six subsectors. Entities are grouped in subsectors according to similarities in purpose, function, funding and structure. The resulting subsectors are: central government, health boards, crown entities, commercial entities, education and local government. Table 3 shows the reclassification and appendix two provides further explanations.

Table 3: Public sector entities classified by subsectors

<table>
<thead>
<tr>
<th>Re-defined sub-sector</th>
<th>Original Subsectors as defined by the PSD</th>
<th>Number of Entities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central Government</td>
<td>Public sector departments, Non-public sector departments, Offices of parliament</td>
<td>41</td>
</tr>
<tr>
<td>Health Entities</td>
<td>District health boards</td>
<td>19</td>
</tr>
<tr>
<td>Crown Entities</td>
<td>Crown agents, Autonomous crown entities, Independent crown entities, Radio New Zealand Limited, Trusts, Conservation sector entities, Other PFA 45th schedule entities.</td>
<td>82</td>
</tr>
<tr>
<td>Commercial Entities</td>
<td>Crown Research Institutes, Television New Zealand Limited, New Zealand Venture Investment Fund Limited, State Owned Enterprises, State Sector Entities.</td>
<td>25</td>
</tr>
<tr>
<td>Education Entities</td>
<td>Universities, Polytechnics, Institutes of Technology, Wanangas, Correspondence School Board of Trustees</td>
<td>30</td>
</tr>
<tr>
<td>Local Government</td>
<td>Regional Councils, City Councils, District Councils, Territorial Authorities.</td>
<td>78</td>
</tr>
<tr>
<td>Total Public Sector Sample</td>
<td></td>
<td>275</td>
</tr>
</tbody>
</table>

6. Analysis and Results

Statistical analysis was completed for the entire sample and each sub-sample. The statistical analysis involved paired sample tests comparing NZ GAAP totals with NZ IFRS for each of the financial elements for both the transition balance sheet and comparative balance sheets of the entities. There were 17 tests comparing the NZ GAAP and NZ IFRS balances for the overall sample and each subsample. These comparisons were: total assets opening balance, total assets closing balance, current assets opening balance, current assets closing balance, non-current assets opening balance, non-current assets closing balance, total liabilities opening balance, total liabilities closing balance, current liabilities opening balance, current liabilities closing balance, non-current liabilities opening balance, non-current liabilities closing balance, total equity opening balance, total equity closing balance, total surplus, total revenue and total expenses.

This study extends previous studies by identifying which standards had the most significant impact on adoption of IFRS. Qualitative analysis was performed on the disclosure notes to the reconciliation and the explanation provided by the entities of significant changes on adoption of NZ IFRS was recorded. The explanations provided by all entities were added together to identify what were the most frequent changes experienced by New Zealand public sector entities on adoption of NZ IFRS.
An analysis of the notes provides evidence on the specific changes each entity was required to make on the adoption of NZ IFRS. Kabir et al. (2010) found the main causes of changes in New Zealand private sector entities to be adjustments to goodwill and investment properties. The adjustments identified by Kabir et al. (2010) are not expected to affect public sector entities in terms of these items. Kabir et al. (2010) also found evidence that the New Zealand private sector entities experienced changes to tax, employee benefits and provisions. Brady (2009) predicted that the accounting standards to have the greatest impact on New Zealand public sector entities on adoption of NZ IFRS were to be NZ IAS 19 Employee Benefits due to the requirement to recognise a liability for unused sick leave, and NZ IAS 39 Financial Instruments: Recognition and Measurement as derivative financial instruments are required to be recognised for the first time. Brady (2009) expected NZ IAS 12 Income Taxes to have a major impact on private sector entities, but only a minimal impact on the public sector as only some public sector entities are required to pay taxes. In addition to analysing sector relating impact of IFRS adoption, the adjustments required to be made by New Zealand public sector entities on adoption of NZ IFRS can be categorised into two categories: true adjustments and reclassifications.

Table 4 presents results of the statistical analysis. The mean differences between NZ IFRS and NZ GAAP at the beginning and end of the year preceding NZ IFRS adoption by the public sector entities are reported and significant changes are identified. Assets less liabilities do not equal equity due to a differing amount of data available for some entities. 244 entities reported opening equity under NZ GAAP and NZ IFRS but 27 of these entities did not present data for the opening balances of assets and liabilities resulting in only 217 entities presenting this information. There is a similar amount of missing data for the closing balances of equity and for the surplus balances.

**Total public sector sample**

Public sector entities were required to undertake an average of six adjustments as a result of adopting NZ IFRS. This study finds that liabilities have experienced significant increases across all subsectors, assets have also increased significantly, and equity has decreased significantly, while there have been no significant changes to surplus.

Opening total assets were found to increase marginally significantly for the total sample of New Zealand public sector entities. The mean increase was $10,320,240 or 1.4%. Possible causes for this increase include the requirement for derivative financial instruments to be recognised at fair value on the balance sheet and the revaluation of investment properties and items of property, plant and equipment to which the deemed cost exemption is applied. There was no change to the closing total assets balance suggesting the changes were only associated with the initial revaluations on adoption of NZ IFRS.

The opening and closing balances of total liabilities were both found to have increased marginally significantly on adoption of NZ IFRS by public sector entities. Opening total liabilities were found to increase by an average of $23,715,576 (9.6%) and closing total liabilities increased by an average of $28,911,638 (10.2%). Causes for these increases include the requirement to recognise a provision for accumulated sick leave, the recalculation of deferred tax, and the recognition of long-service leave under IFRS which are consistent with the expectations of Brady (2009).
Table 4: Mean difference NZ IFRS and NZ GAAP at the beginning and ending of the first year of adoption ($000)

<table>
<thead>
<tr>
<th></th>
<th>All Entities</th>
<th>Central Government</th>
<th>Crown Entities</th>
<th>Local Government</th>
<th>Commercial</th>
<th>Education</th>
<th>Health</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Opening</td>
<td>Closing</td>
<td>Opening</td>
<td>Closing</td>
<td>Opening</td>
<td>Closing</td>
<td>Opening</td>
</tr>
<tr>
<td><strong>Assets</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Opening</td>
<td>10,320*</td>
<td>-42,599</td>
<td>353</td>
<td>-218</td>
<td>20,773</td>
<td>26,365</td>
<td>6,005*</td>
</tr>
<tr>
<td>Closing</td>
<td>21,015</td>
<td>31,207</td>
<td>-186</td>
<td>23</td>
<td>25,850</td>
<td>52,521</td>
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<tr>
<td><strong>Current Liabilities</strong></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Opening</td>
<td>23,716*</td>
<td>28,912*</td>
<td>50,550</td>
<td>62,137</td>
<td>5,916**</td>
<td>6,946*</td>
<td>84,648*</td>
</tr>
<tr>
<td>Closing</td>
<td>-1,141</td>
<td>641</td>
<td>-6,444</td>
<td>-2,699</td>
<td>-471</td>
<td>-347</td>
<td>7,079</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Non-current Liabilities</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Opening</td>
<td>19,776</td>
<td>21,283</td>
<td>4,126*</td>
<td>38,131</td>
<td>-456</td>
<td>-1,394</td>
<td>1,781*</td>
</tr>
<tr>
<td>Closing</td>
<td>-337</td>
<td>-1,229</td>
<td>-7,172</td>
<td>2,179</td>
<td>6,982</td>
<td>54</td>
<td>-1,129</td>
</tr>
<tr>
<td><strong>Equity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Opening</td>
<td>-17,306*</td>
<td>-24,101**</td>
<td>-50,698</td>
<td>-52,739</td>
<td>773</td>
<td>-6,514</td>
<td>-69,744*</td>
</tr>
<tr>
<td>Closing</td>
<td>-337</td>
<td>-1,229</td>
<td>-7,172</td>
<td>2,179</td>
<td>6,982</td>
<td>54</td>
<td>-1,129</td>
</tr>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Surplus</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Revenue</td>
<td>-996</td>
<td>72*</td>
<td>1,381</td>
<td>1,733</td>
<td>814</td>
<td>32</td>
<td>-677</td>
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<tr>
<td>Expense</td>
<td>1,803</td>
<td>1,394</td>
<td>9,723</td>
<td>-171</td>
<td>-6,651</td>
<td>565*</td>
<td></td>
</tr>
</tbody>
</table>

*** Significant at 1%, ** Significant at 5%, * Significant at 10%
The opening and closing balances of total equity also experienced significant changes upon adoption of NZ IFRS by public sector entities. Opening total equity experienced a marginally significant decrease of $17,305,668 (-3.5%). Closing total equity decreased moderately significantly on adoption of NZ IFRS by $24,100,665 (-4.2%). Total equity decreased due to the larger increase to total liabilities than to total assets.

Consistent with the findings of Kabir et al. (2010) public sector entities assets and liabilities generally increased while equity decreased. However in contrast to the findings of Kabir et al. (2010) the surplus of public sector entities was found to decrease although this result was not statistically significant. NZ IAS 19, NZ IAS 12 and NZ IAS 38 are responsible for the increase in total liabilities consistent with Brady’s (2009) expectations.

Central Government

Central government entities made an average of 3.4 changes on adoption of NZ IFRS. Central government entities experienced two moderately significant changes and four marginally significant changes to financial statement elements on adoption of NZ IFRS.

Central government entities experienced small increases to the opening balances of assets on adoption of NZ IFRS and small decreases to the closing balances. These changes were not significant.

Consistent with the findings of Kabir et al. (2010) current liabilities and the closing balance of total liabilities were found to moderately increase upon transition to NZ IFRS. Closing current liabilities increased by an average of $866,853 (2.3%), opening current liabilities increased by $430,121 (1.4%), and closing total liabilities increased by $1,641,000 (3.4%). The adoption of NZ IFRS by central government entities caused a moderately significant increase to opening total liabilities of $1,265,697 (3.4%). The causes for these increases were due to requirements to recognise a provision for sick leave, the recognition of derivative financial instruments, accounting for the ACC liability, and increases in lease make good provisions and long-service leave.

Closing total equity moderately decreased on transition of $1,757,750 (-0.3%). This was mostly due to the increase in closing total liabilities.

Central government entities’ revenue increased marginally by $72,000 (0.02%) on adoption of NZ IFRS. Possible causes for this increase include the recognition of unrealised financial gains on transition and the reclassification of gain on sale of assets as revenue.

Crown Entities

There were no significant impacts on the financial statements of crown entities. Assets generally increased, total liabilities and the closing balance of non-current liabilities increased but the current and opening non-current liabilities balance decreased. Equity, revenues and expenses also increased while surplus decreased. However, none of those movements were statistically significant. Crown entities made an average of 3.4 changes upon adoption of NZ IFRS.
Local Government

The adoption of NZ IFRS resulted in local government entities making an average of 9.8 changes each. Local governments experienced a number of significant increases to both assets and liabilities on adoption of NZ IFRS.

The opening balances of total assets and non-current assets experienced marginally significant increases on the adoption of NZ IFRS by local government entities. Total assets increased by $6,005,333 (0.6%) and non-current assets increased by $6,191,250 (0.7%). The increase in total assets was due almost entirely to the increase in opening non-current assets. These increases can be explained by the revaluation to fair value of property, plant and equipment due to the deemed cost exemption and the revaluation of investment property under NZ IAS 40.

Local government entities also experienced significant increases to liabilities. Opening total liabilities experienced a moderate increase on adoption of NZ IFRS by local government entities by an average of $5,915,556 (8.3%). The adoption of NZ IFRS caused marginally significant increases for closing total liabilities of $6,945,644 (8.7%), opening non-current liabilities to increase by $4,126,431 (10%) and closing non-current liabilities to increase by $4,171,205 (8.5%). The main causes of these increases are the recognition of a provision for accumulating sick leave and long-service leave, recalculation of deferred tax, recognition of derivative financial instruments, and the revaluation of community loans. NZ IAS 12, NZ IAS 19 and NZ IAS 39 had an impact on local government entities financial statements upon IFRS adoption. This is in line with Brady’s (2009) predictions.

There were no significant impacts on the equity or surplus of local government entities on adoption of NZ IFRS.

Commercial Entities

Commercial entities made an average of 7.5 changes on adoption of NZ IFRS. The assets of commercial entities did not experience significant changes on adoption of NZ IFRS. This is in contrast to the findings of Kabir et al. (2010) for the private sector. However, the most significant impacts of the adoption of NZ IFRS for commercial entities are on total liabilities and equity which is consistent with the findings of Kabir et al. (2010) in the private sector in relation to liabilities and equity.

The change to total liabilities was marginally significant for commercial entities upon the adoption of NZ IFRS. The opening balance of total liabilities is found to have increased by $84,648,318 (7%) and the closing balance has increased by $103,187,636 (7%) on adoption of NZ IFRS. The main reason for these increases is the recalculation of deferred tax. Commercial entities in New Zealand are eligible for taxation and the introduction of NZ IAS 12 would have had a significant impact on the calculation of deferred tax for these entities. Other changes that increased liabilities for commercial entities are due to recognition of derivative financial instruments, provisions recognised for sick leave, lease make-good provisions and the recognition of long-service leave. In other words NZ IAS 12, NZ IAS 19 and NZ IAS 38 also had an impact on the financial reports of commercial entities consistent with the predictions of Brady (2009).

The total equity of commercial entities has experienced a marginally significantly decrease upon adoption of NZ IFRS. Opening total equity decreased by $69,744,417 (-11.5%) while closing total
equity decreased by $95,619,750 (-13.8%). The majority of these decreases can be explained by the increases in total liabilities.

**Education**

Education entities were however required to make an average of 6.7 changes upon the adoption of NZ IFRS. However, there were no significant impacts on the financial statements of education entities. Assets, equity, surplus and revenues increased by insignificant amounts, while liabilities and expenses also decreased insignificantly on adoption of NZ IFRS. Recognition of a provision for sick leave and the reclassification of computer software as intangible assets were the most common changes for these entities.

**Health**

Health entities made an average of 4.8 changes to their financial statements on adoption of NZ IFRS. The most significant impacts of adoption of NZ IFRS on health entities are to total, current and non-current liabilities. This finding is also consistent with Kabir et al. (2010). When it comes to assets there were no significant impacts to the assets and equity of health entities.

Liabilities were marginally significantly increased on adoption of NZ IFRS in the health subsector. Opening total liabilities increased by $2,326,944 (1.8%), closing total liabilities increased by $2,819,176 (1.9%), closing current liabilities increased by $1,065,588 (1.2%), opening non-current liabilities increased by $1,780,722 (3.2%) and closing non-current liabilities increased by $1,765,118 (2.8%). Reasons for these increases in the health sector entities’ financial reports are due to the requirement to recognise liabilities for a sick leave provision and ACC cover. Other reasons also include employee entitlements such as the recognition of long-service, retirement, sabbatical and training leave. This is consistent with Brady’s (2009) prediction that NZ IAS 19 will have a significant impact on the New Zealand public sector.

Expenses were also found to experience a marginally significant change upon the adoption of NZ IFRS in the health subsector. Expenses increased slightly by an average of $565,188 (0.1%).

Overall the most significant impact of NZ IFRS adoption in the public sector has been increases to liabilities. This is consistent with the findings of Kabir et al. (2010) for private sector entities that the adoption of NZ IFRS caused increases in total liabilities. Total equity was found to have significantly decreased on the adoption of NZ IFRS by most subsectors in this study. This study also finds some support for the finding of Kabir et al. (2010) that assets significantly increased on adoption of NZ IFRS in the New Zealand private sector. In contrast to the findings of Kabir et al. (2010) this study finds that the adoption of NZ IFRS did not have a significant impact on the surplus of New Zealand public sector entities.

Table 5 presents the standards that had the most impact on public sector entities’ financial statements on adoption of NZ IFRS. The number and percentage of entities in each subsector required to make each of the ten most common changes is presented. The changes are also classified as true adjustments or reclassifications.
<table>
<thead>
<tr>
<th>Item</th>
<th>Standard</th>
<th>Adjustment/Reclassification</th>
<th>All Public Sector Entities</th>
<th>Central Government</th>
<th>Crown Entities</th>
<th>Local Government</th>
<th>Commercial Entities</th>
<th>Education Entities</th>
<th>Health Entities</th>
</tr>
</thead>
</table>
IFRS adjustments

The most common change classified as a true adjustment experienced by the New Zealand public sector on adoption of NZ IFRS was the requirement to recognise a provision for accumulating unused sick leave. NZ IAS 19 Employee Benefits paragraph 14 requires the expected costs of accumulating compensating absences to be measured as a result of the unused entitlement that has accumulated at the end of the reporting period. This requirement applies only to sick leave that accumulates to each employee and not to non-accumulating sick leave. 145 public sector entities (52%) stated that they were required to recognise a provision for accumulating sick leave for the first time when adopting IFRS. This was the most common change for education entities (70%) and health boards (58%), the second most common change for central government (75%), third most common change for local government entities (64%) and crown entities (33%) and fifth equal most common change for commercial entities (20%). The requirement to recognise accumulating sick leave had the implication of increasing liabilities for the public sector. This adjustment is consistent with the expectations of Kabir et al. (2010) and Brady (2009) that employee benefits and the recognition of a liability for employee entitlements such as sick leave would have a significant impact on adoption of NZ IFRS.

The second most common true adjustment cited by the New Zealand public sector on adoption of NZ IFRS is the requirement to recognise all financial derivatives on the balance sheet of public sector entities at fair value. NZ IAS 39 Financial Instruments: Recognition and Measurement paragraph 14 requires financial assets or financial liabilities to be recognised in the balance sheet when the entity becomes party to the contractual provisions of the instrument. Paragraphs 43 and 46 require the derivate financial instrument to be measured at fair value. The increase in the recognition of financial liabilities by public sector entities is consistent with the expectations of Brady (2009) that the recognition of derivative financial instruments would have a significant impact on public sector entities. 67 public sector entities (24%) were required to recognise derivatives for the first time, 48% of commercial entities, 42% of health departments, 37% of local government entities, 14% of central government entities, 11% of crown entities and 10% of education entities were required to account for derivative financial instruments for the first time. Both liabilities and assets increased due to this requirement depending on whether a financial asset or financial liability was recognised in individual cases. In addition some entities that previously recognised derivative financial instruments had to re-measure them to fair value.

The revaluation of assets and the transfer of related revaluation reserves to equity due to the adoption of the deemed cost exemption was the fifth most common cause of change on transition to NZ IFRS and third most common true adjustment for the New Zealand public sector. NZ IFRS 1 First-time Adoption of New Zealand Equivalents to International Financial Reporting Standards paragraph 16 allows an entity to measure an item of property, plant and equipment at the date of transition to NZ IFRS at its fair value and to use that fair value as its deemed cost at that date. 58 New Zealand public sector entities or 21% elected to adopt this optional exemption. 53 of these entities were local government entities. There was minimal adoption of this exemption by entities in the remaining subsectors. The effect of this exemption is that large amounts of property, plant and equipment of local government entities were re-valued on transition to IFRS. This caused adjustments to non-current assets. Consequently revaluation reserves were transferred to equity.
No previous study indicated that the deemed cost exemption would require large adjustments on the transition to NZ IFRS.

Consistent with the findings of Kabir et al. (2010) the fourth most common true adjustment on adoption of NZ IFRS by New Zealand public sector entities is the requirement to recalculate deferred tax. NZ IAS 12 Income Taxes requires entities to calculate income taxes according to the method commonly termed the balance sheet method. Paragraph 51 requires the measurement of the deferred tax asset or deferred tax liability to reflect the consequences the entity expects will follow upon recovering or settling the carrying amount of its assets and liabilities. 47 (17%) of New Zealand public sector entities were affected by the change in income tax measurement. Brady et al. (2009) expected tax adjustments to affect private sector entities, but not public sector entities. This study has found that NZ IAS 12 indeed had an impact on public sector entities. The entities most affected by NZ IAS 12 predictably were commercial entities where this was ranked the second highest adjustment with 16 entities (64%) being affected. 33% of local government entities and 6% of crown entities were also affected to some degree by this change due to commercial activities that are part of their business. Consistent with Brady et al.’s (2009) expectations that central government, district health boards and education entities were not to be affected by implementation to NZ IAS 12 is true as they are exempt from paying income taxes. The change of income tax measurement generally increased the amount of income tax the public sector entities were required to pay.

Recognition or reclassification of long-service leave was the seventh most common source of change affecting 44 public sector entities (16%). NZ IAS 19 Employee Benefits requires long-service leave to be recognised as an employee benefit. This change was consistent with the expectations of Brady (2009) and the findings of Kabir et al. (2010) for the private sector. Entities from each of the subsectors were affected and liabilities were increased as a result.

The reclassification of investment property and the requirement for valuation of investment property at fair value inclusive of disposal costs according to NZ IAS 40 Investment Properties was the eighth most frequent cause of change upon the adoption of NZ IFRS. All subsectors were slightly affected by this adjustment but the majority of entities required to revalue investment property was local government authorities. 42 entities (15%) public sector entities noted this change and 33 of these entities were local government entities (42% of all local government entities). The adjustment to investment properties is consistent with the findings of Kabir et al. (2010) for private sector entities where evidence was found that investment properties valuations increased on adoption of NZ IFRS in the New Zealand private sector.

Reclassifications

The change that was most commonly cited by all public sector entities on adoption of NZ IFRS is not a true adjustment to the financial statements but the reclassification of computer software to intangible assets. NZ IAS 38 Intangible Assets paragraph 4 requires computer software that is not integral to the related hardware to be treated as an intangible asset. 195 entities (71%) noted that they were required to reclassify computer software on the adoption of NZ IFRS. It was the most common change for the overall public sector sample, central government (98%), local government (73%), commercial entities (72%), crown entities (60%), and health boards (58%); and was ranked a narrow second by education entities (67%). Many public sector entities have been required to develop specialised software to undertake their operations. The computer software has been
transferred to intangible assets under NZ IFRS as it represents intellectual property. Reclassification of the computer software did not have a financial impact on the entities as the asset has simply been reclassified within non-current assets. The reclassification of computer software has not been predicted to have a significant impact on the financial statements of public sector entities, even though it was the most common adjustment required to be made by New Zealand public sector entities. This change may not have been expected as it is a reclassification within assets and does not have a net impact on the financial statements.

The third most common change noted by the overall public sector sample was a reclassification of short term deposits (those with a maturity of less than 3 months) as part of cash and cash equivalents. Related to this is the adjustment of reclassifying short term deposits (with maturities between 3 months and 1 year) to investments. These deposits are no longer able to be recognised as financial instruments under NZ IAS 39 Financial Instruments: Recognition and Measurement so were required to be reclassified. These changes were noted by 70 (25%) and 36 (13%) of the public sector sample respectively. Reclassification of short term deposits with maturities less than three months were made by 37% of crown entities, 35% of local government entities, 27% of education entities, 16% of health entities, 4% of commercial entities and did not affect central government entities at all. Reclassifications of short-term deposits with maturities between 3 months and one year were made by similar although fewer entities. 20% of local government entities, 18% of crown entities and 17% of education entities reclassified these investments. Central government entities, health entities and commercial entities did not make this reclassification. The reclassifications of short term deposits did not have an overall financial impact on the financial statements of the public sector entities as the short-term investments were simply reclassified within current assets. As with the reclassification of computer software the reclassifications of short term deposits was not something anticipated prior to IFRS adoption in the public sector.

Finally, reclassifications of employee benefits according to NZ IAS 19 Employee Benefits was the ninth most common change on the adoption of NZ IFRS in the public sector. 39 public sector entities (14%) were required to reclassify employee benefits as a result of adopting NZ IFRS. This change affected crown entities, commercial entities, education entities and local governments. This adjustment is consistent with the findings of Kabir et al. (2010) and predictions of Brady (2009).

Overall this study confirms the findings and expectations of Kabir et al. (2010) and Brady (2009). True adjustments to the financial statements on adoption of NZ IFRS by New Zealand public sector entities found in this study are due to NZ IAS 19, NZ IAS 39, NZ IFRS 1, NZ IAS 12 and NZ IAS 40. These adjustments are significant adjustments as they change the financial statements of the entities. Reclassifications were found to be significant. In contrast to the true adjustments the reclassifications have generally not been identified by previous studies as being significant adjustments. Reclassifications do not change the overall financial statements however NZ IFRS still requires these adjustments to be made and involves changes to financial reporting. The results are consistent with Brady’s (2009) expectations that the adoption of NZ IFRS by the New Zealand public sector will also contain many small changes in reporting in the public sector.

7. Conclusion
The adoption of NZ IFRS has had an impact on the public sector overall. Liabilities were significantly affected for a number of subsectors and in the overall sample. This would suggest that the
The measurement of liabilities has been identified as an area of concern for the public sector under the current conceptual framework (Warren, 2004). The definition of liabilities may be the same for both the public and private sectors however the application of the definitions is different in the two sectors (Newberry, 2001). The increase in liabilities is due mainly to the application of NZ IAS 19, NZ IAS 39 and NZ IAS 12. Consequently the adoption of NZ IFRS by New Zealand public sector entities has increased liabilities as liabilities that were previously held off balance sheet, such as some employee entitlements and financial liabilities, are now required to be recognised. It can be argued that this provides a more complete picture of the financial position of public sector entities and is a more accurate representation of the performance of the public sector entities. These changes further add information on the efficiency and effectiveness of public sector entities and allows for comparisons of such entities with private sector entities.

The remaining results are mixed. There were significant increases to assets in some subsectors and decreases to equity. Overall, most of the impacts of the adoption of IFRS on New Zealand public sector entities were due to changes to reclassifications.

The standards subject to amendments that were made to IFRS for the public sector prior to adoption of NZ IFRS by the New Zealand public sector did not cause any significant issues on adoption. This study has found that none of the standards that were amended as identified by Bradbury & Baskerville (2007) caused any significant adjustments by the New Zealand public sector on adoption. The amendments that were made were the subject of considerable thought and debate prior to adoption and were based on the previous sector neutral standards that were applicable by New Zealand entities. On the other hand this was not the case for standards that were not amended (such as NZ IAS 12, NZ IAS 19, NZ IAS 39) where the transition to and application of these standards has proved more problematic for the New Zealand public sector.

This study provides evidence that the adoption of NZ IFRS by New Zealand public sector entities did have some impacts and identifies where those impacts were the most noticeable.
References


Appendix 1: Entities included in the study as classified by the New Zealand Government Public Sector Directory

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Wairarapa District Health Board
Waitemata District Health Board
West Coast District Health Board
Whanganui District Health Board
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Sport and Recreation New Zealand
Social Workers Registration Board
Pharmaceutical Management Agency
New Zealand Trade and Enterprise
New Zealand Tourism Board
New Zealand Qualifications Authority
New Zealand Fire Service Commission
New Zealand Blood Service
New Zealand Antarctic Institute
Legal Services Agency
Health Sponsorship Council
Health Research Council of New Zealand
Foundation for Research, Science and Technology
Energy Efficiency and Conservation Authority
Electricity Commission
Earthquake Commission
Civil Aviation Authority of New Zealand
Career Services
Accident Compensation Corporation
Housing New Zealand Corporation
Crown Health Financing Agency
Maritime New Zealand
New Zealand Transport Agency
New Zealand Artificial Limb Board
New Zealand Lotteries Commission
New Zealand Film Commission
Environmental Risk Management Authority
Standards Council
Mental Health Commission
Testing Laboratory Registration Council
New Zealand Symphony Orchestra
New Zealand Teachers Council
Public Trust
Families Commission
Government Superannuation Fund Authority
Guardians of New Zealand Superannuation
Museum of New Zealand Te Papa Tongarewa
Retirement Commissioner
New Zealand Historic Places Trust (Pouhere Taonga)
Te Taura Whiri i Te Reo Māori (Māori Language Commission)
Te Mangai Paho (Maori Broadcasting Funding Agency)
Alcohol Advisory Council of New Zealand
Arts Council of New Zealand Toi Aotearoa
Broadcasting Commission
Charities Commission
Securities Commission
District Health Board
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Solid Energy New Zealand Limited
Landcorp Farming Limited
New Zealand Post Limited
Meridian Energy Limited
Transpower New Zealand Limited
Meteorological Service of New Zealand Limited
Airways Corporation of New Zealand Limited
Electricity Corporation of New Zealand Limited
Learning Media Limited
Quotable Value Limited
Kordia Group Limited
AsureQuality Limited
Office of the Ombudsmen
Office of the Parliamentary Commissioner for the Environment
Office of the Controller and Auditor-General
Agricultural and Marketing Research and Development Trust
Road Safety Trust
Leadership Development Centre
Ngai Tahu Ancillary Claims Trust
Asia New Zealand Foundation
Pacific Island Business Development Trust
New Zealand Game Bird Habitat Trust Board
Eastern Fish and Game Council
Wellington Fish and Game Council
West Coast Fish and Game Council
Auckland/Waikato Fish and Game Council
Central South Island Fish and Game Council
Nelson Marlborough Fish and Game Council
North Canterbury Fish and Game Council
Northland Fish and Game Council
Otago Fish and Game Council
Southland Fish and Game Council
New Zealand Fish and Game Council
Taranaki Fish and Game Council
Reserves Boards
Hawke's Bay Fish and Game Council
New Zealand Lottery Grants Board

New Zealand Government Property Corporation
Reserve Bank of New Zealand
Air New Zealand
Northland Regional Council
Otago Regional Council
Taranaki Regional Council
Wellington Regional Council
West Coast Regional Council
Auckland Regional Council
Bay of Plenty Regional Council
Manawatu-Wanganui Regional Council
Southland Regional Council
Canterbury Regional Council

School board of trustees
State Owned Enterprise
State Owned Enterprise
State Owned Enterprise
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State Owned Enterprise
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Buller District Council
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Ashburton District Council
Kapiti Coast District Council
Franklin District Council
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Marlborough District Council
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Matamata-Piako District Council
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Ruapehu District Council
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Appendix 2: Reclassification of subsectors for this study

<table>
<thead>
<tr>
<th>Subsector</th>
<th>Description</th>
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<tbody>
<tr>
<td>Central Government</td>
<td>All entities that form part of central government. Their role is to serve the New Zealand public and all their funding comes from the New Zealand government. Entities included in the central government subsector are all public sector departments, non-public sector departments and offices of parliament.</td>
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<tr>
<td>Crown Entities</td>
<td>Generally small entities that exist to support the New Zealand government and perform functions on behalf of the government but do not form part of the central government. The majority of funding is received from the government and these entities do not have a focus of producing a profit. Included in this subsector are Crown Agents, Autonomous Crown Entities, Independent Crown Entities, Radio New Zealand Limited, Trusts, Conversation Entities and Other PFA 4th Schedule Entities.</td>
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<tr>
<td>Local Government</td>
<td>All councils in the sample. Entities included in this subsector are regional councils, city councils, district councils and territorial authorities.</td>
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<tr>
<td>Commercial entities</td>
<td>Public sector entities with a focus on returning a profit. They are managed and run as if they are private sector entities but receive funding and support from the New Zealand government. Included in this subsector are Crown Research Institutes, Television New Zealand Limited, New Zealand Venture Investment Fund Limited, State Owned Enterprises and entities in the State Sector.</td>
</tr>
<tr>
<td>Education entities</td>
<td>Entities with a focus on education and increasing knowledge. Included in this entity are Universities, Polytechnics, Institutes of Technology, Wanangas, and the Correspondence School Board of Trustees.</td>
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<tr>
<td>Health Boards</td>
<td>All district health boards in New Zealand. The focus of these entities is to provide health services to the public.</td>
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