A conceptual re-alignment of methodology underpinning tax effect accounting: An Australian exploration of the contemporary normalising effect

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ABSTRACT

This research examines the presence and effectiveness of the 'normalising effect', traditionally offered as the main justification for tax effect accounting's (TEA) adoption. TEA can be seen as a technical facet of accounting practice, 'normalising' the timing differences between the accounting and taxation systems. That is, income tax is recognised according to when transactions are recognised for accounting purposes in order to 'normalise' reported profits, thereby reflecting an income statement focus. It has been contended that this will improve the usefulness of financial reports by 'correcting' misleading and 'unreal' fluctuations in income tax.

Australia's adoption of AIFRS in 2005 entailed a major conceptual re-alignment of the methodology underpinning TEA, moving away from the income statement focus in favour of a balance sheet focus. This implied a different normalisation emphasis. It is within this contemporary setting, based on a study of 90 companies over the two regulatory periods between 2002 and 2011 (AGAAP and AIFRS), that a quantitative measure of the presence and effectiveness of the normalising effect was undertaken, additionally considering the subsequent balance sheet impact.

Effective normalisation was revealed during the AGAAP period, whilst only effective after the removal of loss makers during the AIFRS period. These findings suggest that the relaxation of recognition criteria under AIFRS may have had a meaningful impact on the effectiveness of the new standard. However, when normalisation was given a more narrow definition in light of prima facie tax, deferred taxes had a more substantial impact, particularly during the AIFRS period. Such findings are consistent with the notion that

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TEA enables reported tax to be 'as if' it were a function of accounting, without a substantial build up on the balance sheet as a consequence. These findings have implications for evaluating the efficacy of TEA and comprehending the nature of contemporary financial statements.

STATEMENT OF AUTHORSHIP

Except where explicit reference is made in the text of the thesis, this thesis contains no material published elsewhere or extracted in whole or in part from a thesis by which I have qualified for or been awarded another degree or diploma. No other person's work has been relied upon or used without due acknowledgement in the main text and bibliography of the thesis.

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DEDICATION

To my son, no one is perfect but we all must try:

"I am the wisest man alive, for I know one thing, and that is that I know nothing."

Socrates

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LIST OF ABBREVIATIONS

AAA	American Accounting Association
AARF	Australian Accounting Research Foundation
AAS	Australian Accounting Standard
AASB	Australian Accounting Standards Board
AASE	Australian Associated Stock Exchanges
ABS	Absolute Value
ACT	Australian Capital Territory
AGAAP	Australian Generally Accepted Accounting Principles
AIA	American Institute of Accountants
AICPA	American Institute of Certified Public Accountants
AIFRS	Australian Equivalents to International Financial Reporting
	Standards
ARB	Accounting Research Bulletin
ASB	Accounting Standards Board
ASRB	Accounting Standards Review Board
ASX	Australian Securities Exchange
ATO	Australian Taxation Office
CA ANZ	Chartered Accountants Australia and New Zealand
CFs	Cash flows
CLERP	Corporate law Economic Reform Program
CoCoa	Continuously Contemporaneous Accounting
DA Ratio	Debt-to-Asset Ratio
DE Ratio	Debt-to-Equity Ratio
DF	Degrees of Freedom
DTA	Deferred Tax Asset
DTE	Deferred Tax Expense (Benefit)
DTL	Deferred Tax Liability
ED	Exposure Draft
EFRAG	European Financial Reporting Advisory Group
ERCE	External Reporting Centre of Excellence
ETR	Effective Tax Rates
FASB	Financial Accounting Standards Board
FIN	Financials industry group
FITB	Future Income Tax Benefit
FTSE	The Financial Times Stock Exchange 100 Index
FRC	Financial Reporting Council
FRS	Financial Reporting Standard
GAAP	Generally Accepted Accounting Principles
GFC	Global Financial Crisis
GICS	Global Industry Classification Standard
GPFS	General Purpose Financial Statements
GST	Goods and Services Tax
G20	Group of 20
IAS	International Accounting Standard
IASC	International Accounting Standards Committee
ICAA	Institute of Chartered Accountants in Australia

ICAEW	Institute of Chartered Accountants in England and Wales
ICAS	Institute of Chartered Accountants in Scotland
IFRS	International Financial Reporting Standards
IND	Industrials industry group
IP	Intellectual property
IQR	Interquartile Range
ITE	Income Tax Expense (Benefit)
М	Million
MAE	Materials and Energy industry group
Md.	Median
MRRT	Minerals Resource Rent Tax
Ν	Number
NSW	New South Wales
NYSE	New York Stock Exchange
NZ	New Zealand
OECD	Organization for Economic Cooperation and Development
OTH	Other industries industry group
PAT	Profit (Loss) after Taxation
PAT Exc.	Profit (Loss) after Taxation excluding Deferred Taxes
PAT Inc.	Profit (Loss) after Taxation including Deferred Taxes
PAT TaxCFs	Profit (Loss) after net tax cash flows
PBT	Profit (Loss) before Taxation
PF30	Prima Facie Tax, 30 per cent of profit before tax
PRRT	Petroleum Resource Rent Tax
PSASB	Public Sector Accounting Standards Board
REITs	Real Estate Investment Trusts
RTE	Reported Income Tax Expense (Benefit)
SEC	Securities and Exchange Commission
Sign Test	Sign-Rank Test
SFAS	Statement of Financial Accounting Standards
Spearman's Rho	Spearman Rank Correlation Coefficient
SSAP	Statement of Standard Accounting Practice
S&P/ASX 200	S&P Dow Jones 200 Index
TEA	Tax Effect Accounting (inter-period tax allocation)
US	United States of America
UK	United Kingdom

1 INTRODUCTION

Accounting and taxation have been in a state of continuous discrepancy since the introduction of income tax, with income tax being described as the most important expense and a fact of the commercial environment (AIA, 1944; Baylis, 1971; Chambers, 1968). Since the introduction of tax effect accounting – or inter-period tax allocation (hereafter "TEA") – and the subsequent history of debate relating to its justification, a conceptual shift has occurred resulting in a movement away from an income statement focus towards a more conceptually aligned balance sheet focus. This transition has played out internationally and more recently in Australia and has led to a move away from the concepts of matching, and questionably, 'normalisation'.

It was originally determined that TEA 'should' be applied to solve the problem the tax system created and its earliest justification stemmed largely from the desire to 'normalise' profit after tax with accounting income (AIA, 1944). Such justification was linked frequently to accrual accounting, the matching principle and the concept of the going concern (Defliese, 1983). However, discrepancies existed within the literature over the normalising effect, with TEA often being described as an artificial smoothing device or stabilizing mechanism.

Various studies have considered TEAs value relevance, its use as a signalling mechanism, issues concerning the permanent postponement of balances and so forth, but have stopped short when considering the consequences of prescribing what it 'ought' to do. This research seeks to redress this lacuna that has persisted from the normative era of accounting research and systematically tests it for its effectiveness within the

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contemporary accounting context. Albeit, this is not simply positivist accounting research, concerned about stakeholders, agency theory and purely statistical inference in order to predict future outcomes, nor is it simply a debate of what should happen. It is an examination of the developing arguments that occurred on the inception of TEA applied to the contemporary setting where local interest is arguably lost in the quest for a harmonised, homogenised, international accounting practice (Cooper, Neu, & Lehman, 2003). Infusing what ought to happen with what does happen, leads into a holistic discussion of where that takes the accounting profession. The TEA narrative brings together many notions that are relevant to the accounting thoughts over time: the shifting sands of accounting.

What has emerged from this research is a lack of a single theoretical remark, or proposition encapsulating this study. Rather instead, it presents a tangled web both at the specific TEA level and the context of accounting itself. TEA may have had innocent and justified beginnings, which in turn have been tested; however it may also be a symptom of the more general perspective that accounting is simply not objective. It is no longer a historical record but instead is subjective. It is a numerical perspective or interpretation, cushioned upon a foundation of societal beliefs, or arguably 'myths', that have 'legitimised' 'technical' approaches, whilst ignoring the greater context within which the discipline rests.

Appreciating notions such as accounting as an historical record allows us to understand the controversial issues 'surfacing' and 're-surfacing' with a clear resolution (Davis, Menon, & Morgan, 1982).The underlying justification to apply TEA in the early days has since been forgotten, or perhaps lost over time. Rather than talking about why we defer tax, it has been reduced to procedure, with the debate now positing upon the methods within the procedure, irrespective of whether changes in methodology affect the underlying justification or role of deferring tax. If we have lost the underlying rationale, the historical underpinning, those developments may then be inappropriate or incomplete.

Questions have been recently raised as to the objective of tax disclosures within financial reports or whether tax disclosures belong elsewhere in the corporate report. In particular, there has been debate over whether the objective is to provide future event or transaction information (EFRAG & ASB, 2011; EFRAG & FRC, 2013). This understanding is limited by the fact that what users perceive to be useful and how users of general purpose financial statements (GPFSs) use tax information have been recently shown to be deficient (EFRAG & FRC, 2013).

Within the Australian context itself, although various recommendations and standards in respect to TEA have been in existence for a number of decades, accounting standards only became legally binding during the late 1980s. It was this decade that AASB 1020 *Accounting for Income Tax (Tax-Effect Accounting)* was issued. This standard reconfirmed the income statement approach to TEA and applied from 1989 (AASB, 1989). Although further activity ensued, it was in 2005 that Australia adopted Australian equivalents to international financial reporting standards (AIFRS) that represented the next major shift in respect to TEA. As part of this adoption, was the Australian equivalent to IAS12 – AASB 112 *Income Taxes,* issued in July 2004, and effective from January 2005 (AASB, 2004). This transition entailed a major conceptual re-alignment of the methodology underpinning TEA: a move away from the income statement focus in favour

of the balance sheet. This regulatory change forms part of the impetus for renewed consideration of the original justification underpinning TEA – normalisation – as a balance sheet approach to TEA implied a differing emphasis. This research therefore aims to quantify and evaluate the effectiveness of the historical justification in Australia; comparing the impact under the former income statement approach with the current balance sheet approach.

This research sheds light on how deferred taxes intermingle with the real and unreal, mixing the concrete and abstract, adding to a set of financial statements that mix fact with expectation, and more so encompass the entirety of accounting's shortcomings in their calculation. This research aims to consider the impact of deferred taxes on profit, looking at what 'normalising' effect they now have based on the balance sheet approach and whether their presence on the income statement is reflective of their continued presence on the balance sheet. In doing so the researcher questions the contemporary justification and discusses the concern of reality over fancy, whether accounting for taxation simply been has reduced to a procedural modus vivendi.

1.1 RESEARCH QUESTIONS AND OBJECTIVES

Minimal research has been undertaken to systematically test the inherent effect of TEA's application. Moreover, the presence of notions such as normalisation, and to a certain extent permanent postponement, within contemporary literature is minimal. This is despite normalisation being at the root of the accounting convention and the resulting inclusion of balance sheet deferrals, described by some as 'dubious' (Henderson, Peirson,

& Herbohn, 2008). Building upon the review of the literature, the primary research question was posed:

P₁. For Australian listed companies, what impact has the transition to the balance sheet approach under AASB 112 had on the normalising effect of tax effect accounting?

This research proposed that the extent of normalisation could be tested by identifying whether the inclusion of deferred taxes leads to a closer relationship between profit before and after tax. If the inclusion leads to no significant difference, the question arises as to how it can 'correct' the misleading or 'unreal fluctuations' the tax system purports to bring; particularly in contemporary Australia where we now see the income statement as a by-product of the valuations of assets and liabilities on the balance sheet.

In order to answer the primary research question, two subsidiary questions were developed. The objective of the first subsidiary question was to identify the presence of the normalising effect and whether it was accentuated by the adoption of AASB 112:

S₁. Does tax effect accounting have a normalising effect on the income statement and was this accentuated by AASB 112?

The normalising effect is only half of the TEA cycle: to achieve normalisation, the balance sheet is impacted. The objective of the second subsidiary question was therefore to describe the effect of applying the standard on the balance sheet and to identify the impact of the transition to the balance sheet approach:

S₂. What are the consequences of applying tax effect accounting on the balance sheet?

To achieve the aims of this research a suitable research setting was established reflecting a pragmatic philosophy. The setting was chosen to be consistent with the notion of normalisation and appropriate given that accounting is a social and dynamic construct. Such a quantitative inquiry enabled the researcher to firstly ask, whether there was an effect within the contemporary context and, secondly, whether that effect was different under the former income statement approach compared to the current balance sheet approach.

1.2 SIGNIFICANCE OF STUDY

The term 'normalise' is not frequently identified in modern accounting literature. It has been considered throughout history on a conceptual level, with almost no systematic testing. It was as if it was accepted that TEA would normalise, without the need for any quantitative evidence. As accounting standards have evolved, it has simply disappeared from the radar. The question arises not only concerning the presence of the normalising effect but as to its consequences for the balance sheet. More specifically to the Australian context, it is unknown what impact the transition to the balance sheet approach has had. Therefore, the contribution to the literature will be a quantification and evaluation of the normalising effect within the context of contemporary Australia.

The early justification of TEA provides a narrative to better understand the contemporary nature of reported income tax. For standard setters, understanding the historical underpinning can provide insight into its 'success' or 'failure'. Without an historical awareness of this accounting system, there is a potential for inappropriate or incomplete

interpretations (Previts, Parker, & Coffman, 1990). Acquainting accountants, accounting students and accounting bodies with how the present-day convention was reached provides understanding of the context of reported income tax (Previts et al., 1990). It is important to understand that accounting principles do not offer a single 'correct' answer; accounting is a social system that attempts to provide useful information to a wide range of users. In light of its heritage, the accounting profession should continue to question and advance accounting rather than merely accept and apply it.

1.3 STRUCTURE OF STUDY

Following on from this Introduction, Chapter 2 and Chapter 3 review the literature surrounding TEA and its application within the accounting system, intertwining the rich history that is accounting – with the narrative that is TEA.

Chapter 2 provides an overview of the context within which TEA rests. In particular, the shifting sands of the accounting system are reviewed from Luca Pacioli – the 'father of accounting' – to the most recent spotlight over the business tax system. This encompasses the transitions back and forth between a focus on the income statement and a focus on the balance sheet, as well as the normative theories including the true income theory and the decision usefulness theory. The review introduces the notion that objectivity in accounting is a myth and procedures are legitimised through time. Then, the review turns to the rise of TEA through that context, considering why TEA was initially advocated, the debates that followed and the developments particular to Australia, ending with a review of the transition to AIFRS and the scrutiny over corporations paying their 'fair share' of tax.

Chapter 3 allows for the normalising effect to be defined within that accounting context and then goes onto review the consequences of seeking such normalisation. In particular, the normalising effect is distinguished from smoothing. Although intermingled with the concept of normalising, smoothing is suggested to be associated with illustrations within the literature that begin with a smoothed profit before tax. In contrast, details are provided of how normalisation is a technical facet of accounting practice, that it is inherently expected on applying the TEA standard rather than a manifestation of accounts manipulation. On summing up what the normalising mechanism is, the review then turns to the consequences of seeking such an effect. This concentrates on the value relevance of tax disclosures and the permanent postponement argument.

Chapter 4 provides an overview of the study design; outlining the contemporary Australian context examined, including the company set, timeframe, as well as detailing the data collection process and complexities. The chapter then proceeds to detail the method of analysis, both in terms of exploring the presence and effectiveness of the normalising effect and then the consequences of the seeking out of normalisation.

The findings of the analysis are reported in Chapter 5. Firstly, by considering the company context generally, via frequency and descriptive diagnostics, and then the two areas of exploration encompassed by the two subsidiary questions are reported. The presence and effectiveness of the normalising effect are considered in relation to the nature of the relationship and the direction and magnitude of impact, as well as narrowing the interpretation of the normalising effect in relation to prima facie tax. The

consequences of seeking to normalise reported profits are then presented, in terms of the permanent postponement argument and the relative impact.

Chapter 6 then discusses the findings presented in Chapter 5, providing a bridge between the previous literature and the research questions posed, as well as assessing limitations of the contributions of the research to theory and practice. Finally, the research is concluded in Chapter 7, with an overall summary of the contributions of the research and its implications, and recommendations on areas of potential future research.

2 OVERVIEW OF RELEVANT LITERATURE

The review of the literature is developed over two chapters. Firstly, the context and historical development of TEA is considered. Chapter 3 then considers the original justification underpinning TEA's application: the normalising effect and its subsequent impact.

2.1 THE CONTEXT OF TAX EFFECT ACCOUNTING

... the strange twilight world which accounting rules inhabit; a world in which the real and unreal are not distinguished. Instead, facts and fancy are intermingled as if they were of one and the same kind (West, 2003, p. 78).

The context of TEA rests within the accounting system, not the taxation system. Morgan (1988) suggests that contemporary accounting rules, norms and values have evolved over time as elements of the surrounding environment have interacted. Contemporary accounting practice had its origins during the nineteenth and early twentieth centuries as business activity grew: from practice, theories developed, accounting bodies were established and governments legislated (Ryan, Scapens, & Theobald, 2002). Within the contemporary accounting system there has been a departure from a focus on the historical determined facts, towards a framework that intermingles the past, present and future: both expectational and factual information (Chambers, 1996; Coughlan, 1958). Similarly, contemporary accounting's orientation has moved back away from an income statement focus to a balance sheet focus; albeit not in the historical sense of the stewardship function, that it once encompassed. In this context profit is no longer seen as the primary

focus, and is instead subsumed within the movements between the valuation of assets and liabilities.

Irrespective of such shifting sands of accounting; this setting reflects the social underpinning of the accounting system, where those 'objective determined facts' are arguably subjective interpretations or representations of real world events (Morgan, 1988). The following sub-section explores these shifting sands of accounting, exploring the development of the accounting profession as it shifts from the historical stance to its future encompassing focus, whilst swinging between a balance sheet and income statement orientation.

2.1.1 THE SHIFTING SANDS OF ACCOUNTING

They [the status quo] have no conception that accounting and accounting research have repeatedly changed across time, and when things change they become what they were not, at least in part. Accounting has been a craft that has had no essence. It has changed significantly across time, adopting new forms, methods and roles (Hopwood, 2007, p.1367).

Prior to 1750 little accounting literature existed (Most, 1977). For the most part, it was presented in terms of compliance to the 'cook books' predicated on Luca Pacioli's treatise on double entry bookkeeping system as published in his influential book *Summa de Arithmetica, Geometria, Proportionalita* in 1494, setting out the double entry booking method, becoming known as the 'Method of Venice' (Henderson, Pierson, & Harris, 2004). Two fundamental notions attributed to the system perpetuated its ongoing usage. Firstly, the 'Method of Venice' appealed to teachers and busy merchants because it offered a methodical and orderly system which provided a comprehensive set of records. Secondly, because of the first attribute, double entry became associated with 'good' bookkeeping. This notion of 'good' bookkeeping was soon extended to the point that the use of double entry was seen to confer moral legitimacy on a merchant's work. However, agreement was not universal. One opponent of the double entry system was Edward Thomas Jones (1796, p. 17), who argued:

"That for every debit there *must* be a credit, and for every credit there *must* be a debit" – Alas! How few consider, that if this *must* be the case,---this the rule to go by, nothing is more easy than to make a set of Books wear the appearance of correctness, which at the same time is *full of errors*, or of *false entries*, made on purpose to deceive!

Furthermore, the more complex and 'obscure' nature of double entry booking was further described as being "capable of being converted into a cloak, for the vilest statements that designing ingenuity can fabricate. –A man may defraud his partner, or a Book-keeper his employer, if they be so disposed, without ever being detected" (Jones, 1796, p. 12). Such issues, as the correctness of numbers and the erroneous, or subjective, nature of accounting, present thought-provoking narratives concerning the accounting system and the continued development of the accounting profession.

The event of most significance for accounting was the advent of the industrial revolution, which brought with it the emergence of large corporations and the growing separation of owners and managers in the running of these corporations and its consequent agency problems. Aside from an emerging cost accounting paradigm and the occurrence of significant bankruptcies, 1850 saw the first legislation in England concerning joint-stock companies (Gleeson-White, 2013; Most, 1977). At the same time, professional accounting associations began to emerge, bringing with them rules of conduct and technical pronouncements; among the first being the founding of The Institute of

Chartered Accountants in Scotland (ICAS, 1854), The Institute of Chartered Accountants in England and Wales (ICAEW, 1880) and The American Institute of Certified Public Accountants (AICPA, 1887).

Between the beginning of the 20th century and early 1930s, the separation of ownership from control (management) of an organisation enabled a significantly larger influence of management in the formulation of accounting principles (Belkaoui, 1985). Mathews and Perera (1991) saw little evidence of any search for accounting principles prior to the 1920s, and, like Belkaoui (1985), suggested that approaches were driven by management desire or alternatively prior experience. Belkaoui (1985, p. 43) suggested that "the intervention of management may be characterised best by the adoption of ad-hoc solutions to urgent problems and controversies", with such a situation bringing with it a level of dissatisfaction. Of the consequences, (Belkaoui, 1985) highlights that: expedient solutions were adopted with complex problems avoided; different accounting practices were applied to similar problems across firms and, given the generally pragmatic nature of management, accounting techniques adopted were often seen to lack theoretical support. Rather than objective and reliable reporting, management's focus was the determination of taxable income and with it, minimising income tax obligations (Belkaoui, 1985). It was within this phase that corporate income tax began to have a growing effect (Jones & Belkaoui, 2010).

Most (1977) spoke of income tax being the most 'pervasive' influence on accounting given it affects all business firms, although he suggested that it should not be considered as a source for modern accounting theory. Corporate income tax is one of many taxes experienced in business; however income tax is considered the most important, impacting nearly all business transactions (AIA, 1944; Woellner, Barkoczy, Murphy, Evans, & Pinto, 2011). Tax has been described as 'strengthening' the accounting profession with an additional area of accounting, as well as adding to knowledge:

The necessity to determine income, as a preliminary to the determination of taxable income, provided a major impetus to the extension and improvement of accounting practice, and the essentially legal ideas and concepts of the tax laws influenced the development of accounting theory in subtle ways (Most, 1977, p. 7).

Australia's first income tax levied was a state tax introduced in South Australia in 1884 on land and incomes; however, it was not until 1915 that the Federal Government introduced an income tax. The pressures to fund Australia's participation in World War I led to the need for further revenues from income tax (Woellner et al., 2011). *The Income Tax Assessment Act 1915 (Cth)* was enacted and for companies this meant a flat rate of tax at 7.5 per cent. The wartime measure continued beyond the end of the war, with an aim of achieving uniformity between state and federal imposts. However, economic pressures associated with the Great Depression in the 1930s created the necessary catalyst for the calling of a Royal Commission on Taxation in 1932 and from this a draft Uniform Tax Bill was developed and adopted by the Commonwealth and the States in 1936, resulting in the enactment of the Income Tax Assessment Act 1936 (ITAA36) (CCH Australia Ltd, 2011; Woellner et al., 2011). Uniformity¹ was not achieved until World War II's further pressure with the Commonwealth seizing sole control in 1942 (Woellner et al., 2011). In America, it was in 1913 that the US Treasury imposed income tax via the *Revenue Act 1913*, which provided a basis for calculating taxable income via cash

¹ The Uniform Taxation Scheme introduced is still in operation today. The *Income Tax Assessment Act 1997* (ITAA97) now includes substantially rewritten components of the 1936 act due to the ever increasingly complicated 1936 act, which had increased to over 5,000 pages long (CCH Australia Ltd, 2011). Currently, all 34 countries within the OECD impose corporate income taxes; ranging from 8.50 per cent in Switzerland to 35 per cent in the United States for the 2015 year (OECD, 2015).

receipts and disbursements (Jones & Belkaoui, 2010; Most, 1977). A later amendment, via the *Revenue Act 1918* recognised the role of accounting in determining taxable income, which Jones and Belkaoui (2010) describe as a beginning of harmonization between the two systems. Britain and Germany had imposed income tax by the end of the 19th century (Most, 1977).

As the taxation system grasped hold of the business world; the accounting system too, continued to develop and evolve. In particular, the profession saw an emphasis towards the income statement grow and the concept that accounting involved the provision of historical facts, akin to that of an 'historian' rather than as a 'forecaster'.

2.1.1.1 AN INCOME STATEMENT ORIENTATION

Mathews and Perera (1991) described the period 1920 to 1952 as being the 'formative years', where accounting developed due to standardisation and regulatory pressures. There was increasing involvement by institutions, such as the Securities Exchange Commission (SEC) in America, in the development of accounting principles. A significant development within the 1920s and 1930s was the shift in emphasis away from the importance of the balance sheet towards the significance of the income statement with the establishment of the *'coherent income determination model'*. This model was based on matching and allocating historical costs periodically against revenue earned, said to form the basis of historical cost accounting (Godfrey, Hodgson, Holmes, & Tarca, 2006; Most, 1977; Paton & Littleton, 1967; Ryan et al., 2002).

Boland (1982) linked the shift to the income statement in the 1920s to Canning's book *The Economics of Accountancy* published in 1929. Canning emphasised income as the worth of the company; defined as a change in future prospects as opposed to the result of past transactions, de-emphasising the importance of the balance sheet. The orientation towards an income statement orientation was no doubt helped by the influence of Eric Kholer, president of the American Accounting Association (AAA) in 1936, who had become a leading advocate of the 'revenue-expense' position. Publication of a monograph entitled *A Tentative Statement of Accounting Principles Affecting Corporate Reports* contained two notable propositions which indicated the direction the profession would take on accounting measurement issues:

- 1. Accounting is essentially a process of cost allocation rather than valuation; and
- The all-inclusive concept of income should be applied to financial reporting (AAA, 1936).

These propositions gestated within an emerging acceptance of the income model. In the 1930s, May too made note of this changing focus, connecting such a reduction in importance of the balance sheet to modern developments (May, 1962a). In particular, he made note of growing complexity leading to the presentation of a single picture and representation of an entity's position being impractical and not adapted to the needs of the investor. Instead, a series of pictures were necessary – the balance sheet itself less important. In particular, the earnings capacity is of 'crucial importance', although the fundamental problem is to assign profit to individual years, is an attempt at the 'impossible' (May, 1962a). Gilman (1936, p. 37) too criticised the balance sheet focus, noting that in hindsight it was the 1929 crash that provided a 'sharp lesson' of the inadequate or wrongly placed emphasis, describing it having only 'brief' popularity:

That popularity was very important since it temporarily counteracted those forces which normally would have shifted accounting emphasis to the profit and loss statement much sooner ... The growth in the corporate form of organization, the development of modern cost accounting, and the passage of income tax laws were all factors which tended to emphasize the profit and loss viewpoint.

A strong advocate for the primacy of the income statement, Littleton (1953) saw income determination as the 'center of gravity' in his book *Structure of Accounting Theory*, issued during a time where there was a major shift towards prescriptive theories. Up until approximately 1955, accounting theories were generally descriptive in nature, concentrating on the status quo; understanding 'what is' rather than 'what is not' or 'what should be' (Deegan, 2000; Henderson et al., 2004). In particular, Littleton (1953) queried the ignorance of the income statement given its centrality to double entry: forming the 'heart and soul', and stating that the income emphasis provides better stewardship:

The one statement [the income statement] tells something of what stewardship is doing to make the owner's investment productive, the other statement [the balance sheet] reports the form in which the entrusted investments stand at the moment (Littleton, 1953, p. 21).

Historical accounting had been predicated on a basis of stewardship, which posited accounting as providing a history of an organisation's transactions in terms of its owner's resources, and as such a large extent of financial reporting concerned issues emanating from the principle-agent relationship. In this respect, the function of financial reports was to emphasise the stewardship of resources and show the extent to which those resources, entrusted to management, had been productively employed. In its narrowest sense, historical cost was seen as a logical 'price aggregate' for stewardship purposes (Hodgson, Holmes, & Kam, 1992).

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During this time, the accounting function was that of an historian: a notion that has arguably existed for centuries (Davis et al., 1982). By faithfully recoding transactions, it was presumed that the qualities of reliability, verifiability, quantifiability and objectivity were met. As such, any forecasting was generally 'forbidden', or frowned upon (Chambers, 1968; Jeter & Chaney, 1988; SEC, 1945). Forecasting and the prediction of future conditions sat within the role of the financial analyst: it was 'customary' to begin with the actual status and the provision of historical based information by the financial accountant formed the basis to do so (Jeter & Chaney, 1988; SEC, 1945):

... this [historical based accounting] is the boundary line of financial accounting. It is the place at which the financial accountant in his capacity as such should stop. He is, we feel, essentially a historian, not a prophet (SEC, 1945, p. 83).

Accounting in this context was an extrapolation of its past rather than an estimate of its future. The SEC (1945) linked the importance of user awareness of the assumptions and estimates underlying the information in order for the information to be meaningful. The validity was limited to the 'soundness' of the underlying assumptions and estimates, and it was considered misleading for financial statements to be prepared based on 'prophesized' future events involving future estimation "in the guise of an actual earnings statement" (SEC, 1945, p. 82).

Despite this 'boundary line' for the accounting function, the importance of standardisation and trend towards economic income brought about a shift away from the 'historian' towards an approach that was more decision useful.

2.1.1.2 FROM HISTORIAN TO PROPHET

Despite the traditional historical cost approach, the perceived usefulness of future orientated information grew (Graham, 1959; Henderson et al., 2008). The mid 1950s saw professional accounting bodies such the AICPA and the AAA advancing views on what constituted generally accepted accounting principles, with various publications on controversial areas issued (Jones & Belkaoui, 2010). Belkaoui (1985, p. 44) suggests that whilst this intervention and involvement by the professional associations was "spurred on by efforts to eliminate undesirable techniques and to codify acceptable techniques", such efforts were not without consequences. Particularly, the lack of any established theoretical framework and clear authority, coupled with the flexibility of choice given to firms to use alternative accounting treatments, resulted in public dissatisfaction with this professional intervention (Belkaoui, 1985).

The period between the Korean War in the early 1950s and the 'oil shock' of the early 1970s recession was a tumultuous period, encompassing the Vietnam War and the collapse of the Bretton-Woods fixed exchange rate regime. For accounting, inflationary pressures exacerbated criticisms of the use of historical cost due to the implicit assumption that money holds a constant purchasing power. The central issue being the construction of a stabilising unit of account (Whittington, 2015). The accounting profession had become increasingly concerned with accounting for changing price levels; however its attention was more directed to the development of standards of financial accounting.

Along that same time line from the late 1950s to 1970s, the accounting context saw a decline in the reliance on the normative approach, with empirical analysis overtaking its

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place (Dyckman & Zeff, 2015). Computer availability increased and therefore so did the computerised databases (Dyckman & Zeff, 2015). Whittington (2015) described the 1970s as encompassing an emergence of a 'new generation' of academics in finance and econometrics; therefore it was inevitable that a drive in empirical research would occur. More so, Dyckman and Zeff (2015, p. 516) describe the impact of such a focus on the empirical and statistical significance as to "resemble those caused on earth by the collision of two tectonic plates, the empirical plate driving over the normative plate".

Such data driven research focusing on issues such as the meaningfulness of earnings to financial analysts – decision useful information – has been said to have minimal implication to accounting activity, rather such research has been described as being at the 'periphery' of accounting: despite being conducted by accounting academics (Dyckman & Zeff, 2015). Similarly, Whittington (2015) suggested that the accounting research has "less obvious immediate relevance to the practitioner and less accessible" (p.550). This potentially creates fear of losing relevance to practice; however, Whittington (2015) added that, the broadening function of the accounting profession requires such understanding so irrelevance is not necessarily implied. Notably, during this time Watts and Zimmerman advocated 'positivist' accounting research.

Boland (1982) suggested that a greater focus on economic income had elevated accounting and consequently led accountants to move away from their traditional role of 'historian'. The usefulness of the information to users required the ability to appraise current and future operations and profitability, despite the income statement pertaining to past operations (Graham, 1959). It was thought that an historical stance could lead to distortion and mislead users and more specifically a 'split second of midnight' position
was argued to be unrealistic (Defliese, 1983; Graham, 1959). Additionally, many accounting standards were, and continue to be, based on expectations such as fixed asset valuations, with the basic accounting assumption of going concern requiring an indefinite continuality (Baylis, 1971). The dominance of historical cost slowly diminished in favour of a more comprehensive model, including a forward looking focus (Ryan et al., 2002). During this time, considerable effort was given to general prescriptive theories, the most distinctive being the *True-Income Theory* and the *Decision-Usefulness Theory* (Henderson et al., 2004).

The True-Income Theory was premised on neo-classical economic theory and sought a single measurement for both that of assets and profit and mainly advocated the use of current value as the only relevant true measure of income (Henderson et al., 2004). During the 1960s, attempts were made to replace an 'ad-hoc' system of bulletins with principles and postulates prescribing what accountants *should do* rather than what they actually did. Such drivers of change included, for example, Moonitz (1961), Moonitz and Sprouse (1962) and Edwards and Bell (1961). Recommendations of shifting away from historical cost to current value accounting, for example, were heavily criticised for being too removed from existing practice; they were, however, also described as the 'vanguard of progress' (Henderson et al., 2004).

The Decision-Usefulness Theory developed alongside the true-income theory, with an emphasis on providing information that meets the common needs of users (Henderson et al., 2004). Such a focus is readily observable in major works, such as Staubus (1961), Chambers (1955, 1966), AAA (1966), Sorter (1969) and Sterling (1970). For example, Chambers' paper 'Blueprint for a Theory of Accounting' published in 1955 exemplified

the change in accounting thought, suggesting a change in emphasis towards decisionuseful criteria. Subsequently documenting his system of Continuously Contemporaneous Accounting (CoCoa) in 1966, Chambers proposed that a firm's financial position is premised upon assets being measured at their current cash equivalent (current net market value).

Integral to CoCoa was the measurement of the firm's ability to adapt to a changing business environment and such an approach also had an impact on the traditional constructs of accountability and stewardship, which underpinned accounting thought and practice. Acceptance of the decision usefulness approach saw both the notions of accountability and stewardship being relegated to lesser roles and consequently the measurement of historical cost was likewise seen as being less relevant. Lehman (1995) suggested that the notion of accountability had been completely subsumed within the broader construct of decision usefulness and was critical of this:

In so subsuming accountability within the definition of decision-usefulness, accounting has abrogated its moral obligations by deferring to an outside mechanism (the market). "Decision-useful" information is inadequate as a principle for organising accounting practice and research. It fails to recognise that accounting reports do more than just "transmit" a set of numbers; they transmit information which establishes accountability relationships in which legitimate expectations exist that the one giving the account is attempting to satisfy the rights of various groups. When accounting is defined in terms of decision-usefulness the technical role of providing a "set of numbers" is given prominence at the expense of accountability (Lehman, 1995, p. 394).

Hitz (2007) later argued that the move to a fair value² paradigm was the result of accepting this notion of decision usefulness; suggesting that the provision of market price data satisfied the informational requirements of financial report users.

Historical cost accounting was not without defence and the works of Grady (1965) and Ijiri (1967) argued in support of historical cost accounting. A similar stance was adopted in Australia by Kenley (1970) and Kenley and Staubus (1972) (Jones & Belkaoui, 2010). Deegan (2000) suggested that there seemed to be an 'accounting-Darwinism perspective' when it comes to historical cost accounting, in that it has continued to be applied and is therefore consistent with the notion that those things that are most efficient and effective will survive. However, although approaches may have survived simply because they are better than nothing, this is hardly ideal.

As well as this, there has been recognition of the ever increasing politicisation of the accounting standard setting process. Accounting numbers were increasingly seen as having significant economic consequences and affecting corporate behaviour, consequently some argued that the setting of accounting rules should be undertaken in the political arena (Belkaoui, 1985). In particular, Horngren (1973) described how setting standards restricts behaviour, and therefore creates a need for acceptance by those affected; whether forced or voluntary – or both. Such a process of acceptance is exceedingly complicated, requiring "skilful marketing in a political arena" (Horngren, 1973, p. 61). The Australian Accounting Standards Board (AASB) in Australia, similar to the Financial Accounting Standards Board (FASB) in the US, has since adopted a quasipolitical approach to formulating accounting principles, with an initial development of a

² Whittington (2015) discussed that there was reluctance by standard setters in the 1990s to advocate current cost so instead advocated fair value, a more ambiguous approach.

theoretical framework and then the 'emergence' of interest groups in order to promote general acceptance (Jones & Belkaoui, 2010). Further corporate failures in the early 2000s led to increased regulation via the Corporate Law Economic Reform Program (CLERP), which was a precursor to the transition to IFRS (Jones & Belkaoui, 2010). Confidence was further damaged by the Global Financial Crisis (GFC) beginning in late 2007, where fair value was being blamed for having contributed to the volatility to the banking system (Whittington, 2015).

Accounting has now shifted towards a balance sheet orientation once more, although this has not been without controversy. Controversy over whether such an orientation is more decision useful, whether such an orientation results in a loss of information content and increase in 'noise' and volatility and a divergence between such a focus by standard setters and that of managers and investors.

2.1.1.3 THE RETURN OF THE BALANCE SHEET ORIENTATION

With the drive for a comprehensive model, accounting's orientation has shifted back towards the balance sheet with profit becoming a 'by-product' of the valuation of assets and liabilities (Dichev, 2008; Henderson et al., 2008; Slade, 1990). Dichev (2008) suggested that this focus on valuation has led to earnings being equated to a change in value concept. As such, the asset and liability determination naturally precedes earnings and the concept of matching becomes 'suspect' and 'vague'. This however, gives rise to the following problem: if assets are required to be defined before earnings, then there is a circular reference³ where the asset being defined is defined in terms of its future benefits.

³ A similar issue is found within the TEA standard: AASB 112.5 defines current tax as "the amount of income taxes payable (recoverable) in respect of the taxable profit (tax loss) for a period", whilst taxable

Kvifte (2008) suggests there is little documentary evidence that the balance sheet approach provides more decision useful information, rather it appears to be an acceptable underlying assumption. This aside though, the income statement is frequently quoted as being important; profit arguably being the overriding goal of business, or at minimum a good predictor of future earnings (Dichev, 2008; Henderson et al., 2008).

The convergence back towards the balance sheet has led some to question the loss of information content, relevance and the reflection of business reality (Dichev & Tang, 2008; Donelson, Jennings, & McInnis, 2011; Paananen & Lin, 2009). Additionally, the reorientation to the balance sheet has been described as shifting away from 'normal' operating earnings, leading to the creation of 'noise' and increased volatility. Building on this, Dichev (2008) raised concerns that if the balance sheet trend continues for decades then earnings will become meaningless, thus eroding the accounting function.

Until very recently, a common practice was to identify both abnormal and extraordinary items that affected the income statement with the former being disclosed above the profit line and the latter reported below. The general thrust of these measures was to report a form of normalised operating revenues and expenses and identify those items that were not necessarily recurrent. Previously, Paton and Littleton (1967) had noted that this type of apportionment to remove unusual or irregular earnings caused a distortion of earnings power that could encourage the misunderstanding of the broader, long term impacts of business operations.

profit (loss) is "the profit (loss) for a period, determined in accordance with the rules established by the taxation authorities, upon which income taxes are payable (recoverable)".

Studies considering earnings management, such as Graham, Harvey, and Rajgopal (2005) and Barton and Simko (2002), suggest that sacrifices in longer term value may occur in order to smooth earnings. Moreover they identified a compounding effect to the extent that overstatements on the balance sheet resulted in decreased earnings management.

Research by Graham et al. (2005) noted the importance of earnings and found that 78 per cent of 400 American executives surveyed admitted to smoothing reported earnings and consequently sacrificed longer term value. Behind these admissions was the belief that credibility would be built by reaching earnings benchmarks which would assist in maintaining share price, with cash flows being perceived as less important to users: if earnings were not reached, this would create uncertainty. This research also suggested a concern with ensuring the predictability of earnings. Barton and Simko (2002) investigated earnings management with respect to the incentives of meeting or beating forecasts and found that the likelihood of reporting larger positive or smaller negative earnings surprises decreased to the extent the balance sheet was already overstated, partly reflected by those prior choices: managers being generous in one period reduces the ability to be so in a later period. Dichev (2008) suggests that despite what appears as support and preference for an income statement focus by both managers and investors, the standard setters appear to have their sights set on the balance sheet.

One examination of the effect of transitioning to a balance sheet orientation within the Australian setting found that overall accounting risk was higher under IFRS and that value relevance was not improved. In particular, based on an examination of 1,065 Australian listed firms found an increase in total liabilities, decrease in equity was found, as well as revealing that more firms had decreases in earnings compared to increases

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(Goodwin, Ahmed, & Heaney, 2008). A later longitudinal study found that value relevance remained consistent for equity but increased for earnings on IFRS adoption, after analysing 20,025 firm year observations over the period 1990 to 2008 (Chalmers, Clinch, & Godfrey, 2011). The increased earnings relevance on transition was particularly prevalent in large industrial firms, whereas the association between share price and accounting information for the materials and finance companies was found to be limited (Chalmers et al., 2011). Similarly, a further study of the period 1993 to 2011 found that although the revenue-expense recognition – reflecting matching as the fundamental basis for accrual accounting – had declined during 2001 to 2005, whilst was revealed to be improving during the AIFRS period (Jin, Shan, & Taylor, 2015).

The accounting system now reflects the globalization of capital markets, accompanied by a need for an international language (Whittington, 2015). Despite the grandeur to such a statement, it has also been suggested that little has been achieved over the last 50 years:

The predominant method of measurement in financial reports is still HC [historical cost], and the current value alternatives are still the same. Conceptual frameworks of standard setters have failed to identify an ideal measurement base, and academics have retreated from the grand designs of the Golden Age, which had sought to revolutionize financial reporting. The revolutions and counter-revolutions in accounting practice have been driven by events in the world economy (notably the increase and subsequent decline in inflation rates, and more recently, the GFC) rather than the work of academics or standard setters (Whittington, 2015, pp. 565-566).

Despite this downward perspective, Whittington (2015) did accompany such a downward outlook with the reflection that financial reports are now more informative, with specific reference to disclosures, as well as more complete and authoritative leading to more comparability, more usefulness, both in the domestic and international perspective. Such

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shifting sands of accounting reflect the social underpinning of the accounting system, in which the 'objective determined facts' are arguably subjective interpretations or representations of real world events (Morgan, 1988). What is relevant, therefore, is a consideration of that reality of accounting; of its conventions and coherence with rules stemming from its history – a history of shifting sands – and the ideal of truthfulness and ultimate usefulness of its meaningful outputs.

2.1.2 THE MYTH OF OBJECTIVITY AND TRUTH IN ACCOUNTING

The imagery of natural science being applied to the social world suggests that the future is objectively knowable and predictable from its laws... Accountants incorporate this mythology and claim as their professional domain the quantitative assessments that feed technologies of rational decisions (Boland, 1982, p. 120).

Davis et al. (1982) suggest that although there are limitations and constraints, the basic framework of accounting rests with its ability to define reality through numbers and that despite numbers having objectivity, numbers in accounting rest upon social construction. Through compliance with accounting standards, accounting information is accepted and presumed to produce meaningful outputs such as indicators of profitability and solvency (Chambers, 1991; Clarke, Dean, & Oliver, 2003). Further schools of thought argue instead that compliance with accounting standards is simply that; and such coherence with rules results rather in a lack of connection to reality, truth and to fact (Bayou, Reinstein, & Williams, 2011). The following sub-sections explore these intermingling concepts.

2.1.2.1 DEFINING REALITY

Objectivity is taken to mean that accountants and accounting should be akin to a speedometer or convey information impartially akin to a telephone system; reporting what is happening instead of building reality: a pursuit of neutrality (Solomons, 1991). However, such a metaphor is said to be of limited use as this requires the profession to be able to find 'uncorrupted' neutral 'facts from economic reality (Tinker, 1991).

Morgan (1988) suggests that whilst accountants perceive themselves as engaged in an objective enterprise, rather than being objective and value-free, they tend to be more subjective and construct reality via a single numerical perspective. Bednar and Welch (2008) suggest that removing bias maximises effectiveness, with bias being described as subjective descriptions intended to mislead or distort, in order to achieve a certain perspective. Objectivity on the other hand, was regarded as being free of bias; an attempt to be transparent or neutral (Bednar & Welch, 2008).

Hines (1988, p. 255) shares a similar perspective to that described by Morgan (1988), by describing accountants as "Official Communicators of Reality", although extending that designation. In particular, by initially describing accountants:

As ordinary people, we arbitrarily combine, and define, and add, and subtract things from our picture of reality. As professional people, we arbitrarily combine, and define, and add, and subtract things, in a different way to the everyday way: that is what differentiates us. The fence does not designate the organization. We do that. We designate it, by deciding what things will be part of the organization, and by deciding how big or small these things will be: 'recognition' and 'measurement' (Hines, 1988, p. 254).

Hines (1988, p. 257) describes such an 'official designation' as a much bigger role, adding that the act of creating and defining leads to a response to that picture of reality: "[this] power is a hidden power, because people only think of you as *communicating* reality, but in communicating reality, you *construct* reality". That reality becomes real, which in turn is seen as proof of accountants 'correctly' portraying the said reality. Similarly, Gill (2011), who interviewed chartered accountants in London, revealed that despite the seemingly 'indisputable' factual accounting knowledge constructed, the process of production is itself 'contesting and opaque'. Furthermore, Gill (2011) described there being a discrepancy between technical discourse of accounting and the practice of accounting – with such discrepancy perpetuated by increasingly technical rules.

Likewise Davis et al. (1982) previously articulated that the basic framework of accounting was premised upon this notion of reality through numbers and that it provided the appropriate impetus to transition from real world events to the constructed world. Bebbington, Brown, and Frame (2007, p. 226) described this numerical perspective in terms of "viewing the world through a monetized lens" that is both highly relevant yet not without constraints. Boland (1982) noted that the subjective basis of accounting creates issues with accounting principles being consistent and comprehensive, given the subjective social nature of society is itself often inconsistent and subject to change. Authors such as Morgan (1988) and Godfrey et al. (2006) saw attempts to represent reality through dollar figures being limited to the extent it could only ever provide a partial view, given that such a process omits considerable knowledge. Such an understanding was summed up by Davis et al. (1982, p. 308):

We depict a world of relationships between people and things in terms of an abstract and reductive system of numerical signs. The numbers are made to stand for the reality, and the reality is interpreted through the numbers. In essence the numbers stand in analogical relationship to the reality which they describe, and are manipulated to try to create different ways of characterizing and describing that reality. When we calculate relationships between sales, profit and return on investment, or plot the performance of different profit centers, we depict and slice the reality to which they relate in different ways. This process generates many kinds of insight, yet as suggested above, also has its limitations and blind spots, presenting a partial view of the reality for which the numbers are made to stand. As all accountants know, the numbers only give us an outline of what the organization is like; an outline devoid, for example, of the human and political dramas that also constitute the reality of organizational life.

Despite being devoid of such human and political dramas that are a part of the accounting system and organisational live, it has been suggested that what constitutes acceptable behaviour stems from that social framework, that such conformity is habituated and rewarded and rationalised (Boland, 1982; Morgan, 1988; Oliver, 1997).

2.1.2.2 COMPLIANCE AND LEGITIMACY

Giovannoni, Maraghini, and Riccaboni (2011, p. 131) argued that accounting had influenced the very structure of organisations by setting:

... values and ideals concerning what ought to count, what ought to happen, and what is thought to be important, while providing the moral underpinnings for power structures and relationships of dependence and autonomy within the organisation. In this context, accounting provides selective visibility to organisational outcomes and actions and as such plays an important role in influencing what comes to be seen as possible, problematic, desirable and significant – shaping organisational reality. Dent (1991) previously described accounting in this setting as creating rationalities for and legitimising actions of the organization. Similarly, Hines (1991) describes how the accounting professions' Conceptual Frameworks are a form of 'worlding', in that they presume and legitimise the assumption of an objective world. As such, accounts generated based on such a proposition, relying on qualities such as faithful representation and so forth, are said to be perceived as 'normal' and legitimacy, or perceived legitimacy, is achieved (Hines, 1991).

DiMaggio and Powell (1983) previously argued that structural change in organizations are less and less driven by competition or efficiency, but homogeneity in structure, culture or output irrespective of efficiency. More generally, diversity in beginnings are followed by homogenization once established; regardless of efficiency or appropriateness (DiMaggio & Powell, 1983). Such 'structuration' could well be seen within the accounting evolution. Authors such as Lehman (2014) and Cooper et al. (2003) have respectively noted that whilst values are implicit in the achievement of technical and procedural efficiency, assumptions that compliance with accounting standards will lead to accounts being true and fair do not necessarily represent a reasonable view. Oliver (1997) suggests that what is constituted acceptable or appropriate behaviour stems from the social framework of financial reporting. Here rules, norms, beliefs, values and choices are constrained by such social conventions, or if not, at least made partially 'captive' by them; where accounting actors seeking approval become 'creatures' of habit and tradition and susceptible to influence. Oliver (1997) further suggests that conformity is socially defined, habituated and unreflected and rewarded by increased legitimacy and survival. In this light, authors such as Morgan (1988) and Boland (1982) have described any objectivity in accounting as being largely a myth and suggest accounting is constructed along lines of rationalised myths.

The rise of accounting can be considered through its adaption to change, which is not only reflected through consequences associated with the outside real world but in many ways resonates with accounting's ability to change its self. Not only has accounting been seen to heal itself but more importantly it itself has tended to become something different to that which it was (Hopwood, 2007). It has 'grappled' with increased complexity in the commercial and institutional world, from changing employment practices to a shift towards a knowledge-based economy (Hopwood, 2007). For instance, when considering tax related disclosures, not only is the domestic tax jurisdiction of concern but for multinational companies in particular, there are numerous jurisdictions that need to be managed notwithstanding other influences such as public scrutiny over tax shelter activity and corporations paying their 'fair share' of tax. Oliver (1997) described those activities that have no obvious purpose is of particular theoretical interest, to which Chaney and Jeter (1989) previously questioned:

Companies have lived with deferred taxes for twenty years now, and executives and accountants are leery of change. Why? Perhaps they see deferred taxes as a sort of buffer... In short, they see comprehensive tax allocation as a conservative approach (p.8).

Apart from this single representation of reality that accounting constructs, based upon compliance and legitimacy, a repetition of the ideas of truthfulness and usefulness are needed. Such a reflection highlights once more the idea that accounting is a social system, where there is no 'ideal', there are no simple facts and there is an intermingling of abstract and concrete numbers. Despite this, the accounting system is expected to produce meaningful outputs.

2.1.2.3 TRUTHFULNESS, USEFULNESS AND MEANINGFUL OUTPUTS

More recently, Bayou et al. (2011) stated that a claim that something can mislead, carries with it a presumption that 'some idea' exists about truthful versus untruthful. Therefore, whether there is an ultimate truth or whether truth is created comes into question. The accounting numbers subsequently produced are expected to provide useful indicators, such as solvency, despite the intermingling of abstract and concrete. Such output may simply reflect accountings subjective nature.

Modern accounting has for the most part avoided the term truth in favour of an idea of faithful representation, although Collett (1995) states that there is a close conceptual link and consider the terms equivalent. Terms, such as 'correspondence' and 'faithful representations,' capture what is normally understood as important aspects of truth (Collett, 1995). However, Gerboth (1972) noted that accounting is not in search of an ultimate truth, or unique truth: describing such a view as naïve. Macintosh (2006, p. 30) noted that truth is created rather than found:

Scientists, for example, do not discover truth, rather they invent and create narrative descriptions of the physical world which are, nonetheless, useful for predicting, controlling (and even destroying) the natural world.

Macintosh (2006, p. 30) makes it clear that reality is not just 'in our heads' and that the physical world exists. However, "the truth or falseness about it, its essential meaning, is not [out there]". Such meaning is socially created (Macintosh, 2006). Rapoport (1994)

identifies that within the social sciences, normative (or prescriptive) theories generally lack an 'ideal' situation to reflect upon.

Pollock (2008) somewhat agreed with these propositions, suggesting accounting truth is never 'simply the facts'. Instead, those facts are turned into a result with the inclusion of estimates, projections and guesses in accordance with a theory. It is those theories that are the focus of disagreement:

They [accounting theories] are debated for years without a clear demonstration of being correct-they are like neither the mathematical nor logical proofs, nor like the results of scientific experiments. This makes them intellectually intriguing (at least to some of us) and apt to inspire ardent advocacy and opposition, as well as leaving them subject to volatile fashion (Pollock, 2008, p. 2).

Alternatively, it is those that have authority and expertise (accountants) that trust relates, not trust in the accounting numbers per say – with such trust in accountants therefore unavoidable (Gill, 2011). The caveat being, in practice this trust sits with accountants as a coherent group, not individually, as well as caution over deviant behaviour or even failure of conformity⁴ (Gill, 2011).

What is 'said' to be true is only from a limited, clearly defined standpoint (Morgan, 1988). Furthermore, the judgement and subjectivity allowed within the system allows for a breadth of potential perspectives before it would be considered misleading or untrue. For instance, true income theorists proposed only a single measure for income and assets. By definition, given that these single measures are considered 'true' or 'correct' any other measures (such as taxable income) would be deemed 'incorrect' and misleading. Morgan

⁴ In that following rules blindly can contribute to the causing of failings within a system. Gill (2011) further describes the issue of reducing 'the ethical to the technical', where problems are mistakenly assumed solved simply by writing a solution into the rule books if without impacting attitudes.

(1988) suggests that if it is possible to be objective then it is also possible to present reality in a 'true' manner:

In actual practice, many people know that the accountant's work is based on somewhat arbitrary assumptions and conventions. They know that the accountant is really in the business of trying to persuade others that his or her concepts, or latest set of figures, "give a true and fair view" or have superior insight, when in reality this view, whatever the figures might say, is as partial as any other. The accountant's view of reality often carries more weight than other views, because of the power relations associated with the allocation and control of scarce resources. But this should in no way be seen as due to the accountant's "objectivity" (Morgan, 1988, p. 482).

Whilst some interpret truth and fairness in accordance with GAAP, where compliance is assumed to lead to a true and fair result, others see the accounting profession as abandoning what has been described as a 'legitimate' reason for non-compliance (Carnegie & O'Connell, 2012; Henderson et al., 2008). Although much is said about the need for financial reports to be free from misleading and fraudulent information, there still appears to be both subjectivity and non-consensus of what truth is within the accounting profession, which is well illustrated through accounting scandals such as Enron (Bayou et al., 2011; West, 2003). Bayou et al. (2011) propose that the financial reporting function links to usefulness not truthfulness. Although, Moore (2009) suggests that what is useful is often not agreed on by accountants either – similarly to the non-consensus over what truth is.

Similarly, what is meant by income is still illusive within the accounting profession (Moore, 2009). In considering why there was such a quest for the bottom line, several possibilities were presented. Firstly, much of western culture presents in a bias towards things requiring an answer; that it is easier to accept a deficient number answer than seek definitively what lies behind the numbers. Secondly, there appears within the accounting mindset acceptance that a definitive and accurate bottom line exists. Thirdly, an overwhelming belief in the supremacy of numbers finds accountants feeling compelled to promise precision in accounting numbers compared to other standardised professions who often seek second opinions, such as lawyers and doctors. Finally, being members of a profession, accountants portray their profession as having the correct answer albeit there are inherent limitations in doing so (Moore, 2009).

These issues posit how accounting principles and practices are perceived. A good example of this is presented in the extent to which fair value has become a prominent tool in accounting. Pundits such as Bayou et al. (2011) and Forbes (2009) have claimed it boosts balance sheet items during good economic times, deflates them during downturns and thus provides the ability to create short term accounting fluctuations with no underlying cash flow effect. Much of the controversy surrounding and following the Enron collapse focused specifically on the use of the fair value measurement by the company.

A further example, though slightly different in nature, can be seen with reference to the acceptance of the balance sheet by the profession. Significant corporate collapses and bankruptcies have undermined financial reports for the past several decades and it was not unsurprising when a precursor to today's Statement of Cash Flow was proposed in the

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late 1960s. A significant component of Chamber's CoCoa proposal hinged on the inability of the balance sheet to indicate solvency, although this was a major condition required for a business to continue to survive, not to mention a real-world financial state. Clarke et al. (2003, pp. 25-26) have succinctly delineated much of what Chambers was referring to:

... financial indicators such as profitability, earnings per share, solvency, liquidity, rate of return, asset backing, the ratio of debt-equity, and the like, are calculated in the financial press and by financial analysts from the data in the published accounts. Calculated from the annual financial statements conforming to the Accounting Standards endorsed by the accounting profession, those derived data are reasonable[y] expected to expose and help explain the salient financial characteristics of firms. The problem is, generally they do not; indeed they cannot.

According to Morgan (1988) the way in which accounting represents reality is 'heavily weighted' to the extent it is able to be measured and influences that which is chosen to be measured. West (2003) has described the existence of both concrete and abstract numbers within the accounting realm. Furthermore Davis et al. (1982) identify there are objective and real numbers that are quantifiable that exist alongside accounting numbers that are abstract.

As accounting has evolved, more traditionally unquantifiable terms are now being driven to be quantified and included. Various authors such as West, Wise and Chambers have shown concern as to the illogical mixing of concrete and abstract numbers in the construction of the financial statements. In seeking a coherent system, accounting has moved further away from the reality it is based upon and now encompasses a mixing of both the factual and expectational, where concrete and abstract numbers collide and collude: with mathematical logic being removed from accounting practice (Chambers, 1968; West, 2003). Chambers (1996, p. 17) had alluded to the notion of 'floccinaucinihilipilification' to the extent accounting was tending towards the habit of treating things as trivial and of no account and suggested that:

... treating significant differences between things as of no account is the source of much that is confusing, vacuous and fruitless in accounting debate, and much that is false and misleading in the products of accounting processes.

Chambers (1996) additionally questioned the merit of 'measurement' and 'measuring' being used in accounting when they involve quantifications that are not based on observation, but rather are hypothetical and based on 'guesswork', and where arithmetical rules are violated or disregarded. A link can be created with this concern over measurement, in Hines (1988) comments over the construction of reality. West (2003) posits this neatly when suggesting that the process of quantifying deferred and consumed benefits produces no actual existing circumstance as there is no deferred cost.

In this respect Schultz and Johnson (1998) and West (2003) have argued that accounting is now based on 'imaginary' concepts, unable to be verified and lacking a definite past, present or future. A point recognised much earlier by Morgan (1988) who suggested that accounting should no longer 'cling' to the objectivity it sees itself as encompassing. Wise (2010) suggests that the inclusion of money amounts of different general purchasing power produces uninterpretable data, similar to comparing money of differing currency and resolving such issues have been placed in the 'too-hard basket'. Overall questions still remain as to the imagination and fancy and ultimately the credibility of financial statements. The balance sheet no longer represents the financial position of a certain time; rather it is a mix of factual and expectational prospects of reporting entities. Compliance with accounting standards is accepted and rests above the concepts of truth and fairness. As Wise (2010, p. 57) describes, "financial reports that embody the fallacy of mixed measurement are not appropriate or true and fair". Still the financial information is presumed to produce meaningful outputs, such as indicators of profitability and solvency. Information is assumed relevant and reliable, yet whether this can satisfy director's duties under the Corporations Act 2001 in Australia, to ensure the company's ability to pay its debts, is questionable (Chambers, 1991; Clarke et al., 2003).

From such a consideration of the shifting sands of accounting and the myth of objectivity and truthfulness in accounting, the rise of TEA is now considered in light of this dynamic accounting context.

2.2 THE RISE OF TAX EFFECT ACCOUNTING: THE NORMALISING EFFECT

As a result of such transactions [abnormal] the income tax legally payable may not bear a normal relationship to the income shown in the income statement and the accounts therefore may not meet a normal standard of significance. The committee believes that the solution of these problems is to be found in part at least by an application to income taxes of the principles of allocation (AIA, 1944, p. 185).

The original advocates of tax allocation saw it as a necessary practice to normalise reported income after taxation. This section considers the development of TEA as a solution to tax not bearing a 'normal' relationship to income. As part of this review, the classification issue that accompanied tax is briefly considered, followed by TEA being described as an extension of accrual accounting that 'corrects' the timing of recognition. A part of such discussion considers how the traditional notion of matching was largely rejected in respect to TEA. Lastly, the underlying assumption that the accounting and tax systems will converge into some 'true' measure of profit is reviewed.

2.2.1 A SOLUTION TO A PROBLEM

Such a result [where the income statement indicates only the income tax actually payable] is not only repugnant to common sense but can readily be shown to be contrary to the principles of allocation which lie at the root of all accounting (AIA, 1944, p. 186).

The beginnings of inter-period tax allocation, or TEA, stemmed from an income statement orientation. To allocate tax between its deferred and current components offered a solution to the problem of tax not bearing a 'normal' relationship to income (AIA, 1944; SEC, 1945). The aim was to 'normalise' profit after tax to enable the income

statement to show what could be expected every year, with the removal of any unusual effects, or severe variations in order to avoid misleading users (Baylis, 1971; Graham, 1959; Moonitz, 1957; SEC, 1945). Baylis (1971) describes the process for accounting for income tax under TEA as allocating costs between expired and deferred components; with such principles of allocation being at the 'root' of all accounting (AIA, 1944).

ARB No.2 issued in 1939 is perhaps the earliest tax related pronouncement and was concerned with a large number of bonds being refunded and the subsequent differences in their accounting and tax treatment. The first known official and direct pronouncement was Recommendation N3 "The Treatment of Taxation Account" issued in England in 1943 which highlighted the problem of differing year-ends for each system and noting that tax should be 'based on profit' according to the accounts (Keys, 1995; Zeff, 2014):

... unless provision be made year by year for income-tax based on each year's results, the trend of net available profits will not be apparent, and cases will arise where the profits earned in a succeeding period will bear a disproportionate charge for taxation – indeed, they may even be insufficient to meet it (ICAEW, 1943, paragraph 22 cited in Zeff, 2014, p. 48).

One year later the American Institute of Accountants (AIA) issued research Bulletin No.23 "Accounting for Income Taxes", which raised concern over the need to 'normalise' and recommended some form of tax allocation (AIA, 1944). Australia followed in 1946 with the Institute of Chartered Accountants in Australia (ICAA) recommending separate reporting of the tax liability with the issuance of D4 "Treatment of Taxation in Accounts", which stated that the tax disclosed against reported profit should be an estimate of what would be required on 'those profits' (Gibson, 1984). Keys (1998) suggested that this was an ambiguous reference that could equally refer to taxable income and that the resulting adoption reflected a non-committal to deferring tax.

The need to normalise stemmed from the differences between the accounting and taxation systems. *Prima facie* tax under accounting principles did not necessarily coincide with tax legislation. The principle problem being one of timing:

The amount of income taxes determined to be payable for a period does not, therefore, necessarily represent the appropriate income tax expense applicable to transactions recognized for financial accounting purposes in that period (AICPA, 1967, p. 157).

For the most part the majority of income and expenses are treated equally, or accepted as recognizable, under both the accounting and tax systems; however their period of recognition created differences and therefore concern (Moonitz, 1957; Sonnier, Hennig, Everett, & Raabe, 2012). The concept of income tax gained much traction in America as its importance as a source of government revenue increased during World War II (Schultz & Johnson, 1998). Subsequent concerns largely arose from the increasing differences between the systems, with particular attention evolving due to depreciation and its impact on tax deferrals (Gibson, 1984). For example, firms acquiring war related long-lived assets were allowed 60 months write off for tax purposes despite their potentially longer economic lives (Voss, 1968). Gibson (1984) suggested that in Australia, irrespective of the war time pressures on the taxation system, timing differences caused little concern until the 1960s.

The described differences between taxable income and profit as 'material' and 'extraordinary' and that if the income statement reported actual tax payable (the flowthrough method), it would be 'repugnant' to common sense and contrary to principles of allocation. Likewise, Baylis (1971) stated the reporting of actual tax payable would create unreal fluctuations, whilst Keller (1962) noted such an approach would lead to distortions. Keller (1962) and Black (1966) respectively noted that the deferral of tax would help avoid distorting periodic income with Keller in particular recommending such an apportionment because income tax was seen not to provide any economic usefulness in future periods. Keller (1962) further postulated that apportionment was considered to be the division of a life time tax bill as required by the objective to report periodic results. Consequently this would result in financial statements that were more meaningful and realistic, and therefore more useful. Graham (1959) concluded that the income statement had a principal function to facilitate future forecasts, which 'demanded' income tax allocation: even if deferment was over the long term. Defliese (1983) saw the acceptance of tax allocation as a practical solution with lesser concern placed on balance sheet 'purity'.

In theory, the application of TEA – the recognition of temporary (timing) differences (deferred taxes) – enables reported income tax to equal *prima facie* tax under accounting principles. In this situation, the income tax is made up of current tax, being the amount flowing to the tax authority, and deferred tax; the accounting adjustment cycling between the balance sheet and income statement when expired. The fluid, cyclical nature of these adjustments, are described in Voss (1968).

Notwithstanding the aforementioned, the process is limited by the presence of permanent differences, which are differences that are not reconcilable between the systems and therefore not recognised within the financial statements. Given the anomaly of permanent differences and their consequences, the 'practical solution' was seen to present a part solution only (AIA, 1944; Graham, Raedy, & Shackelford, 2012; Mason, 2010).

Moreover, underlying this 'solution' to 'correct' reported income tax was the assumption that income tax was an expense capable of allocation.

2.2.2 THE CLASSIFICATION DEBATE

It seems well worth answering the fundamental questions, instead of proceeding 'as if' income tax were an expense and 'as if' allocation were proper in principle. If the present complexity stems from misconceptions, as we believe, only by recognizing their contrived character, and disposing of them as non-factual inventions will we escape from the threatened morass (Chambers, 1968, p. 122).

Early debates over accounting for income tax revolved around the classification of tax; whether it was an expense, appropriation of profit, redistribution of wealth or other (for example, Barton, 1970; Baylis, 1971; Chambers, 1968; Moonitz, 1957). Such views extended to the subsequent allocation of deferred tax on applying TEA.

Concerning income tax as an expense, Chambers (1968) considered two issues. Firstly; unlike other expenses, whose functional relationship to the scale and size of operation and allocation between periods is guided by indicators such as quantities and prices, income tax was unrelated to such indicators and consequently did not fall equally on companies. Secondly, he saw income tax being incurred after income has been derived and not in anticipation of benefits. Beechy (2007) in considering the issue of whether income tax should be considered an expense provided no detailed explanations beyond the practicality of such a categorization.

According to Beechy (1983), there were two arguments for income tax being a distribution of profits. Firstly, unlike an expense, tax is a result of earning revenue rather than in generating revenue and secondly the balances in the balance sheet do not represent liabilities or shareholder equity, rather they represent the government's equity in the firm. Moonitz (1957) argued that if income taxes were treated as a distribution of profits, most reporting problems would disappear as it would be charged directly to retained earnings at the amount disclosed on the income tax return. More recently, Colley, Rue, and Volkan (2009) noted that taxes are a government function, not related to financial reporting and as such represent a redistribution of wealth.

Drinkwater and Edwards (1965) considered the issue of differing proportionate benefits between large firms with large tax liabilities and those paying little to no tax. Aside from this, Chambers (1968) suggests that the tax function incorporates more than merely revenue raising objectives, but also acts as a tool for policy incentives and disincentives. That is, within the socio-economic and political sphere taxation is used to not only generate revenue but to also influence and modify society and societal behaviour: whether discouraging or encouraging certain activities, promoting government policies (both economic and fiscal), redistributing income within the economy, encouraging industry activity such as primary production or export activities (Baylis, 1971; Chambers, 1968; Woellner et al., 2011). These views posit that taxation cannot simply be likened to a true expense, whereas others suggest a much closer nexus with the operations of a profitable company (Baylis, 1971; Drinkwater & Edwards, 1965).

Furthermore, the nature of timing of taxation is also relevant. Skekel and Fazzi (1985) suggest that unlike trade debtors and creditors, where there are repeated events throughout the year at the individual level, tax is considered against the entity once a year. By considering this, they argued that the appropriate tax consideration is at the amalgamated point and not at the individual asset point. Similarly, Rosenfield and Dent (1983a, p. 108):

An obligation is a relationship between the reporting entity and another entity, not merely an accounting entry. An obligation should be recorded when the relationship comes into existence, not merely to achieve financial statement results that are perceived as desirable.

Various authors have argued that merely classifying tax as an expense does not trigger the same method of allocation as other expenses. Unlike other expenses, they argue that there is no direct and objective association between an incurred expense and allocation (Coughlan, 1958; SEC, 1945). The allocation of deferred tax is an expense that has not been incurred and is dependent on various future events (taxable income, tax rates and so on). It might therefore never actually be incurred (Coughlan, 1958). Most (1977) described deferred credits as estimated liabilities, whilst Beechy (2007, p. 222) described their classifications as a 'force-fit':

When is a liability a hypothetical construct that is owed to no one? When is an asset the product of a manager's overactive imagination? Why, both are possible in the make-believe world of future income taxes!

Coughlan (1958) proposed that although other estimates, such as depreciation and useful life, are utilised in the accounting process, they are based on the spread of actually incurred costs. Similarly, tax deferrals are not discovered as part of the accounting process like other assets and liabilities disclosed, but rather created by the accounting process itself. As such, both the liability and expense have been described to mask reality (Macintosh & Shearer, 2000).

In contrast, Graham (1959, p. 19) described tax deferrals as similar to accrued repair and maintenance expense, both being an anticipated future expense "properly charged against the income of the period in which there occurred the wear and tear responsible for the repair and maintenance expenditures" or in the case of deferred taxes the income related. Cox (1983) suggested that the argument against deferred tax allocation based only on a definitional interpretation of a liability is 'myopic'. Baylis (1971) noted that the failure to accrue total income tax on profit before tax would overstate reported profits and argued that the liability created by applying deferred tax allocation was a legitimate accounting liability as it represents the anticipated future disbursement related to reported profit.

Despite the variations in views on this matter, the debate was settled in America in 1967 by the standard-setting bodies casting a vote (Rosenfield & Dent, 1983). Investigations by both Leppinus (1977) and Defliese (1983) revealed that the decision reached was by a narrow margin and that those dissenting questioned the value of the assets and considered the liabilities as contingencies. As for the vote itself, Gibson (1984) suggested it was close only because members favoured partial allocation. In Australia, despite the lack of a universal acceptance of income tax being classified as an expense, it was classified as such in the 'broader sense' and that it should be 'matched' with related components of income in order to reflect the purpose of determining net profit (ICAA, 1970).

More recently, Nurnberg (2009) has suggested that income tax is an expense with unique characteristics and its unique location on the income statement should not prevent its classification of expense. More precisely, it is akin to a period cost rather than a direct cost, although still thought of as a 'special class' of expense (Barton, 1970; Keller, 1962). Adding to this Nurnberg (2009) believes that it facilitates user analysis of the entity before and after tax, akin to cost of goods sold being separately presented to enable the gross margin to be established. However, controversy still remains and the debate over TEA in respect to resolving the issue of timing is now considered.

2.2.3 A TIMING MECHANISM

TEA is described as an extension of accrual accounting as it 'corrects' the timing of recognition by 'matching' income tax to accounting revenue. It was argued that without this 'matching', it was akin to cash-basis accounting. This notion was refuted and so too was the traditional notion of matching, or at minimum considered inadequate in respect to justifying TEA, given the lack of functional relationship to the accounting system (for example, Barton, 1970; Baylis, 1971; Chambers, 1968; Connor, 1982; Drinkwater & Edwards, 1965; Moonitz, 1957).

Authors such as Baylis (1971) and Defliese (1983) suggest that without deferrals tax allocation, accounting for income tax suffers from the same timing and matching problems seen to be associated with cash-based accounting. Applying deferred tax allocation was seen to be more in line with accrual accounting. Accrual accounting smoothing the temporal fluctuations in cash flows, labelled as 'smoothing' or 'noise reduction' by Bushman, Lerman, and Zhang (2016).⁵ Accrual accounting is argued to provide a better view of firm performance (Dechow, 1994; Dechow & Skinner, 2000). This said, however, opponents rebut the cash-basis argument on the basis that accrual accounting applies without the need to adopt TEA (Rosenfield & Dent, 1983a, 1983b). Chambers (1996, p. 21) linked the term accrual in respect to deferred taxes as a habituated use of the term:

We use "accrue" of something that has occurred but is not yet recorded; so we record it. But we also slip into the habit of using "accrual" of something that has not happened and may never happen; and we record the product of many such imaginations.

It is argued that a more accurate accrual would be the accrual of the tax liability found in the income tax return of the company that is unpaid at year-end, or the recording of the prepaid component and amount refundable: essentially the flow-through method (Chambers, 1996; Rosenfield & Dent, 1983). According to the proponents for the flowthrough method, ignoring timing differences complies with the substance over form that represents the economic reality (EFRAG & ASB, 2011). Further, it is argued that it leads to the most meaningful information that is faithful to the fundamental nature of income tax without portraying it as if it related to individual transactions or events as other approaches do (EFRAG & ASB, 2011). In applying the flow-through approach, the notes of the financial reports would be the location for explaining differences between the

⁵ Thus said to have a negative correlation with cash flows, with such a correlation found to have diminished 'dramatically' between 1964 and 2014, with the more recent period within that timeframe showing the correlation to have 'largely disappeared' (Bushman et al., 2016). Bushman et al. (2016, p. 43) initially suggest that "even though the conceptual timing role of accrual accounting has not been changed, a significant increase in the magnitude of other elements of accruals (e.g., economic-based cash flow shocks, accrual estimation errors, fair value adjustments, one-time and nonoperating items, timely loss recognition, net losses, and earnings management)"could be valid explanations for such a decline in correlation. On examination, it was subsequently noted that the decline is a result of changing operating uncertainty and accounting practices. Overall, they conclude that the timing role of accrual accounting has diminished, therefore contributing 'little' to reducing earnings volatility relative to cash flow volatility (Bushman et al., 2016).

income tax bases. Furthermore, this would overcome accounting defects associated with tax deferrals, particularly where deferred taxes leads to the inclusion of all accounting shortfalls; suggesting that deferrals are 'plagued' with accounting problems and inconsistencies (Drinkwater & Edwards, 1965; Rosenfield & Dent, 1983). Such a perspective corresponds to purists supporting a cash based accounting system; arguing that such an approach avoids distortion and judgement of accounting practice, whilst remaining relatively useful in a steady environment. Albeit, several authors suggest there is a trade-off between relevance and reliability as accrual accounting is said to overcome timing problems (Carslaw & Mills, 1991; Dechow, 1994; Richardson, Sloan, Soliman, & Tuna, 2006).

A significant problem for the accounting profession was that supplementary disclosures that would be required in the notes were seen as a need to correct the financial statements and consequently unacceptable (EFRAG & ASB, 2011). Moreover, others argued that the provision of income tax disclosures by way of notes was insufficient (Defliese, 1983). For example, research by Raedy, Seidman, and Shackelford (2011), who considered disclosures relating to book-tax differences, found that investors ignored tax footnotes⁶ and did not price differently book-tax differences suggesting there to be no information content. However, some research does suggest there is a loss of information content if there is some conformity between the two systems (Hanlon, Laplante, & Shevlin, 2005). More recently, Wahab and Holland (2015) examined unobservable corporate income tax planning of entities, finding that the nature of book-tax differences and industry impacted the degree of persistence of book-tax differences.

⁶ Describing such footnotes as "one of the most detailed, complex, and costly to produce" (Raedy et al., 2011, p. 1).

Chaney and Jeter (1989) focused on a singular group of users, the financial analysts, when considering net income and the debt to equity ratio with respect to deferred taxes. They found that those analysts who implicitly assumed all deferred taxes were recurring added them back to net profit as well as treating the balance sheet deferred tax accounts as equity. Similar observations have been made with respect to users more generally; when estimating relevant accounting ratios those who perceived deferrals as real included them in their calculations whilst those who did not removed them (Landry, 1998). More recently, Herbohn, Tutticci, and Tan (2016) highlighted the growing trend for analysts to provide pre-tax and after-tax earnings forecasts due to the potential for incremental information content. Research in this area brings to the forefront the notion of general purpose reports and the extent that they offer decision useful information. In its deliberations on the escalation of growing deferrals, the FASB noted that many constituent stakeholders were not 'anxious' about such growing deferrals and pointed towards utility companies in particular being reluctant to change (Chaney & Jeter, 1989).

For example, Connor (1982, p. 104) was concerned about the 'ravages of inflation' that could occur in some industries if deferred taxes were removed, given they form a significant part of the rate structures in certain industries. Rosenfield and Dent (1983a) and Daillak (1983) rejected this concern as being irrelevant. What is considered desirable by one particular group of users, such as floor traders, does not necessarily coincide with the objectives of financial reporting. Each group of users has differing needs and not all needs can be met (Chambers, 1996). Such a view of different and possibly conflicting needs and desires is reflected in the Conceptual Framework (see for example paragraph OB8, AASB, 2013).

In this respect, Chambers (1968) suggested that if it is an indication of business operations that is sought for a guide of future operations, then profit before taxation would be a relevant measure. However, this would be quite different if dividend and reinvestment were of greater interest. Chambers (1968) argued that these two concepts should be kept independent in analysing future profits and that published data should include profit before taxation. According to Baylis (1971), shareholders are interested in what is available for distribution and hence 'real' company income equates to profit after taxation. Rosenfield and Dent (1983b) reiterated the differing objectives for taxation and suggested that it is the mix between policy and fiscal objectives that leads to volatility of income tax expense between periods. Consequently, the volatility is informative and should be accepted rather than adjusted by smoothing. Chambers (1968) goes further to suggest that there is no such a thing as a normal tax charge and that due to the differing objectives of tax, changes between years will occur with future tax payable therefore being unpredictable.

These arguments need to be considered in light of the matching principle which has been linked to the justification of TEA, albeit matching in relation to income tax has been largely rejected (for example, Most, 1977). Barton (1970) and Chambers (1968) both considered income tax as a function of taxable income rather than accounting profit in aggregate or its components. Barton (1970) described accounting profit as irrelevant to whether an entity incurs an income tax obligation. Additionally, Rosenfield and Dent (1983a, 1983b) believed that the matching principle remained intact without deferred taxes. Overall various authors have argued that there exists no functional relationship between accounting profit and income tax and consequently it is inappropriate to apply

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the matching principle (Barton, 1970; Chambers, 1968; Colley, Rue, Valencia, & Volkan, 2012).

Chambers (1968) suggests that accounting profit is not required to create an income tax obligation in the sense that whilst there may be no accounting profit, taxable income and tax levied may be charged against such income. Tax policies can both favour some tax payers whilst burdening others as differing tax policies between tax payers, such as primary production compared to mining, will lead to differing tax liabilities or benefits, regardless of whether accounting profit before tax is similar. The Accounting Standards Board (ASB) highlighted the importance of the tax profile of certain entities; in particular, whether they were multinational companies exposed to a mix of tax rates, the extent of their capital investment and availability of losses as well as double tax agreements (ASB, 1995). To the extent industries acquired depreciable assets or accrued employee entitlements, warranty and inventory provisions or reserves also played an important part in the scale of deferred taxes (Landry, 1998).

Chambers (1968) took this distinction further by arguing that it was impossible to match taxes and revenues and that any attempts to do so "earnestly... [and] not as some abracadabra" (p.118) would lead to discounting which presupposes considerations of both conservatism and prudence. Beechy (2007, p. 222) noted, however, that deferred tax accounting could be easily justified by the matching principle, by considering individual material items:

When a book-tax timing difference arises from a single, material if identifiable item, it is fairly easy to justify deferred tax accounting from a matching perspective. For example, if a major gain is recognized in one period for accounting purposes but is not taxable until the gain is realized in the following period, it is logical to bring the gain and its tax effect into the same reporting period.

Beechy (2007) also agrees with 'matching' where the timing reversals are close, such as in consecutive years as there is predictability and measurability in such cases. This is in effect partial tax allocation.

Underpinning the notion that income tax needs to be 'matched' is the underlying assumption that accounting is the 'correct' measure of profit. Chambers, like others who support a decision usefulness perspective, suggest that proponents who see tax allocation as 'correcting' the reported figures do not fully comprehend the notion that there is no one 'true' measure of profit, nor of assets or liabilities (Chambers, 1996; Gordon, 1964; Gordon, Horwitz, & Meyers, 1966). In this respect, various authors argue that choices and professional judgement in accounting measurement cannot be removed (Dechow & Skinner, 2000; Gordon, 1964; Gordon et al., 1966). Despite any desires for a 'true' income to exist, inconsistencies abound within accounting's multitude of measurement options; for example, historical cost, fair value, replacement value and market value (Drinkwater & Edwards, 1965). Therefore, two identical companies can produce differing financial reports, artificially constructed for differing purposes; similarly, the mere fact of being a reporting entity guides accounting choices (Chambers, 1968; Gordon et al., 1966). Given such availability of choice and judgement, Beaver and Dukes (1972) suggest that it is 'dangerous' not to consider other measurement errors when considering deferred tax allocation.

Timing has been described as the only 'major' difference, however what differentiates this timing mechanism from traditional 'matching' is the attempt to achieve congruence between two different systems. This leads into the assumption that there will be convergence between the two systems over time.

2.2.4 THE CONVERGENCE ASSUMPTION

... taxable income is a term which can be understood only in the context of income tax legislation, which attempts to provide a means for financing public expenditures, equalizing personal incomes and promoting certain economic objectives. There is no prima facie reason why these values should be identical, and there is no particular significance to the difference between them (Most, 1977, pp. 249-250).

Expanding on the traditional notion of matching being largely rejected, the basis for deferring tax includes an assumption that over a sufficiently long period both accounting and taxation should theoretically converge into some 'true' measure of profit (Baylis, 1971; Coughlan, 1958; Givoly & Hayn, 2000; Keys, 1995). Permanent differences are, however, considered impediments to this assumption.

Two differing schools of thought exist. Firstly, there are those who argue that there is no functional relationship between accounting and taxation. Secondly, others such as Keller (1962) believe that income tax is effectively on accounting income and that over time, after allowing for permanent differences, accounting will equal taxation suggesting that the realisation of taxable income is the first cause of accruing tax and the second is the act of earning accounting income. Similarly, Keys (1995) noted that the general notion of income is the basis of income tax and therefore revenue and expenses, or assets and

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liabilities, are related. Likewise Baylis (1971, p. 166) sees both accounting and taxation as attempts to measure the "periodic measurement of effort and accomplishment", or profit as Keys (1995) suggests. However, Barton (1970) argued that time is crucial to periodic income: Keller's (1962) argument can be said for many measurements of period income, including that of distorted income and thus is 'specious' as the variances between accounting profit and taxable income can only be temporary and permanent differences.

The assumption of convergence is important in justifying normalising. Inter-period allocation of tax is generally only recognised for temporary differences; therefore permanent differences can impact the effectiveness of normalisation. This was noted, however, early on. The AIA (1944) noted that tax allocation would only solve the problem in 'part'. If only permanent differences are present, reported tax would equal the tax charge on the tax return and therefore no temporary differences would be available to 'normalise' (Slade, 1990).

Studies have considered the potential growing gap between the accounting and taxation systems, whether in respect to permanent differences or tax shelter activity. Hanlon and Shevlin's (2005) US study over the period 1985 to 2003 revealed that the gap was growing in the mid to late 1990s, with a marked drop in 2001, albeit recovering to its largest difference in the final year of the study, 2003. Earlier work also recognised this increasing gap through the 1990s (for example, Desai, 2003; Manzon & Plesko, 2002). Mills, Newberry, and Trautman (2002) found that the most pronounced differences were in those entities with multinational characteristics, and the growth was most pronounced in the financial sector. Additionally, differences were greater for profit makers as opposed to loss makers (Mills et al., 2002). A more recent examination of US companies,

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comparing accounting income to taxable income over the period 1992 to 2010, revealed that the accounting income exceeded estimated taxable income every year except for the recessionary years of 2001 and 2008 (Graham et al., 2012). Graham et al. (2012) reported that over the 18 years aggregate, accounting income equalled aggregate taxable income, suggesting the critical link resonated with both the economic activity and economic climate of the times.

Several studies have considered the issue of conformity between the systems (for example, Chen & Gavious, 2015), particularly in relation to information loss and tax shelter activity. Increased conformity between accounting and tax has been found to be less informative, nor have an effect of reducing tax sheltering behaviours (Hanlon, Maydew, & Shevlin, 2008; Hanlon & Shevlin, 2005). Tax sheltering behaviour has been considered more specifically (for example,Frank, Lynch, & Rego, 2009; Lisowsky, Robinson, & Schmidt, 2013; Phillips, Pincus, & Rego, 2003). In particular, given there is arguably less available discretion by management concerning taxation treatment compared to accounting practice, non-conformity was identified as an avenue available from which management could increase accounting income whilst decreasing taxable income in a single reporting period (Frank et al., 2009). Despite this, however, recent research suggest that higher tax enforcement by the tax authority has a positive association with financial reporting quality (Hanlon, Hoopes, & Shroff, 2014).

Various authors such as Chambers (1965) and Drinkwater and Edwards (1965) have concluded that TEA, rather than being a meritorious endeavour, was popular only by default. Beechy (2007) suggests that despite the concept of TEA perhaps arising 'innocently' enough, over time it has morphed into a tangled web with 'dubious' benefits or usefulness. Similarly, Chaney and Jeter (1989, p. 9) noted "accountants were concerned with curbing exaggerations on the income statement and perhaps didn't foresee the extent to which the balance sheet account would grow over the years". These arguments aside, perhaps this is simply a reflection of the social underpinning as described by Morgan (1988): a 'complex web of reality construction', where accounting is subjective, based on the numerical interpretation of the real world events. Or, as Boland (1982) suggested, the objectivity of accounting is a myth.

The study now turns to consider the Australian developments specifically, where TEA has been mandatory since the 1990s and its original adoption has been linked to economic pressures, overseas influence, political costs and regulations. Since that time, Australia has harmonised with the IFRS and transitioned to the balance sheet approach to TEA. Within this contemporary Australian context, concern now lies in the public debate of corporations paying their "fair share" of tax.

2.3 THE AUSTRALIAN DEVELOPMENT

The recognition of trading transactions in the financial statements in a particular period is governed by the application of Australian International Financial Reporting Standards (AIFRS). However, the timing of the recognition of transactions for the purposes of measuring taxable profit is governed by the application of Australian tax law, which sometimes prescribes a treatment different in the form to that used in the financial statements. The generally accepted view is that it is necessary to seek some reconciliation between these different treatments (Mason, 2010, p. 4).

The theoretical justification underpinning the TEA standard is evident in Australia. However, several authors suggest its acceptance has more to do with desirability, than its usefulness (Gibson, 1984; Sidhu & Whittred, 1993, 2003). Within the Australian context, the original adoption of TEA finds traction in the antecedents of economic pressures, overseas influences, political costs and regulations (Gibson, 1984; Sidhu & Whittred, 2003). With the 2005 harmonisation with IFRS, Australia has transitioned likewise from the income statement to the balance sheet approach. More recently, strong criticism and concern over tax havens and profit shifting has put increasing pressure on the Government to ensure corporations are paying their 'fair share' of tax in the form of increased disclosures and regulatory change.

2.3.1 DESIRABILITY IN ADOPTION

Despite ICAAs recommendations, which included the separate reporting of the tax liability, dating back to 1946, there was a poor rate of compliance by Australian companies (Morris & Barbera, 2014). Prior to the mid-1960s it was considered unnecessary to explain the discrepancies between the reported tax expense and the prima facie tax on reported profits, and that was only when tax was reported separately (Gibson, 1984). The initial acceptance of TEA was unsuccessful and marginal at best, with one study finding an average of four per cent of listed companies applied tax allocation to their reports during the 1960s (Sidhu & Whittred, 1993).

Internationally, the 1960s saw a 'major thrust' towards the codification of accounting practice (Leppinus, 1977). Australia arguably began shifting away from its British links towards the influence of the United States during the 1960s (Carnegie, 2009; Morris & Barbera, 2014). Wise and Wise (1988) suggested Australia was subject to the 'sheep syndrome', whilst Gibson (1984) noted the timing of developments in Australia similar to that of the United States and the United Kingdom. In America, 1967 saw the release of APB No. 11 by the AICPA which concluded that the comprehensive income statement approach was appropriate. This issue was the precursor of a more 'serious' discussion in respect to tax allocation in Australia, gaining ground in the following year with the ICAA issuing Exposure Draft 'Treatment of Income Taxes in the Accounts of Companies' (Gibson, 1984). This was followed in 1968 by ICAEW recommendation N27, stating that the tax charge should be based on accounting profit without regard to the timing for tax purposes.

According to Gibson (1984), this later development did not have an immediate influence on developments in Australia. However, similar issues were discussed in the previous recommendation N19 in 1958 and N3 in 1943 (Zeff, 2014). According to Morris and Barbera (2014), the ICAA recommendations from 1946 were based on the ICAEW Recommendations. By late 1968, there were public disputes between auditors and prominent company boards over tax allocation and special incentives available within tax law (Gibson, 1984; Leppinus, 1977).

Wise and Wise (1988) and Gibson (1984) suggest there was explicit reliance placed upon international examples rather than any convincing underpinning Australian support. The 1969 exposure draft and subsequent amendment in 1970 to the 1946 D4, made reference to the international developments which had described the fundamental concept of a "fair determination of periodic net profit" (ICAA, 1970, paragraph 9), which required matching and apportionment, linking into accrual accounting, deferral and estimation (ICAA, 1970a). The ICAA (1970, paragraph 25) stated that the income tax should be 'properly attributable' to revenue and expenses reported in the income statement: irrespective of the status of actual income tax obligation; whether paid, payable or becoming payable in future.

Over the period 1970 to 1974, Australian adoption of TEA increased to over 30 per cent, further increasing to over 60 per cent as the decade continued, with DS4 being issued in October 1974 (Sidhu & Whittred, 1993). The international influence is clearly delineated within DS4, which stated: "it is also considered to be of significance that the accounting profession in the United Kingdom, United States of America and Canada officially supports the same view" (¶4). Gibson (1984) found that this original adoption stemmed from overseas influence, predominantly American, and the peak of acceptance arose from the immediate economic benefits it entailed. During the mid-seventies high inflationary pressures were leading to significant jumps in accrued leave and other similar liabilities and provisions. Australia was experiencing a credit squeeze, where notable companies collapsed and accounting in general came under scrutiny (Carnegie, 2009). Gibson (1984) described of off-the-record liabilities, suggesting that not only did TEA provide a cushion for these problems but also provided a window of opportunity to bring in omitted liabilities, 'cleaning up' the accounts.

This notion was rejected by Sidhu and Whittred (2003), who suggested the Australian adoption had more to do with the political costs rather than the overseas influences and economic benefits described by Gibson (1984). In this respect they believed that the removal of significant tax concessions being advocated during the 1970s led to politically exposed⁷ companies (large with low effective tax rates (ETR)) adopting TEA to increase their apparent tax rates, resulting in a deferred tax liability. This arguably reduced their political exposure albeit the opposite occurred in instances where deferred tax assets arose. Extending from this were reduced reported profits and retained earnings, which limited companies' ability to pay dividends and brought them closer to their leverage restrictions. The findings of Sidhu and Whittred (2003) supported the notion that politically exposed companies (defined as large entities with low ETRs), effectively reduced their tax exposure by adopting TEA and increasing their ETRs.⁸ This was particularly prevalent within the mining industry.

⁷ This included the removal of special depreciation and capital expenditure deductions from certain industries including primary production, manufacturing and mining; mining being most severely impacted at the same time that it was experiencing a major boom (Sidhu & Whittred, 2003). As well as this, the company tax burden was considered relatively low compared to individuals and so was a regular feature of debate in Parliament (Sidhu & Whittred, 2003).

⁸ Such findings are reminiscent of more recent research within the UK setting suggesting, whereby public scrutiny sufficiently changed firm disclosure and corporate tax avoidance behaviour, resulting in an increase in tax expense, therefore noting that firms trade off the benefits of tax avoidant behaviour with political, reputational and proprietary costs connected to public scrutiny (Dyreng, Hoopes, & Wilde, 2016).

Gibson (1984) suggests that compliance with D4 was not mandated during this period due to being both disputed and difficult to introduce. Sidhu and Whittred (1993) were not aware of any disciplinary action for no compliance during the 1970s and described TEA's application as not becoming 'commonplace' until 1976. During 1976, the Victorian Corporate Affairs Commission objected to the use of TEA with respect to companies making losses, whilst the ACT Companies office objected to TEA in respect to all companies, whilst the NSW Corporate Affairs Commission advocated the use of TEA (Sidhu & Whittred, 1993). By mid-June, an announcement was made that DS4 would be amended, and it was reissued in August with a stricter test for tax losses – described by some as a "step back from the abyss of the abstract" (Gibson, 1984, p. 87).

Further research of the 1970s period, by Sidhu and Whittred (1993), provided insights of the impact of deferred taxes on the income statement with respect to the DS4 amendment in 1976. In particular, they considered whether by adopting TEA there would be a commensurate reduction of reported tax expense in the year of adoption, i.e. whether adoption would change the sign of the reported income tax expense (from positive to negative). In addition, their research also extended to an assessment of the impact on profit after tax. A total of 494 company observations within the mining and industrial industries were analysed on a pooled basis (1970-1980), then pre-DS4 (1970-1974) and post-DS4 (1975-76; 1977-80). Overall the pooled data showed that adoption of TEA was more likely to reduce tax expense (enhance income) (63.6%), with a median impact of a 9.58 per cent reduction in income tax expense, or after tax profits increasing by 8.30 per cent. For those companies that experienced an increase in the reported income tax expense, the median impact was 10.34 per cent with profit after tax reducing by 5.81 per cent.

Disaggregating the data into sub-periods revealed that pre-DS4 adoption was just as likely to increase the tax expense, whilst three times more likely to reduce tax expense (enhance income), compared to the increase in it post DS4. The amendment to DS4 in 1976 led to a reduction in this divergence. When the data was segregated into mining or industrial sectors, Sidhu and Whittred (1993) found an even spread of voluntary adoption during the period 1970-74 (pre-DS4) between the mining and industrial sectors, however the amendments in 1976 (post-DS4) that restricted carried forward losses led to a decline in the application of TEA, particularly for miners. Mining companies were found to be 'overwhelmingly' increasing (Sidhu & Whittred, 1993). For the industrials, the post-DS4 findings were similar to the aggregated sample: tax reducing (income enhancing), with this effect generally greater for industrial companies.

Throughout the 1970s to 1980s, Australia progressed to have legislative backing to enable accounting standards to be truly influential. TEA was explained to be the more appropriate measure in the 1981 Exposure Draft, signalling interest in partial allocation by extending the reasonable doubt test to deferred credits (Morris & Barbera, 2014). However, Wise and Wise (1988) noted that it did not link the justification to users, usefulness or relevance and further articulated that to achieve accountings objectives (usefulness), 'arbitrary abstractions' of the future should not be at the root of accounting practice. By the late 1980s, standards were legally binding, securing the profession's jurisdiction and reputation (Carnegie, 2009). With it, AASB 1020 *Accounting For Income Tax (Tax-Effect Accounting)* was issued in 1989 reconfirming the income statement approach to TEA (AASB, 1989). Under the income statement approach, the focus was on the income figure, with the by-product being the recognition of deferred

taxes on the balance sheet. Recognition of deferred tax assets was quite strict under this approach, requiring a 'virtual certainty' test to be passed before recognition. Chang, Herbohn, and Tutticci (2009) noted that this test was much stricter in Australia than other countries, in that other countries did not distinguish between forms of deferred tax assets arising from timing differences and tax losses. Chang et al. (2009, p. 646) offered the following examples of the less stringent requirements:

- The UK standard FRS 19 Deferred Tax 'recoverable' test (more likely than not) without distinguishing between losses and other timing differences;
- The International Standard IAS 12 'probable' test for both losses and differences; and
- The US standard SFAS No. 109 'more likely than not' test.

Table 2-1 presents a time line of the main developments in accounting for income taxes.

Table 2-1 Time Line of Australian TEA Developments to Harmonisation

1946	ICAA issues D4 "Treatment of Taxation in Accounts" Recommended separate reporting of the tax liability: required each year against profit a charge of the estimated income tax on those profits, no specification of approach.					
1967	AASE amends Listing Requirements Required an explanation and listing of the major items responsible for a difference of more than 15 per cent between the income tax expense and prima facia tax					
1967 Nov	ICAA issues ED1 "Treatment of Income Taxes in the Accounts of companies" Recommended comprehensive TEA with virtual certainty test for FITBs, comments invited					
1969 Nov	ICAA issues revised ED2 "Treatment of Income Taxes in the Accounts of companies" Again Recommended comprehensive TEA with virtual certainty test for FITBs, invited					
	comments.					
1970 Nov	 ICAA D4 amended and reissued as "Treatment of Income Taxes in the Accounts of Companies" Recommended comprehensive TEA with virtual certainty test for FITBs 					
	Recognised FITBs to the extent they were virtually certain.					
1971-3	Required disclosure of income tax attributable to the financial year and any other year, making a distinction between any amounts in the balance sheet for the purpose of					
	countering the effect of undue fluctuation, detailing any difference of more than 15 per cent					
1974 Oct	ASA and ICAA issues DS4/306 "Accounting for Company Income Tax" Recommended comprehensive TEA, Virtually certainty test replaced with Reasonable Expectation Test, permitting more FITBs, removing distinction between differences and					
1976 Jul	IOSSES. DS4/306 revision and replacement with AAS3					
	Recommends comprehensive TEA, restricted circumstances were FITBs could be					
	recognised and reinstated distinction between differences & losses. To be able to be					
	carried forward losses, the virtual certainty test applied.					
1981	AARF issued ED3					
	Recommended TEA, signalled interest in partial allocation by way of beyond reasonable					
1989	Introduction of legally binding accounting standards					
1989 Jan	ASRB and PSASB issues Release 416/ED47					
1000 001	Proposed adoption of AAS3 into the ASRB series of standards.					
1989 Oct	Required Income Statement Approach, standard applied from periods ending on or after 31 December 1989, with interim approval.					
1989 Nov	AARF revise and issues AAS3					
1995	Discussion Paper 22 Accounting for Income Tax AARF published discussion paper on the balance sheet approach in SFAS109 and					
	EDE49.					
1997 Dec	AASB and PSASB release ED 87 as part of the Australian/IASC Harmonisation Program Proposes belance short approach, of which the International Standard IAS 12 advacatos					
1999	Revision of AASB 1020/AAS3					
	Comprehensive Balance sheet approach introduced however was delayed by opposition.					
2002 Jun	AASB 1020A Amendments to Accounting Standard AASB 1020 and Australian					
	Accounting Standard AAS 3					
2002.1.1	Application of AASB 1020 deferred.					
2002 001	Plan to adopt International standards.					
2002 Nov	AASB 1020A Amendments to Accounting Standard AASB 1020 and Australian					
	Accounting Standard AAS 3					
2003 Nov	ED128 Request for Comment on IAS 12 Income Taxes					
2004 Jul	Issue of AASB 112					
	Applies for reporting periods beginning on or after 1 January 2005, no early adoption. (Adapted from: Gibson, 1984; Morris & Barbera, 2014; Sidhu & Whittred, 1993)					

Transitioning to the international standards represented a major conceptual re-alignment of methodology underpinning TEA: a shift from an income statement approach to a balance sheet approach. By adopting the Australian equivalent IFRS, Australia joined countries such as the US and UK in applying the balance sheet approach to TEA.

2.3.2 TRANSITION TO AIFRS

Despite the promulgation of AASB 1020 in 1989, internationalisation of the accounting standards began in the early 1990s and proposed the balance sheet approach to TEA. Discussion Paper 22 issued by the Australian Accounting Research Foundation (AARF) in March 1995 considered the balance sheet approach method in SFAS 109 and ED E49 (Keys, 1995). In 1999, AASB 1020 *Income Taxes* was reissued, introducing the balance sheet approach (AASB, 1999); however, this was delayed until the Financial Reporting Council (FRC) announced plans to adopt IFRS. Australia's harmonization program was initiated in 1997 and as part of this program Exposure Draft ED 87 Income Taxes proposed the conceptual shift to the comprehensive balance sheet approach (ERCE, 1998). The Australian equivalent to IAS12, AASB 112 *Income Taxes* came into effect in January 2005 (AASB, 2004).

This represented a major conceptual re-alignment of the methodology underpinning TEA, with the income statement contents becoming a by-product of the process. Although considered to be less onerous, the income statement method was however seen to omit deferred taxes (EFRAG & ASB, 2011). This change saw all timing differences arising from the income statement approach being reconfigured as temporary differences under the balance sheet approach (Chaney & Jeter, 1989; Chang et al., 2009; Wong, 2006). This new approach was said to incorporate not only the current obligations but also the future

tax consequences of balance sheet assets and liabilities (Mason, 2010; Sidhu, 1996). Hanlon, Navissi, and Soepryanto (2014) suggested that many of the additional differences recognised, did not impact on the income statement:

To the extent temporary differences impact the income statement, the deferred tax consequences under the income statement and the balance sheet approach are the same. This is because the resultant discrepancies in taxable income (tax loss) and pre-tax accounting profit (loss) would be captured as both timing differences (under AASB 1020) and temporary differences (under AASB 112). This would be a common occurrence and reflects that all timing differences constitute temporary differences. It is only in those instances when temporary differences do not flow through to the income statement that deferred taxes differ under the income statement and balance sheet approaches. The primary example is asset revaluations taken directly to equity. This highlights the more expansive definition of temporary differences, as not all temporary differences under AASB 112 are timing differences under AASB 1020 (Hanlon, Navissi, et al., 2014, p. 89).

Such a requirement to recognise deferred taxes outside of the profit or loss is described by CPA Australia Ltd (2015) as avoiding the reported performance of the entity being distorted. According to Goodwin et al. (2008), common Australian adjustments include asset revaluations and intangibles leading to deferred tax liabilities and share issue costs that led to deferred tax assets.

The contemporary approach to TEA requires a notional tax balance sheet to be prepared, which according to CPA Australia Ltd (2015) is 'not well understood' and made difficult by complex Australian tax laws. A further consequence of the change saw the less strict 'probable test' replace the 'virtual certainty test', therefore TEA now encompasses essentially all tax consequences. Such recognition criteria requires managers to use judgement and private information about its firm's prospects (Herbohn et al., 2016). For the current AASB 112, recognition is based on whether it is probable that sufficient future

taxable profits will be available against which potential deferred tax assets could be utilised (AASB 112.34), required to be re-assessed at the end of each reporting period (AASB 112.37). The former AASB 1020, paragraph 13 stated that "any future income benefit shall not be brought to account as an asset unless realisation of the benefit is virtually certain", virtual certainty was not defined; instead only limited guidance was provided. Herbohn et al. (2016) and Herbohn, Tutticci, and Khor (2010) suggests that this lack of definitive explanation and guidance allowed managers the opportunity for judgement and discretion in applying the criteria – providing a "powerful test of signalling incentives" (Herbohn et al., 2010, p. 768). Furthermore, they contend that neither AASB 112 nor AASB 1020 recognition criteria are meaningfully different.

The balance sheet approach was considered to be more consistent with the Framework's focus on assets and liabilities and was seen to provide a more faithful representation of the financial statements (EFRAG & ASB, 2011). Additionally, it was contended to provide a more thorough reflection of the tax position (Deloitte Touche Tohmatsu Ltd, 2004) and it therefore offered a greater and more complete recognition of assets and liabilities (EFRAG & ASB, 2011). In this respect, such an approach prevents the overstatement of assets and income where the carrying amount of assets exceeds their respective tax base⁹ (EFRAG & ASB, 2011). However, questions arise as to the reliability and inclusion of deferred liabilities, whilst adding 'severe' complexity to the accounting system and many exceptions (EFRAG & ASB, 2011).

⁹ Arguably consistent with the notion of prudence - conversely, the overstatement of liabilities/expenses does not follow the concept of prudence (see paragraph 37, AASB, 2009).

The UK, US, New Zealand and Australia, for example, currently apply the balance sheet approach to TEA (EFRAG & ASB, 2011; Wong, 2006):

- Within the UK, those companies that are traded in a regulated market in the United Kingdom are required to use IFRS (IFRS Foundation, 2015). The International Standard originally adopted the income statement approach when issued in 1979, however was revised and issued in October 1996 requiring the balance sheet approach to be adopted and apply on or after 1 January 1998 (ERCE, 1998). Other companies are still able to use the comprehensive income statement approach (FRC, ND);
- America since 1989 via the SFAS No. 96 and subsequently SFAS No. 109 in 1992; and,
- New Zealand, like Australia adopted International Financial Reporting Standards (IFRS) in the beginning of 2005, and with it NZ IAS 12 Income Taxes requiring the balance sheet approach, replacing the former SSAP-12 Accounting for Income Tax (Dean & Clarke, 2005; Wong, 2006).

Overall, Australia's harmonisation with IFRS was said to lead to higher comparability, better quality of information, the removal of international barriers by increasing understandability and transparency, more comprehensive information that better reflects future tax consequences, greater consistency with the conceptual framework and as a result in increased international integration, whilst reducing the costs of international communications and transacting (Ball, 2006; ERCE, 1998; Sidhu, 1996). The costs of such a transition included education costs and information collection costs and system costs. However, after transition ongoing costs would include annual tax base calculations. Concern has also rested with the risk that the IFRS merely conceals differences with a veneer of uniformity (Ball, 2006).

2.3.3 TAXES IN THE SPOTLIGHT

Multinational corporations have the incentive to increase their after-tax profits by shifting taxable income from affiliates incorporated in high-tax countries to subsidiaries in low-tax countries ... Strategies to shift income include using a higher proportion of debt (thereby increasing deductible interest payments) to finance investments in high tax areas, and manipulating transfer prices of intracompany transactions (Grubert & Mutti, 1991, p. 286).

Recently, strong criticism and concern over tax havens have put increasing pressure on Governments within the public eye (for example, Aston & Wilkins, 2014; Donoughue, 2014; United Voice & Tax Justice Network Australia, 2014). Wahab and Holland (2015) have too highlighted the increased scrutiny of the levels of corporate tax being paid by big companies, in particular noting the concern over tax avoidance techniques effecting government revenues. According to Sikka and Willmott (2010), transfer pricing in relation to leasing, intellectual property (IP), royalties, interest payments and 'virtually everything' that can be bought or sold, and constructed for the purposes of tax minimisation: subsequently being largely invisible and difficult to detect. Although this is not a new issue, there is continued debate over multinational corporations shifting profits to low-tax countries, raising the question as to whether the tax base of the host country is eroded (Grubert & Mutti, 1991). For example, IP and other intangible assets are being placed in tax havens with royalties and rents being subsequently charged in order to shift profits (Sikka & Willmott, 2010). For the accounting profession, this creates issues of trust; in that accountants construct the financial information forming the basis of user decision making (Gill, 2011).

Such issues have seen a resurgent interest in accounting for income tax with both the European Financial Reporting Advisory Group (EFRAG) and the ASB having recently revisited the issue. A 2011 discussion paper concerning the UK's current standard saw subsequent feedback highlighting the deficiency in understanding what users perceive to be useful when it comes to tax disclosures, and suggested there were limitations to the usefulness and significance of deferred taxes (EFRAG & FRC, 2013). Similar concerns over the uncertainty of the ultimate use of data by users had previously been suggested by both Chambers (1968) and Slade (1990). More recently, there has been increasing concern over the transparency of the business tax system.

In April 2013, The Australian Treasury issued a discussion paper on "Improving the transparency of Australia's business tax system", and requested feedback over their intention to improve the business tax systems transparency. Under the proposal, the Commissioner would be required to publish limited tax return information – including the ABN, name, total income (as per item six of the company tax return), taxable income and income tax payable – of corporate tax entities with total income of \$100 million or more.¹⁰ In addition to this, the Commissioner would also publish similar information for all entities that have any mineral resource rent tax (MRRT) or petroleum resource rent tax (PRRT) payable in a given year (The Treasury, 2013). The majority of the 16 identified

¹⁰ Similarly, large companies in the US have been required to provide a reconciliation between taxable income and accounting income, known as Schedule M-3, for over a decade – such a requirement described as remedying the 'shortcomings' in tax reporting of book-tax differences (Boynton, 2004; Wahab & Holland, 2015).

submitters were from industry or representative bodies and, for the most part, there was little support for the proposal other than for improvements to transparency.

Overall, most argued that the proposed approach would be ineffective in achieving its objective and that the disclosures would mislead and confuse the public. By providing no context, the information would likely lead to misunderstanding and misinterpretations. Other concerns related to the reporting of gross income and, how either accounting profits, or taxable income, were to be derived. Issue of privacy and confidentiality also arose pursuant to aspects of the *Taxation Administration Act 1953*, which prohibited the disclosure of particular entity tax affairs, except in certain circumstances. Many argued that the treatment was discriminatory to a select group and as such was an inequitable approach that would cause harm to reputations and was simply a 'name and shame' proposal (for example, Ernst & Young, 2013).

Further arguments suggested the proposal was unfair to companies who legitimately complied with the tax law and issues were raised over the notion of 'fair share': the appropriate rate of tax comes from being compliant with the tax law, therefore any suggestion that the fair share was not being paid was an issue with the legislation itself, rather than with the disclosures of a select few. Some argued that there was already sufficient information disclosed within the financial statements and that any new disclosures would lead to additional costs and burdens on those companies to prepare explanations to protect their reputation.

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Although many noted the complexity of the tax system, most responses were in respect of the gross income figure having no clear connection with accounting profit or taxable income. The Tax Institute (2013) highlighted the complex and 'bespoke' nature of the tax system. Linking to the theme of this research, only four made specific mention of the fundamental difference between accounting profit and taxable income; The ICAA, The Tax Institute, the Corporate Tax Association and very briefly, The Law Council of Australia. This may simply be due to the focus on the proposed use of gross income.

One submitter, the Tax Justice Network – Australia in collaboration with United Voice published a report driving for change in 2014: "Who pays for our Common Wealth?" According to this 'Australian-first' research, 29 per cent of the top 200 largest companies have an ETR of 10 per cent or less, with an average ETR of 23 per cent (United Voice & Tax Justice Network Australia, 2014). Although these findings are thought-provoking, there is an implicit potential for bias in the findings: the researchers have a clear aim for what is a subjective notion 'a fairer tax system'. Such research can be described as 'popularist', lacking theoretical rigor in the hope for political reform.

Of particular interest, the report examined ETRs over the ten year period (2004-2013). Noting that business practice and corporate structure can legitimately lower ETR, the companies estimated ETRs were benchmarked against the 30 per cent corporate rate (United Voice & Tax Justice Network Australia, 2014). The sample of 192 companies was established based on being listed on the S&P Dow Jones 200 Index (S&P/ASX 200) as at March 2014 with three years of data or more available (United Voice & Tax Justice Network Australia, 2014). The ETR was calculated by reported tax paid over profit before tax then averaged over the ten years' worth of data (or shorter if companies were not listed for full period). No comment was made regarding the potential loss of information on averaging over the period. The methodology was explicitly stated as being supplied by a 'tax expert', Dr Roman Lanis from the University of Technology, Sydney (United Voice & Tax Justice Network Australia, 2014, p. 42).

Overall, 30 per cent tax on the pre-tax accounting profit was calculated to determine the 'tax foregone', concluding that an estimated \$8.4 billion in corporate tax was being 'avoided' (United Voice & Tax Justice Network Australia, 2014). As noted, 29 per cent had an ETR of 10 per cent or less and an average of 23 per cent. The most 'tax aggressive' was the real estate sector with an overall average of 5 per cent (median 1 per cent, suggesting skewed data). Included in this group are Real Estate Investment Trusts (REITs) which are essentially tax free entities as well as stapled securities. These structures were described as factors for such 'tax aggressive' nature, however in reality, trusts are taxed at the beneficiary level and therefore reflect merely their underlying function. Findings were also presented showing that 23 of the 192 companies made up 75 per cent of the estimated tax foregone, whilst seven companies made up 50 per cent. The researchers suggest that this indicated the majority do pay the statutory rate. This is despite the ETR being based on accounting numbers adjusted by deferred taxes therefore having little connection to the tax system.

Since then, the Australian Government proposed and enacted the Multinational Anti-Avoidance Law (MAAL) in 2015, focusing on 'significant global entities;¹¹ described as having global revenues of over \$1 billion (ATO, 2015d; Hockey, 2015; The Treasury, 2015). This law is aimed at up to thirty identified multinational companies that may be

¹¹ Refer to ATO (2015d) for precise definition.

artificially avoiding a taxable presence in Australia, to apply from 1 January 2016, as well as new documentation standards for transfer pricing and increased penalties (CPA Australia Ltd, 2015). In an address in February 2016, the assistant treasurer described such an aim for the Australian tax system to be robust, enabling commercial certainty and predictability for those multinational companies within an increasingly dynamic and complex commercial world, describing only certain corporations as not acting as 'good corporate citizens' with at best aggressive tax planning practices (O'Dwyer, 2016).

Such developments are in connection with the G20 finance ministers and Organization for Economic Cooperation and Development (OECD) recommendations, providing minimum standards in respect to Country-by-Country reporting¹² as well as guidance on issues such as transfer pricing, aimed at closing the gaps that allow corporate profit shifting and increasing transparency (Jordan & Morrison, 2015; OECD, 2015a). In Particular, the new transparency rules came into effect in December 2015, with the names, ABN, total income, taxable income and income tax payable for large public companies¹³ being disclosed¹⁴ by the Australian Taxation Office (ATO) from information from the tax returns for the 2013-14 financial year¹⁵ (CA ANZ, 2015a). Again, concern over complexities arising in respect to tax consolidated groups, structures, and inconsistencies between accounting and taxation systems were noted. Chartered Accountants Australia

¹² Requires companies with annual global income over \$1 billion to provide a global picture of their operations to the ATO (CA ANZ, 2015a).

¹³ 'Large' refers to annual income in excess of \$100 million. Private companies over \$200 million annual earnings will follow suit with the new disclosure regime in 2016.

¹⁴ Total income being gross accounting income, although can include some tax adjustments; taxable income would be stated as zero if a tax loss was experienced and income tax payable is inclusive of any credits and offsets applied as well as PRRT, as well as being irrespective of instalments paid (ATO, 2015a; CA ANZ, 2015a).

¹⁵ Revenue raised from Australian corporate income taxes for the 2013-14 year equated to 19.6 per cent of total revenue (Productivity Commission, 2015). The transparency rules effected 1,539 corporate entities, being predominantly foreign-owned and of which collectively paid almost \$40 billion in company tax in the 2014 fiscal year (ATO, 2015b; Jordan, 2015).

and New Zealand (CA ANZ) also restated the concern within the profession over naming and shaming and the corresponding cost to corporations, as well as the potential for such disclosures to undermine the confidence in tax administration (CA ANZ, 2015).

More recently, the 'leaking' of the *Panama Paper* have led to various countries to further seek cooperation and collaboration between jurisdictions, adding to the push for regulatory change in respect to the corporate tax system (CA ANZ, 2016). More generally further pressure on multinational tax avoidance was announced in the 2016 Budget, including increased penalty rates (Brown, 2016).

Within this more recent contemporary context, much of the debates that have occurred throughout the decades prior have since dissipated, with Beechy (2007) suggesting that the argument over TEA has simply been given up. Regardless of such evolution, the underlying justification remains relevant and important when considering the wider implications of accounting standards on financial reports. The following chapter explores the concept of the normalising effect and its impact on the financial statements.

3 THE NORMALISING EFFECT

TEA and its subsequent allocation within the financial statements has the ability to significantly impact the presentation, reported figures and financial indicators of all reporting entities conforming to accounting standards endorsed by the accounting profession (Clarke et al., 2003). Over time, scholars have spoken of normalising, smoothing, stabilising, equalising and so forth when it comes to TEA and its subsequent effect on the income statement (for example, AIA, 1944; Defliese, 1983; SEC, 1945; Slade, 1990). As such, it is apparent that there is much confusion, or dispute, about its underlying mechanism: whether it is concerned about the nature of the relationship (a cross-sectional perspective) or the trend over time and therefore smoothing (a longitudinal perspective).

Here, the notion of 'normalising', within the context of TEA, is given explicit characterization. Primarily, normalisation falls within the scope of fair representation, in that its presence arises through compliance with the accounting standards; namely, AASB 1020 and AASB 112 in the Australian context. As such, normalisation is described as an inherent implication of the TEA standard. This is contrasted with the alternate effect raised throughout the literature: TEA as a smoothing device, or arguably having an anti-smoothing effect. Therefore, the possible inherent implications of applying the TEA standard have been identified to be smoothing (anti-smoothing) and normalisation, or any combination of such. These two concepts are interpreted as being distinct – and also distinct from earnings management. Utilising key characteristics of smoothing in connection with the spectrum of intention, the notion of normalisation is asserted as the original justification underpinning TEA.

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Following on from identifying the relevant normalising mechanism, the consequence of seeking such an effect is then considered. This includes, in particular, value relevance, as well as the more direct result of TEA: the flow of deferred taxes to the balance sheet as a result of seeking normalisation. The latter is concerned with the issue of permanent postponement, which has occupied a substantial share of the debate over several decades. This is an important matter, particularly given that the domain of TEA is becoming more complex, as each system (accounting and taxation) becomes more complex; a situation that was recognised decades ago (for example, Black, 1966).

3.1 THE NORMALISING MECHANISM

The normalisation concept, described by the likes of the AIA (1944), is arguably a view that narrowly considers each period where the timing of tax is 'matched' with the accounting income of the period in question. It is therefore described as a timing mechanism created from the accounting process in order to 'correct' the 'distortion' the tax system creates. The AICPA (1967) described the deferral of future tax charges as relating to the 'nature' of the transactions: although not explicitly used as such in 1944, the idea of 'normal' was inherent in speaking of an 'appropriate relationship' that is 'related' to the revenues and expenses reported under accounting principles. Such principles involve accrual, deferral and estimation based on the assumption of going concern.

Early discussions of TEA in Australia, as previously noted, were less clear and the TEA concept was of lesser concern up until the 1960s (Gibson, 1984). The amendment to D4 in 1970 used the term 'properly attributable' to describe the reported tax expense for a fair determination of periodic profit – a preference for a relationship between the accounting and tax figures. Similarly, the ICAEW recommended in 1968 that the tax charge be 'based on' accounting profit. Overall, its aim was to increase the congruity, or closeness, of tax with accounting principles (a cross-sectional perspective), although some have disagreed and have considered TEA as a smoothing device (a longitudinal perspective).

Numerous scholars have noted the connection between TEA and smoothing (for example, Defliese, 1983; Drinkwater & Edwards, 1965; Rosenfield & Dent, 1983b; Slade, 1990). Some have argued that such a smoothing effect would occur, and this would be desirable to proponents (Rosenfield & Dent, 1983b). In particular, income smoothing results in a reduction in the variation of income, whether inherently or intentionally (Stolowy & Breton, 2004). More specifically, an income smoothing mechanism has been defined as one that:

Moderates year-to-year fluctuations in income by shifting earnings from peak years to less successful periods. This will lower the peaks and support the troughs, making earnings fluctuations less volatile (Copeland, 1968, p. 101).

Income smoothing aims to create a stable earnings stream, to dampen fluctuations in net income, to enhance future predictability (Ashari, Koh, Tan, & Wong, 1994). Riahi-Belkaoui (2003, p. 3) described income smoothing as a "deliberate normalization of income in order to reach a desired trend or level", with such a process motivated by the desire to dampen the wide fluctuations and uncertainty relating to an intermittent cycle of good and bad times. Similarly, White (1970) considered techniques to overcome cyclical effects. Copeland (1968) described a smoothing device as encompassing five characteristics: (i) it cannot commit a firm to a future action once used; (ii) it requires professional judgement within generally accepted accounting principles (GAAPs); (iii) once used it will lead to material shifts relative to year-to-year differences in accounting income; (iv) it will not require 'real' transactions with second parties; and (v) it is used over consecutive periods of time either alone or in conjunction with other practices (Copeland, 1968, p. 102).

Beidleman (1973), however suggested not all five characteristics were required for effective smoothing; instead listing only two. Firstly, the technique must enable "management to reduce the variability in reported earnings as it strives to achieve its long-run earnings (growth) objective"; and secondly, once used, it should not commit the entity to a future action (p. 658). Furthermore, it was noted that 'indiscriminate' choices by management (by way of deferring, eliminating or accelerating) can compromise the long-run interest. In essence, Beidleman (1973) saw more flexibility in the approaches whilst still rejecting the inclusion of subsequent anti-smoothing events.

Black (1966) dismissed smoothing as the intention of the TEA process; arguing it is not intended to, and nor would it have, this effect. The following sub-sections explore the key distinctions between income smoothing and TEA's normalising effect, paying particular attention to the commitment to future action and the key argument of those rejecting TEA: that smoothing by TEA is illusionary, with an anti-smoothing effect being more likely (Black, 1966; Copeland, 1968; Slade, 1990). Then, the technical nature of TEA is described, where the normalising effect is the result of applying the accounting standard itself rather than a biased manipulation of the accounts.

3.1.1 A COMMITMENT TO A FUTURE ACTION

A key distinction has been made between a smoothing device and TEA's normalising effect in relation to its reversing nature: its commitment to a future action. Both Beidleman (1973) and Copeland (1968) agreed that an effective smoothing mechanism should not commit entities to future action. According to Copeland (1968), the application of TEA commits the entity to a future action and therefore breaches this criterion and, furthermore, such future action is said to lead to the potential for TEA to have an 'anti-smoothing' effect (Copeland, 1968). Building on this, it is argued that any smoothing effect is illusionary and that accrual accounting can have a natural smoothing effect (for example, Dechow, 1994).

This offset has been linked to debates over the appropriateness of TEA: "the question arises whether having overstated taxes in the first year it is not necessary, to be consistent, to overstate the refund in the second year" (SEC, 1945, pp. 90-91). Such arguments are in line with Moonitz (1957, p. 176), who noted that TEA has "an unavoidable offsetting tax effect" in future years. Implicit here is the assumption of convergence between the tax and accounting systems, with similar issues being noted as for conservatism. That is, if over the life of an entity the sum of earnings is equal, and accounting concepts simply resolve timing issues, then an act of conservatism in one period will lead to a potential non-conservative act in another (Givoly & Hayn, 2000).

Despite this unavoidable offsetting effect creating the potential for anti-smoothing, an explanation for TEA's perceived smoothing ability can be linked to illustrations published alongside the debates and a general assumption of stable future revenues when applying TEA (Coughlan, 1958; Moonitz, 1957). These illustrations frequently start with smoothed PBT, creating an illusionary smoothing effect (Copeland, 1968).

For example, illustrations by Moonitz (1957) consistently presented smooth before tax profits. One illustration presented deferred charges of \$1,000, deductible for tax purposes (40% tax rate), with the said amount reversing in the succeeding year for accounting purposes: Table 3-1. For accounting purposes, both years presented a smooth PBT of \$5,000 (line 1). For tax purposes, taxable income was \$4,000 in the first year and \$6,000 in the succeeding year. The resulting impact of the deferred taxes was to smooth profit after tax (line 5) compared to profit after tax excluding deferrals (line 6). Moonitz (1957) explicitly made note of the assumption of continuity, considering the 'solution' in the scenario presented in Table 3-1 as appropriate in such circumstances.

Line			Year 1		Year 2	
			•			
1	Profit Before Taxation		\$5,000		\$5,000	
2	Income Tax					
3	Current	\$(1,600)		\$(2,400)		
4	Deferred	(400)	(2,000)	400	(2,000)	
5	Profit after tax with deferrals	· · · · · ·	3,000	-	3,000	
6	Profit after tax without deferrals		3,400		2,600	
		Constructed from Moonitz (1957, p. 1				

Table 3-1 Moonitz: TEA impact on Deferred Charges Deductible for Tax Purposes

Further illustrations were presented by Moonitz (1957) that had the same illusionary smoothing effect. Forming part of those illustrations – although not pictured here – Moonitz (1957, pp. 177-178) highlighted the issue between operating and non-operating income, a slight variation in perspective in relation to the idea of creating stability within the reported accounts. Moonitz (1957) argued that profit after tax can become misleading if non-operating related taxes are not allocated between the income statement and retained earnings. In that instance, if all operating activity remained constant and substantial non-recurring, non-operating activities occurred, the resulting disclosures would report substantial changes in profit after tax despite operating activities being constant.

Similarly, Coughlan (1958, p. 123) constructed his scenario in a similar manner highlighting the argument of proponents of tax deferrals as "let reported taxes follow reported income", with the assumption that revenues are recognised equally between two years. In particular, the scenario recreated in Table 3-2, focused on a 100 per cent tax write off of a depreciable asset occurring in the first year (line 3) and the resulting difference between profit before tax (line 10) and taxable income (line 4) and the resulting income tax expense variation (line 6 compared with line 12). The inclusion of deferred taxes on the income statement created a stable tax disclosure and subsequently 'smoothed' profit after tax.

Table 3-2 Coughlan: Comparing the Tax Return with the Income Statement

[For copyright reasons this table has been removed from the online version of the thesis]

Adapted from Coughlan (1958, p. 122)

According to Coughlan (1958, p. 127), future revenues are assumed stable with deferrals based on expenses, lending to "an air of precise prediction to what is a matter of casual conjecture". Moonitz (1957) took an alternative view, considering the solution of TEA as appropriate generally when taxes are to remain constant.

Copeland (1968) highlighted the illusionary smoothing nature described here, with a simple move of altering the smoothed profit before tax. This resulted in TEA having the opposite effect of smoothing: anti-smoothing. Copeland's (1968) illustration presents an entity that applies tax allocation to expenses, including \$200 in timing differences: Table 3-3. Over the two years, accounting revenues and expenses remain stable and the tax rate is set at 50 per cent. The table shows that without deferred taxes (line 5), profit after tax is more volatile: tax deferrals have smoothed income (line 7).

Table 3-3 Copeland: Application of TEA with Smoothed PBT

[For copyright reasons this table has been removed from the online version of the thesis]

Adapted from: Copeland (1968, p. 103)

Following on from this, Copeland (1968) altered the scenario to remove the smoothed PBT: Table 3-4 (line 3). If the profit before tax figure is not constant (line 3), the results present an anti-smoothing potential. Simply by varying the revenue, the income including deferrals (line 7) becomes more volatile. This exemplifies the notion of an anti-smoothing effect, as Copeland (1968) described. This is a substantial shift and highlights the possible illusionary nature of tax deferrals with respect to the concept to smoothing.

Table 3-4 Copeland: Application of TEA without Smoothed PBT

[For copyright reasons this table has been removed from the online version of the thesis]

Adapted from: Copeland (1968, p. 103)

One illustration by Barton (1970, p. 16), reproduced in Table 3-5, unlike many others including those presented here, presented a growing revenue stream (before tax profit presented in lines 3 and 11) and yearly acquisition pattern. Within the scenario, the first three years' reflect asset purchases, with increasing depreciation charges, followed by a further two years where fixed assets and depreciation remain constant. Each piece of

machinery has an even life span with one machine requiring replacement each year and yearly depreciation equal to yearly replacement.

Table 3-5 Barton: Growing Revenue Stream

[For copyright reasons this table has been removed from the online version of the thesis]

Adapted from Barton (1970, p. 16)

In both situations, including and excluding deferrals, after tax profit continued to grow (lines 8 and 13). However, without deferred taxes (line 13), there was less volatility: such a result is in line with Copeland's (1968) argument. Such illustrations bring into doubt TEA's ability to smooth: any potential for a smoothing effect could simply be an illusion, as evidenced by illustrations within the literature.

Slade (1990) considered three alternate income specifications in the US: pre-tax income, after tax income with deferrals and after tax income without deferrals. Smoothing and normalisation were left largely undifferentiated, with Slade (1990, p. 31) stating in respect to the arguments of proponents of TEA that:

There would be severe variations in income, and distortions in the relationship between pretax income and income tax expense. They suggest that the use of interperiod tax allocation normalizes the income number by eliminating unreal fluctuations.

It may be interpreted that within this statement 'severe variations' refers to smoothing, 'distortions in the relationship' refers to normalisation and 'unreal fluctuations' can be interpreted as relating to both. Referring to Baylis (1971), the concept of normalising income to 'correct' the misleading tax accrual, the following quote can fit within the smoothing notion:

There is nothing wrong with a series of financial statements containing wide fluctuations in certain data, but, where the fluctuations are unreal, there is something wrong with statements which fail to eliminate them (Baylis, 1971, p. 168).

Baylis (1971) further pressed the importance of proper allocation that is consistent with the ordinary accounting principles of accrual accounting. The importance lies in having each accounting period with a notion of 'correct' income and expense allocation. Whether the results beyond that lead to wide fluctuations, or smoothing, is not the problem – this is therefore interpreted as referring to the normalising effect, a focus on that cross-sectional relationship. It is at this point that 'income smoothing' and 'normalisation,' in terms of the justification of TEA, are distinguished.

An assessment of smoothing requires a pattern of behaviour over three or more years. To assess smoothing, one timeframe (cross-sectional) is insufficient to make inferences (Copeland, 1968; Eckel, 1981). Income smoothing, according to Eckel (1981) and Copeland (1968), requires the pattern over consecutive periods to be assessed. Albeit, not everyone is in agreement: for example, Beattie et al. (1994) argued that income smoothing can be in terms of variability over consecutive periods, or in a single period; as the movement towards an 'expected' level of reported income within the context of 'artificial' smoothing. Additionally, Stolowy and Breton (2004, p. 25) note that at the other end of the scale – a too long period – may 'reveal nothing'.

Slade (1990) was concerned with the potential 'stabilising' effect deferred taxes had on the accounts, in particular discussing the unreal fluctuations and severe variation the tax system arguably created. Slade's (1990) study was operationalised by assessing the year to year change in earnings over a 20 year period. The study found that deferrals did not create a more stable profit; both after tax income specifications smoothed PBT, with nondeferred earnings having the lowest variability and pre-tax income the highest (Slade, 1990). Therefore the stabilising effect – smoothing – was questioned (Slade, 1990). The normalising effect relates to individual periods of time, it is a cross-sectional relationship, rather than an assessment on time series data. The nature of the relationship – the normalising effect – was only briefly considered. By assessing the strength of the relationship before and after the inclusion of deferred taxes, the variability was found to be 'similar' with only 'slight' differences: the inclusion of deferrals resulted in a slightly stronger relationship (Slade, 1990). Therefore, this brings to bear the potential for two possible inherent implications of TEA: smoothing (or anti-smoothing) and normalisation, or a combination thereof.

These inherent implications can be considered in respect to the concept of natural smoothing. Eckel (1981) and Imhoff (1977) described the notion of 'natural smoothing' as being associated with the natural sequence of events. Accrual accounting, as well as the matching principle, has been found to have a naturally smoothing effect, the latter specifically whilst a firm is in a profit position more so than when in a loss position

(Dechow, 1994; Dechow & Skinner, 2000; Gibbins & Willett, 1997; Lane & Willett, 1999; Su, 2005). Lane and Willett (1999) linked the smoothing to long-term asset depreciation. Su (2005) argues that the smoothed profit is closer to the long-term profitability, linking into Dichev and Tang's (2008) concern over the importance of the earnings measure with the shift to the balance sheet focus. In particular, such a transition may lead to a reduction in matching.

Connected to the concept of accrual accounting and the matching principle being a part of the 'natural sequence of events', as Eckel (1981) and Imhoff (1977) described, is the notion that the normalising effect in question is also a theorised natural outcome of applying TEA – rather than some form of accounts manipulation.

3.1.2 A TECHNICAL FACET OF ACCOUNTING PRACTICE

The application of TEA in order to normalise the reported income figures falls within the scope of fair representation: through complying with GAAP, including AASB 1020 and AASB 112 in the Australian context, normalisation should theoretically be achieved. Implicit here is the argument that TEA can be seen as merely a technical facet of accounting practice, rather an underlying economic reality. However, within that compliance, choice and judgement are unavoidable.

Accounting practice is subject to substantial choice and professional judgement, and therefore can be subject to accounts manipulation, whereby management utilises the choices available, particularly with respect to accruals, to achieve an ideal result such as a steady income (Stolowy & Breton, 2004). Similarly, Gassen (2014) suggests that certain types of firms have a tendency to disclose certain types of information. Furthermore,

differing choices can lead to differing results, from within the legal boundaries and considered fair representation through to illegal forms of manipulation such as fraud (Dechow & Skinner, 2000; Stolowy & Breton, 2004). Although the standards provide scope for choice, they do not standardise interpretations within those choices (Carnegie & O'Connell, 2012). As such, intention can be described as a spectrum: between fair representation and fraud; legal and illegal (Dechow & Skinner, 2000; Stolowy & Breton, 2004).

What has been described as the 'dangers inherent' in normalisation include the judgement of the preparer, the question of users' understanding of what is usual and abnormal, and the risk of misuse in judging what is usual or abnormal. Such limitations pose a risk of misleading users or even the fraudulent 'equalizing' of earnings (SEC, 1945). Despite this, the SEC subsequently accepted tax deferrals, initially by requiring certain entities utilising the accelerated tax depreciation and straight-line methods for accounting purposes to apply inter period tax allocation. It was said that this was to avoid the income statement becoming misleading (Schultz & Johnson, 1998). Such a concern over deception or creativity was highlighted again more recently:

Many corporate executives favoured eliminating tax allocation, some because they really felt that tax allocation was a distortion of earnings and others because corporate profits were suffering through a recession ... but reportedly the tide turned when corporate earnings began to pick up again, and the FASB's corporate "clients" swung back to advocating tax allocation in order to keep reported earnings from growing too swiftly (Beechy, 2007, p. 223).

A key distinction between smoothing and normalisation of the tax expense is the variable of focus. Normalisation focuses on the income tax expense in relation to profit alone: the variation in the gap; whereas smoothing considers the variation in profit. It is argued that management will tend to use any variable available to achieve the desired results; usually
utilising more than one line of account to manipulate, creating difficulties when researching accounts manipulation (Copeland, 1968). Given that smoothing is based on numerous variables, it is not a 'visible phenomenon' and it is almost impossible to confirm (Imhoff, 1977; Riahi-Belkaoui, 2003).

A distinction therefore is made between compliance resulting in an inherent consequence and management intention to achieve certain goals; the latter falling outside of the scope of this research: Figure 3-1. Choice and professional judgement cannot be removed; therefore there is no single point of fair representation and similarly no single measure of income or assets (Dechow & Skinner, 2000; Gordon, 1964).



Figure 3-1 The Inherent Impact of TEA within the Intention Spectrum

Adapted from Dechow and Skinner (2000) and Stolowy and Breton (2004)

Building on this, for the inherent implications of TEA, whether normalising or smoothing, the mechanism is created by the accounting process rather than being discovered (Copeland, 1968). For example, Riahi-Belkaoui (2003) highlighted that judgement is required for deferred tax assets to be realised or left unrealised. Similarly, the TEA standard mandates a reconciliation between reported income tax expense and prima facie tax on accounting profit, however both are argued to be fictitious and highlight what has been described as being akin to a 'bunyip' (Clarke et al., 2003). The research previously noted found that earnings management is achieved by real actions within the limits of the law, rather than account level manipulation – executives were found to be less willing to use the discretion the accounting level required (Graham et al., 2005). Similarly, Dhaliwal, Gleason, and Mills (2004) noted that when it comes to tax and tax objectives, there can be many real transactions behind the tax planning techniques (Dhaliwal et al., 2004). Most recently, this has been suggested in respect to tax avoidance behaviour, in that real changes are made to corporate organizational structures to avoid political, reputational and proprietary costs from increased scrutiny, leading to increased tax expenses (Dyreng et al., 2016).

The tax account is frequently examined for earnings management, both within accounting practice and within taxation. Examples include examination of choices more generally: for example, New Zealand's analysis of the choice between partial and comprehensive allocation prior to their transition to NZ IFRS, which removed such choice and instead mandated comprehensive allocation (Wong, 2005, 2006). Wong (2006) provided an example of the effects this regulatory change had on New Zealand companies, as they moved from partial to comprehensive allocation: Air New Zealand reported an increase in the deferred tax liability of \$786 million, contributing substantially to a loss of \$600

million, increasing the debt to total assets ratio from 34 to 66 per cent. In Australia, a recent examination of unrecognised deferred tax assets from carry-forward losses under the former AASB 1020, between 1995 and 2005, found evidence consistent with opportunistic income-increasing earnings management in relation to achieving targets (Herbohn et al., 2010). Part of this management of opportunity is the ability to signal management expectations of future performance (improvement or deterioration) via the level of unrecognised deferred tax assets. Herbohn et al. (2010) conclude with the question of whether the market sees through this manipulation, as well as highlighting the concern for the now current AASB 112 – which is stated to allow more discretion.

Other studies, such as those in the US considered earnings management in respect to ETRs. These included studies in relation to forecasts being met or exceeded, how the level of tax fees paid to auditors impacts on those ETRs and the tendency of the market to discount earnings when forecast earnings are exceeded by decreasing the income tax expense. The latter implies that the market can effectively see through manipulation, raising the question of why bother manipulating figures via the income tax expense (Cook, Huston, & Omer, 2008; Dhaliwal et al., 2004; Gleason & Mills, 2008; Graham et al., 2012).

Dyreng, Hanlon, and Maydew (2008) examined long run tax avoidance via the ETR over the period 1995 to 2004 within the US context and found that annual ETRs were not very good predictors of long run rates. They found considerable cross-sectional and longitudinal variation in ETRs, although some long-run persistence was found. In particular, low annual ETRs were more persistent than high ETRs, and those firms

exhibiting low long-run ETRs were seen across a variety of industries (albeit clustering in certain industries were noted, such as the oil and gas industry) (Dyreng et al., 2008).

The normalising effect is therefore a theorised inherent outcome of applying TEA within a social system. It is assumed that compliance with GAAP is unbiased, although not without judgement and subjectivity, and described as a technical facet of such an accounting process. The normalising effect is now summarised.

3.1.3 THE NORMALISING EFFECT

From the literature, the justification and thus function underpinning TEA is to allocate tax between deferred and current portions, between the income and balance sheet, to enable a normal relationship to income. In doing so, this timing mechanism is purported to 'correct' the 'distortion' the tax system creates. It is an accounting process relating to the nature of the relationship between profit before and after tax in individual accounting periods: a cross-sectional perspective. This cross-sectional impact is visualised in Figure 3-2.

Figure 3-2 The Normalising Mechanism



Each year, the mechanism essentially pulls the tax expense towards what is considered 'correct': a tax expense as if it were based on accounting profit. This can be either by increasing or decreasing reported tax expense via a deferred tax expense or benefit. Each year the cycle recurs, aimed at increasing the congruity, or closeness, of tax with accounting principles: Figure 3-3.





As a cross-sectional mechanism, TEA will not necessarily create a smoothing or antismoothing effect, arguably being dependent on the volatility of profit before tax. If profit before tax is volatile over consecutive periods, it is not necessarily anticipated that the application of TEA will mitigate the fluctuation any more so than without it. In that sense, the 'variation' is reduced within each period (gap variation) rather than over time (profit variation). Therefore, there is a potential to amplify just as equally as it would smooth when considering consecutive periods, or more specifically lead to anti-smoothing. Instead, the resulting profit after tax is more aligned with profit before tax. The normalising effect emerges more clearly in Figure 3-4.



Figure 3-4 The Normalising Effect

The result of such a mechanism, theoretically, is financial information that is more relevant, more meaningful and therefore more useful to users. The reported figures become more reflective of accounting principles, as if tax was a function of accounting. Differences in objectives, differences in methodologies are therefore 'corrected'. Reported figures are therefore devoid of the tax system's misleading impact and unreal fluctuation it arguably creates. Underlying this mechanism is the assumption that over a sufficiently long period, both systems will converge into some true measure of profit. However this mechanism can only be a part solution, given the presence of permanent differences that impede on the ability of TEA to 'successfully' normalise reported profits. TEA can be seen as merely a technical facet of accounting practice, rather than aligning with underlying economic reality. The normalising effect it purports to create has been considered throughout history on a conceptual level, originating from a period of time where the focus was on prescribing what ought to happen and when the income statement sat superior to the balance sheet. Therefore, any normalising effect TEA has is merely theoretical, assumed effective and perceived to be useful to users, based on the accounting system being the 'true' measure of profit. Since that time, accounting standards have transitioned to IFRS, where the income statement has become subservient and, more specifically, TEA is now based on a balance sheet approach, which was argued to be a more holistic approach to TEA.

Building on this, the normalising effect considers only half of the TEA cycle: the income statement. In order to achieve normalisation, the balance sheet is affected by the inclusion of 'dubious' deferrals, arguably permanently postponed. Yet, there has been arguably a lack of concern over such consequences of seeking normalisation.

3.2 THE CONSEQUENCES OF NORMALISING

... the tax allocation controversy might prove to be much ado about nothing. That in the fullness of time, the debits and credits that arise from the allocation of tax might simply be useless and meaningless pieces of fiction resulting from an inappropriate accounting practice (Wise & Wise, 1988, p. 30).

Deferred taxes are now a standard financial report item within the contemporary Australian context and internationally. Extant literature on TEA reveals that its application is important in making economic decisions. Deferrals have been found to be considered 'real' and value relevant, at least in part (Beaver & Dukes, 1972; Chang et al., 2009; Dotan, 2003; Givoly & Hayn, 1992; Sansing, 1998). Institutional variation has been additionally found, particularly in relation to profit position and industry (for example, Acheampong, Valencia, & Volkan, 2013; Chang et al., 2009; Herbohn et al., 2010). More generally the inclusion of deferrals leads to a deterioration in reported financial position, affecting ratios such as debt to equity as well as impacting on borrowing constraints and reputation (Colley et al., 2012; Wong, 2005).

Despite these perceptions and findings, historically many have argued, both empirically and conceptually, that aggregate deferred taxes do not reverse; described as 'permanent postponement' (for example, Davidson, Rasch, & Weil, 1984; Davidson, Skelton, & Weil, 1977; Skekel & Fazzi, 1984; Voss, 1968). This postponement has been found to occur irrespective of economic booms or stagnation: the mere presence of inflation may result in continued deferment (Colley, Rue, & Volkan, 2006; Voss, 1968; Wise, 1986). Many have rejected this argument as irrelevant given their revolving nature, comparable to loans or creditors or simply a lack of acceptance of the application of TEA (for example, Coughlan, 1958; Defliese, 1983; Moonitz, 1957; Sands, 1959). Questions have been previously raised as to why the empirical research providing evidence of a lack of justification for tax allocation can be ignored (Sidhu, 1996; Wise & Wise, 1988).

More recently, the notion of permanent postponement has fallen out of favour within the literature, replaced with a focus on capital markets and in particular, the value of tax disclosures to shareholders.

3.2.1 THE VALUE OF TAX DISCLOSURES

Worldwide, there is extant literature on the value relevance of tax deferrals, based on the association between share price and deferred taxes; however, minimal research is evident within the Australasian context (Hanlon, Navissi, et al., 2014).

Pertinent to this study is the influential work by Beaver and Dukes (1972), who examined the association between security prices and alternative income numbers for 123 entities from the New York Stock Exchange (NYSE) for the years 1950 to 1967. Beaver and Dukes (1972) considered the notion that security prices would be expected to change on removal of deferred taxes if the deferrals are not ignored by the market. Based on such a notion, they hypothesised that the method that produces the earnings number with the highest association with security prices 'ought' to be reported. Therefore, three earnings measures were established: deferral earnings (reported earnings), non-deferral earnings (where deferrals were estimated by adding the change in the balance sheet tax deferral account to deferral earnings¹⁶) and *cash flow* (calculated by adding depreciation, depletion and amortization to non-deferral earnings) (p.324). The third earnings measure, cash flow, was included to avoid the situation if non-deferral earnings were found to have performed better than *deferral earnings*. In such an event, it could be argued that *non*deferral earnings was a better surrogate for cash flow, which in turn is not obscured by depreciation and tax charge accounting measurements and is thus theoretically a better indicator of changes to wealth:

Cash flow was also examined because many contend that changes in cash flow are a better indication of wealth changes, since cash flow is not obscured by attempts by the accountant to

¹⁶ Similarly, Sidhu and Whittred (1993) calculated the 'as if' income tax figure by adding back (subtracting) any changes in the deferred tax asset (liability) accounts (other than those for the initial prior period adjustment) to the reported tax expense when considering the political costs of adoption in Australia: discussed in Chapter 2.

measure depreciation and tax charge. If only the two earnings measures were examined and [if the] nondeferral [earnings] were found to be more highly associated with changes in the value of the firm, the findings would be open to the additional interpretation that cash flow is really the optimal measure and nondeferral earnings happen to be a better surrogate for cash flow than deferral earnings. Therefore, cash flow was also examined in order to be able to test such a hypothesis, in the event nondeferral performed better than deferral (Beaver & Dukes, 1972, p. 324).

The examination found that earnings measures that incorporate deferred taxes had a stronger correlation with share prices than those excluding deferrals. Cash flow was found to have the lowest association (Beaver & Dukes, 1972).

Over a decade after Beaver and Dukes (1972), notable studies began to appear questioning the value relevance of the total deferred tax components. Beaver and Duke's (1972) study was considered by some, such as Chaney and Jeter (1989, 1994) and Wong, Wong, and Naiker (2011) as limited in that it did not consider or distinguish comprehensive from partial allocation. Partial allocation was described as a solution to the issue of never ending deferred tax balances observed on the balance sheet:

If we relax the assumption that all earnings measurements are equally informative in assessing future cash flows, then reported earnings may be tainted with different levels of noise or garbling depending on the particular accounting measurement rules used to describe the underlying economic events (Chaney & Jeter, 1994, p. 93).

Keeping this in mind, partial allocation therefore segregates deferrals based on the likelihood of reversal: if deferrals are unlikely to reverse then no allocation is made; whereas, if reversal is foreseeable then recognition occurs. Such an approach is argued to be more useful in assessing future cash flows; however it is questioned in relation to its cost and completeness. In particular, continuous replacement of assets that leads to perceived permanent deferment does not validate their omission (EFRAG & ASB, 2011).

Such a view point towards partial allocation is almost parallel to the more recent concern over the shift from an income statement orientation to the balance sheet orientation described in Chapter 2. Chaney and Jeter (1989) examined the make-up of deferred taxes from 882 firms over the period 1981 to 1983, finding a negative association between security returns and the deferred tax component of earnings; suggesting at least some of the information is used by investors. More specifically, the findings support the contention that the association is weaker for firms with relatively larger amounts of depreciation and other recurring differences,¹⁷ with the association being 'more negative' for those firms with a lower ratio of predictably recurring items (Chaney & Jeter, 1989). The researchers concluded that the findings are consistent with the notion that predictably recurring items provide little or no information value to the market: an argument for partial allocation. Similarly, Amir, Kirschenheiter, and Willard (1997) considered the disclosure of components comprising deferred tax balances, finding that amounts related to depreciation and amortization were not expected to reverse.

¹⁷ Chaney and Jeter (1989) assumed that industry classification was a reasonable proxy for discriminating among firms in terms of deferred tax composition. The ratio of predictably recurring items (those that appeared in all three years 1981 to 1983 and with a consistent sign) to total deferred tax expense was measured for 1983, along with the average for each industry. From the data, 69 per cent of deferred taxes related to depreciation differences, whilst examples of non-recurring observed in the study include "sale of property, sale of securities, sale of tax benefits and certain instalment sales" (p.10). The industries were then grouped into four portfolios based on largest to smallest ratios. After which, the weighted average ratio of predictably recurring items to total deferred tax expense for each portfolio was calculated. Finally, the mean value of the coefficient on deferred taxes for the years 1969 to 1985 was calculated for firms in each portfolio.

A further study by Givoly and Hayn (1992) that focused on deferred tax liabilities produced findings consistent with Chaney and Jeter (1989). The cross-sectional analysis examined 1,348 firms over the period September 1984 to September 1986, whilst the comprehensive income statement approach was in effect. This study found that deferred tax liabilities are perceived as 'real' liabilities, however the value investors place on these deferrals is at a reduced rate (Givoly & Hayn, 1992). This study made use of the US reduction in the corporate tax rate from 46 to 34 per cent: if deferred taxes were perceived as 'real and imminent' liabilities, such a reduction in the corporate tax rate would lead to a proportionate decline in the value of the liability and a corresponding increase in the value of equity. In particular, "the increase in the equity value of an individual firm would depend on the extent to which its DTL is discounted by investors" (Givoly & Hayn, 1992, p. 395).

Specifically, the study found that, on average, for every one dollar of disclosed deferred tax liability, 56 cents was found to be value relevant: discounted in accordance with the timing and likelihood of the liability's settlement (Givoly & Hayn, 1992). This reduction increased to 40 cents in the dollar for those firms within the fourth quartile in terms of growth of DTL and probability of loss:

For a given DTL balance, firms whose DTL balances have grown faster and firms with a higher probability of reporting a tax loss in any given year experienced lower equity appreciation than other firms (p.403).

The conclusion made, was that investors are transforming values consistent with the notion of partial allocation (Givoly & Hayn, 1992).

Other scholars argue that if the deferral was discounted¹⁸ it would be zero or at least nominal thus not needing to be recognised (Coughlan, 1958; Keller, 1962). The partial method is described as a solution to the issue of never ending deferred tax balances observed on the balance sheet. However, this approach is questioned in relation to cost and completeness, as well as the notion that continuous replacement of assets that lead to perceived permanent deferment does not validate their omission (EFRAG & ASB, 2011).

Sansing (1998) demonstrated via modelling that despite a perpetually increasing liability, deferred tax liabilities are an economic burden on US companies. Again, this study also found that the value of these liabilities was less than their recognised values, consistent with Givoly and Hayn (1992). In the United Kingdom, partial verses comprehensive tax allocation has been the focus of more recent research, with varying results: Citron (2001) found partial allocation to be value relevant, whereas Lynn, Seethamraju, and Seetharaman (2008) found in favour of comprehensive allocation.

Building alongside the arguments for partial allocation, there is a more general argument that deferrals are simply overstated, linking into prudence (Sansing, 1998). Wong (2005) argued that if the deferred tax liability is overstated, as the research suggests, adverse economic consequences could result. In particular, Wong (2005) was concerned about borrowing constraints due to deferrals pushing the firm closer to debt covenant restrictions. This could result in potentially profitable projects being forgone, or the greater concern of a breach in covenant, leading to costly negotiation and reputational damage. Therefore, Wong (2005) examined the determinants of New Zealand firms shifting from comprehensive to partial allocation (reducing income tax expense,

¹⁸ Although discounting is not permitted under TEA, there is an implicit discounting where the carrying amount in which the deferred tax is based upon is discounted; for example, employee benefits (CPA Australia Ltd, 2011)

increasing earnings and reducing the deferred tax liability), finding that efficient contracting, debt-related opportunistic factors as well as the extent of depreciable asset investments and closeness of firms to their debt covenant restrictions were important determinants (Wong, 2005).

Within the Australasian context, there has been less focus on TEA. Chang et al. (2009) is the first Australian study to consider value relevance of deferred taxes. The study analysed 173 companies over the period 2001 to 2004, when the income statement approach was mandated. Overall Chang et al. (2009) concluded that the income statement approach to TEA provided relevant information to market participants, however deferred tax liabilities were not found to be viewed as liabilities by market participants. This was inferred to be due to depreciation related timing differences (Chang et al., 2009). The study distinguished between profit and loss makers, as well as industry, utilising both levels (association with firm value) and returns (association with firm return) models (Chang et al., 2009).

For the levels model (considering the association with firm value), deferred tax assets are significantly (positively) associated with firm value, for all firms whether profit or loss making or those that have adopted tax consolidation, such results being consistent with the notion that investors perceive the balances as assets, representing future tax savings (Chang et al., 2009). Whereas, deferred tax liabilities are generally insignificant, and therefore are interpreted as having little relationship with future tax payments; thus investors have an expectation that the majority of deferred tax liabilities are recurring timing differences (Chang et al., 2009):

Unlike prior studies by Beaver and Dukes (1972), Givoly and Hayn (1992), Amir et al. (1997) and Ayres (1998), we do not find that the market views deferred tax liabilities as financial liabilities. Instead, our findings are consistent with Chaney and Jeter (1988, 1989), Defliese (1991) and Lasman and Weil (1978), who argue that as long as a company is growing or at least maintaining its operating capacity, deferred tax liabilities arising from recurring items are unlikely to reverse and, hence, are not viewed as liabilities by market participants. Therefore, we infer from our result on DTL that the market expects the major source of these deferred tax liabilities to be timing differences arising from depreciation of non-current assets (Chang et al., 2009, p. 666).

These results held one exception: loss making tax consolidators, which showed statistical significance. These were interpreted as having limited growth capacity and therefore any deferred tax liability was perceived to be more likely to reverse, and therefore be valued as liabilities, having a significant (negative) association (Chang et al., 2009).

Furthermore, from the results it was concluded that unrecognised deferred tax assets provided a negative signal to the market about the future potential for profitability. These findings were particularly associated with the materials and energy industries, as well as loss makers (Chang et al., 2009). Whereas, Chang et al. (2009) found that the results for the recognised deferred tax assets disappeared within the material and energy sectors.

This result is consistent with the market taking into account the risks associated with these sectors and assessing that it is very dubious that these firms will ever benefit from either their recognized or unrecognized deferred tax assets. It is likely that this result is due to the carry forward loss component of these assets (Chang et al., 2009, p. 668).

Considering the returns model (evaluating the association with firm return), unlike the levels model, the returns model presented a significant (negative) association between deferred tax liabilities and firm return, which Chang et al. (2009) identified as an indication that the market expects a lower cash flow in the future. In respect to deferred tax assets, source was important with no relation between returns and recognised deferred tax assets arising from timing differences, whereas:

An increase in recognized deferred tax assets from carry-forward losses is found to be positively associated with returns (Chang et al., 2009, p. 650).

Findings on changes in unrecognised deferred tax assets overall suggested the market views adjustments as negative signals about future profitability, with a stronger signal for those more likely to be loss makers (such as is found in the materials and energy sectors) (Chang et al., 2009). Similarly, in the US, evidence has been found consistent with investors interpreting large positive differences as 'red flags' in relation to earnings persistence, consequently reducing their expectation of future earnings (Hanlon, 2005).

Only a couple of years later within the Australasian context, Wong et al. (2011) studied value relevance in the New Zealand context, comparing comprehensive versus partial recognition (92 firms under partial and 319 under comprehensive allocation) over the period 2000 and 2004; prior to IFRS adoption. The findings suggest the partial recognition is more value relevant than comprehensive allocation. Additionally, Wong et al. (2011) assessed the relationship between growing fixed assets and non-payment of deferred taxes:

All comprehensive and partial firms are ranked on the basis of the growth in the depreciable asset base, deciles are then formed, and separate regressions are performed of the market value

of equity (MVE) on comprehensive and partial deferred tax liabilities to test the sensitivity of the relation for varying deciles of growth in the depreciable asset base (p.1090).

The comprehensive allocation was found to be value relevant for a subset of low asset growth firms: the comprehensive deferred tax liability is said to most likely represent the future tax payments. This result is contrasted with the high asset growth firms, where the comprehensive deferred tax liability is unlikely to represent future tax payments. The results presenting partial deferred tax liability value relevance are said to be 'driven' by the subset of high asset growth firms, whose partial deferred tax liabilities most likely represents future tax payments (Wong et al., 2011). These results are consistent with the initial results that partial allocation is more value relevant. Overall, Wong et al. (2011) concluded that these studies 'point' to the usefulness of partial allocation over comprehensive allocation.

More recently, Hanlon, Navissi, et al. (2014) focused on asset revaluations in considering the balance sheet approach relative to the income statement approach in Australia. Hanlon, Navissi, et al. (2014) is the first Australian study to consider the value relevance of deferred taxes under the balance sheet approach. Hanlon, Navissi, et al. (2014) noted that Australia's regulatory environment differs to that of the US in relation to asset revaluations: in Australia asset revaluations of assets such as property, plant and equipment are allowed, whereas in the US they are not;¹⁹ therefore, it was expected that the transition to the balance sheet approach would have a different effect on value relevance. Hanlon, Navissi, et al. (2014) found that the balance sheet approach was more value relevant to investors compared to the income statement approach and more specifically, that DTLs attributable to assets revaluations are value relevant, more so than

¹⁹ This is a significant difference between the US GAAP (ASC360) and IFRS when it comes to the treatment of property, plant and equipment and investment property.

those arising from non-revaluations. This is particularly important in light of the fact that such deferred tax consequences were not recognised under the income statement approach (Hanlon, Navissi, et al., 2014).

Most recently, Herbohn et al. (2016) highlighted the consensus over the tax expense (encompassing current and deferred tax components) providing information content regarding longer-term profitability and current earnings quality. In particular, describing the tax expense surprise having relative information content to earnings surprise (Herbohn et al., 2016). Their study considered the concurrent release of tax notes with earnings announcements; in particular whether such releases are useful for assessing the quality and informativeness of the tax accruals:

Specifically, we investigate deferred tax assets arising from carried-forward losses, the recognition of which reduces current tax expense and increases after-tax earnings. Within an Australian context, managers have significant discretion as to the timing of recognition and the measurement of deferred tax assets from carry-forward losses. Thus recognition of these assets may convey information about the quality of reported earnings, if such recognition is conducted opportunistically (Herbohn et al., 2010), or provide a signal of future profitability... (Herbohn et al., 2016, pp. 4-5).

Within this context, after examining 2,651 firm-year observations over the period 1998 to 2008, Herbohn et al. (2016) suggested that pre-tax earnings forecasts provided contextual information for after-tax earnings forecasts to be assessed. Similarly, tax notes in combination with forecasts signalled earnings quality and future profitability. In particular, the findings supported the notion that opportunistic recognition was occurring to achieve after-tax earnings forecasts: conveying information about lower earnings quality, and the reverse in respect to signalling future profitability where only pre-tax earnings forecasts were achieved.

Irrespective of the potential value relevance of deferred taxes, at least in part, conceptual and empirical evidence has supported the historical debate over permanent postponement and raised concern over the inclusion of deferred taxes on the balance sheet.

3.2.2 THE PERMANENT POSTPONEMENT ARGUMENT

So long as the firm follows a regular investment policy, it will receive a "gift" of having its income tax payments permanently reduced (Davidson, 1958, p. 177).

TEAs justification stems from an income statement perspective: allocating deferred taxes so as to normalise reported profits. The consequence of such a process is the recognition of deferred taxes on the balance sheet. Despite deferrals having been found to a certain extent relevant, studies have tended to focus on the direction and magnitudinal impact on the balance sheet, particularly in respect to deferred tax liabilities. They have been described as having 'doubtful validity'; appearing to be permanently attached to the balance sheet and therefore affecting the reported financial position (Henderson et al., 2008). This line of thought that considers such balance sheet inclusions has been labelled as the 'permanent postponement argument'.

Opponents to deferred tax allocation have argued that the continued replacement of deferred tax credits causes an effective permanent deferral of tax, which undermines the usefulness of reported data. The deferred tax liability has been described as not being a 'real' liability: instead it is posited as being a 'fictional liability' that does not meet the definition criteria. Furthermore, such liabilities are 'permanently postponed' and arguably a contingency 'at best'. For example, Wise (1986, p. 434) stated:

Critics claim that the normal growth tendency of the deferred tax 'liability' is to increase, so that a cash settlement to the taxation authorities from this account is, at most, a contingency (Wise, 1986, p. 434).

Wise (1986) specifically referred to Weinstein (1983, p. 105), who also described the situation where users "are certainly not well served by what has become an accounting fiction rather than a financial reality".

Permanent postponement has been linked with the acquisition of new assets overshadowing expiring assets and their respective deferrals (for example, Davidson, 1958; Skekel & Fazzi, 1984; Voss, 1968; Wise, 1986). This has been of particular interest in respect to depreciation; due to the effects of using straight line depreciation methods in accounting, whilst accelerated depreciation for tax purposes (Livingstone, 1969). In such situations depreciation grows by an increasingly larger amount and therefore, "after a sufficiently long period, this [deferred tax] "liability" might well become one of the major balance-sheet items" (Davidson, 1958, p. 175).

For example, this potential for 'doubtful' inclusions was previously inferred by Barton (1970, pp. 14-15) within a scenario of a fixed depreciable assets being disposed of after three years with differing depreciation rates between systems. The tax was shown to be postponed on the income statement, however on the balance sheet 'excessive' tax accruals occurred in the early years; overstating the liability and understating owner's equity (Barton, 1970). By extrapolating this scenario, Barton (1970) noted that with continuous growth in those fixed assets the deferrals would continue to increase and never be paid: the permanent postponement argument. Barton (1970) concluded that such a representation is distorted in the quest for a 'proper' report: distorting the balance sheet becomes the cost of a normal income figure.

Herring and Jacobs (1976) suggested that in order for the balances to be permanent, there must be infinite series of non-negative growth rates and as this is an unrealistic assumption as there is likely to be a reduction in net depreciable assets from time to time and due to the cyclical nature of the economy. Supporting such an argument, Herring and Jacobs (1976) examined the period 1954-1973 and found roughly equal increases to decreases in deferred tax balances with slightly more decreasing balances. However, these results were in stark contrast to the majority of empirical studies – which showed reversals or 'paybacks' to be minimal: both in terms of frequency and dollar value – Herring and Jacobs' (1976) findings were subsequently refuted on replication (Davidson et al., 1984; Davidson et al., 1977; Wise, 1986). Such a result highlights the recommendations by scholars such as Dyckman and Zeff (2015), who argue that replication studies should become a 'staple' in accounting literature and a 'hallmark' of the scientific method.

Davidson et al. (1977) and Davidson et al. (1984) replicated the study and concluded Herring and Jacobs (1976) study to be flawed by incorrect data collection. Davidson et al. (1977) for example, replicated the study by examining 3,108 firms from the same database over the same sample period, finding 79 per cent experienced an increase in their deferred tax liability and only 21 per cent of the observations were decreases. Ignoring the time value of money, in dollar terms \$39.5 billion increase verses \$5.9 billion decreases. Additionally, Davidson et al. (1977) analysed the movement in gross plant to consider that relationship of depreciation and movement and found no strong connection:

Deferred taxes will become payable only if the firm has positive taxable income. If there is no taxable income, there are no income taxes to be paid, no matter how much financial statement

depreciation exceeds depreciation claimed on the tax return (or, to put it another way, no matter how large the decrease in the deferred tax credit) (Davidson et al., 1977, p. 54).

Davidson et al. (1977) suggested it was unlikely for taxable income to be earned whilst declines in plant occurred. Those cases that were found were then assessed as to whether taxes were paid or payable (current tax expense). Out of 688 cases, 168 had zero or negative taxes paid or payable, 114 had missing information and 406 had taxes payable or paid, therefore at most 2.9 per cent. Therefore depreciation was not as relevant to reductions in deferred tax liability. Davidson et al. (1984) undertook a similar study for the sample period 1973 to 1982, with results paralleling the earlier study; 76.3 per cent experienced increases whilst merely 23.7 per cent decreased.

Capital intensive markets were also considered by Skekel and Fazzi (1984) with respect to the level of investment in plant and equipment. The researchers, after analysing 1,698 companies over the same nine year period as Davidson et al. (1984), ending 1982, found that the largest source of timing differences stemmed from depreciation. Furthermore, the impact of tax-deferred balances was more extreme in those capital-intensive markets compared to Davidson et al. (1984): only 15.7 per cent of observations presented a declining deferred tax account (compared to the 23.7 per cent noted earlier for Davidson et al. (1984)), with the dollar increase being nine times higher than the decrease.

Earlier works provided an extension from this concept by the consideration of firm size by Voss (1968); who hypothesized that it was more likely that smaller firms would reverse deferred taxes than large firms. This stems from the investment pattern either being stable or fluctuating; a stable pattern of investment will lead to a persisting deferred tax liability, whereas irregular or bunched patterns will lead to reversal. This links into the

situation where the declining business will see reversals, whilst a growing firm will not. Voss (1968) hypothesised that small firms, those with few large assets relative to total assets, will have a bunched pattern thus would be more likely to reverse than large firms with larger holdings of investments. Voss' (1968) findings however, were insufficient to support this hypothesis. Instead, the findings showed infrequent reversals and therefore concluded it could not be considered probable.

A stable or increasing deferred tax balance could be experienced even in times of economic booms and stagnation, with inflation argued to be sufficient to create continuous deferrals (Barton, 1970; Beechy, 1983; Davidson et al., 1984; Livingstone, 1969; Wise, 1986). Only a contracting business that stops replacing assets as they wear out, reduces the scale of operation, or faced declining capital investments, would experience reversals (Barton, 1970; Wise, 1986). Irrespective of this, there would still need to be taxable income to reverse the built up deferred tax balances (Barton, 1970; Davidson et al., 1977):

As a matter of reality the probability of it [deferred taxes] ever eventuating for a healthy progressive company or for a sick company is very low. The liability for deferred tax seems to be restricted to the stagnant company or the company which is slowly dying – both hardly typical situations (Barton, 1970, p. 20).

A number of studies have confirmed such a pattern in respect to economic turmoil as early as 1969. Livingstone (1969) analysed the 20 year period 1948 to 1967, which covered numerous periods of recession in the US and found year to year fluctuations in asset purchases, yet reversals were still the exception.

Additionally, Davidson et al. (1984), as identified earlier, were concerned in particular with the severe economic contraction that occurred in the 1980s, suggesting that the number of reversals would increase in such a period of economic distress. However, as noted, the findings were similar to the earlier study by Davidson et al. (1977). The results were only slightly lower than the earlier study, however in contrast the dollar ratio was greater than before: over eight times more dollars relating to increases than decreases with only minor effects during the recession year.

Permanent postponement has also been linked, or noted to be amplified by rising prices (Wise, 1986). Wise (1986) found deferred tax accounts have a positive growth trend within the New Zealand context over the period 1973 to 1981. Although, similar to Davidson et al. (1977), Wise (1986) did not find any industry specific effect – tentatively suggesting that depreciation related differences may not play as an important role. The study considered the deferred tax balances of 100 companies²⁰ and found the deferrals had increased from \$14 million to \$164.8 million during the sample period. These findings were linked in part by those taking up the practise as well as 76 per cent experiencing increases. Although the time value of money can impact these findings, 19 firms experienced a net decrease whilst only five firms experienced elimination as well as increases were only followed by actual cash outflows in 9.1 per cent of changes compared to 90 per cent of decreases followed by a cash outflow Wise (1986).

²⁰ Companies were randomly selected from a population size of 146 companies listed on the New Zealand stock exchange, with a mix of those practising comprehensive and partial allocation (Wise, 1986).

Within the Australian context, deferred tax assets were examined in respect of companies in financial distress. Patel (1991) considered whether large Australian companies in financial distress used the criteria – which has been described as ambiguous – within AAS3 to create large future income tax benefits (FITB), at a time where stricter recognition criteria was in place. In particular, timing differences needed to meet a 'beyond reasonable doubt' test, and tax losses needed to meet a 'virtual certainty' requirement. Patel (1991) analysed companies such as Bond Corporation Ltd to consider the financial distress and use of FITBs. Patel (1991) noted that during the periods of financial distress for Bond Corporation Ltd, the FITB increased from \$24.298 million in 1985 to \$453 million in the unaudited financial reports in 1989. Then the entirety of that FITB was written off. According to Patel (1991, p. 25) "as the financial distress reached critical points, the size of the asset resulting from tax-effect accounting became larger." A summary of results are reproduced in Table 3-6.

 Table 3-6 FITB over time of Distressed Companies (\$000s unless stated otherwise)

	1983	1984	1985	1986	1987	1988	1989 (unaudited)
Bond	-	-	24,298	133,266	97,004	299,800	453.4m
Hooker	-	-	12,187	12,198	20,029	49,016	-
Ariadne	-	-	-	42,096	27,860	17,851	-
Chase	-	-	-	-	-	12,650m	-
Rothwells	4	5	9	495	1,994	-	-

Adapted from Patel (1991, pp. 23-26)

Bond Corporation Ltd.'s write off of \$453 million of FITB added to a reported loss of \$980 million, equating to approximately 46 per cent: as such questions have been raised as to whether the loss ever existed in the first place (Clarke et al., 2003).

Despite these studies supporting concern over TEA in relation to permanent postponement, many scholars perceive the issue as irrelevant (Coughlan, 1958; Defliese, 1983; Moonitz, 1957; Sands, 1959). Defliese (1983) criticized those alarmed at increases in deferrals; categorising them as either not fully accepting the decision to apply deferred tax allocation or describing them as "balance sheet purists with narrow views of its elements" (p.94). Those dismissing the permanence notion argue that deferrals do reverse; they have a revolving nature. It is simply that new differences replace the reversed differences, they are not a single homogenous unit: the rollovers obscure the underlying reversal of individual items (Moonitz, 1957; Sands, 1959). Similarly, Baylis (1971) argued that examples such as Barton's (1970) presented previously, does not give a realistic indication of the company's performance and are incorrect. Instead, Baylis (1971) argued that the 'never ending' balances were simply additions to assets exceeding expirations in a growing business. Additionally, the entity would have to be in permanent existence, or in the other extreme suffer such losses to have no taxes (Sands, 1959). Defliese (1983) further linked the growing balances with growing companies to an increased divergence between tax and accounting, such as those discussed in Chapter 2.

Moonitz (1957) compared the liability to other debts, arguing that a going concern always has a debt, and overall it is never 'really' paid off as is continually replaced with new debts: pointing out that this in itself is not sufficient argument to prevent debt to be disclosed in the financial statements. However, there is one very clear and meaningful difference between the two; one is legally enforceable, whilst the other is expectational and dependent on future taxable income. Although those preparing financial statements, are reasonably expected to be in a position to speculate on future knowledge (Coughlan, 1958):

Many accounting procedures are based on expectations of the future, for example, the valuation of fixed assets. In fact, the 'going concern' or 'continuity' concept, which states that business enterprises are assumed to have indefinite lives, is one of the foundation conventions underlying accounting (Baylis, 1971, p. 167).

Alternatively, Skekel and Fazzi (1985) suggested, that unlike receivables and payables, income tax is calculated formally once a year and it is the entity that is assessed by the government, not those individual transactions, therefore mismatching the nature of income tax. Slade, May, and Deakin (1996) also disagreed, arguing deferrals are a cumulative difference rather than a roll over. Furthermore there is no explicit debt receivable, nor specific payee. On the books of the tax authority, there is nothing (Slade et al., 1996). With such arguments, Rosenfield and Dent (1983b) define the threshold between fact and fiction; explaining that without sound definitions and without sound measurements the income statement can become fiction. A more succinct explanation was forwarded by Chambers (1991), noting that deferred taxes are more simply explained by the bookkeeper's dilemma of odd balances: created from the accounting process and not from the function of the balance sheet. This line of thought returns to the concept of TEA being a technical facet of accounting practice.

More recent studies have focused on the relative nature of deferred taxes on the balance sheet. For example, Chaney and Jeter (1994) highlighted the importance of growth in their model due to the likely correlation between assets and depreciation related timing differences. Many of the permanent postponement studies are limited as they do not consider the underlying growth of the entities of concern. With such a perspective, the dollar figures may grow but simply reflect a stable proportion of the balance sheet.

Beechy (1983) was one of the earlier studies that considered growth in the assessment of increasing deferred tax balances. The study examined 36 Canadian companies over the period 1968 to 1980 finding except in four companies, the deferred taxes increased. Average growth went from 5.3 per cent of assets at the beginning of the sample to 8.6 per cent in the final year sampled. The study found that poor economic conditions did not result in increased reversals and specifically reversals stemmed from the write off of depreciation tax deferrals or where major assets were sold (Beechy, 1983). Extending on this, Beechy (1983) added that the oil and gas industry was particularly impacted by deferred tax. Between 1974 and 1980, deferred tax balances grew as a proportion of assets at a compounding rate of 8.9 per cent. Furthermore, Beechy (1983) found that second to depreciation (67 per cent of all timing differences for all companies in sample); exploration and development costs ten per cent of all timing differences for all companies in sample, or 35 per cent for the ten companies that reported this timing differences) represented the largest timing difference. Particular to the finance and real estate industries, revenue items created significant timing differences (Beechy, 1983).

Sidhu and Whittred (1993) also considered the proportionate impact comparing miners with industrial entities; based on total assets for the net deferred tax asset position and total equity for net deferred tax liability position. Their study found that except for the period immediately succeeding DS4, adoption of TEA for miners more often resulted in a net deferred tax liability being recognised. The median impact for mining companies ranged between 1.48 per cent and 3.50 per cent for those net deferred tax liability balances, whilst 0.23 per cent and 2.51 per cent for those observations in a net deferred tax benefit position. In contrast, for the industrial companies, the pre DS4 presented an even distribution and post DS4 typically exhibited more net deferred tax benefits. The median impacts were generally smaller and more narrowly spread across the timeframe: ranging between 0.42 per cent and 1.86 per cent for those in a net deferred tax benefit position. From such results, they noted that the potential for a favourable outcome on the income statement – as described in Chapter 2 – came with the cost of an adverse effect on the balance sheet.

A recent series of US examinations ranging over the period 1995 to 2010 considered the deterioration of the financial position on recognizing deferred taxes (Acheampong et al., 2013; Colley et al., 2012; Colley et al., 2006, 2009; Colley, Rue, & Volkan, 2010). In particular the studies examined the debt-to-equity (DE) ratio and the year-to-year ratio of net deferred tax to total assets (DA ratio). The DE ratio was chosen due to its ability to indicate company risk and access to capital markets. These studies link into the alternative of reporting income tax as it stands in the tax system: the flow-through approach or the current taxes payable approach. Findings confirmed deferred taxes are 'remarkably' stable or increasing relative to total assets and irrespective of economic

activity (Colley et al., 2006). Similarly, the DE ratio was significantly reduced on elimination of deferred taxes. Few increases in the DE ratio were observed – those observed were statistically insignificant, small in magnitude, occurring during the financial crisis and with no industry concentration (Acheampong et al., 2013).

Although, results in respect to industry were somewhat mixed. Over the period 1995 to 2004, the mining companies presented an average DA ratio of 5.4 per cent during periods of growth and 7.5 per cent during stagnation. Whereas, the real estate industry remained stable (average of 5.2%) over the entire sample period (Colley et al., 2006). Over the period 1997 to 2006 the DA ratio ranged from 2.0 per cent in the electronics to 10.9 per cent in the utilities industry with the highest levels being seen in the mining, petroleum and natural gas, transportation industries and lowest in the construction (Colley et al., 2009).

Overall the studies concluded that the DE ratio is flawed by the inclusion of deferred taxes and that such deferred taxes do not meet the definition of a liability. The conclusion drawn was that the application of the flow-through approach leads to an 'improvement' on the financial position of the entities (Colley et al., 2012). These studies suggest that rather than a growing or increasing presence on the balance sheet, the balance is relative and therefore stable.

3.3 SUMMARY

The accounting system is a dynamic social system, a numerical representation of real world events. Over time, the accounting system has evolved, transforming from historian to forecaster: shifting away from historical cost accounting grounded closer to the objective determined fact to a future orientation, to an intermingling of a greater level of subjectivity. Accounting for income tax is merely one avenue of accounting thought, however it has created much debate as it has collided with the accounting system. From such a collision of objectives and methodologies, potentially diverging further apart, TEA's beginning stems from the prescription of what ought to be: the perceived need to normalise reported profits, with the cost being permanent postponement of the balance sheet deferrals.

For TEA, which sits within the black box of the accounting system, the flow of reported tax can be described as a cycle, flowing through the entity, whereby only actual tax exits the cycle to the tax authority (Voss, 1968). This flow is depicted in Figure 3-5, which is specific to the Australian context. Deferrals flow between the income statement and the balance sheet, however in Australia the origin of deferrals changed on transition to IFRS. Prior to IFRS the starting point was the revenue and expenses and in 2005 this shifted to the assets and liabilities.

It has been stated by many that no best method for income tax recognition has been identified (Schultz & Johnson, 1998; Slade, 1990). Schultz and Johnson (1998) suggested it was due to the choices available that no preferred solution or best method had evolved and therefore the difference between taxable income and accounting profit would remain. Beechy (2007), more recently, suggests that the argument has simply been given up. According to May and Sundem (1976), it is not the selection of optimal alternatives that accounting research provides, it is the provision of useful information to policy makers in order for those policy makers to undertake the decision process.

In recent times, notions such as normalisation and permanent postponement appear to have fallen out of favour. Their presence within contemporary literature is minimal, despite normalisation being at the root of the accounting convention and the consequence of TEA being the inclusion of balance sheet deferrals, described by some as 'dubious'. Despite this, much of the value relevance literature has found that TEA is an important factor for investor decision making, however – what is particularly pertinent – is that value relevance is reduced where differences are reoccurring (largely attached to depreciation related deferrals) and when applied comprehensively. This presents a clear contrast, and inconsistency, between the normative debates of what 'ought' to be. In particular, depreciation related differences are one of the key areas of concern surrounding the early need to allocate tax due to the discrepancy between the two systems its presence brings and subsequently identified as a culprit to the concerns over the balance sheet consequences.

This discrepancy combined with recent reports, suggesting a deficiency in understanding of what users perceive to be useful when it comes to tax disclosures, and the move to a more comprehensive approach to TEA as part of the reorientation to the balance sheet – shifting away from 'normal' operating earnings and thus leading to potential 'noise' and increased volatility – suggests a mismatch between the original justification for TEA and its current status with the accounting system.

The extent to which TEA normalises income is uncertain and remains untested; whether it effectively 'corrects' the misleading or 'unreal' fluctuations the tax system purports to bring. If it is accepted that 'normalising' is a valid rationale for TEA, an increase in the normalising effect is prima facie evidence that the new, more 'holistic', approach is warranted. However if there is a lack of effectiveness, this raises significant questions in relation to the standard itself and the approach to tax disclosures, which tax disclosures being under the spotlight in contemporary Australia.





4 RESEARCH APPROACH AND METHOD

From developing an understanding of the original justification for TEA within the literature, and its postulated effects on financial statements, a foundation was established to formulate the research questions. This chapter explains the research design and the underpinning rationales for the choices made in that design. The chapter firstly outlines the procedures taken to establish the company set²¹ and the timeframe for data collection, and then considers the approach taken to collect the data. The remainder of the chapter then delineates the quantitative approach employed to explore the presence and effectiveness of the normalising effect within the company set, which is then followed by a consideration of the balance sheet consequences.

4.1 OVERVIEW OF STUDY DESIGN

This research aimed to understand how TEA operates within the contemporary Australian setting: i.e. 'how the world works' and whether to refute the underlying justification labelled as the normalising effect, or assess its level of effectiveness within the defined company context.

²¹ Throughout this thesis, the data set is referred to as a *company set* and *company context*, rather than as a *sample* or *population*. Given that non-statistical sampling techniques have been utilised (and will be explained within this chapter) and that the population parameters are dynamic overtime, such an approach avoids the potential to mislead the reader towards a notion that the data set complies with a strict sample and its associated statistical assumptions.

The exploration of the normalisation phenomenon began with the literature review, depicted in Figure 4-1. It was through this immersion in the literature and the early TEA debate, that the notion of normalisation was identified.





Normalisation stemmed from a period in accounting research encompassing normative theories, being concerned with the prescription of what 'ought' to happen. During the 1980s the term 'positivist accounting research' evolved from a growing interest in the 1960s and 1970s regarding the consequences of financial reporting practice: explaining what happens and predicting accounting practice (Ryan et al., 2002). Collin, Tagesson,
Anderson, Cato, and Hansson (2009) note this link of accounting choices to agency conflict. As such, the positivist design and terminology overtook normative theory in popularity (Godfrey et al., 2006; Ryan et al., 2002). Kinney (1986) differentiates the current positivist approach as more akin to how the 'world is', with the former normative approach more aligned with what 'ought to be'.

This research explicates normative theory (the normalising effect) from the 'ought to be' domain and into the 'what is' domain. This required operationalising the concept of what it meant to normalise, and distinguishing it from other intermingling concepts such as smoothing (Copeland, 1968). Dyckman and Zeff (2015) recommend that research should encompass both theory and testing as "designing and conducting a meaningful test is contingent on the underlying theory" (p.520).

A suitable company set was established, based on a set of key criteria within the Australian context, to explore whether how we account for tax makes a difference. And, if so, what is the size and scope of that difference and what are the associated implications (Kinney, 1986). The research setting was chosen to be consistent with the justification of TEA and the timeframe limited to include as few confounding events as possible (Luft & Shields, 2014). This approach is common where the research is exploring whether a phenomenon, in this case the normalising effect, exists (Coyne, 1997). Providing a narrow specification of context reduces the number of alternative explanations, therefore aiding validation and is considered relatively objective, albeit this requires judgement and consequently limits applicability (Luft & Shields, 2014). This approach is akin to deductive theoretical construct sampling; where the researcher samples the 'slice of life' on the basis that the theoretical construct, here normalisation, may manifest itself, or be 'illuminative', and therefore be verified within this contemporary setting (Patton, 2015). The purpose was to appraise the phenomenon in the contemporary Australian context defined. This approach was considered appropriate given the pragmatic perspective, that accounting is a dynamic social construct – rather than that of a strict positivist accounting perspective. What can be gained, through such a selection 'bias', are logical and thoughtful generalisations. That is, such understandings of the phenomenon will confer thoughtful insights concerning 'lessons learned', which in turn lead onto discussion concerning potential future applications (Patton, 2015).

Once the company set and timeframe was identified, data was then collected from the financial statements, with subsequent choices being made due to the dynamic and inconsistent nature of the presentation and disclosure of the accounting information. Although the research question required a methodology that described and explained observable and measurable data, it was acknowledged that accounting does not truly fit to a fixed world-view. Nor does the accounting context provide a research setting matching that of a controlled experiment or similar, although opportunity exists for a quasi-experimentation approach (Clarkson, Hanna, Richardson, & Thompson, 2011; Gassen, 2014).

As such, a more pragmatic approach was concluded as necessary – particularly given that accounting is characterised by the presentation of single numeric perspectives of real world events and is beset by subjectivity: "many accounting phenomena are ontologically subjective, in the sense that they are socially constructed, but analysis of these phenomena

can be epistemically objective" (Luft & Shields, 2014, p. 551). Quantification does not necessarily mean only a positivist perspective:

Quantification is by no means ruled out within non-positivist research. We may consider ourselves utterly devoted to qualitative research methods. Yet, when we think about investigations carried out in the normal course of our daily lives, how often measuring and counting turn out to be essential to our purposes. The ability to measure and count is a precious human achievement and it behoves us not to be dismissive of it. We should accept that, whatever research we engage in, it is possible for either qualitative methods or quantitative methods, or both, to serve our purposes (Crotty, 1998, p. 15).

From identifying the company context and collecting the data for each company, the analysis process began to explore the presence and effectiveness of the normalising effect.

The concept of effectiveness was defined as an appropriate notion of 'success'; described as a net change caused by a device or alternative by Copeland (1968). The nature of the relationship between profit before and after tax, including and excluding deferred taxes, was compared using the Spearman Rank Correlation Coefficient (rho value) to assess the effectiveness of TEA at normalising reported profits. A third relationship was also assessed, utilising net tax cash flows to provide a benchmark in the event that excluding deferred taxes presented the closest relationship, linking into the concept of cash-basis accounting.

The informativeness of TEA's effectiveness at normalising reported profits was extended by adopting an approach previously employed in the Australian study undertaken by Sidhu and Whittred (1993). This study considered the magnitude and directional impact of deferred tax allocation adoption on reported income tax expense and profits during an earlier amendment period. This enabled the researcher to gain insight into what impact

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deferred tax had on reported tax and reported profits, irrespective of the 'success' of normalising.

Driven by recent public debate over corporations paying their 'fair share' of tax and strong pressure on governments for regulatory change with respect to the taxation of corporations (for example, Aston & Wilkins, 2014; Donoughue, 2014; United Voice & Tax Justice Network Australia, 2014), this direction and magnitude of impact approach was then adapted to consider, in particular, the impact specifically in relation to ETRs. These issues have been the subject of recent focus by the United Voice and Tax Justice Network Australia (2014), a trade union and advocacy group seeking change.

In light of this adaption, the concept of normalisation was given a more narrow interpretation in relation to prima facie tax. Specifically, in theory, the application of TEA – the recognition of temporary differences (deferred taxes) – enables reported income tax to equal prima facie tax under accounting principles. In considering this, the reduction in variation to the prima facie tax is supportive of effective normalisation. This approach extends the public debate over the 'fair share' of tax relative to the Australian corporate tax rate (currently at 30 per cent), irrespective of international trade, tax offsets and credits and other permanent differences. Despite the AIA (1944) describing TEA as only a part solution, the effectiveness of normalisation may be linked to the Australian tax context itself.

Having measured the presence and effectiveness of normalisation, the consequences of attempting to achieve effective normalisation were then considered. This encompassed an exploration into the consequences of recognizing deferred taxes on the balance sheet. In particular, the much debated permanent postponement argument was considered and approaches by key scholars were adopted (for example, Davidson et al., 1977). However, these studies omitted growth in their approaches; therefore the assessment here was extended by deflating yearly balance sheet impacts to assess the proportionate impact. This approach is in line with more contemporary research.

Such an inquiry into both the income statement and balance sheet enabled the researcher to ask firstly whether TEA had an effect (normalisation) on the observed companies, and if so, whether its effect was improved on transition to the balance sheet approach and what was the cost of the achievement or non-achievement of that effect. Furthermore, building upon this avenue of discussion, will be a reflection on the prescriptive theories underpinning TEA within the more general context of the accounting system. This is highly important given the social underpinning and dynamic nature of accounting.

The following sections proceed to elucidate the method undertaken, beginning with the company identification, selection and timeframe being established, to the data collection process. The chapter then details the key research methods, including measuring the effectiveness of TEA's normalisation and, finally, the consequences of attempting such.

4.2 CONTEMPORARY COMPANY CONTEXT

The contemporary company context is made up of 90 companies listed on S&P/ASX 200 during the years 2002 to 2011. Australia provided an appropriate setting for this research, with a relatively homogenous context and an inability to adopt AIFRS early, whilst avoiding international variation (Chalmers et al., 2011). The timeframe covered the regulatory change in accounting for income tax: the income statement approach under the former AASB 1020 and the transition to the balance sheet approach, under AASB 112 in 2005. Institutional variation, such as industry and profit (loss) position were also considered and noted during the data collection and analysis stage as these factors have been previously identified as potentially leading to variation or distortion in findings (for example, Chalmers et al., 2011). This also provided an opportunity to consider both the integrity of the data and whether aggregation impacted on the findings.

4.2.1 THE FOCUS ON THE S&P/ASX200

The group of 90 companies were selected by applying a set of criteria beginning with membership of the S&P/ASX200. Such a focus on top entity listings is a common occurrence. According to Jin et al. (2015) and Dichev and Tang (2008), this ensures coverage is across the period, being that the largest and most prominent entities included, and at the same time maintaining the changing nature and prominence of firms as they evolve. Jin et al. (2015) focused on the top 200 Australian firms; Dichev and Tang (2008), the top 1,000 US firms.

Donelson et al. (2011) similarly endorsed this justification along lines of comparability throughout the study period, in that it includes economically significant firms whilst preventing the results from being 'proliferated' by smaller firms later in the period. Like Dichev and Tang (2008), their study included 1,000 of the largest US firms on the basis of total assets. Raedy, Seidman, and Shackelford (2011a) used the *Fortune* 50, describing that this group constitutes a 'major portion' of the US economy. Within Australia, the S&P/ASX 200 represents approximately 80 per cent of the equity market capitalisation and is seen as being an 'investable benchmark' (McGraw Hill Financial, 2016).

4.2.2 THE CONTEMPORARY TIMEFRAME

The timeframe of this study covered the period 2002 to 2011. The starting point was defined based on the beginning of a stable tax rate: avoidance of changing tax rates was beneficial as such occurrences have been shown to impact on tax disclosures (Poterba, Rao, & Seidman, 2011; Raedy et al., 2011a). The timeframe was then divided into two sub-periods to reflect the regulatory framework: the income statement approach under the former AASB 1020 and the balance sheet approach under the current AASB 112. Sidhu and Whittred (2003) similarly split their timeframe into pre- and post- the DS4 release. The companies were required to be present for the duration of the timeframe, concurring with similar research (Chang et al., 2009; Sidhu & Whittred, 1993; Slade, 1990).

4.2.2.1 PERIOD DEFINITION

The period was defined by the constant tax rate of 30 per cent depicted in Figure 4-2. For the 2000 financial year, the company tax rate was 36 per cent, reducing to 34 per cent for 2001 with a further fall to 30 per cent for the 2002 financial year where it has remained²² (The Treasury, ND). This is in comparison to the average corporate tax rate for the OECD, which declined over the same period to 25.4 per cent in 2011 (Brake, 2015; KPMG, 2016).

Figure 4-2 Australian Corporate Tax Rates over Time

[For copyright reasons this figure has been removed from the online version of the thesis]

Reproduced from: The Treasury (ND).

²² In the May 2010 Federal Budget, the Government announced a drop in the company tax rate from 30 per cent to 28 per cent. These cuts would have been effective for the 2012-13 financial years onwards, for small business, and all companies from the 2013-14 financial year onwards. On eight May 2012, however, the rate cut was withdrawn by the Government (ATO, 2012; Australian Government, 2010). Similar cuts were then reintroduced as part of the Jobs and Small Business Package. Those companies with an aggregated annual turnover of less than \$2 million from 1 July 2015 are subject to a tax rate of 28.5 per cent, although franking credit arrangement remain unchanged (ATO, 2015c).

According to Treasury, the reasoning for such reductions related to international competitiveness. Prior research reveals that a change in tax rate can significantly affect financial information, including deferred taxes, earnings and capital (Poterba et al., 2011; Raedy et al., 2011a). For example, Raedy et al. (2011a) considered 49 publicly traded companies listed on America's *Fortune* 50 list;²³ 18 in a net deferred tax asset position and 31 companies in a net deferred tax liability position over the 2010 and 2011 financial years. The findings suggested that a reduction from 35 per cent to 30 per cent would lead to a drop in accounting income, particularly within the banking sector, for those companies in a net deferred tax asset position (Raedy et al., 2011a). For those companies in a net deferred tax liability position, it was found that accounting income would increase, with the energy sector experiencing the largest increase.

Ten years was concluded to be the appropriate time span for this study, after considering other relevant studies, such as Wise's (1986) longitudinal study spanning nine years, Colley et al.'s (2006) spanning ten years and Chang et al. (2009) spanning four years. The timeframe was then divided into sub-periods reflecting the regulatory framework.

4.2.2.2 THE INCOME STATEMENT APPROACH

The first sub-period reflected the former AGAAP period, with TEA being regulated by AASB 1020. Although an amendment to AASB 1020 in 1999 introduced the balance sheet approach, the majority of firms persisted with the income statement approach until AASB 112 was issued. Therefore, the first sub-period covered the financial years 2002 to 2005, representing the first four years of the timeframe. Although this is not a substantial

²³ The remaining company from the *Fortune* 50 was privately held; therefore access to the financial statements was not available.

period, it sits within the boundaries available: a steady corporate tax rate and the change in approach to TEA. This period has been similarly used by scholars such as Chang et al. (2009), who focused only on the income statement approach. It was therefore concluded to be suitable for the purposes of this research.

4.2.2.3 THE BALANCE SHEET APPROACH

As part of the adoption of International Accounting Standards, AASB 112 was issued in July 2004 applying to reporting periods beginning on or after 1 January 2005. Therefore, the second sub-period, reflecting the balance sheet approach to TEA, included reporting periods from 31 December 2005 onwards. However, due to comparatives being restated under the balance sheet approach, the year 2005 was duplicated.

The requirement that comparatives be restated enabled a direct comparison of results including and excluding transition to the current standard, which was built into the research design and conforms to other research that considered the transition to AIFRS (Goodwin et al., 2008). Clarkson et al. (2011) describe the transition period as a natural quasi experimental setting, and a powerful research design as it controls both time series differences and cross-sectional differences. The former AGAAP can be compared with the current AIFRS. Therefore, for example, if the year-end for an entity is 30 June then the 30 June 2006 financial year will be the first year to apply the new approach (or in the case of Goodwin et al. (2008) the IFRS), but the financial information for the comparatives for 30 June 2005 will be restated in line with the new approach (or IFRS).

So, the timeframe can include for the transition period:

Day Month 2005_a (income statement approach) Day Month 2005_b (balance sheet approach) Day Month 2006 (balance sheet approach)

The second sub-period therefore represents the balance sheet approach and covered a longer period of 2005 to 2011, equating to a seven-year period. This was of no concern, however, as there is no formal requirement for the number of observations before and after the regulatory change to be equal (Ryan et al., 2002). Utilising the 2005 comparative over the transition period enabled an effective total period of eleven years to formulate the contemporary timeframe.

4.2.3 THE ENDURING AND DYNAMIC NATURE

Each of the 90 companies was required to be listed for the duration of the established timeframe, which is consistent with many studies considering various avenues of TEA (for example, Chang et al., 2009; Colley et al., 2006; Slade, 1990; Wong et al., 2011). Dyreng et al. (2008) also required companies to have ten consecutive years of non-missing data (cash taxes paid, income tax expense and pre-tax income) during their timeframe covering 1995 to 2004, justified as being an 'unbroken string' in order to maximise coverage. Givoly and Hayn (2000) similarly used what they described as a 'constant sample' to ensure comparability of the results over time. Such inclusion of 'survivors' implied that the companies included in the sample were either financially

strong (as they persisted over a 31 year timeframe in their study) or had at least begun as strong and subsequently weakened over time (Givoly & Hayn, 2000).²⁴

Enduring companies are somewhat an unavoidable occurrence in accounting research as such a presence is in the nature of the accounting context: firms are anticipated to continue as going concerns and financial statements are prepared on the basis that the going concern assumption is satisfied. For TEA as a normative theory, it is linked to such an 'ideal' situation where there is an assumption of future revenues, or future taxable income, and continuity in order to consume the deferred taxes recognised. Although being a going concern does not necessarily imply being profitable, if the entity was not anticipated to continue then recognition would not occur.

Despite this commonality of duration across studies and within the accounting context, the dynamic nature of corporate structures mean that duration is not a clear point of reference. Entities continuously evolve and change and these entity dynamics can impact the assessment of normalisation. Therefore, a set of criteria was established to act as a proxy for duration. Such approaches to accounting research are not uncommon; for example, many researchers employ selection criteria in order to have an appropriate company set, such as only selecting companies with sufficient data for modelling purposes (for example, Wong et al., 2011). With such a criteria-based selection processes and potentially smaller numbers within individual years, there are inherent limitations (such as reducing the power of the statistical tests and the use of non-parametric statistics) (Dyreng et al., 2016; Wong, 2005).²⁵ The aim of this study was to examine the

²⁴ Givoly and Hayn's (2000) sensitivity analysis showed that results were similar across differing samples, therefore the mortality of the companies was not affecting their results.

²⁵ Dyreng et al. (2016) analysed 1,010 firm year observations associated with 77 unique firms for their analysis of public scrutiny on corporate outcome in the context of the FTSE 100 between 1997 and 2012.

normalising effect within the defined contemporary context, therefore the difficulty such limitations create in making generalizations to a wider population, are less relevant. Wong (2005) pointed to studies such as Fields, Lys, and Vincent (2001) that highlight the benefits of smaller studies in respect to accounting choice. Fields et al. (2001, p. 301) describe such studies as complementary to those larger studies, as well as noting – of relevance to this study – that they can " provide greater insight into the underlying causes of the empirically observed effects".

The criteria began with the entity listing date obtained via the online database of Investogain Ltd, which was then further refined to include the requirement of being listed over the duration of the timeframe with the same format. That is, having the same yearend date, same currency, the same source of accounting standards (AGAAP/AIFRS), as well as excluding early adopters of the balance sheet approach to TEA and trusts, the latter of which do not incur tax obligations. The key criteria requiring additional explanation are expanded on in the following sub-sections.

4.2.3.1 FOREIGN CURRENCY

As previously identified, to be included in the company set companies had to have consistency in reporting format for the duration of the timeframe. In order to undertake the analytical procedures, it was determined that this requirement for consistency across time included presentation currency. Variation was observed in presentation currency across companies, however this was not seen as an immediate problem; the concern arose when companies shifted presentation currency. Paragraph 23 of AASB 121 *The Effect of Changes in Foreign Exchange Rates* requires monetary items to be translated using the closing rate whilst non-monetary items measured at historical cost are to be translated at the exchange rate at the date of the transaction and non-monetary items measured at fair value are to be translated at the exchange rate at the date of when the fair value was determined. To translate financial reports therefore almost certainly would have created an exchange difference and therefore alter the mix of assets and liabilities. Those that changed their presentation currency could alone have a distorting effect on the data with movements in balance sheet items and the creation or change of a foreign currency reserve. Furthermore, foreign currency translation can lead to differing accounting treatments, such as in the case of plant and equipment: a revaluation may not be required pre-translation, however may become necessary post-translation.

A further benefit stemming from applying this particular criterion was that all companies within the context reported in Australian dollars, enabling dollar values to be freely aggregated and/or compared without need for sub-sets based on currency.

4.2.3.2 NON AGAAP/AIFRS COMPLIANCE AND EARLY ADOPTERS

Those companies that did not comply with Australian GAAP or the Australian equivalent IFRS for the duration of the timeframe were removed from the company set, as well as those that chose to adopt the balance sheet approach to TEA early.

Australia adopted AIFRS on 1 January 2005 and there was an inability to adopt early, creating a clear transition year. However, subsequent to the release of Discussion Paper No. 22 *Accounting for Income Tax* by the AARF, AASB 1020 had been reissued in December 1999 prescribing the balance sheet approach to TEA. Therefore, there was an option to voluntarily adopt the balance sheet approach prior to harmonisation with international standards. Despite this, prior research suggested few firms chose to voluntary adopt the balance sheet approach (Chang et al., 2009).

4.2.3.3 TRUSTS

With the reduced S&P/ASX 200 company set, an initial check was undertaken to determine entity type (company, trust, stapled). The purpose was to remove trusts from the company set, as trusts do not generally incur income tax obligations unless undistributed earnings are present:

Under current income tax legislation, the Fund is not subject to income tax, provided that unitholders are presently entitled to the income of the Fund as calculated for trust accounting purposes ((CPA, 2009, p. 68).

This step did, however, involve further consideration and judgement, given that corporations are complex entities and involve various structures. This exemplifies the complexity of the tax system colliding with the accounting system, and following on from that the attempt to normalise the tax obligations to the accounting system. It was determined that if only trust activity occurs (such as no reported PBT, ITE and PAT) during the timeframe, the entity was removed (for example, AAD). Whereas where an entity was stapled and explicitly following the requirements of AASB 112, it was included in the company set (for example, TCL).

4.2.4 SUMMARY

Overall the 90 companies fit the narrow specification matching the 'ideal' candidate or intended context consistent with the normative theory. The total market capitalisation for the 90 companies, as at the S&P/ASX200 listing date, equated to \$584.6 billion. This represents 53.44 per cent of the S&P/ASX200 listing (refer to Appendix 8.1 for a detailed breakdown of the market capitalisation for the company set).

The 90 companies within the set created a total of 990 company observations, comparable to similar studies, particularly within the Australian context. For example, Sidhu and Whittred (1993) examined 513 TEA adopting entities during the 1970s. More recently, Chang et al. (2009), who also required listing for the duration of the timeframe as well as further criteria (including for example excluding companies with missing data, trusts and those with zero balances in all years of the timeframe), examined 478 firm year observations. Herbohn et al. (2010) utilised 1,205 firm year observations over the period 1999 to 2005 associated with 391 firms listed on the S&P/ASX. Hanlon, Navissi, et al. (2014) also used similar criteria to Chang et al. (2009), however they examined only the transition year , which encompassed a smaller company set of 291 firms. Table 4-1 summarises the results of the company identification and selection process described.

Table 4-1 Company Selection and Identification

Column	1	2	3	4	5	6	7	8	9	10
GICS	S&P/ ASX200	Less: Non- Enduring	Less: Trusts	Less: Change in Currency	Less: Change in Year-End	Less: Early Adopter	Less: Non IFRS/ AGAAP	Total Size	Industry Presence in S&P/ASX200 %	Industry Presence in Company Set %
Consumer Discretionary	26	(12)	(1) AAD			(2) FLT TEN		11	13.00	12.22
Consumer Staples	7	(3)						4	3.50	4.44
Energy	20	(5)		(3) PDN WPL AUT	(2) GCL ERA		(1) OSH	9	10.00	10.00
			(7) GPT CQO CFX CQR BWP CPA							
Financials	35	(11)	IOF	(1) QBE		(1) BOQ		15	17.50	16.67
Health Care	10	(3)					(1) RMD	6	5.00	6.67
Industrials	33	(15)				(2) SPT AIX		16	16.50	17.78
Information									0.00	0.00
Materials	53	(1)		(3) AWC FMG MDL	(2) PNA IAU		(5) BHP RIO AQP FBU JHX	25	26.50	2.22
Tele-communication Services	4			(1) TLS			(2) TEL SGT	1	2.00	1.11
Utilities	8	(5)		(1) EWC		(1) ENV		1	4.00	1.11
Total	200	(73)	(8)	(10)	(4)	(6)	(9)	90 (45%)	100.00%	100.00%

Industry spread is relatively matched to the S&P/ASX 200, with only the utilities industry being slightly under represented (Column 9 and 10). The highest concentration of companies was found within the materials (25), industrials (16) and financial industries (15). This was not surprising, particularly for the first two, with Chang et al. (2009, p. 657) having noted that:

The resource sector represents a large component of the Australian market and the characteristics of these firms are collectively quite different from firms in other industries.

Of particular note is the second point made by Chang et al. (2009): there was likely to be an industry effect. The literature was used as a guide to consider the best approach to consider industry. Chang et al. (2009) combined the materials and energy sector companies as well as including financials as an indicator variable:

Selection of these two controls was based on differences in the nature of the underlying assets, liabilities, revenues and expenses of firms in these industries compared with other firms as well as differences in industry regulatory requirements (Chang et al., 2009, p. 659).

Given that Sidhu and Whittred (1993)²⁶ found contrasting results between the materials and industrials, the industrials were also kept as a separate industry group. On balance, the remaining seven industries were grouped, given the small numbers. The resulting spread is presented in Table 4-2.

²⁶ The ASX first adopted the GICS classification on 1 July 2002, when it made 24 industry classifications redundant with the aim to align the industries with overseas standards (ASX, ND). Therefore, earlier Australian studies such as Sidhu and Whittred (1993) may not precisely match this study, despite researching mining and industrial firms. Furthermore, their study fell between the period 1924 to 1991, in which gold explorers and miners were classified as income tax exempt. Gold is an exception to other commodities as it can be seen as a safety net currency as opposed to others that are driven by global growth and demand (ASX, 2012). During the 2000s gold as well as other ores did not perform as strongly as that of coal and iron ore (Connolly & Osmond, 2011).

Table 4	-2 Conse	olidated	Industry	Breakdown

	Industry	Frequency	Percent	
MAE	Materials and Energy	374	37.8	
FIN	Financials	165	16.7	
IND	Industrials	176	17.8	
ОТН	Other	275	27.8	
	Total	990	100.0	

Similarly, prior research such as Chang et al. (2009), who distinguished between such companies, noted that the material and energy sectors were more likely to be loss makers. This is particularly relevant, where in any given year a substantial proportion of companies listed on the ASX are loss makers (ATO, 2015). For example, in the 2013-14 year, approximately 63 per cent of all ASX listed companies reported a loss, and going back ten years within the top 500 ASX listed companies, loss makers fluctuated between 20 to 30 per cent (ATO, 2015, 2015b). Loss makers were not removed from the company set due to the argument that the going concern does not necessitate the requirement of being profitable, linking into Hayn's (1995) argument that loss makers were not expected to persist.

4.3 DATA COLLECTION

Data was manually collated from the annual financial reports obtained from the Annual Report Online database of Aspect Financial Pty Ltd via the National Library of Australia. Due to the nature of the data being collected mostly located within the notes of the financial statements, the ability to make use of databases was substantially reduced. In some instances, data was collected directly from the company to fill in gaps where financials were concise only. During the data collection process, it became clear that there was some lack of consistency, both over time and across companies. As such, the data was cleaned to maximize consistency and appropriateness of treatment. The key inconsistencies and approaches taken in response to those inconsistencies are outlined in this section. This inclusion of judgment and choice constitutes a limitation of the research process, which is acknowledged but also deemed as acceptable for such a pragmatic study. Appendix 8.2 lists further detail on the data collection process. The section then concludes with a summary of the data collected.

4.3.1 DEFINING YEAR 'T'

A complication arose due to differing financial year-ends for the companies. Originally, it was anticipated that the calendar year be used, however given not all companies report using the same financial year-end date this was not necessarily appropriate. Jin et al. (2015) defined year *t* as December of the calendar year *t*-1 to November of year *t*. This method was justified by the timing of the AIFRS adoption being at the beginning of the first financial year following 31 December 2005:

We define year *t* to include fiscal years that end in December of calendar year t - 1 through November of calendar year *t*. In this way we are able to make comparisons across years in a consistent manner for firms with different reporting dates (Jin et al., 2015, p. 95).

In practice, the only financial year-end that was affected by this was 31 December. Therefore, if the financial year-end for a company was 30 June 2004, 31 March 2004 or 30 September 2004; then that year was the 2004 year for this research. In contrast, where the financial year-end was 31 December 2004, it represented the 2005 year. In summary, the timeframe of this research runs from the 2002 year (reflecting financial year-ends between December 2001 and November 2002) through to the 2011 year (reflecting financial year-ends between December 2010 and November 2011).

4.3.2 COMPARATIVES

A common occurrence within the financial reports was the presence of changes to prior periods, or comparatives. These can occur as a result of a prior period error or a change in accounting policy and is governed by AASB 108 *Accounting Policies, Changes in Accounting Estimates and Errors*. Data was collected on the basis that the revised comparative represented the amended status and so replaced original data. This is in line with the notion of identifying the cross-sectional normalising effect. The use of comparatives was noted previously when specifying the timeframe: the requirements of comparatives enabled the transition year to be produced under both the former income statement approach and the current balance sheet approach: two separate entries were included for 2005.

4.3.3 THE SCOPE OF INCOME TAX

Income tax includes all domestic and foreign taxes that are based on taxable profits: AASB 112.2. As such, current tax includes, for example, withholding tax. Similarly, available rebates and credits also form part of current income tax. Whereas, stamp duty, GST, and such value added taxes are outside of the scope of AASB 112. In relation to resource taxes, AASB (2014) issued Interpretation 1003 for the PRRT confirming that it was considered an income tax within the scope of AASB 112. Note (*AC*) *Taxation* within STO (2009) specifies that royalty-related taxation is recognised under AASB 112:

Petroleum resource rent tax, resource rent royalty and additional profits tax are recognised as an income tax under AASB 112 Income Taxes (STO, 2009, p. 87).

The income tax expense is one of the last items to be finalised in the annual reports,²⁷ due to its dependence on the various profit before tax items and subsequent audit adjustments (Dhaliwal et al., 2004). Although the current tax is in respect to taxable profit, an important point must be noted. The financial year-ends of companies do not necessarily correlate with the tax year-end of companies. Furthermore, the current tax obligation is likely to be unconfirmed by the time the financial statements are produced, therefore there is an automatic estimation involved.

Current tax provisions on the balance sheet can include the actual tax paid, the current tax obligations and any adjustments for prior years. The income tax expense reported on the income statement is not necessarily the entirety of the tax,²⁸ in part it may be found in other comprehensive income, discontinued operations in prior period adjustments, in discontinued operations and so on (Graham et al., 2012; Nurnberg, 2009).

²⁷ This discussion is limited to those required to prepare financial statements under Part 2M.3 of the Corporations Act and those entities that are classed as reporting entities, or preparing GPFSs, or those held out to be (AASB 112.Aus1.1).

²⁸ On recognizing these deferred taxes, the treatment reflects the treatment of the underlying transactions and other events giving rise to tax implications, such as the tax effects of transactions found on the income statement also being recognised on the income statement, whilst those recognised directly to equity are recognised directly to equity (AASB 112, 2012, pp.11-12).

The purpose of this study was to consider the accounting process; focusing essentially on inter-period deferred tax allocation and tax payables method. This issue is present irrespective of approach.

4.3.4 COMPONENTS OF INCOME TAX EXPENSE

The income tax expense that is reported on the income statement is the aggregate amount in respect of current tax and deferred tax: AASB 112.5. From the notes to the financial statements, the components of the income tax expense reported on the income statement were obtained.

A limitation arose in that AASB 1020 did not mandate the separate reporting of current and deferred tax components, the extent to which this was disclosed was only evident on data collection. This is in contrast with AASB 112.58, which specifies that: "Current and deferred tax shall be recognised as income or an expense and included in profit or loss for the period". Note the use of the word 'shall' is usually given the same connotation as 'must'. Further instruction is found in paragraphs 77 onwards, specifying that the major components of the tax expense (income) shall be disclosed separately.

In most cases, 'deferred tax expense' (or future income tax benefits and provision for deferred tax under the former AASB 1020 standard) and 'current tax expense' were the main items found in the notes, breaking down the components of the reported income tax found on the income statement. As per paragraph 79 of AASB 112, the major components are required to be disclosed separately and paragraph 80 outlines those that may be included. These were aggregated on data collection into the two key categories required for this study: current and deferred tax. In some instances, where amounts did not clearly

fall into the categories defined in paragraph 80, or were already listed as a component of current or deferred tax, some judgement was required to establish which category was appropriate. Details of such categorization can be found in Appendix 8.2. Where no reconciliation of the components of reported tax was provided, a further category was established: 'no reconciliation of current and deferred tax', to enable a clear identification process.

4.3.5 DISCONTINUED OPERATIONS

A problem arose during the data collection process in relation to inconsistency in the treatment of discontinued operations. This necessitated some judgement on what the priority was in considering the impact of normalisation.

The income statements generally presented discontinued operations net of tax after disclosing profit before tax, income tax expense and profit after tax (as continued operations). This was not of concern, except to the extent the components of income tax expense (current and deferred) were aggregated with the discontinued operations tax. In such a case, there was an inconsistency: the components of reported tax do not match that of the income statement. Thus, a limitation was born affecting 66 observations (6.7%).

In the example of HVN (2007), presented in Table 4-3, 2007 and 2006, income tax is reported on the income statement excluding discontinued operations (line 2). Discontinued operations after tax is reported after profit after tax (line 4). However, when considering the notes, the components of income tax, current and deferred, are inclusive of discontinued operations (line 5 and 6), with a reconciliation being added to show the

aggregated components equal to tax relating to both continuing and discontinued operations.

Table 4-3 Financial Statement Extract – Flow of Discontinued Operations and Tax

Line Ref		2007 \$'000	2006 \$'000
	Income Statement:		
1	Profit before 1 ax	473,470	319,907
2	Income Tax Expense	<u>(142,779)</u>	<u>(97,907)</u>
3	Profit after Tax	330,691	222,152
4	Discontinued Operations after Tax	83,152	11,809
	Nataa (Componento)		
~	Notes (Components).		(00 450)
5		(175,705)	(96,159)
6	Deferred lax	<u>(21,380)</u>	<u>(11,233)</u>
7	Income Tax from Continuing and Discontinuing Operations	(197,085)	(107,392)
_	Made up of:		<i></i>
8	Continuing	(142,779)	(97,755)
9	Discontinuing	(54,306)	(9,637)
	Notoc (Pacanciliation):		
10	Notes (Neconciliation). Profit before Tax: Continuing Operations	172 170	210 007
10	Profit before Tax. Continuing Operations	473,470	21 770
11	Total Drafit hofers Tax	147,105	31,770
12		620,575	351,677
13	Prima facie Tax 30%	186,173	105,503

Extract from: HVN (2007, pp. 35,63-64,67-68)

Further, the reconciliation to prima facie profit is also inclusive of both continuing and discontinued operations (lines 10-13). As a result, there was an issue of consistency between obtaining the current and deferred components, due to these being tainted by discontinued operations.

Furthermore, comparisons between companies showed more inconsistencies. For example, FWD (2005) treated discontinued operations similarly to HVN, however it only included continuing operations in the reconciliation to prima facie tax. GUD did so but not explicitly, beginning from the 30 per cent prima facie tax and after making adjustments, the resulting income tax expense was an aggregate of continuing and discontinuing operations, breaking that amount down between the two after that point. TSE in some years reported similarly, however in others separated deferred and current tax between continuing and discontinuing but aggregated them for the prima facie reconciliation. Segregating the current and deferred tax between continuing and discontinuing operations was uncommon, however.

Given this variability, it was concluded that the solution was to add discontinued operations and the related tax expense to profit before tax, income tax expense and profit after tax. This essentially shifted the amounts from below the profit after tax line to above, keeping them on the income statement. Therefore the current and deferred components would accurately reflect the income tax expense.

The benefit of undertaking such an approach would provide improved consistency and accuracy in the current and deferred tax components of the income tax expense: improving the assessment of cross-sectional variation, the normalising effect. Where adjusting the profit figures would not lead to a correctly reflected income tax component summary, no adjustment was made.

4.3.6 DEFERRED TAX ASSET AND LIABILITY DISCLOSURES

Deferred tax asset and deferred tax liability balances were obtained for each year for each company within the company set. On data collection, a further complexity arose in respect to the method of disclosure within the notes, in particular the extent of detail and disclosure of set-off. There is a clear fine line between recognition and presentation, and the purpose of this research was concerned with the numerical presentation. Judgment was used to establish four categories for collection data on deferred taxes from the notes, with particular attention given to the ability to ascertain whether a set-off occurred.

1. Detailed Disclosure

Detailed disclosure was established when there were clearly identifiable sources of deferred tax assets and liabilities disclosed, representing the components of the deferred tax balance and reconciled to what was disclosed on the balance sheet: for example Table 4-4.

Line Ref		Assets
		N/
1	Loans and Receivables	Х
2	Inventories	Х
3	Other	Х
4	Total Deferred Tax Assets	Х
5	Set-off of deferred tax assets pursuant to the set-off provisions	(X)
3	Net Deferred Tax Assets	Х

Table 4-4 Example of Deferred Tax Disclosure – Detailed

In these circumstances set-off of deferred tax assets and liabilities is disclosed explicitly. When no set-off was specified, an assumption was made that no set-off has occurred, thus the set-off was equal to zero. The rationale was that material components are identified separately so if a set-off occurred and was not recognised it was assumed to be immaterial.

In some instances, the same note presents deferred tax assets and deferred tax liabilities side by side (for example, LLC, 2008, p. 113). Alternatively, the assets and liabilities are disclosed in separate notes.

2. Merged deferred tax disclosure

In some instances, both the deferred tax asset and liability sources were disclosed together, with no definite balance on either side.

3. Non-recognition

Where no recognition occurs in the balance sheet, all deferrals are unrecognized or netted to zero, and therefore fall outside the scope of the research objective.

4. Insufficient detail

In many instances, particularly in the early years minimal additional detail was given in the notes, in many cases the disclosure within the notes was a simple repetition of the amount reported in the balance sheet: no reconciliation was presented. Alternatively, only one of deferred tax assets or deferred tax liabilities was noted.

The assumption was made, that if no attribution to sources of deferred taxes is detailed, no conclusion should be drawn as to the set-off provision. There was simply no evidence to support or deny that a set-off occurred. This is a conservative position. Some borderline cases were observed and judgment was used to establish the category.

4.3.7 SUMMARY OF DATA COLLECTED

From the financial statements, the key data items collected were as follows:

Income Statement	Balance Sheet	Notes/Other			
Profit before Taxation	Current Tax Assets	Financial Year-End			
Income Tax Expense	Deferred Tax Assets (current)*	Rounding			
Profit After Taxation	Deferred Tax Assets	AGAAP/AIFRS Compliance			
Discontinued Operations [^]	Current Tax Assets (non-current)*	Currency			
	Total Assets	TEA Method			
	Current Tax Liabilities	Components of Tax Expense			
	Deferred Tax Liabilities (current)*	Deferred Tax Asset			
	Deferred Tax Liabilities	Deferred Tax Liability			
	Current Tax Liabilities (non-current)*	Set-off Amounts			
	Total Liabilities				
	Net Assets				
*Ref	*Refer to Balance sheet presentation data collection complexities in Appendix 8.2				

Table 4-5 Summary of Data Collected

^Where required, see Sub-Section 4.3.5

Before the company observations were analysed, diagnostics were carried out to obtain an understanding of the dynamics of the company context. These included frequency and descriptive statistics and an overview of the observations is provided at the beginning of the findings chapter. The following section now details the method of analysis undertaken on the company observations to the answer the research questions stated.

4.4 METHOD OF ANALYSIS

The crux of this study was to explore whether the phenomenon theorised within the normative era (normalisation) occurs in the real world; whether TEA successfully achieves what it was set out to achieve. The real world has been specified narrowly to include corporations listed on the Australian S&P/ASX 200, reflecting the enduring nature described earlier. The goal was to determine whether the inclusion of deferred taxes effectively normalised reported profits, an income statement perspective. This study is particularly pertinent given the regulatory change to AIFRS requiring the balance sheet approach to TEA, moving away from an income statement approach. Building upon the review of the literature, the primary research question was posed previously and restated here:

P₁. For Australian listed companies, what impact has the transition to the balance sheet approach under AASB 112 had on the normalising effect of tax effect accounting?

In order to answer the research question, two subsidiary questions were identified and the research method has been segregated into two key sub-sections reflecting those subsidiary questions: firstly to consider the presence and effectiveness of the normalising effect and secondly to consider the balance sheet consequences of seeking normalisation. The two following sub-sections consider each subsidiary question in turn.

4.4.1 THE PRESENCE AND EFFECTIVENESS OF NORMALISATION

In order to answer the primary research question, it was necessary to measure the presence and effectiveness of the normalising effect in the contemporary Australian context. To restate, the first subsidiary question is as follows:

S1. Does tax effect accounting have a normalising effect on the income

statement and was this accentuated by AASB 112?

This question required the normalising effect to be assessed by determining the nature of the relationship between profit before tax and profit after tax including deferred taxes, compared with profit after tax excluding deferred taxes. In particular, this assessment considered whether the inclusion of deferred taxes led to a closer relationship with profit before tax: if so, then it was said to be effective. By establishing this relationship, the research then moved to consider the extent of effectiveness: by assessing the direction and magnitude of impact by adopting Sidhu and Whittred's (1993) approach. In light of recent public attention on corporate tax avoidance, Sidhu and Whittred's (1993) approach was then adapted to consider the impact on ETRs and then more specifically whether deferred taxes reduced the variation to prima facie tax. Such a blend of approaches enables a robust insight into the contemporary normalising effect in Australia, particularly in light of the regulatory change to AIFRS. The process was then repeated, controlling for any potential industry or profit (loss) position effects.

This then provided a basis to consider the consequences of achieving that normalising effect by analysing the notion of permanent postponement and proportionate impact on the balance sheet, considered in the succeeding Sub-Section 4.4.2.

4.4.1.1 THE NATURE OF THE RELATIONSHIP

To assess the normalising effect, relating to S_1 , the notion of 'effectiveness' was considered. The nature of the relationship between profit before tax and profit after tax including deferred tax was compared with profit after tax excluding deferred taxes utilising the Spearman's rho value; in line with Slade (1990). If effective, the addition of deferred tax theoretically pulled (whether up or down) the reported tax to the 'correct' tax: as if it were a function of profit before tax. As a result, the deferred taxes removed the unreal fluctuations caused by the tax system. The notion of effectiveness described here was identified by Copeland (1968) to assess income smoothing: to be effective, it must be material; it must achieve its goal. The measure of effectiveness was suggested to be the net change caused by the device or alternative: interpreted as being effective the closer to one it becomes (Copeland, 1968). Here the aim was to measure whether TEA 'successfully' achieves the normalising of reported profits. Theoretically, without deferred taxes, there is a reduced relationship between PBT and PAT. By including the deferred tax mechanism, the relationship with profit before tax is said to be improved.

Therefore, extrapolating from Copeland (1968), the device in question becomes the application of TEA; in that the inclusion of deferred taxes would lead to the 'normalised' profit after tax. Unlike assessments of smoothing, where the issue of what degree of reduction in variability is considered sufficient to smooth (for example, Imhoff, 1977), here, the data collected enabled a pre- and post- assessment to be made to determine whether there is an improvement on the inclusion of deferred taxes. A similar measure has also been considered within other research, such as for the reliability of earnings predictions by comparing actual against predicted or 'untransformed' earnings (Deschamps & Mehta, 1980; McDonald, 1973).

In addition to a comparison of pre- and post-inclusion of deferred taxes, a third relationship was also assessed, stemming from Beaver and Dukes' (1972) notable association study bringing in the concept of net tax cash flows. As noted, Beaver and Dukes (1972) used cash flow earnings as a benchmark to compare non-deferral earnings in the event such earnings had a better association with share prices compared to deferral earnings. This stems from the argument that cash flow changes may be a better indication of wealth changes, as cash flows are not obscured by accountants' judgements and subjectivity. This is particularly relevant given the arguments by certain scholars that by excluding deferred taxes (applying the flow through method), it is simply cash-basis accounting. The third measure avoided an open interpretation of non-deferrals simply being a surrogate for cash flows, although their findings did not result in the event of nondeferrals performing better. Here rather than cash flow earnings being relevant, it was the tax cash flows of concern. As such, the following data sets were established:

- 1. Profit before tax and profit after tax including deferred tax ("including");
- 2. Profit before tax and profit after tax excluding deferred tax ("excluding"); and,
- 3. Profit before tax and profit after net tax cash flows ("net tax CFs").

Copeland's (1968) measure of effectiveness was established via Spearman's rho value, in line with Slade (1990). Spearman's rho is a nonparametric test based on ranking, utilised here as other approaches were considered inappropriate due to violations of basic assumptions (Pallant, 2011). The violation of assumptions can negate the power advantage of parametric tests and Sheskin (2011) argues that both tests will generally produce similar conclusions most of the time. According to Slade (1990), the Spearman coefficient indicates the relationship between variables, in this case the alternative measures for profit. The coefficient, identified as the rho value, falls between -1 and 1; where:

- A negative rho value indicates a negative relationship, the closer to -1 the stronger; conversely,
- A positive rho value indicates a positive relationship, the closer to 1 the stronger; and:
- A rho value of zero indicates no relationship.

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Based on the normative theory, there should be a stronger correlation within data set 1 (including deferrals) compared with data set 2 (excluding deferrals). This was found to be the case in each year (1970-1988) within Slade's (1990) study, as indicated by the rho value; however both data sets had a strong relationship with scale being the only differing factor. Slade (1990) also noted that the relationship was relatively stable. Therefore in terms of effectiveness described here, the inclusion of deferred taxes led to a rho value closer to one, meaning that it would be described as effective. Similarly, if the flow through method is argued to some degree to be equivalent to cash-basis accounting, similar outcomes would be expected between excluding deferrals and utilising net tax cash flows. As such, the following null hypotheses and alternative hypotheses are formed:

H_{0.1}. There is no relationship between profit before tax and profit after tax including deferred taxes (data set 1);

H_{0.2}. There is no relationship between profit before tax and profit after tax excluding deferred taxes (data set 2); and,

 $H_{0.3}$. There is no relationship between profit before tax and profit after net tax cash flows (data set 3).

H_{1.1}. There is a strong relationship between profit before tax and profit after tax including deferred taxes (data set 1); and,

H_{1.2}. There is a strong relationship between profit before tax and profit after tax excluding deferred taxes (data set 2).

H_{1.3}. There is a strong relationship between profit before tax and profit after net tax cash flows (data set 3).

Particular to the Australian context within the timeframe is the transition to the AIFRS. Within Slade's (1990) American study, the timeframe related to the income statement approach to deferred tax allocation only, with the transition to the balance sheet approach occurring shortly after. This study, instead, considers both the income statement approach and balance sheet approach within the established timeframe. Therefore, beginning with the benchmark of the income statement approach to TEA, the following hypothesis was established to determine the effectiveness of TEA at normalising the reported profit:

H_{1.4}. The relationship specified in data set 1 is more likely to be stronger than the relationship specified in data set 2 during the AGAAP period.

Additionally, although cash flows are devoid of accounting noise, cash flows are not short of problems of timing. Furthermore, scholars, such as Chambers (1996) and Rosenfield and Dent (1983a, 1983b), argued that the flow through method is not consistent with cash-basis accounting. Therefore, the relationship specified in data set 3 should be the weakest:

H_{1.5}. The relationship specified in data set 3 is more likely to be weaker than the relationships specified in data sets 1 and 2 during the AGAAP period.

The transition to the balance sheet approach under AASB 112 was said to lead to a more holistic inclusion of the tax consequences; regardless of whether **H**_{1.4} was supported, the relationship arguably should strengthen on transition. However, much of those additional temporary differences do not impact the income statement: they are recognised directly to equity; raising questions as to what effect the transition had (Hanlon, Navissi, et al., 2014). Hanlon, Navissi, et al. (2014) provided asset revaluations as an example:

Because upward revaluations are directly recorded in the revaluation reserve there is no effect on accounting profit (taxable income). Crediting equity directly bypasses any deferred tax consequences under AASB 1020, while a DTL is recognized under AASB 112 (p.89).

Irrespective of this, others have argued that the balance sheet orientation leads to increased volatility (for example, Dichev, 2008). Profit before tax can also affect the

volatility of the impact on TEA. This can be compared to when Chaney and Jeter (1994) highlighted the need to compare partial and comprehensive allocation; reported earnings can be tainted with differing levels of 'garbling' depending upon the measurement treatment accounting specifies in order to describe the underlying economic events. Similarly, with the transition to AIFRS the recognition criteria for deferred tax assets loosened from a virtual certainty test to a probable test. However, scholars such as Herbohn et al. (2016) and Herbohn et al. (2010) argue that the judgement and discretion under both standards (the former having limited guidance and lack of definition, whilst the current having a less stringent test) lead to recognition criteria not being meaningfully different between the two.

Based on such a consideration, the transition to the balance sheet approach, at the minimum, should have enabled the relationship established in $H_{1.4}$ to have been maintained, if not strengthened:

H_{1.6}. The relationship specified in data set 1 is more likely to be stronger than the relationship stated in data set 2 during the AIFRS period.

If accounting is one numerical perspective of real world events – with some arguing the return to a balance sheet focus has led to the loss of business reality, creating noise and increased volatility – it was questionable whether the data set 3 relationship would continue to be the weakest association. However, the taxation system is also a dynamic social, political system:

H_{1.7}. The relationship specified in data set 3 is more likely to be weaker than the relationships specified in data sets 1 and 2 during the AIFRS period.
The rho values were then plotted for each year to visualise the change caused by the deferred tax device. Thus, a consideration can be garnered regarding any shift in effect over the timeframe, depicted in Figure 4-3. By analysing more than the actual year of transition, confounding effects can be eliminated, however it can never be absolutely certain that there is not some other variable impacting the results contemporaneously, such as the history effect (Ryan et al., 2002). Given the quasi-experimental setting – allowing for before and after information to be obtained from the notes to the financial statements within the dynamic context – the cross-sectional assessment was strengthened, so those other effects reflect that dynamic real world context to which the phenomenon is being examined within.





By analysing the nature of the relationship within the data sets, it can be determined whether the inclusion of deferred taxes leads to an improved relationship. If so, then TEA is concluded to be effective at normalising reported profits, which was assessed as a 'successful' normalisation. To then provide insight into the extent of effectiveness (ineffectiveness), the study was extended to consider the direction and magnitude of any impacts. This embellishes upon the approach taken in Sidhu and Whittred's (1993) Australian research to garner a more meaningful explanation. What change the deferred tax device created was examined in terms of the impact on tax and profits, and ETRs considered against the more politically orientated notion of prima facie tax.

4.4.1.2 DIRECTION AND MAGNITUDE OF IMPACT

To extend the analysis of change caused by the deferred tax device, as well as to consider the relevant Australian studies in this contemporary setting, a further analysis was undertaken on the income statement impact. The strategy undertaken stems from Sidhu and Whittred (1993), who considered the directional and magnitudinal impact in relation to adoption of TEA during the period 1970 to 1980. The methodology adopted was then extended to consider the impact of deferred tax on ETRs, given the proliferation within the media of reports on corporate avoidance and tax shelter activity. A final extension was then taken to narrowly view normalisation as seeking to reduce the variation to prima facie tax in Australia, being the Australian corporate tax rate of 30 per cent. This approach is particularly narrow in light of the extent of corporations' global reach.

Sidhu and Whittred (1993) considered adoption rates when the DS4 amendment was issued in the 1970s. The method included calculating the direction and percentage impact of TEA, which provided insight into the relative impact of TEA. Here, that methodology has been adopted, building onto the assessment of the effectiveness of TEA at normalising reported profits. Their strategy encompassed the computation and analysis of two ratios: firstly, to consider the direction and percentage impact of TEA on the reported tax expense (RTE: equation SW.1); and secondly, to consider the direction and

percentage impact of TEA on after tax profits (PAT: equation SW.2). The two ratios are presented as follows:

TEA Percentage Impact (RTE) =
$$\frac{DTE}{ABS(RTE-DTE)}$$
 (SW.1)

TEA Percentage Impact (PAT) =
$$\frac{DTE}{ABS(PAT-DTE)}$$
 (SW.2)

In practice, given the denominator for SW.1 is reported tax less deferred tax, a number of observations were anticipated to be lost due to division zero limitations. To compute these ratios, they were required to be unpacked into their underlying components of before and after TEA being applied:

$$Pre TEA (RTE) = \frac{RTE - DTE}{ABS(RTE - DTE)}$$
(SW.1_a)

Post TEA (RTE) =
$$\frac{\text{RTE}}{\text{ABS(RTE-DTE)}}$$
 (SW.1_b)

And:

$$Pre TEA (PAT) = \frac{RTE - DTE}{ABS(PAT - DTE)}$$
(SW.2a)

$$Post TEA (PAT) = \frac{RTE}{ABS(PAT-DTE)}$$
(SW.2_b)

Expanding on these ratios, more recent events have been considered. There has been strong recent criticism of the business tax system within the Australian context with a similar resurgence of interest in the accounting system's treatment internationally (EFRAG & ASB, 2011; EFRAG & FRC, 2013). The popularist research, such as that of the United Voice and Tax Justice Network Australia (2014), considered tax foregone reflected by accounting numbers. This was without any consideration of accounting profit being a different measure to taxable income, due to differing objectives and methodologies. This limited perspective is inconsistent with findings internationally that there is a deficiency in understanding of what users perceive as useful when it comes to tax disclosures. Therefore, SW.2 was unpacked, relabelled (ETR.1 and ETR.2) and adjusted to reflect the additional focus: to consider the magnitudinal impact on ETRs:

Pre TEA (ETR) =
$$\frac{\text{RTE} - \text{DTE}}{\text{ABS(PBT)}}$$
 (ETR.1)
Post TEA (ETR) = $\frac{\text{RTE}}{\text{ABS(PBT)}}$ (ETR.2)

The application of TEA should theoretically have an impact if effective, however the direction and magnitude is dependent on the entity's activities for the financial year in question, as described and depicted in Chapter 3, with Figure 3-2 reproduced in Figure 4-4.

Figure 4-4 The Normalising Mechanism (Reproduction of Figure 3-2)



Although the Australian Corporate Tax rate is set at 30 per cent of taxable income, due to the bespoke nature of the tax system and the various measures that go beyond taxable income as well as the global reach of corporations, this rate is more dynamic within the real world context.

Despite this, normalisation was then given a more narrow interpretation in light of the recent 'popularist' and political spotlight that has been focussed on corporate taxes in Australia. At present, this corporate tax rate sits at 30 per cent. In particular, rather than having the dynamic nature of the 'correct' tax rate above, the ETR is static, set at 30 per cent of profit before tax: prima facie tax (PF30). TEA's effectiveness, or otherwise, was connected to the reduction in variation to PF30 – essentially closing the gap. Therefore, the absolute variance to 30 per cent prima facie tax for both ETR.1 and ETR.2 were computed. Then the percentage point change in variation was considered:

TEA Percentage Impact (PF30) =
$$PF30_a - PF30_b$$
 (PF30.1)

Where:

Pre TEA (PF30) = ABS
$$(0.30 - ETR.1)$$
 (PF30_a)
Post TEA (PF30) = ABS $(0.30 - ETR.2)$ (PF30_b)

From computing the stated ratios, both the magnitude and directional information (negative, no impact and positive impact) were assessed and the latter statistically tested using the Signed-Rank Test (sign test), a non-parametric test.²⁹ The sign test considers whether there is a statistical difference in directional behaviour before and after TEA is

²⁹ Although this approach is limited as it only uses the directional information, the more statistically powerful Wilcoxon Matched-Pairs Signed-Rank Test, which utilises directional and magnitudinal information, as well as being largely unaffected by outliers, required symmetry of distribution of differences around the median, a condition that was violated.

applied by analysing the sign of the difference score, with the assumption made that the median difference was zero (null hypothesis):

H_{0.4}. During the AGAAP period, the mean difference is zero: Md. (SW.1, SW.2) = 0; and, H_{0.5}. During the AIFRS period, the mean difference is zero: Md. (SW.1, SW.2) = 0. H_{0.6}. During the AGAAP period, the mean difference is zero: Md. (PF30) = 0; and, H_{0.7}. During the AIFRS period, the mean difference is zero: Md. (PF30) = 0.

This is interpreted as there being no difference in sign before or after the deferred taxes are applied: if the null hypothesis was supported, some differences will be positive and some will be negative (Boston University, 2013). The directional information in respect to ETR corresponds directly to that of SW.2, therefore it was excluded from the hypotheses and was considered only in respect to the magnitude of movement in ETRs.

Since the mid-1990s, TEA has been mandatory in Australia – unlike the period in which Sidhu and Whittred (1993) considered TEA adoption in respect of mining and industrial companies. During that time, although there was an even spread between increasing and decreasing impacts during the pre-DS4 period (1970-74), deferred taxes more often increased the tax expense (reducing profit) for the mining companies whilst decreasing the tax expense (increasing profit) for the industrial companies during the post-DS4 periods between 1975-80. Arguably, once an entity has adopted TEA, such a pattern would not be expected to continue indefinitely. Instead an expectation was considered that a plateau could theoretically be reached; i.e. a point of saturation. This in essence links into the permanent postponement and asset acquisition patterns described by scholars such as Voss (1968), the state of the economy (boom or bust) described by many (for example, Davidson et al., 1984; Livingstone, 1969; Wise, 1986), as well as being related to earnings research in other areas. Barton and Simko (2002), for example, noted that the extent to which the balance sheet was already overstated impacted on the likelihood of earnings surprises. This is consistent with Copeland's (1968) argument that recognising deferred taxes leads to a future action in a later period. Therefore, the alternate hypothesis is stated as follows in respect to the AGAAP period:

H1.8. The directional impact of deferred tax on reported income tax (after tax profit) will be equally increasing and decreasing, during the AGAAP period: Md. (SW.1, SW.2) = 0 (concurring with null hypothesis H0.4).

However, the regulatory change in 2005, which saw the income statement approach to TEA replaced with the balance sheet approach, not only expanded the classes of deferred taxes recognised but also loosened recognition criteria of deferred tax assets. This is similar to the change considered by Sidhu and Whittred (1993) before the further amendment in 1976 that their analysis observed.³⁰ This loosening of the recognition criteria could have been an impetus for the potential plateau to change. Therefore, the alternate hypothesis in respect to the AIFRS is as follows:

H1.9. The directional impact of deferred tax on reported income tax (after tax profit) will <u>not</u> be equally increasing and decreasing, during the AIFRS period: Md. (SW.1, SW.2) ≠ 0.

In addition, the chi-square test for goodness of fit test (or the one-sample chi-square), was utilised to consider the difference between the results of this study compared with those of Sidhu and Whittred (1993) in respect to SW.1. This test compares the proportion of cases within the observed data with the hypothesised values (Pallant, 2011). In this case,

³⁰ Sidhu and Whittred's (1993) study considered the pre-DS4 (1970-1974) with a stricter test, post-DS4 (1975-76), which loosened requirements, and then 1977-80 (DS4 amended), which again restricted recognition.

the hypothesised values are Sidhu and Whittred's (1993) findings: being 63.6 per cent income tax reducing and 34.2 per cent income tax increasing.

In respect to PF30, given the aim of TEA is to normalise, and that prima facie tax sits at 30 per cent, it could be anticipated in the contemporary political climate that the application of deferred tax allocation should reduce any variation between prima facie tax and reported income tax. Furthermore, within the popularist debate, 30 per cent was set as the benchmark when considering whether entities are paying their 'fair share' to determine the amount of tax the entities have 'forgone' or 'avoided'. Therefore, the alternate hypotheses are stated as follows:

- H_{1.10}. The directional impact of deferred tax on the PF30 will <u>not</u> be equally increasing and decreasing, during the AGAAP period: Md. (PF30) ≠ 0; and,
- H_{1.11}. The directional impact of deferred tax on the PF30 will <u>not</u> be equally increasing and decreasing, during the AIFRS period: Md. (PF30) \neq 0.

Sidhu and Whittred's (1993) strategy, included capping percentage impacts in excess of ± 100 per cent at 100 per cent. This approach is a form of Winsorising, where extreme values are limited to reduce the effect of spurious outliers (Cardillo, 2011). Winsorising has been described as replacing outliers that are considered 'incorrect' or 'an exaggeration of the truth' with more plausible values. Trimming – an alternative to Winsorising – is a more extreme approach, discarding data rather than transforming it (Cardillo, 2011; Gosh & Vogt, 2012). Having outliers may lead to a failure to detect an effect that is present (type II error). Conversely, Winsorising or trimming introduces statistical bias as well as having the potential to undervalue those outliers (Gosh & Vogt, 2012). Furthermore, Winsorising can lead to larger weightings on the edge of the distribution and therefore could amplify their influence (Hellerstein, 2008).

This study considers a narrowly specified context, a population based on a set criteria, to determine the presence and effectiveness of the underlying justification, a normative theory for the application of TEA; so if outlier activity was present, then it was arguably relevant to the assessment of that 'real world' context. Winsorising has been used by other researchers. For example, Dyreng et al. (2016) Winsorised ETR at [0,1] and all other variables at the 1st and 99th percentiles, as well as removing outliers in the top two per cent. Wahab and Holland (2015) and Phillips (2003) similarly removed such outliers, describing concern over controlling nonrecurring statutory reconciliation items. Chang et al. (2009) identified and Winsorised only extreme outliers at the univariate level. The latter can be compared to Sidhu and Whittred (1993), who Winsorised at the bivariate level: the percentage impact (movement). Given the close proximity of Sidhu and Whittred's (1993) study and this study's focus on the context, there was justification to follow such an approach and avoid discarding company observations. In doing so, capping did not correct normality issues or outlier activity entirely; therefore, median and quartiles continued to be preferred. Looking specifically at the statistical tests used, the sign test is unaffected by capping at the univariate level, given only directional information is used therefore concern over outliers was minimised in respect to test outcomes.

This section outlined the approach to assess the net change caused by TEA's application within the accounts, in order to answer the first subsidiary research question related to the income statement. Firstly, the effectiveness of TEA at normalising reported profits was examined by analysing the nature of the relationship between the stated data sets stemming from the company observations collected. Then the informativeness of such results was extended to consider the magnitude and direction of impact utilising Sidhu and Whittred's (1993) approach, followed by a specific consideration to ETRs and finally the more politically directed 'fair share' of tax that is said to be 'avoided'. In this respect, the normalising effect was given a more narrow interpretation based on a static rate of tax, where a reduction in variation to PF30 was supportive of effective normalisation.

Overall, the stated method enabled insight into the level of 'success' of the normalising effect, whether it was present and therefore effective and how this changed on transition to the balance sheet approach to TEA. Having such insight, the consequences of attempting to achieve effective normalisation is considered in the following sub-section; forming the balance sheet focus encompassed within the second subsidiary research question. In particular, the notion of permanent postponement and proportionate impact are considered.

4.4.2 CONSEQUENCES OF NORMALISATION

The analysis then shifted to the balance sheet perspective; that is, to consider the consequences of seeking normalisation. TEA has been described as a cycle, with the income statement impact representing only half of the deferred tax cycle, therefore the balance sheet perspective within the defined company context is reflected in the second subsidiary question, **S**₂, repeated as follows:

S₂. What are the consequences of applying tax effect accounting on the balance sheet?

In order to theoretically achieve the favourable outcome of normalisation, the consequence is the balance sheet impact, arguably an adverse effect. The impact on the balance sheet in relation to normalisation brings new insight into the permanent postponement phenomenon, particularly relevant over the period that traverses the former and current approaches to TEA (income statement approach, balance sheet approach). In line with the assessment of the normalising effect on the income statement, the magnitude and direction of impact was considered in respect to net deferred taxes, deferred tax liabilities and deferred tax assets. Then the data was controlled for growth, to consider the relative impact conforming to more recent research (for example, Chang et al., 2009; Colley et al., 2006). Such findings were contrasted between sub-periods, reflecting the shift between approaches and in particular the comparative year of change (Goodwin et al., 2008).

4.4.2.1 PERMANENT POSTPONEMENT

From the theoretical debate over the justification of inter period tax allocation, much empirical research supports the arguments against it, at least in relation to comprehensive tax allocation (Davidson et al., 1984; Davidson et al., 1977; Wise, 1986). Typically, the focus of such research is on the deferred tax liability. In itself however, this is not representative of the complete impact on the balance sheet as it ignores the deferred tax assets and set-off provisions. Deferred tax assets have been shown to have important implications – such as in respect to issues of financial distress (Patel, 1991) and signalling (Herbohn et al., 2016) – and without consideration of their part, the full cycle between the income statement and balance sheet is lost. Therefore, to consider the consequences of normalisation in respect of the notion of permanent postponement, the net deferred tax and deferred tax asset presence was also included.

Initially, the company observations were broken down into direction of movement: whether there was a debit movement, no movement, credit movement or no recognition year-to-year. The movement was categorised as follows:

- Debit Movement (Decrease in DTL/Increase in DTA)
- No Movement
- Credit Movement (Increase in DTL/Decrease in DTA)
- Deferred taxes not Recognised

The study then narrowed its focus onto those that experienced a debit or credit movement to consider the magnitude. The year-to-year dollar values were obtained for the credit (debit) movements for each company that reported the deferred taxes. Considering the movement reduced the number of years presented, reflecting the beginning years in each sub-period lacking the prior year balance to calculate from. The transition year (2005 and 2005 comparative) was considered separately.

The frequency of the category of direction of movement was then tested using the onesample chi square test, or chi-squared test for goodness of fit, which assesses whether there is a difference in the proportion of each category (credit or debit movement) with the null hypothesis as follows (Pallant, 2011):

 $H_{0.8}$ There will be an even proportion (50/50) of credit and debit movements during the AGAAP period; and,

H_{0.9} There will be an even proportion (50/50) of credit and debit movements during the AIFRS period.

Given the argument that deferred tax liabilities are permanently deferred, if permanent postponement was occurring then considering only the direction category, the expected outcome would be that there would be more credit movements than debit movements: H_{1.12} There will be more credit movements than debit movements during the AGAAP period; and,

H_{1.13} There will be more credit movements than debit movements during the AIFRS period.

The resulting findings were tabled in a similar manner to that of Davidson et al. (1977), Skekel and Fazzi (1984), Davidson et al. (1984) and Wise (1986).

From an aggregate perspective, it is the overall dollar movement that is relevant to the permanent postponement argument. Davidson et al. (1977, p. 58) noted in respect to their findings, in support of permanent postponement, that "the evidence makes it impossible to conclude that, in an aggregate sense, the deferred tax credits are being liquidated". The aggregate dollar movement was therefore considered in respect to the deferred tax balances again being consistent with the early research on permanent postponement (Davidson et al., 1977).

Focusing on the dollar changes in deferred taxes, the yearly movement in relation to total movement was tabularised based on Davidson et al. (1977, p. 58). Those firms that did not recognise deferred taxes were removed from the assessment and again the first year in each sub-period by function was excluded. This approach included assessing the average and median balance, the dollar increase and decrease and net change, then observing the cumulative dollar change over time. This was to assess whether overall there were greater increases or decreases in the net balance (albeit Davidson et al. (1977) and others considered deferred tax liabilities only). Therefore, to be consistent with permanent postponement, the following hypothesis should be supported:

H_{1.14} There will be more credit dollar movements exceeding debit dollar movements during the AGAAP period;

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H_{1.15} There will be more credit dollar movements exceeding debit dollar movements during the AIFRS period;

H_{1.16} The cumulative dollar balance will be in credit during the AGAAP period; and, H_{1.17} The cumulative dollar balance will be in credit during the AIFRS period.

Here the purpose of the study was not only to consider the permanent postponement argument in light of this contemporary setting, but to assess also the total deferred tax impact on the balance sheet in light of the quest to normalise. Therefore, the methodology to assess permanent postponement was repeated not only for deferred tax liabilities, in which the main focus of the argument lies, but also net deferred taxes (aligned with Sidhu and Whittred (1993)) and deferred tax assets (enlightened by the findings of Patel (1991), Sidhu and Whittred (1993) and Herbohn et al. (2016)).

This allowed for greater insight to the full impact of deferred tax liabilities, particularly where the set-off provisions allow for blurring of deferred tax assets and liabilities. In addition, considering net deferred taxes provides a more conservative approach to permanent postponement, as it brings in a reduced balance to begin with. If consistent results are found in respect of net deferred taxes, it is argued a more powerful and robust assessment of the permanent postponement would be garnered.

Although permanent postponement presents an important avenue in the evolution of TEA and its continued debate, approaches to examine the occurrence do not consider growth. Therefore, to extend the analysis of the balance sheet impact a further assessment was undertaken, a consideration of the proportionate, or relative, impact.

4.4.2.2 THE RELATIVE IMPACT

The assessment of the magnitude of movement considered in the previous sub-section is limited, as it does not consider the underlying growth of the company set. The dollar figure may grow but it may simply reflect a stable proportion of the balance sheet. Several researchers, such as Beechy (1983), Colley et al. (2006), Sidhu and Whittred (1993), have also considered this relationship. These studies found relatively comparable results, generally finding somewhat stable or increasing trends. More recently, Chang et al. (2009) highlighted that excluding growth would overstate the deferred tax liabilities.

Variation has been observed in the denominator used to consider the proportionate impact; for example, Chang et al. (2009) utilised total tangible assets; Colley et al. (2006) utilised total assets; Sidhu and Whittred (1993) utilised total equity for net deferred tax liabilities, whilst total assets were used for net deferred tax benefits; and Beechy (1983) considered deferred tax credits in respect to both total assets (to consider growth) and total equity (to consider leverage). This concern can be considered in light of the measure used by McDonald (1973, p. 505) to assess the reliability of earnings predictions by comparing the difference between predicted earnings and actual earnings:

To enable a comparison between different entities within McDonald's (1973) sample, the denominator enabled the measure to be relative to something. Christie (1987) termed this as the deflator and more simply explained that the purpose of a deflator is to control for size error. Adding that, the deflator is more effective when it is an independent variable (Christie, 1987). McDonald (1973) used the predicted earnings as the denominator and

the measure produced over predictions (as negative numbers) and under predictions (positive numbers). Differences in an entity's magnitude have been avoided by others with the use of proportionate calculations, including Deschamps and Mehta (1980), although instead of using the extrapolated (in the case of McDonald's (1973) use of 'predicted earnings') earnings they used the 'untransformed' annual earnings (Deschamps & Mehta, 1980).

Based on this review, the yearly ratio – of deferred tax assets (liabilities) as a percentage of total assets (excluding deferred taxes) – was calculated for each company observation over the timeframe. Total assets had deferred taxes adjusted out in order to maintain independence of the deflator. The relationship of deferred taxes to total assets was assessed utilising Spearman's rho. In considering the expected outcomes of such an analysis, as previously described, the literature described the balance sheet as being affected by the inclusion of 'dubious' deferrals, arguably permanently deferred. However, these balances may be more simply aligned proportionately to the assets of the entity – reflecting the business activity.

To consider such a relationship, Spearman's rho was utilised once more. Therefore, the null hypotheses and alternative hypotheses are stated below:

 $H_{0.10}$ There is no relationship between deferred taxes and total assets excluding deferred taxes during the AGAAP period; and,

H_{0.11} There is no relationship between deferred taxes and total assets excluding deferred taxes during the AIFRS period.

H_{1.18} There is a strong relationship between deferred taxes and total assets excluding deferred taxes during the AGAAP period; and,

H_{1.19} There is a strong relationship between deferred taxes and total assets excluding deferred taxes during the AIFRS period.

Furthermore, rather than an increasing presence as outlined within the permanent postponement argument, the relative argument suggests stability over time. Therefore, the following hypotheses are specified:

H_{1.20} The relationship between deferred taxes and total assets excluding deferred taxes during the AGAAP period should be relatively stable; and,

H_{1.21} The relationship between deferred taxes and total assets excluding deferred taxes during the AIFRS period should be relatively stable.

In terms of stability, it was determined that a shift in the strength of the relationship would be classed as unstable (such as going from strong to moderate or moderate to weak³¹) combined with a general fluctuating pattern in the relative balance.

Despite this, particular to the Australian context within the timeframe, there is the transition to the balance sheet approach to TEA. With this, as described earlier, there is said to be a more holistic inclusion of the tax consequences. Therefore, with any potential amplification in the impact stemming from the regulatory change that occurred within the Australian context, the correlation between deferred taxes during the AIFRS period should be stronger than that of the AGAAP period:

H_{1.22} The relationship between deferred taxes and total assets excluding deferred taxes is more likely to be stronger during the AIFRS period than the AGAAP period.

Furthermore, although deferred taxes are arguably stable with business activity, the more complete reflection of the entity tax position – the inclusion of more deferred taxes

³¹ A weak relationship is defined as a correlation between 0.3 and 0.49, a moderate relationship is defined as a correlation between 0.5 and 0.79 and a strong relationship is defined as a correlation above 0.8.

captured under temporary differences – is likely to see some increase in the proportion of deferred taxes recognised on the balance sheet:

H_{1.23} The relative impact of deferred taxes on the balance sheet will be higher under the AIFRS period compared to the AGAAP period.

As described, the issue of set-off provisions was considered once more. Given both the current AASB 112 and the former AASB 1020 allow for the ability to set-off deferred tax assets and liabilities, there was the potential for the set-off provisions to obscure the relative impact. To fully appreciate this potential, the set-off provisions were reversed and the relative impact and correlations were re-assessed. This was based on a reduced company set, including only those company observations that provided sufficient detail to determine the set-off components.

4.5 SUMMARY

This inquiry will culminate in an exploration of the implications of the TEA standard. Firstly, it will be pertinent to ask whether TEA had an effect (normalisation) and, if so, whether its effect was improved on transition to the balance sheet approach. Furthermore, building upon this avenue of discussion will be a reflection of the prescriptive theories underpinning TEA within the more general context of the accounting system. This is highly important given the social underpinning and dynamic nature of accounting.

5 FINDINGS

This chapter presents the results of the data analysis as per the methodology described in Chapter 4. Firstly, the company context is considered to gain an understanding of the real world environment in which the normalising effect and subsequent consequences were examined (Section 5.1). This then leads into the key section of measuring the presence and effectiveness of normalisation, with a focus on the income statement. Within this section, the nature of the relationship between profit before tax and after tax, including and excluding deferred taxes – to determine the presence and effectiveness of the normalising effect – is examined. The extent of normalisation is then considered by exploring the direction and magnitude of the normalising effect (Section 5.2).

Section 5.3 then shifts the focus to the balance sheet. Here, the consequence of seeking normalisation is considered, both in terms of the permanent postponement argument as well as the relative impact. The results are then summarised, leading to the discussion of the findings that is presented in Chapter 6. The chapter now begins with the consideration of the company context.

5.1 COMPANY CONTEXT

This section, firstly, provides an overview of the frequency diagnostics over the timeframe, to gain an understanding of the dynamics within the company set and then considers the key descriptive statistics relating to the income statement. This overview enables a feeling to be garnered of the contemporary company context in which this

research sits, before considering the normalisation phenomenon itself and its subsequent balance sheet consequences.

5.1.1 FREQUENCY DIAGNOSTICS

The real world examined involved a total of 990 company observations obtained from the financial statements over the 10 year timeframe, 2002 to 2011 (inclusive of the 2005 comparative year). Out of those 990 company observations, 360 related to the AGAAP period (2002 to 2005.1) with the further 630 relating to the AIFRS period (2005.2 to 2011). All 990 company observations were in Australian currency (\$).

Across the timeframe, the majority (78.3%) of company observations revealed a profit position with most (75.1%) companies reporting an income tax expense (the remaining 10.8% reported an income tax benefit and 14.1% reported a zero dollar tax obligation). Of those companies reporting a profit, most (92.3%) also reported an income tax expense. Similarly, most loss makers reported either a zero tax obligation or a benefit (87.0%). In only six company observations did the reported income tax expense (benefit) change the profit (loss) position.

Comparing profit and loss makers by year, those reporting profits ranged between 70 and 84 per cent, with the maximum frequency occurring in 2005.2 (the comparative year under the balance sheet approach). Losses represented a much smaller frequency, ranging between 16 and 30 per cent. The highest observed frequency of loss occurred in the first couple of years, indicating a downward trend in loss makers. This trend then reversed around 2005 and continued increasing until 2009, then declining once more thereafter. This trend is presented in Figure 5-1.



Figure 5-1 Percentage Frequency of Profit (Loss) Position

Examination of the breakdown of profit (loss) position by industry highlights the high presence of loss makers within the MAE group (Table 5-1), such an observation being consistent with research such as Chang et al. (2009). Of the 990 observations, MAE loss makers represented 74.4 per cent and 75.2 per cent of total loss makers during the AGAAP and AIFRS periods respectively. Within the MAE company set, loss makers encompassed 49.3 per cent during the AGAAP period and 39.5 per cent during the AIFRS period.

	Pro	ofit	Lo	Total			
	N	%	Ν	%	N		
AGAAP							
MAE	69	50.7	67	49.3	136		
FIN	55	91.7	5	8.3	60		
IND	55	85.9	9	14.1	64		
ОТН	91	91.0	9	9.0	100		
Total	270	75.0	90	25.0	360		
AIFRS							
MAE	144	60.5	94	39.5	238		
FIN	98	93.3	7	6.7	105		
IND	96	85.7	16	14.3	112		
ОТН	167	95.4	8	4.6	175		
Total	505	80.2	125	19.8	630		
Pooled	775	78.3	215	21.7	990		

Table 5-1 Industry Breakdown by Profit (Loss) Position

The level of detail provided in the notes in respect of deferred taxes varied across company observations. In respect of the reported income tax on the income statement, 710 company observations provided a breakdown of the components, leaving 28.3 per cent as non-disclosing. This level of non-disclosure is presented in Table 5-2.

Table 5-2 Pattern of Non-Disclosure

Profit Position	Total	AGAAP	AIFRS
Loss Makers	215	90	125
Zero Dollar Reported Tax	119	64	55
Non-Recognition of Deferrals	123	64	59
Non-Disclosure of Income Tax Components	107	77	30
Profit	775	270	505
Zero Dollar Reported Tax	21	12	9
Non-Recognition of Deferrals	25	14	11
Non-Disclosure of Income Tax Components	173	169	4
Pooled	990	360	630
Zero Dollar Reported Tax	140	76	64
Non-Recognition of Deferrals	148	78	70
Non-Disclosure of Income Tax Components	280	246	34

With respect to each of profit and loss positions, non-disclosure was more prevalent among loss makers with 49.8 per cent non-disclosing, compared to 22.3 per cent of profit makers. An examination of which sub-period the non-disclosures occurred in, revealed that 87.9 per cent of all non-disclosure observations occurred during the AGAAP period. Of the 360 AGAAP period observations, this amounted to 68.3 per cent, whereas only 5.4 per cent of the 630 AIFRS period observations were characterised by non-disclosure. Further examination provided increased clarity pertaining to this difference:

- During the AGAAP period 85.6 per cent of loss makers were non-disclosing, compared to 62.6 per cent of profit makers; and,
- During the AIFRS period less than one per cent of profit makers were nondisclosing, whilst 24 per cent of loss makers continued to non-disclose.

Of those not reporting the breakdown of income tax on the income statement, 48.9 per cent related to the MAE industry group, with the three remaining groups varying between 10.0 - 22.9 per cent of total non-disclosures. Non-disclosure by MAEs, as split between

each period, revealed 76.4 per cent related to AGAAP observations with 46.3 per cent of AIFRS observations.

Of the 990 company observations, 842 (85.1%) reported deferred taxes on their balance sheets; being either a deferred tax asset, deferred tax liability or both. Of the remaining 148 company observations that did not recognise deferred taxes, 52.7 per cent (78) occurred under AGAAP and 47.3 per cent (70) under the AIFRS period. Despite this reasonably even spread, the proportion was more identifiably different: 21.67 per cent of AGAAP and 11.11 per cent of AIFRS. Again, most occurrences of non-recognition were found within the MAE industry group, representing 88.5 per cent of non-recognition company observations (46.3% of MAE during AGAAP, 28.6% during AIFRS). This is linked to the higher proportional presence of loss makers within the MAE industry group (as previously highlighted, loss makers constituted 49.3% during the AGAAP period and 39.5% during the AIFRS; whereas other industries ranged between 4.6-14.3%).

Irrespective of the profit position, 130 (92.9%) of the company observations that reported a zero income tax on the income statement, did not disclose deferred taxes on their balance sheet, with most being loss makers (119: 85.0%). The frequency of recognising deferred taxes for loss makers increased over the majority of the timeframe. The recognition of deferred taxes whilst being a loss maker ranged from between 20 to 41 per cent during the AGAAP period and between 29 and 76 per cent for the AIFRS period. The final three years, 2009 to 2011, presented the highest recognition rates, of between 63 and 76 per cent. This can be observed in Figure 5-2.



Figure 5-2 Frequency of Loss before Tax against Deferred Tax Recognition

Of those company observations reporting deferred taxes on the balance sheet, 688 (81.7%) reported a deferred tax asset whilst 703 (83.5%) reported a deferred tax liability. Considering their net deferred tax position, 410 (48.7%) were in a net deferred tax asset position, 428 (50.8%) in a net deferred tax liability position, with a further four observations presenting a net zero deferred tax balance (0.5%). The frequency of net positions is presented in Figure 5-3, as a percentage of companies reporting deferred tax each year (totalling 842).



Figure 5-3 Percentage Frequency of Net Deferred Tax Position

In respect to the level of detail for deferred tax disclosures on the balance sheet and accompanying notes, a noticeable comparison was identified – similar to that of the disclosure of the components of the reported income tax expense. In particular, a substantial increase in detailed disclosure occurred in the AIFRS period compared to the previous AGAAP period. Within the AGAAP period, a simple repeat of the balance sheet total was often included within the notes to the financial statements (labelled as 'insufficient detail'; see Figure 5-4).





The level of detail within the notes regarding deferred tax balances varied from a thoroughly detailed breakdown of each deferred tax balance (AGAAP: 16.7%; AIFRS: 78.4%), to a merged net deferred tax breakdown (AGAAP: 0.0%; AIFRS: 8.7%), to a mere repeat of one or both balances reported on the balance sheet (AGAAP: 61.7%; AIFRS: 8.1%). Further detail on the breakdown is found in Table 5-3.

	Pooled		MAE		FIN		IND		ОТН	
	No	%	No	%	No	%	No	%	No	%
AGAAP										
Detailed Disclosure	60	16.7	11	8.1	29	48.3	9	14.1	11	11.0
Merged DT Disclosure									•	
Non-Recognition	78	21.7	63	46.3			12	18.8	3	3.0
Insufficient Detail	222	61.7	62	45.6	31	51.7	43	67.2	86	86.0
Total	360	100.0	136	100.0	60	100.0	64	100.0	100	100.0
AIFRS										
Detailed Disclosure	494	78.4	151	63.4	105	100.0	92	82.1	146	83.4
Merged DT Disclosure	55	8.7	8	3.4			18	16.1	29	16.6
Non-Recognition	70	11.1	68	28.6			2	1.8		
Insufficient Detail	11	1.7	11	4.6						
Total	630	100.0	238	100.0	105	100.0	112	100.0	175	100.0

Table 5-3 Pattern of Level of Breakdown between Industry

Only the FIN industry group showed comparability between detailed disclosure and insufficient disclosure during the AGAAP period and complete detailed disclosure during the AIFRS period. The MAE industry group presented with the most non-disclosure during both periods and were the only group to continue with insufficient disclosure during the AIFRS period, albeit only a small percentage (4.6%) did so.

From a focus on frequency, the review of the company context now turns to consider the income statement.

5.1.2 THE INCOME STATEMENT DIAGNOSTICS

The income statement items reviewed include profit (loss) before tax (PBT); reported income tax expense (benefit) (RTE); and the components of RTE, including current and deferred tax expense (benefit). The presence of outlier activity and skew led to the median and quartiles being a more appropriate measure and representation of the data.

5.1.2.1 PROFIT (LOSS) BEFORE TAX

Beginning with PBT, 50 per cent of the company observations were revealed to be between \$8.24 and \$302.93 million (IQR = \$294.69m, n=990), with the median observation being \$82.54 million. The median PBT rose from \$51.41 million under AGAAP to \$108.92 million under AIFRS. Similarly, the interquartile range was around 1.6 times greater under AIFRS than AGAAP with the skew (positive) being more than two times greater: Figure 5-5.





(N_{AGAAP}=360; N_{AIFRS}=630)

During the AIFRS period, the presence of loss making outliers, apart from TOL in 2008, was encompassed within the 2009 year. AMP stood out in the AGAAP period as consistently presenting as an outlier in all but the 2005.1 year. Also quite noticeable is the presence of the 'big four banks' (NAB, CBA, ANZ and WBC) in the profit outliers.

Considering the shift from the pooled data to industry, the FIN group clearly stands out when considering PBT. It has a much larger median (\$460.7m, n=165), with the MAE sector dwarfed in comparison (Md. = \$13.02m, n=374). The highest PBT's noted were CBA, WBC and NAB in particular, missing only ANZ in the top five listed PBT. The FIN industry also makes up the minimum and maximum overall, as well as having the largest interquartile range. The other three industry groups are more comparative with one other (N_{IND}=176; N_{OTH}=275).

These observations were consistent when the data was considered in respect to each subperiod, as reflected in Figure 5-6 and Figure 5-7. The exception was in respect to the minimum, with a MAE company slightly exceeding the FIN industry group in the AIFRS period. However, this observation ranked as an extreme outlier and so the FIN industry continued to have the greatest interquartile range.

Figure 5-6 Profit before Tax, AGAAP by Industry



Figure 5-7 Profit before Tax, AIFRS by Industry



 $(N_{\text{MAE}}\!\!=\!\!238; N_{\text{FIN}}\!\!=\!\!105; N_{\text{IND}}\!\!=\!\!112; N_{\text{OTH}}\!\!=\!\!175)$

When considering outlier activity, certain companies such as WOW and WES in the OTH group; CSR and QAN in the IND group; and STO, AMC and CTX in the MAE industry group, are consistently present as outliers. A closer inspection of the FIN industry suggests a size issue with two peaks being observed in both the AGAAP period and AIFRS period; this is reflected in the earlier spread in the box and whisker plot without industry segregation. This presents in the bimodal distributions shown in Figure 5-8 and Figure 5-9.

Figure 5-8 Profit before Tax, AGAAP Period - Financial Industry



Figure 5-9 Profit before Tax, AIFRS Period - Financial Industry



This distribution is not present in the other three industry groups to the same extent, although they still present outliers. The FIN industry presents the least amount of outlying variables despite this peaked observation. Broken down into years, minimal outliers are present in the financial companies – CBA (2011), NAB (2002, 2003) and AMP (2003, 2004) – with AMP being the only loss making outlier for the FIN industry.

5.1.2.2 REPORTED INCOME TAX EXPENSE

In respect of reported income taxes, inclusive of deferred taxes; half of the company observations fell below -\$21.76 million, with the middle 50 per cent of observations ranging between -\$76.75 to -\$0.07 million (IQR = \$76.99m) and tailing to the left. The mid-point differs between the sub-periods: -\$12.34 million under AGAAP and over twice that under AIFRS (-\$28.04m). The AIFRS period also revealed greater variability, with an interquartile range over 1.5 times the size of its predecessor (IQR_{AGAAP} =\$54.85m; IQR_{AIFRS} = \$86.95m). Before segregating the data by industry, outlier activity continued

to be present, in particular again highlighting the big four banks as notable outliers (Figure 5-10).



Figure 5-10 Reported Income Tax, by Compliance Period

Breaking down the data into the industry groups, the overall mid-point presented much higher for the FIN industry group for both sub-periods: 2.27 times greater than the closest industry at \$49.41 million in tax (Md._{OTH} = \$21.76m) during the AGAAP period and more than doubling its middle reported income tax in the AIFRS period (Md._{FIN} = \$102.60m), but maintaining a similar ratio to the closest industry: 2.54 times the OTH group: Figure 5-11 and Figure 5-12.

Figure 5-11 Reported Income Tax, AGAAP Period by Industry



Figure 5-12 Reported Income Tax, AIFRS Period by Industry



(N_{MAE}=238; N_{FIN}=105; N_{IND}=112; N_{OTH}=175)

Albeit outliers again presented throughout the observations, there were no extreme outliers for the FIN industry. Matching the highest profits, in both the AGAAP and AIFRS periods, the big four banks (NAB, CBA, WBC, ANZ) were observed with the five greatest reported income tax expense (income tax expense including deferred taxes). The FIN industry was also present with the highest reported income tax benefit, although none of the big four banks. Similarly, the other large entities also continued to present as outliers; WOW and WES; QAN and CSR; and STO and AMC.

Breaking down the components of reported income tax into current and deferred tax, as previously identified, led to a reduction in the number of observations by those not disclosing sufficient information within the notes of the financial statements. The observations reduced from 990 to 710. To investigate whether non-disclosure bias was an issue, descriptive statistics were computed to compare firms disclosing the components of reported income tax within the notes to the financial statements and those that did not disclose. The main reduction in number of observations relates to the AGAAP period, as previously identified; therefore this comparison was restricted to the AGAAP period with the results depicted in Table 5-4.
	2002	2003	2004	2005.1							
	(\$M)	(\$M)	(\$M)	(\$M)							
	Profit (loss) before Tax - Disclosed										
N	30	30 30 27									
Median	75.24	95.85	146.41	204.05							
Interquartile Range	419.69	417.45	486.75	482.00							
Profit (loss) before Tax – Non-Disclosed											
N 60 60 63											
Median	10.38	24.47	32.54	42.24							
Interquartile Range	89.99	109.42	162.01	213.86							
Reported Tax – Disclosed											
N	30	30	27	27							
Median	-23.29	-28.54	-38.68	-35.75							
Interquartile Range	96.09	133.23	148.50	127.30							
	Reported Ta	ax – Non-Disclos	ed								
N	60	60	63	63							
Median	-2.28	-8.09	-6.25	-11.00							
Interquartile Range	25.90	32.33	37.80	62.10							
	Deferred Tax	Liabilities - Disclo	osed								
Ν	30	30	27	27							
Median	21.67	22.31	20.20	22.30							
Interquartile Range	94.33	107.94	108.56	157.70							
	Deferred Tax Lia	abilities – Non-Dis	sclosed								
Ν	60	60	63	63							
Median	1.68	1.82	1.00	1.85							
Interquartile Range	23.35	46.04	48.66	49.03							
	Med	ian ETR (%)									
Disclosing	30.95	29.78	26.42	17.52							
Non Disclosing	21.97	33.06	19.21	26.04							

Table 5-4 Comparison: Disclosure of Reported Tax Components, AGAAP Period

In particular, those not disclosing the components of reported income tax show much tighter median and interquartile ranges for both reported profits and taxes. Additionally, the median balances of deferred tax liabilities are close to zero for non-disclosing observations, whilst disclosing observations reveal median deferred tax liability balances above \$20 million in all four years. Such a pattern can be seen more clearly in Figure 5-

13 and Figure 5-14. In particular, the frequency³² of loss makers in respect to the nondisclosure previously identified can be observed.



Figure 5-13 Disclosure of Reported Tax Components, AGAAP Period

³² Between 2002 and 2005.1, loss makers ranged between 11.1 and 16.7 per cent for those company observations disclosing the components of reported income tax, whilst the range was 22.2 to 31.3 per cent for those non-disclosing company observations.

Figure 5-14 Median Balances and Disclosure, AGAAP Period



This suggests that non-disclosure may be due to the immateriality of the deferred tax component, therefore such non-disclosure bias is not considered to be of concern (Phillips, 2003). Therefore, the following two sub-sections consider the components of reported income tax based on the reduced number of company observations, being those that disclosed the components within the notes of the financial statements.

5.1.2.2.1 Current Tax Expense

In respect of current tax expense (benefit), the median increased from the reported tax expense, moving from -\$21.76 million to -\$28.87 million. The interquartile range also increased by over 1.2 times what was reported on the income statement. The FIN industry continued to present in the top five current expense observations (WBC, CBA and ANZ). MAE represented the majority of the highest current tax benefits, with NCM as an outlier. In the AIFRS period, two FIN companies were present in the top five current tax benefits (SGP, AMP); however, they were not considered outliers. Looking at the compliance periods, Figure 5-15, the median current tax expense remained steady (Md._{AGAAP} = -28.90m; Md._{AIFRS} = -28.88m), although the interquartile range contracted from 124.20 million to 89.31 million: 0.72 times the AGAAP period. More numerous outliers are also present again in the AIFRS period, with this being mainly due to the larger number of company observations: there was a 2.1 percentage point increase in outlier activity on transition to AIFRS.



Figure 5-15 Current Tax, by Compliance Period

The mid points ranged between -\$6.95 million (MAE) and -\$46.93 million (FIN) during the AGAAP period: Figure 5-16. In respect to these mid points, shifting to the AIFRS period had only a minimal impact on MAE, and a moderate effect on IND (decrease of \$9.29m) and OTH (increase of -\$21.85m). However, there was a large effect on FIN with the median moving from -\$46.93 million to -\$131.83 million (Figure 5-17). Similarly, all interquartile ranges reduced except for FIN, which increased from \$724.89 million to \$1,142.94 million.



Figure 5-16 Current Tax, AGAAP Period by Industry

 $⁽N_{\text{MAE}}\!\!=\!\!32; N_{\text{FIN}}\!\!=\!\!32; N_{\text{IND}}\!\!=\!\!14; N_{\text{OTH}}\!\!=\!\!36)$

Figure 5-17 Current Tax, AIFRS Period by Industry



Increased outlier activity was observed in the AIFRS period, although this was reflective of the increased number of company observations. Compared to the AGAAP period, where each industry group had only one outlier (ranging between 3.1% and 7.1% of industry companies, except for MAE with no outliers), the AIFRS period ranged between 14.1 per cent (IND with nine outliers) and 22.1 per cent (MAE with 30 outliers), except for the FIN group with only one outlier.

When considering deferred tax, there was a much smaller dollar presence in company observations.

5.1.2.2.2 Deferred Tax Expense

Deferred tax presented a median of zero and the middle 50 per cent of observations had a range of \$17.06 million: the current tax interquartile range covered over 5.5 times that of deferred tax.

Unlike current tax, the highest presence of deferred tax expense and the highest presence of deferred tax benefit were all financials, and mixed between three of the big four banks (NAB, WBC, CBA) and AMP. When broken down into compliance periods (Figure 5-18), this remained consistent in the AIFRS period. However, the IND company, CSR, was found in both ends as well as the additional FIN company, SUN.





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The shift from AGAAP to AIFRS does not appear to have made a large difference: Figure 5-19 and Figure 5-20. The spread of outliers appears to have increased, suggesting an increase in volatility (with AIFRS having a slightly increased left skew), however the interquartile range between the periods is fairly similar as well as the mid-point. A similar result presented again within the industry breakdown; the FIN group presented more variance, with an overall increase in outlier activity on AIFRS.



Figure 5-19 Deferred Tax, AGAAP Period by Industry

 $(N_{MAE}=32; N_{FIN}=32; N_{IND}=14; N_{OTH}=36)$

Figure 5-20 Deferred Tax, AIFRS Period by Industry



 $(N_{MAE}=205; N_{FIN}=105; N_{IND}=111; N_{OTH}=175)$

From gaining an understanding of the company context – the narrowly defined real world context – the study now moves to consider the presence and effectiveness of normalisation within that context. This section considers whether the normalisation phenomenon occurs in the defined real world.

5.2 THE PRESENCE AND EFFECTIVENESS OF NORMALISATION

Following from the overview of the company context, the presence and effectiveness of normalisation is considered in order to answer the first subsidiary question: **does TEA have a normalising effect on the income statement and was this accentuated by AASB 112?** In light of Slade's (1990) nature of relationship approach, the correlation between profit before tax and profit after tax, including and excluding deferred taxes, is

compared. In particular, the company observations are assessed to determine whether the inclusion of deferred taxes reveals a closer relationship with profit before tax and can therefore be described as being effective. In addition, net tax CFs provide a third relationship to explore, which is connected to cash-basis accounting. The exploration then extends to determine the extent of effectiveness. In particular, the impact on tax and profits are considered based on the methodology outlined in Sidhu and Whittred (1993). This is then adapted to consider ETRs in light of the recent public debate, and finally in respect to the notion of prima facie tax, a static rate of tax.

Overall, the AGAAP period was found to have effective normalisation, whilst the AIFRS period initially was found to be ineffective. Once the company set was broken down in relation to the AIFRS period, the normalising effect was present in certain circumstances. The removal of loss making observations revealed the AIFRS period to have effective normalisation. Similarly, the segregation of the company set into industry groups revealed the presence of normalisation in three of the four groups. Notably, the FIN group was ineffective for the majority of the AIFRS period. This was also found to be the case when loss making companies as well as the big four banking companies were isolated.

Expanding on the extent of the normalisation identified by considering the direction and magnitude of impact, it was found that there was generally no significant direction of impact (whether increasing or decreasing reported income tax, after tax profits or ETRs). Despite the lack of statistical support for the findings, deferred taxes for the majority of years during the AGAAP period led to a decrease in reported taxes (increased after tax profits) with contrasting results in the AIFRS period, once loss makers were removed.

Results revealed that in all years deferred taxes increased reported tax (reduced after tax profit), thereby increasing median ETRs in the majority of years.

Contrasting findings were found, however, when considering prima facie tax on PBT. Deferred taxes consistently reduced variation to the static rate of 30 per cent prima facie tax on PBT throughout the timeframe. These results were not statistically supported for any year during the AGAAP period; however, they were for the majority of years within the AIFRS period, and increased when considering profit makers only. Although, once the company observations were considered in respect to industry group, results were mixed with substantively no statistical significance.

5.2.1 THE NATURE OF THE RELATIONSHIP

To begin the assessment of the presence and effectiveness of normalisation, this research firstly considered the nature of the relationship between the following data sets as described in the methodology:

- 1. Profit before tax and profit after tax including deferred tax ("including");
- 2. Profit before tax and profit after tax excluding deferred tax ("excluding"); and,
- 3. Profit before tax and profit after net tax cash flows ("net tax CFs").

The assessment considered whether the inclusion of deferred taxes led to a closer relationship with profit before tax, and if so was considered to be effective. Spearman's rho value was used to establish the relationships.

Of the 990 company observations,³³ 710 reported the components of income tax within the notes to the financial statements. Thus, for the purposes of analysing the nature of the relationship, 710 company observations form the basis of this study. Breaking these observations down into compliance periods, 114 related to the AGAAP period with the remaining 596 relating to the AIFRS period.

The yearly median income measures forming part of the three data sets – profit before tax (PBT), profit after tax including deferred taxes (PAT Inc.), profit after tax excluding deferred taxes (PAT Exc.) and profit after net tax cash flows (PAT TaxCFs) – are presented in Figure 5-21 below.





³³ Appendix 8.3 presents the trends in PBT, PAT including deferred taxes and PAT excluding deferred taxes for each company. An initial visual examination did not reveal a clear normalising pattern, as theoretically described and as visualised in Figure 3-4.

In the earlier and later years, quite often profits after tax – both including and excluding deferred taxes – are comparative, whilst profits after net tax CFs appear more inconsistent. The middle years present somewhat more variability in pattern.

Table 5-5 presents the correlations broken down into years. As indicated by the rho values, all profit after tax measures (including, excluding and net tax CFs) present high correlations with profit before tax, with scale the only difference. Of the eleven company observations, the inclusion of deferred taxes improved the correlation in five, suggesting effective normalisation. For the remaining years observed, another five resulted in a reduced, or weakening, correlation, whilst 2010 resulted in no change.

					Change in Rho	Highest
	Ν	Net Tax CFs*	Excluding*	Including*	(Exc. – Inc.)	Correlation
Pooled	710	0.987	0.991	0.985	-0.006	Excluding
2002	30	0.992	0.992	0.997	0.005	Including
2003	30	0.982	0.992	0.996	0.004	Including
2004	27	0.962	0.986	0.992	0.006	Including
2005.1	27	0.985	0.996	0.994	-0.002	Excluding
2005.2	81	0.989	0.997	0.996	-0.001	Excluding
2006	83	0.988	0.981	0.997	0.016	Including
2007	84	0.991	0.991	0.970	-0.021	Equal
2008	84	0.987	0.986	0.992	0.006	Including
2009	86	0.963	0.987	0.944	-0.043	Excluding
2010	89	0.992	0.993	0.993	0.000	Equal
2011	89	0.991	0.986	0.984	-0.002	Net Tax CFs

Table 5-5 Rho Value: Nature of Relationship

*at p<0.05 (2-tailed)

The results, depicted visually in Figure 5-22, offer further insight (note however, the narrow rho range depicted). The initial three years present an effective normalising effect (improved correlation) when including deferred taxes. Additionally, net tax CF's present the weakest correlation, except for the first year where it is equal with data set 2 (excluding deferrals). The year of transition showed, irrespective of deferred taxes, a slight improvement in correlation, however data set 2 (excluding deferrals) presented a slightly stronger correlation. From there, deferred taxes do not perform as well, during the balance sheet approach (2005.2-2011): in only two years did the correlation improve, with four years revealing a reducing impact. The year 2009 is depicted as having the most ineffective normalisation for the timeframe. The inclusion of deferred taxes appeared to be subject to greater swings during the AIFRS period compared to the exclusion.

Similarly, unlike the AGAAP period where most often net tax CFs presented with the weakest correlation (75%), during the AIFRS period it was only the weakest twice, whilst it sat within the middle ground three times and was either the strongest or equal strongest the balancing two years. Considering only those years presenting with ineffective normalisation, most often data set 2 (excluding deferred taxes) presented a stronger correlation. The two years where this does not occur are 2007, when both measures are equal; and in the final year, where net tax CFs present with the strongest correlation (2011).

Overall, 75 per cent (three of four) of observations within the AGAAP period were found to have an improved correlation with profit before tax when deferred taxes were included. Similarly, in that same proportion, net tax CFs presented with the weakest correlation. These AGAAP results can be compared with the AIFRS period, where only 28.6 per cent (two of seven) did so. Therefore, based on the pooled company observations, the normalising effect is present and effective during the AGAAP period; however results are mixed for the AIFRS period.



Figure 5-22 Rho Value: Nature of Relationship

Based on these swinging results and a lack of effective normalisation during the AIFRS period, combined with the associated literature suggesting institutional and industry variation, linked to the potential for the tax system to impact beyond the profit figure, it was pertinent to more closely examine the AIFRS period.

5.2.1.1 BREAKING DOWN THE COMPANY SET

Closely examining institutional and industry factors provided explanation for the lack of effective normalising during the AIFRS period. The company set was disaggregated, firstly by removing loss making entities and then segregating the company observations within the AIFRS period into the four industry groups.

In respect to profit (loss) position, what is visually apparent is that loss makers are barely noticeable for the majority of years: Figure 5-23. Loss making observations are most notable around 2008 and 2009, around the time of the global financial crisis. As well as this, a couple of outlying profit observations are noted (NAB 2008, WBC 2009), although a general kink in the trend is observed during this time. As previously noted, 2009 was the most ineffective year.





Re-examining the rho values, presented in Table 5-6, showed that instead of having the swinging pattern previously identified during the AIFRS period, deferred taxes are consistently effective between 2006 and 2009 for profit makers, although the final two years remained ineffective, with reductions in correlations.

						Change in Rho	Highest
Group	Year	Ν	Net Tax CFs	Excluding*	Including*	(Exc. – Inc.)	Correlation
	2005.2	73	0.988*	0.996	0.994	-0.002	Excluding
	2006	74	0.985*	0.974	0.996	0.022	Including
.±	2007	73	0.989*	0.987	0.991	0.004	Including
Prof	2008	73	0.984*	0.983	0.993	0.010	Including
	2009	66	0.943*	0.971	0.989	0.018	Including
	2010	69	0.988*	0.990	0.988	-0.002	Excluding
	2011	73	0.990*	0.984	0.980	-0.004	Net Tax CFs
	2005.2	8	1.000*	0.929	0.976	0.047	Net Tax CFs
	2006	9	0.700	0.983	0.783	-0.200	Excluding
	2007	11	0.800	1.000	0.655	-0.345	Excluding
Loss	2008	11	0.800	0.991	0.982	-0.009	Excluding
	2009	20	0.989*	0.977	0.770	-0.207	Net Tax CFs
	2010	20	0.955*	0.935	0.962	0.027	Including
	2011	16	0.976*	0.959	0.956	-0.003	Net Tax CFs

Table 5-6 Rho Value: Nature of Relationship, AIFRS Period by Profit(Loss) Position

*at p<0.05 (2-tailed)

Considering the low number of loss making company observations, movements in rho values were quite substantial in 2006, 2007 and 2009. The latter two years can be associated with the wide downward troughs depicted earlier in the pooled results. This suggests loss makers could have contributed to the concealment of the improvements (effective normalisations) presented in profit making companies in respect to the inclusion of deferred taxes. Net tax CFs were more consistent with the trend observed within data set 1 (including deferrals) for loss makers. These observations can be more clearly seen, in graphical form, in Figure 5-24.



Figure 5-24 Rho Value: Nature of Relationship, AIFRS Period by Loss Position

Reproducing Figure 5-22 in Figure 5-25 with the inclusion of only profit observations, and covering both the AGAAP and AIFRS periods, reveals that the inclusion of deferred taxes leads to effective normalisation in most years. Overall 63.6 per cent (7 out of 11) of the yearly profit making company observations presented with effective normalisation: 75 per cent (3 out of 4) associated with the AGAAP period and 57.1 per cent (4 out of 7) for the AIFRS period.

Net tax CFs remained unchanged from the pooled results in respect to the AGAAP period and trended slightly more consistent with data set 2 (excluding deferred taxes) with respect to the AIFRS period – the overall proportion remaining unchanged, with only two years presenting with the weakest association (2005.2, 2009). Looking at only the years of ineffective normalisation, in only one year were net tax CFs observed to have the higher correlation (down from two in respect to the pooled data).



Figure 5-25 Rho Value: Nature of Relationship, by Profit Position

To further consider the integrity of, and whether aggregation impacts on, the results observed, the study extends the analysis of institutional variation to industry groups. Such an analysis is not disregarding the findings above; instead, it extends the evaluation in light of the company context identified and the associated literature on the industry. This is of particular interest given the MAE group has been observed to have substantial loss makers and loss makers appear to conceal the effective normalisation. Low company observations in most industry groups need to be considered in respect of these results.³⁴ In addition, the majority of non-disclosure of income tax components during the AIFRS period related to the MAE group. Table 5-7 contains the results of the analysis of yearly rho values.

³⁴ The analysis was not extended to the AGAAP period due to substantially low numbers in some groups (in some instances as low as three), limiting any substantive meaning that could be garnered from the process.

						Change in Rho	Highest
Group	Year	Ν	Net Tax CFs*	Excluding*	Including*	(Exc. – Inc.)	Correlation
	2005.2	26	0.962	0.995	0.995	0.000	Equal
	2006	27	0.981	0.987	0.992	0.005	Including
	2007	28	0.974	0.977	0.995	0.018	Including
MAE	2008	28	0.968	0.985	0.994	0.009	Including
	2009	30	0.934	0.995	0.996	0.001	Including
	2010	33	0.982	0.984	0.979	-0.005	Excluding
	2011	33	0.994	0.994	0.995	0.001	Including
	2005.2	15	0.979	0.989	0.986	-0.003	Excluding
	2006	15	0.989	0.993	0.968	-0.025	Excluding
	2007	15	0.986	0.993	0.993	0.000	Equal
Z L	2008	15	0.979	0.964	0.986	0.022	Including
	2009	15	0.986	0.971	0.864	-0.107	Net Tax CFs
	2010	15	0.979	0.993	0.979	-0.014	Excluding
	2011	15	0.991	0.975	0.971	-0.004	Net Tax CFs
	2005.2	15	0.982	0.986	0.993	0.007	Including
	2006	16	0.993	1.000	0.997	-0.003	Excluding
	2007	16	0.938	0.941	0.944	0.003	Including
QN	2008	16	0.997	0.988	0.988	0.000	Net Tax CFS
	2009	16	0.862	0.994	0.997	0.003	Including
	2010	16	0.956	0.965	0.912	-0.053	Excluding
	2011	16	0.982	0.994	0.997	0.003	Including
	2005.2	25	0.993	0.995	0.991	-0.004	Excluding
	2006	25	0.953	0.913	0.995	0.082	Including
	2007	25	0.992	0.995	0.902	-0.093	Excluding
01 1	2008	25	0.971	0.975	0.977	0.002	Including
	2009	25	0.983	0.982	0.992	0.010	Including
	2010	25	0.991	0.986	0.991	0.005	Equal
	2011	25	0.985	0.970	0.976	0.006	Net Tax CFs

Table 5-7 Rho Value: Nature of Relationship, AIFRS Period by Industry

*at p<0.05 (2-tailed)

More generally, when normalisation is found to be ineffective, it tends to be by a more substantial change in rho than when normalisation is effective. When ineffective, the change in rho ranges between -0.003 (IND 2006) and -0.107 (FIN 2009); whereas, when effective, normalisation tends to be slight, ranging from 0.001 (MAE 2009, 2011) to 0.082 (OTH 2006).

For both the MAE and OTH industry groups five out of seven years (71.4%) the normalising effect was observed to be effective, with an increase in the correlation between profit before tax and profit after tax including deferred taxes. Whereas only the MAE group presented with the same proportion (71.4%) of years, data set 3 (net tax CFs) having the weakest association.

For both, the transition year was not effective, albeit causing no change to the rho value for MAE – likely linked to loss makers reporting zero income tax. Such effectiveness was followed reasonably closely by the IND group, with four of the seven AIFRS years observed having effective normalisation. Noticeably, IND was more matched with MAE in respect to net tax CFs, with five years presenting with the weakest correlation.

These observations of mostly effective observations can be contrasted with FIN, in which only one year (2008) presented an improved correlation and where ineffective, net tax CFs were equal or highest in correlation in 50 per cent of those years (three of six). Markedly, net tax CFs presented with the most stable correlation over the AIFRS period. These contrasting results could be linked to the bimodal nature of the FIN group combined with small numbers of observations each year or the loss makers within the industry group. Additionally, as noted earlier, deferred taxes relating to the FIN group were notably more spread compared to the other three industry groups. Producing the AIFRS results in graphical form, provides further insight on the inclusion of deferred taxes: Figure 5-26.





Year

0.820

0.800









Figure 5-26 Rho Value: Nature of Relationship, AIFRS Period by Industry Matrix

Looking at the OTH industry group, there is arguably a lag present between data set 1 (including) and data sets 2 and 3 (excluding and net tax CFs). This is somewhat apparent also for the IND group with net tax CFs leading with a trough in 2009 and flowing through the accounting system in 2010, whether via the flow through method (data set 2) or TEA (data set 1).

An alternate explanation for the observed 'lag' is that the separate industries present within the OTH group has led to the separate peaks and troughs in separate years. This latter alternative is somewhat consistent with the troughs observed in loss makers and including deferred taxes presented earlier. Figure 5-22, depicts two troughs (2007 and 2009), which can be now associated with OTH for 2007 and FIN for 2009. This suggests that the loss making company observations, in part, lead to the ineffectiveness of the normalising effect, more so than industry classification. This is particularly supported by the initial review of the income statement showing notable loss makers during the AIFRS period to include four FIN companies (AMP, SGP, MGR and LLC). In the 2009 year, FIN presented five loss makers (AMP, FKP, LLC, MGR and SGP). Reassessing the 2009 year resulted in the removal of the downward swing observed and presented here. Instead of the substantial reduction in correlation on inclusion of deferred taxes, effective normalisation was instead observed. The rho value shifted from 0.915 excluding deferrals to 0.976 including deferrals ($\Delta 0.061$). Overall, however most years still remained ineffective for FIN. Furthermore, testing the removal of the big four bank companies did not improve the effectiveness of deferred taxes, although again, the low numbers reduced the strength of such an analysis.

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Overall, it has been found that there is a strong relationship between all three taxmeasures incorporated into the profit figures. TEA has been found effective at normalising reported profits during the AGAAP period. During the AIFRS period, findings were mixed. Initially, disregarding profit (loss) position and industry, TEA was not effective overall. Once loss makers were removed, profit makers were found to have effective normalisation for the majority of years within the AIFRS period. When industry was considered, most groups were found to have effective normalisation for the majority of years within the AIFRS period. The only exception was the FIN group. Most years were ineffective. Similar findings were found in respect to net tax CFs having the weakest association, supported during the AGAAP period and mixed during the AIFRS period. The study now considers the extent of effectiveness, by assessing the direction and magnitude of impact on the income statement in seeking normalisation.

5.2.2 DIRECTION AND MAGNITUDE OF IMPACT

The direction and magnitude of any deferred tax impact is now considered to extend the informativeness of, and ability to provide insight into, the normalising effect. The approach used stems from Sidhu and Whittred (1993), who examined the impact of TEA adoption on tax and profits. Within this assessment, the approach is expanded to include specifically the impact on ETRs as well the notion of prima facie tax in light of the recent politicisation of the business tax system, particularly within the Australian context, as described in the methodology.

The findings in respect to the direction and magnitude of impact are broken down into two sub-sections: firstly, the impact on tax and profits generally, including the impact on ETRS, then considering the impact on prima facie tax.

5.2.2.1 IMPACT ON TAX AND PROFITS

The analysis of the direction and magnitude of impact on tax and profits encompasses initially the computation and analysis of two ratios, SW.1 and SW.2 as defined in the methodology chapter and repeated below:

TEA Percentage Impact (RTE) =
$$\frac{DTE}{ABS(RTE-DTE)}$$
 (SW.1)

TEA Percentage Impact (PAT) =
$$\frac{DTE}{ABS(PAT-DTE)}$$
 (SW.2)

The emphasis on the ratio output is the direction and magnitude of movement and so the company observations were segregated into their directional effect; increasing, decreasing or having no impact on the reported income tax (SW.1) and similarly on the after tax profits (SW.2). SW.2 was then unpacked, relabelled and adjusted to reflect a change in focus to consider the change in ETRs on the inclusion of deferred taxes. The resulting ETR.1 and ETR.2, reflecting pre TEA and post TEA respectively, are reproduced as follows from the methods chapter:

$$Pre TEA (ETR) = \frac{RTE - DTE}{ABS(PBT)}$$
(ETR.1)

Post TEA (ETR) =
$$\frac{\text{RTE}}{\text{ABS(PBT)}}$$
 (ETR.2)

As previously described, 710 of 990 company observations (114 AGAAP, 596 AIFRS) reported the components of income tax within the notes of the financial statements and thus form the basis of the analysis. For equation SW.1, a further number of observations were lost due to division zero limitation (as a result of the denominator being reported tax expense less deferred tax), leading to the total number of observations for this examination being 647. In respect to the compliance period, 100 of these company observations were during the AGAAP period and 547 during the AIFRS period. SW.2 and ETR.1 (2) were not impacted by the division zero error, limited only by the nondisclosure of reported income tax components. Following Sidhu and Whittred's (1993) strategy closely, those with percentage impacts in excess of ± 100 per cent were capped at 100 per cent. Due to this capping, 'peaks', or heavy tails (leptokurtic), were observed at these capped points, whilst reducing skew and reducing extreme outlier activity. Median and quartiles continued to be the more appropriate measure and representation of the data. In respect to SW.1, 73 company observations were capped to +100 per cent (income tax increasing), while 49 observations were capped at -100 per cent (income tax decreasing). The capping approach had a lesser impact on SW.2, with 19 observations being capped at -100 per cent and only 5 capped at +100 per cent.

Table 5-8 contains the results from the analysis during the AGAAP period. As indicated in the table, deferred taxes more often reduced reported income tax (increased after tax profits), thereby decreasing ETRs. The only year this did not occur was 2002. In contrast, this observation was most notable in the succeeding year, 2003, although these directional findings are unsupported by the sign test.

For those company observations that experienced a reduced reported income tax (n<0) due to deferred taxes, the median impact ranged from 9.7 per cent to 24.1 per cent, whilst after tax profits increased between 5.9 per cent and 9.2 per cent. For those company observations experiencing an increase in reported income tax (n>0), the median impact on reported income tax ranged from 11.4 to 24.6 per cent, with after tax profits having decreased between 4.4 and 8.3 per cent. The median ETR in most years increased slightly with the inclusion of deferred taxes, ranging from 25.3 per cent to 27.5 per cent beforehand and between 25.8 per cent and 28.4 per cent after the inclusion of deferred taxes.

	2002	2002	2003	2003	2004	2004	2005.1	2005.1			
	(N)	(%)	(N)	(%)	(N)	(%)	(N)	(%)			
SW.1 (Impact on Reported Income Tax)											
n < 0	12	48.00	17	65.38	13	54.17	14	56.00			
n = 0	0	0.00	0	0.00	0	0.00	0	0.00			
n > 0	13	52.00	9	34.62	11	45.83	11	44.00			
Total	25	100.00	26	100.00	24	100.00	25	100.00			
Sign Test (2 tailed)	P=1.0	000*	-1.373 (p	o=0.170)	P=0.	839*	P=0.	690*			
Median: Pooled	+2.	40	-7.	29	-1.	36	-5.	68			
n < 0	-24.12		-9.72		-11.18		-20.33				
n > 0	24.	57	13.02		11.39		12.44				
χ²(df 1)	3.176 (p	=0.075)	0.002 (p=0.967)		1.238 (p	=0.266)	0.890 (p=0.345)				
	s	W.2 (Impa	ict on Rep	orted Prof	it after Tax	()					
n < 0	14	46.67	18	60.00	14	51.85	14	51.85			
n = 0	2	6.66	1	3.33	2	7.41	2	7.41			
n > 0	14	46.67	11	36.67	11	40.74	11	40.74			
Total	30	100.00	30	100.00	27	100.00	27	100.00			
Sign Test (2 tailed)	0.000 (p	=1.000)	-1.114 (p=0.265)		P= 0.690*		P= 0.690*				
Median: Pooled		0.00		-1.55	-0.72			-0.55			
n < 0	-6.23		-5.95		-6.18		-9.22				
n > 0		5.05		4.41		5.54					
			Moveme	nt in ETR							
Median ETR.1		25.29	27.51			26.19	26.36				
Median ETR.2		25.84		27.97		26.15	28.37				

Table 5-8 SW.1 and SW.2 Pattern of Direction, AGAAP Period

*Exact p value used due to small number of company observations n<0 denotes reduced reported income tax (increased after tax profits, decreased ETR)

n>0 denotes increased reported income tax (decreased after tax profits, increased ETR)

To compare these results to the findings of Sidhu and Whittred (1993),³⁵ a **one-sample** chi-square (χ^2) test was carried out on the yearly company observations. The test indicated that the results presented here for the AGAAP period are not significantly different. In contrast, the AIFRS period results are significantly different. Table 5-9 contains the results for the AIFRS period with significant results shaded.

³⁵ They observed overall that 63.6 per cent was income tax expense reducing and 34.2 per cent was income tax increasing.

	2005.2	2005.2	2006	2006	2007	2007	2008	2008	2009	2009	2010	2010	2011	2011	
	(N)	(%)	(N)	(%)	(N)	(%)	(N)	(%)	(N)	(%)	(N)	(%)	(N)	(%)	
				SW.	1 (Impact o	on Reporte	ed Income	Tax)							
n < 0	33	45.83	38	50.00	36	45.57	37	46.25	42	53.16	38	49.35	43	51.19	
n = 0	1	1.39	1	1.32	1	1.27	0	0.00	0	0.00	0	0.00	0	0.00	
n > 0	38	52.78	37	48.68	42	53.16	43	53.75	37	46.84	39	50.65	41	48.81	
Total	72	100.00	76	100.00	79	100.00	80	100.00	79	100.00	77	100.00	84	100.00	
Sign Test (2 tailed)	-0.475 (p	o=0.635)	0.000 (p	=1.000)	-0.566 (p	o=0.571)	-0.559 (p)= 0.576)	-0.450 (p	=0.653)	0.000 (p	o=1.000)	-0.109 (p	=0.913)	
Median: Pooled		+1.39		-0.02		+2.04		+2.46		-1.36		+1.81		-0.91	
n < 0		-13.49		-17.22		-22.26		-19.28		-31.66		-14.41		-18.60	
n > 0		17.39		18.75		13.28		23.41		16.11	.11 47.22			48.12	
χ ² (df 2) (df 1)	11.055	(p=0.028)	7.142	(p=0.028)	12.659	(p=0.002)	12.363 (p=0.000)		12.363 (p=0.000) 4.864 (p=0.0		(p=0.027)) 8.289 (p=0.004)		004) 7.041 (p=0.00	
				SW.2	(Impact on	Reported	Profit afte	r Tax)							
n < 0	33	40.74	41	49.40	37	44.05	38	45.24	44	51.16	42	47.19	46	51.69	
n = 0	7	8.64	4	4.82	3	3.57	1	1.19	2	2.33	3	3.37	1	1.12	
n > 0	41	50.62	38	45.78	44	52.38	45	53.57	40	46.51	44	49.44	42	47.19	
Total	81	100.00	83	100.00	84	100.00	84	100.00	86	100.00	89	100.00	89	100.00	
Sign Test (2 tailed)	-0.814 (p	b=0.416)	-0.225 (p)=0.822)	-0.667 (p=0.505)		-0.659 (p)=0.510	-0.327 (p=0.743)		-0.108 (p=0.914)		-0.320 (p=0.749)		
Median: Pooled		+0.35		0.00	+0.82			+0.66		-0.23		+0.00		-0.41	
n < 0		-6.31		-8.36	-8.86		-8.86 -7.83		-10.06			-4.45		-7.19	
n > 0		5.24		5.61	4.43			6.69		5.06	δ 7.74			7.74	
	_				Μον	ement in	ETR								
Median ETR.1		26.04		26.07		26.12		24.83		24.72		23.45		24.71	
Median ETR.2		27.78		27.86		28.11		26.36		25.23		25.89		25.58	

Table 5-9 SW.1 and SW.2 Patter of Direction, AIFRS Period

n<0 denotes reduced reported income tax (increased after tax profits, decreased ETR): n>0 denotes increased reported income tax (decreased after tax profits, increased ETR)

As indicated by the contents of the table, there is more variability in directional impact on reported income tax and after tax profits during the AIFRS period. This is consistent with the findings found in respect to the nature of the relationship detailed in Sub-Section 5.2.1, although the pattern itself is not matched. Three out of seven scattered between increased reported income tax (profit decreasing) impacts, although no statistical significance in the direction was again noted. The variability throughout the AIFRS period is depicted visually in Figure 5-27 and Figure 5-28.



Figure 5-27 SW.1 Pattern of Direction

n<0 denotes reduced reported income tax (increased after tax profits, decreased ETR) n>0 denotes increased reported income tax (decreased after tax profits, increased ETR)

Figure 5-28 SW.2 Pattern of Direction



n<0 denotes reduced reported income tax (increased after tax profits, decreased ETR) n>0 denotes increased reported income tax (decreased after tax profits, increased ETR)

From company observations that reveal a reduced reported income tax due to deferred taxes during the AIFRS period, the median impact ranged from 13.5 to 31.7 per cent (compared to AGAAP: 9.7-24.1%), whilst the after tax profits increases ranged between 4.5 and 10.0 per cent (AGAAP 5.9-9.2%). Whereas, for those company observations experiencing increased reported income tax, the median impact ranged from 13.3 to 48.1 per cent (AGAAP 11.4-24.6%), with after tax profits having decreased between 4.4 and 7.4 per cent (AGAAP 4.4-8.3%). Therefore, there is not a substantial variation between periods with respect to the magnitude of impact, albeit in general the AIFRS period has a slightly greater spread. The most notable difference is in respect to the AIFRS period having a greater median impact for increases to reported income tax, this being linked to the final two years of the timeframe (2010 and 2011).

In respect to movement in ETR during the AIFRS period, the inclusion of deferred taxes generally increased ETRs, with the median ETR.1 ranging from 23.5 to 26.1 per cent (AGAAP was 25.3-27.5%) and ETR.2 ranging between 25.2 and 28.1 per cent (AGAAP was 25.8-28.4%). Therefore, the overall median ETRs tended to be lower under the AIFRS period, with a downward trend from 2007. Overall deferred taxes increased the median ETRs in all but one year (2004), which can be more clearly observed in Figure 5-29.



Figure 5-29 Median Yearly ETR

Looking specifically at the year of transition (the 2005 year under the income statement approach and the 2005 comparative year under the balance sheet approach), as previously identified neither proportion was found to be significantly different from 50:50. A key difference is the increase of 2.9 times the number of observations under AIFRS compared to AGAAP, reflecting an increase from 25 to 72 company observations.

Keeping this in mind, a slight inversion is observed: from 56 per cent of observations showing deferred taxes reduced reported income tax, with 44 per cent increasing reported income tax, under AGAAP; to 45.8 per cent and 52.8 per cent increasing and decreasing reported tax under AIFRS respectively. Coupled alongside this inversion was also an inversion of the median impact on reported tax. The median decreasing impact reduced under the balance sheet approach (Md._{AIFRS} = 13.5%) by 0.7 times what it was under the income statement approach (Md._{AGAAP} = 20.3%), whilst the median increasing impact increased under the AIFRS period (Md.=17.4%) by 1.4 times the AGAAP median (Md.=12.4%).

With respect to SW.2, for profit increasing impacts, the income statement approach under AGAAP presented slightly greater impact with the median at 9.2 per cent compared to 6.3 per cent under the balance sheet approach under AIFRS, 0.7 times its predecessor. Whereas, the median impact for profit decreasing observations remained relatively stable.

Matching the company observations for the transition year to further assess the transition, the sign test was applied to pre (AGAAP) and post (AIFRS) company observations. The movement from AGAAP to AIFRS was assessed, with the results tabled in Table 5-10. The table shows that shifting to AIFRS did not have a significant directional impact (increase/decrease).

Table 5-10 S	W.1 and	SW.2,	Transition	Year
--------------	---------	-------	------------	------

	SW.1	SW.1	SW.2	SW.2
	(N)	(%)	(N)	(%)
n < 0	11	44.00	14	51.85
n = 0	1	4.00	2	7.41
n > 0	13	52.00	11	40.74
Total	25	100.00	27	100.00
Sign Test (2 tailed)		p=0.839*		p=0.690*
Shift in Median		+7.20		+0.93

*Exact p value used due to small number of company observations

n<0 denotes reduced reported income tax (increased after tax profits, decreased ETR) n>0 denotes increased reported income tax (decreased after tax profits, increased ETR)

Although there was no significant difference found in direction, the magnitude of change showed that the median reported tax impact increased by 7.2 percentage points, whilst profits decreased by 0.9 percentage points.

To again examine the increased swinging behaviour during the AIFRS period, institutional and industry variation is now considered.

5.2.2.1.1 Breaking down the Company Set

The majority of company observations which were lost through the division zero limitation were loss makers, therefore breaking down the company set into profit and loss makers was not anticipated to have a substantial impact. Although the directional behaviour continued to have no significant difference, a more consistent yearly pattern is observed compared to the swinging pattern observed when combined. Removing loss making company observations revealed a constant pattern for profit makers: deferred taxes consistently led to an increase in reported tax (reduced after tax profit) – in every year. Apart from 2002, this was the inverse of what was occurring during the AGAAP period. Therefore, the loss makers were arguably concealing an underlying pattern. Reproducing the earlier diagram to include profit makers only, this consistent pattern can be observed more clearly in Figures 5-30 and Figure 5-31.



Figure 5-30 SW.1 Pattern of Direction, Profit Position

 $n{<}0$ denotes reduced reported income tax (increased after tax profits, decreased ETR) $n{>}0$ denotes increased reported income tax (decreased after tax profits, increased ETR)
Figure 5-31 SW.2 Pattern of Direction, Profit Position



n<0 denotes reduced reported income tax (increased after tax profits, decreased ETR) n>0 denotes increased reported income tax (decreased after tax profits, increased ETR)

Considering the magnitude of the impact of profit making company observations, those experiencing a reduced reported income tax due to deferred taxes, the median impact ranged from 10.1 to 20.7 per cent (pooled AIFRS 13.5 to 31.7%), whilst the after tax profits increases ranged between 6.3 and 8.9 per cent (4.5 to 10.0% with respect to pooled AIFRS). Whereas, for those company observations experiencing increased reported income tax, the median impact ranged from 12.2 to 44.2 per cent (AIFRS between 13.3 and 48.1%), with after tax profits decreasing between 3.9 and 9.1 per cent (4.4 and 7.4% for pooled AIFRS). Again, there is a fairly consistent median impact, although the spread has narrowed slightly. The most substantial drop is the upper range of median impact on reduced reported income tax.

Turning to the industry groups, Table 5-11 and Table 5-12 contain the results for the analysis of SW.1 and SW.2. During the AIFRS, when the company set was broken down into the four industry groups, varying directional patterns were observed. For MAE, five out of the seven years revealed that the deferred tax inclusion led to an increase in reported tax expense; ranging from 54.2 to 75 per cent of yearly observations increasing income tax. The year, 2008, in which 75 per cent of observations were increases in reported tax, was confirmed to be significant by the sign test (p=0.023). The remaining two years of observations for MAE were equally increasing (decreasing). Similar trends were noted for SW.2 with 2008 observations also significant for MAE's impact on profits (p=0.021). These were the only significant results found for SW.1 and SW.2.

These results can be compared with FIN, which for the first three years also showed an increasing income tax impact (decreasing profit), however this then shifted to income tax decreasing (profit increasing) – apart from 2010, where it was equal for the income tax impact. The range of proportions was similar to the MAE group: FIN in the same year of MAE's significant proportion had a comparable inverse proportion, with 73.3 per cent of observations decreasing income tax. This result, however, was not statistically supported. The IND and OTH groups both showed more mixed results, reporting more decreasing impacts than increasing, as well as having equal impacts.

	2005.2	2005.2	2006	2006	2007	2007	2008	2008	2009	2009	2010	2010	2011	2011
	(N)	(%)	(N)	(%)	(N)	(%)	(N)	(%)	(N)	(%)	(N)	(%)	(N)	(%)
						MAE					-		-	
n < 0	7	41.18	10	47.62	11	45.83	6*	25.00	12	50.00	11	44.00	13	44.83
n = 0	0	0.00	1	4.76	0	0.00	0*	0.00	0	0.00	0	0.00	0	0.00
n > 0	10	58.82	10	47.62	13	54.17	18*	75.00	12	50.00	14	56.00	16	55.17
Total	17	100.00	21	100.00	24	100.00	24*	100.00	24	100.00	25	100.00	29	100.00
Median: n < 0	-18	.77	-21	68	-32	.52	-15.31		-43	.43	-88	.10	-31.	15
n > 0	16.	32	79.	19	52.	83	63.41		44.77		53.	.97	100	.00
	-	-				FIN						-		
n < 0	6	40.00	6	40.00	6	40.00	11	73.33	10	66.67	7	50.00	10	66.67
n = 0	0	0.00	0	0.00	1	6.67	0	0.00	0	0.00	0	0.00	0	0.00
n > 0	9	60.00	9	60.00	8	53.33	4	26.67	5	33.33	7	50.00	5	33.33
Total	15	100.00	15	100.00	15	100.00	15	100.00	15	100.00	14	100.00	15	100.00
Median: n < 0	n < 0 -10.13 -6		-6.	5.03 -14.07		-28.11 -8		-80	.23	-10	.08	-21.	11	
n > 0	16.	86	4.3	33	21.	22	65.	27	22.	13	47.	22	100	.00
						IND								
n < 0	7	46.67	9	60.00	8	53.33	5	31.25	9	56.25	7	46.67	8	50.00
n = 0	1	6.66	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
n > 0	7	46.67	6	40.00	7	46.67	11	68.75	7	43.75	8	53.33	8	50.00
Total	15	100.00	15	100.00	15	100.00	16	100.00	16	100.00	15	100.00	16	100.00
Median: n < 0	-44	.51	-28	69	-19	.30	-21	.97	-20	.66	-40	.45	-59.	30
n > 0	94.	61	13.	63	38.	01	10.	21	16.	11	51.	23	10.	27
	-	-				OTH						-		
n < 0	13	52.00	13	52.00	11	44.00	15	60.00	11	45.83	13	56.52	12	50.00
n = 0	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
n > 0	12	48.00	12	48.00	14	56.00	10	40.00	13	54.17	10	43.48	12	50.00
Total	25	100.00	25	100.00	25	100.00	25	100.00	24	100.00	23	100.00	24	100.00
Median: n < 0	-10	.07	-23	39	-24	.94	-16	.76	-8.	14	-10	.12	-8.8	36
n > 0	7.4	43	14.	35	10.	30	9.0	08	6.6	64	11.	86	20.	75

Table 5-11 SW.1Pattern of Direction, AIFRS Period by Industry

*p=0.023 (Exact p value used due to small number of company observations) n<0 denotes reduced reported income tax (increased after tax profits, decreased ETR) n>0 denotes increased reported income tax (decreased after tax profits, increased ETR)

	2005.2	2005.2	2006	2006	2007	2007	2008	2008	2009	2009	2010	2010	2011	2011
	(N)	(%)	(N)	(%)	(N)	(%)	(N)	(%)	(N)	(%)	(N)	(%)	(N)	(%)
			-		-	MAE	-						-	
n < 0	7	26.92	13	48.15	11	39.29	7*	25.00	14	46.67	15	45.45	15	45.45
n = 0	6	23.08	3	11.11	2	7.14	1*	3.57	2	6.66	3	9.10	1	3.03
n > 0	13	50.00	11	40.74	15	53.57	20*	71.43	14	46.67	15	45.45	17	51.52
Total	26	100.00	27	100.00	28	100.00	28*	100.00	30	100.00	33	100.00	33	100.00
Median: n < 0	-6.	58	-12.	78	-18.	11	-5.58		-14.72		-19	.16	-10.	74
n > 0	6.6	67	11.	17	10.	24	15.	19	5.6	60	11.	.75	15.	52
	-	-		-		FIN								
n < 0	6	40.00	6	40.00	6	40.00	11	73.33	10	66.67	7	46.67	10	66.67
n = 0	0	0.00	0	0.00	1	6.67	0	0.00	0	0.00	0	0.00	0	0.00
n > 0	9	60.00	9	60.00	8	53.33	4	26.67	5	33.33	8	53.33	5	33.33
Total	15	100.00	15	100.00	15	100.00	15	100.00	15	100.00	15	100.00	15	100.00
Median: n < 0	n < 0 -3.52		-3.05		-6.12		-13.	-13.22		.47	-3.	17	-6.	11
n > 0	5.2	21	6.6	9	3.7	8	3.6	61	8.5	52	11.	.65	8.9	91
						IND								
n < 0	7	46.67	9	56.25	9	56.25	5	31.25	9	56.25	7	43.75	8	50.00
n = 0	1	6.66	1	6.25	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
n > 0	7	46.67	6	37.50	7	43.75	11	68.75	7	43.75	9	56.25	8	50.00
Total	15	100.00	16	100.00	16	100.00	16	100.00	16	100.00	16	100.00	16	100.00
Median: n < 0	-15	.77	-10.	11	-8.3	38	-11.	.09	-8.	88	-33	.54	-13.	56
n > 0	8.3	30	3.7	6	10.	00	3.2	23	5.0)4	6.3	35	3.6	6
						ОТН								
n < 0	13	52.00	13	52.00	11	44.00	15	60.00	11	44.00	13	52.00	13	52.00
n = 0	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
n > 0	12	48.00	12	48.00	14	56.00	10	40.00	14	56.00	12	48.00	12	48.00
Total	25	100.00	25	100.00	25	100.00	25	100.00	25	100.00	25	100.00	25	100.00
Median: n < 0	-5.	22	-10.	73	-9.1	13	-7.	73	-2.	84	-3.	13	-2.7	72
n > 0	3.5	52	4.4	5	3.3	0	3.4	¥1	3.5	51	5.8	88	6.3	37

Table 5-12 SW.2 Pattern of Direction, AIFRS Period by Industry

*Z=-2.309 (p=0.021) n<0 denotes reduced reported income tax (increased after tax profits, decreased ETR) n>0 denotes increased reported income tax (decreased after tax profits, increased ETR)

Depicting SW.1 visually in Figure 5-32, the MAE and FIN directional results appear inversed from 2007 onwards; whereas, the MAE is more comparable with IND and OTH, which presented more of a swinging pattern. All had peaks in directional impacts in 2008, which then reduced towards equality in 2009 (FIN, then reaching equality in 2010), reaching equality (MAE) or reversing proportions to a smaller degree (IND, OTH). After which, the direction then begins to return towards 2008, although not to the same degree. Particularly, both IND and OTH have a second wave, where equality is met in 2011. The impact on profits, SW.2, presents a fairly comparable picture.

Considering the magnitude of effect, both the MAE and FIN groups presented the greatest effects, particularly notable between 2009 and 2011 (medians observed were between - 80.2% and -88.1% for income tax decreasing and both were 100% for income tax increasing, reflecting the capped points). Markedly, these reflected the years after the directional impact was at its peaks (which occurred in 2008) where equality between increases and decreases occurred (MAE 2009, FIN 2010). This followed with both MAE and FIN reporting the greatest income tax increasing effect in 2011 (both medians at 100% capped point). Preceding those 2011 peaks, both MAE and FIN experienced a smaller peak in 2008.

The OTH industry group showed a more stable and generally lesser impact on reported taxes over the timeframe, ranging from a median of -8.1 and -24.9 per cent, although FIN was observed to have comparably low impacts in some years as well as dropping to -6.0 per cent in 2006.



Figure 5-32 SW.1 Pattern of Direction, AIFRS Period Matrix



Considering the movement in ETRs from the inclusion of deferred taxes, an understanding can be gained from the issues within the politicisation of taxation in the media. By considering the movement in ETRs caused by the inclusion of deferred taxes, any study considering tax forgone (being the difference between the 30 per cent prima facie tax and the ETR including deferred taxes) would arguably be inaccurate. Overall, when the company observations are pooled, the difference ranges from 0.5 and 2.4 percentage points: Table 5-13.

	2005.2	2006	2007	2008	2009	2010	2011
Pooled	1.74	1.79	1.99	1.53	0.51	2.44	0.87
Profit	0.85	1.23	1.47	1.48	0.87	3.42	0.69
MAE	17.60	5.50	12.96	9.33	0.53	3.64	13.08
FIN	4.22	1.33	-0.54	-3.17	-6.00	5.98	-0.56
IND	2.22	2.81	0.27	2.71	-1.14	-1.71	-0.91
OTH	-0.17	0.76	1.60	-0.99	0.45	1.06	3.65

 Table 5-13 Movement in Median ETR, AIFRS Period by Industry

However, once industry and loss makers are considered, the difference becomes more varied: higher for the MAE group followed by the FIN group, whilst within 3.7 percentage points for the IND and OTH groups. Therefore, this study now looks more closely at the Australian corporate tax rate in respect to prima facie tax.

5.2.2.2 IMPACT ON PRIMA FACIE TAX

Considering the politicisation issue further in respect to prima facie tax, the study considers normalisation as connected to the static tax rate. The current Australian corporate tax rate sits at 30 per cent of taxable income. Linking to the popularist debate,

rather than normalisation having some dynamic 'correct' tax rate, normalisation is in respect to a static ETR, set at 30 per cent of profit before tax: prima facie tax (PF30) in Australia. Therefore, the absolute variance to 30 per cent prima facie tax was computed for both ETR.1 and ETR.2 and then the percentage point change in variation was considered. Reproduced from the methodology are the following ratios:

TEA Percentage Impact (PF30) = $PF30_a - PF30_b$	(PF30.1)
Where:	
Pre TEA (PF30) = ABS $(0.30 - ETR.1)$	(PF30 _a)
Post TEA (PF30) = ABS (0.30 – ETR.2)	(PF30 _b)

Observations were capped at ± 100 per cent for consistency (eight positive, nine negative). The Sign Test was then computed to assess the direction of impact. The results are contained in Table 5-14.

For the AGAAP period, presented in Panel A, the results indicate that deferred taxes reduced the variation to PF30 between 53.3 and 63.3 per cent of company observations, whilst increasing the variation in only 30 to 43.3 per cent of observations. Before deferred taxes were included, the median variance to PF30 ranged between 5.5 and 9 per cent, reducing thereafter to a range between 3.2 and 5.8 per cent. Where a reduced variation occurred, the median reduction ranged between 2.3 and 4.6 percentage points, whilst increases in variation were more variable, ranging between 2.1 and 6.6 percentage points – although the results for the AGAAP period were not supported statistically.

	AGAAP	2002	2002	2003	2003	2004	2004	2005.1	2005.1						
		(1)	(70)	(IN)	(70)	(1)	(70)	(IN)	(70)						
	Reduced Variation	19	63.33	16	53.34	16	59.26	16	59.26						
	No Change	2	6.67	1	3.33	2	7.41	2	7.41						
	Increased Variation	9	30.00	13	43.33	9	33.33	9	33.33						
el A	Total	30	100.00	30	100.00	27	100.00	27	100.00						
Pan	Sign Test (2 tailed)	-1.701 (p	o=0.089)	-0.371 (p	o=0.710)	p=0.	230*	P=0.	230*						
	Median PF30a	8.	97	5.	53	6.0	68	8.3	35						
	Median PF30b	5.	83	4.	12	5.	73	3.:	20						
	Median Shift: Pooled	-1.	17	-0.	53	-0.	49	-1.	87						
	Reduction	-4.	22	-3.	25	-2.	33	-4.	60						
	Increase	3.	81	2.	05	2.3	31	6.	61						
	AIFRS	2005.2	2005.2	2006	2006	2007	2007	2008	2008	2009	2009	2010	2010	2011	2011
		(IN)	(70)	(IN)	(70)	(IN)	(70)	(IN)	(70)	(IN)	(70)	(11)	(%)	(1)	(70)
	Reduced Variation	49	60.49	50	60.24	53	63.10	53	63.10	44	51.16	50	56.18	52	58.43
	No Change	8	9.88	4	4.82	3	3.57	1	1.19	2	2.33	3	3.37	1	1.12
	Increased Variation	24	29.63	29	34.94	28	33.33	30	35.71	40	46.51	36	40.45	36	40.45
el B	Total	81	100.00	83	100.00	84	100.00	84	100.00	86	100.00	89	100.00	89	100.00
Pan	Sign Test (2 tailed)	-2.809 (p	o=0.005)	-2.250 (p	o=0.024)	-2.667 (p	o=0.008)	-2.415 (p	o=0.016)	-0.327 (p	=0.743)	-1.402 (p	=0.161)	-1.599 (p	=0.110)
	Median PF30a	6.	96	6.	71	7.0	62	9.	54	13.	92	13.	34	11.	09
	Median PF30b	3.	61	3.	79	3.1	19	4.4	47	8.4	42	7.0)8	6.8	33
	Median Shift: Pooled	-0.	89	-1.	17	-1.	30	-1.	89	-0.	06	-0.	79	-0.	78
	Reduction	-3.	75	-3.	18	-2.	88	-5.	64	-5.	60	-5.	09	-5.4	44
	Increase	4.	71	5.	12	4.2	26	2.	72	3.8	32	3.5	56	4.9	94

Table 5-14 PF30, Pattern of Direction, by Compliance Period

*Exact p value used due to small number of company observations

In contrast to the directional patterns presented earlier in respect to the impact on tax and profits, both the AGAAP and AIFRS periods show consistently higher proportions of company observations reducing the variation: Figure 5-33. The AIFRS period presented in Panel B indicates again that in all years the inclusion of deferred taxes reduced the variation and that in the majority of years (2005.2-2008), these results were statistically significant (significant years are shaded).



Figure 5-33 PF30 Pattern of Direction

Prior to deferred taxes being included, the median variance to PF30 ranged between 6.7 and 13.9 per cent, reducing thereafter to between 3.2 and 8.4 per cent on inclusion of deferred taxes. In addition, these results indicate that the overall variation was more variable during the AIFRS period compared to the AGAAP period. However, the median directional movements were more comparable. The overall reduction in variation is presented more clearly in Figure 5-34.

Figure 5-34 Median Uncapped PF30



Figure 5-34 highlights that there is a slight convergence in the transition year between the medians for before and after the inclusion of deferred taxes, and follows the original 2005 year presenting a slight peak. In addition, a much greater peak occurs in the year 2009 with respect to both trend lines. Consistent with the preceding results, the variation during the AIFRS period is considered in respect to the segregated company set.

5.2.2.2.1 Breaking down the Company Set

Removing loss makers from the company set results in more years observed with significant directional impacts, leaving only the 2009 year as unsupported despite its higher proportion of reduced variation to PF30 compared to increased variation in respect to deferred taxes: Table 5-15.

Additionally, the median variation both before and after deferred taxes is reduced.

For $PF30_a$ the range reduced from 6.7 to 13.9 per cent to 5.4 to 8 per cent with the removal of loss making company observations. Once deferred taxes are included, the range again reduced from between 3.2 and 8.4 per cent to 2.1 and 4.8 per cent.

	2005.2	2005.2	2006	2006	2007	2007	2008	2008	2009	2009	2010	2010	2011	2011
	(N)	(%)	(N)	(%)	(N)	(%)	(N)	(%)	(N)	(%)	(N)	(%)	(N)	(%)
Reduced Variation	46	63.01	48	64.87	50	68.49	47	64.38	40	60.61	44	63.77	45	61.64
No Change	3	4.11	3	4.05	1	1.37	0	0.00	0	0.00	0	0.00	1	1.37
Increased Variation	24	32.88	23	31.08	22	30.14	26	35.62	26	39.39	25	36.23	27	36.99
Total	73	100.00	74	100.00	73	100.00	73	100.00	66	100.00	69	100.00	73	100.00
Sign Test (2 tailed)	-2.510 (2.510 (p=0.012))=0.004)	-3.182 (p	o=0.001)	-2.341 (p	o=0.019)	-1.600 (p	o=0.110)	-2.167 (p=0.030)	-2.003 (p=0.045)
Median Variance - Pre	5.	60	5.37		5.	63	7.9	92	7.9	97	7.41		5.	83
Median Variance – Post	2.	64	2.8	39	2.10		3.69		4.34		4.11		4.	88
Median Shift: Pooled	-0.	.93	-1.	32	-1.	39	-1.	.90	-0.	46	-1.	.45	-1	.54
Reduction	-3.	.69	-3.	04	-2.	84	-5.	20	-5.	51	-5	.09	-4	.78
Increase	4.	71	2.8	30	3.	81	2.:	23	1.9	92	1.	82	2.	87

Table 5-15 PF30 Pattern of Direction, AIFRS Period by Profit Position

Considering the industry groupings, with the findings presented in Table 5-16 and Table 5-17, the statistical significance is mostly lost, however all industry groups present with the majority of years having a higher proportion of observations reducing the variation to PF30. The IND group shows the least amount of years this occurs in (57.1%) with a swinging pattern observed, whilst the OTH group is observed with all years reducing variation in the majority of observations. Except for OTH, all three groups are noted to have swinging activity around 2009 and 2010. The pattern can be observed in Figure 5-35.

The MAE group presents with quite variable pre and post deferred tax overall variances to PF30: ranging between five and 30 percentage points before deferred taxes are included and between 1.3 and 29.2 percentage points after deferred taxes are included. Where direction is considered, those observations that reduce variation to PF30, the median reduction ranged between 5.5 and 14.2 percentage points, with a slightly reduced range for those observations increasing the variation (between 2.3 and 10.3 percentage points). All other three industry groups overall had less variability in median variances, although FIN was comparable in certain years.

	2005.2	2005.2	2006	2006	2007	2007	2008	2008	2009	2009	2010	2010	2011	2011
	(N)	(%)	(N)	(%)	(N)	(%)	(N)	(%)	(N)	(%)	(N)	(%)	(N)	(%)
						MAE								
Reduced Variation	13	50.00	12	44.44	19	67.86	17	60.72	16	53.33	15	45.45	18	54.55
No Change	7	26.92	3	11.12	2	7.14	1	3.57	2	6.67	3	9.10	1	3.03
Increased Variation	6	23.08	12	44.44	7	25.00	10	35.71	12	40.00	15	45.45	14	42.42
Total	26	100.00	27	100.00	28	100.00	28	100.00	30	100.00	33	100.00	33	100.00
Sign Test (2 tailed)	P=0.	167*	P=1.	000*	00* -2.157 (p=0.031		-1.155 (p=0.248)		-0.567 (p=0.571)		0.000 (p	o=1.000)	-0.530 (p=0.596	
Median Variance - Pre	25	.03	21.84		24	.08	4.99		30.00		29	.87	28.51	
Median Variance – Post	10	.69	11.75		8.	8.06		1.28		.24	19.85		22.11	
Median Shift: Pooled	-0.	13	0.0	00	-2.	16	-4.	37	-0.42		0.00		-2.76	
Reduction	-6.	.32	-9.	72	-7.	20	-14.21		-5.51		-7.10		-13	.32
Increase	4.	71	6.3	32	6.	01	2.3	34	6.	54	10	.30	7.0	05
						FIN								
Reduced Variation	11	73.33	10	66.67	11	73.33	9	60.00	6	40.00	9	60.00	9	60.00
No Change	0	0.00	0	0.00	1	6.67	0	0.00	0	0.00	0	0.00	0	0.00
Increased Variation	4	26.67	5	33.33	3	20.00	6	40.00	9	60.00	6	40.00	6	40.00
Total	15	100.00	15	100.00	15	100.00	15	100.00	15	100.00	15	100.00	15	100.00
Sign Test (2 tailed)	P=0.	118*	P=0.	302*	P=0.	057*	P=0.	607*	P=0.	607*	P=0.	.607*	P=0.	607*
Median Variance - Pre	6.	26	4.6	66	7.	16	17.	19	16.	.54	6.	55	11.	.95
Median Variance – Post	2.:	26	1.9	95	1.	54	7.0	09	13.	.38	4.	44	8.1	10
Median Shift: Pooled	-3.	.63	-1.	46	-1.	30	-2.	22	3.4	41	-0.	.79	-0.	75
Reduction	-4.	.00	-2.	96	-4.	39	-6.	67	-13	.68	-6	.68	-9.	21
Increase	0.	59	0.9	92	4.4	40	2.2	23	6.13		3.20		4.82	

Table 5-16 PF30 Pattern of Direction, AIFRS Period by Industry

*Exact p value used due to small number of company observations

	2005.2	2005.2	2006	2006	2007	2007	2008	2008	2009	2009	2010	2010	2011	2011
	(N)	(%)	(N)	(%)	(N)	(%)	(N)	(%)	(N)	(%)	(N)	(%)	(N)	(%)
						IND								
Reduced Variation	10	66.66	8	50.00	8	50.00	12	75.00	6	37.50	11	68.75	8	50.00
No Change	1	6.67	1	6.25	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Increased Variation	4	26.67	7	43.75	8	50.00	4	25.00	10	62.50	5	31.25	8	50.00
Total	15	100.00	16	100.00	16	100.00	16	100.00	16	100.00	16	100.00	16	100.00
Sign Test (2 tailed)	P=0.	180*	P=1.	000*	P=1.	000*	P=0.	077*	P=0.	454*	P=0.	.210*	P=1.	000*
Median Variance - Pre	9.	90	7.3	39	7.49		6.94		4.68		16	.04	4.	56
Median Variance – Post	7.	00	5.0	02	3.0	67	1.99		4.08		7.	42	3.9	96
Median Shift: Pooled	-1.	18	-0.	12	-0.	44	-1.99		0.26		-3.13		0.06	
Reduction	-3.	92	-2.	16	-6.65		-4.	01	-8.	45	-6	.69	-2.	75
Increase	12	.42	8.3	33	3.9	97	4.0	01	0.9	97	1.	82	9.4	49
						отн								
Reduced Variation	15	60.00	20	80.00	15	60.00	15	60.00	16	64.00	15	60.00	17	68.00
No Change	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Increased Variation	10	40.00	5	20.00	10	40.00	10	40.00	9	36.00	10	40.00	8	32.00
Total	25	100.00	25	100.00	25	100.00	25	100.00	25	100.00	25	100.00	25	100.00
Sign Test (2 tailed)	P=0.	424*	P=0.	004*	P=0.	424*	P=0.	424*	P=0.	230*	P=0.	.424*	P=0.	108*
Median Variance - Pre	3.4	40	4.0	67	3.1	70	6.8	38	4.3	35	4.	53	4.9	99
Median Variance – Post	1.	81	2.0	04	2.0	00	4.(07	2.9	91	2.	41	1.8	88
Median Shift: Pooled	-0.	79	-2.	12	-0.	74	-1.	12	-0.	41	-0.	.79	-1.	54
Reduction	-2.	67	-3.	10	-1.	98	-2.	49	-2.	93	-2	.48	-4.	51
Increase	5.4	49	6.16		5.24		3.25		1.73		1.46		2.40	

Table 5-17 PF30 Pattern of Direction, AIFRS Period by Industry Continued

*Exact p value used due to small number of company observations



Figure 5-35 PF30 Pattern of Direction, AIFRS Period by Industry Matrix

5.2.3 SUMMARY

In order to assess the presence and effectiveness of the normalising effect, examination of the nature of the relationship between the stated income measures, including and excluding deferred taxes, was carried out and the findings compared. The results were then extended by determining the extent of effectiveness via the direction and magnitude of the impact on the income statement.

Deferred taxes effectively normalised the reported profits during the AGAAP period, whilst being initially found to be ineffective during the AIFRS period. Once the company set was broken down in respect to the AIFRS period, the normalising effect proved effective in certain circumstances. In particular, when loss makers were removed, profit makers were found to have effective normalisation. Similarly, where industry groups were considered in isolation, effective normalisation was also noted, except in the case of the FIN group.

Concerning the direction and magnitude of the impact of deferred taxes, it was found that deferred taxes led to a decrease in reported taxes (increased after tax profits) for the majority of years during the AGAAP period, with contrasting results found for the AIFRS period. Again, segregating the company set during the AIFRS period revealed clearer findings. Once loss makers were removed, deferred taxes increased reported tax (reduced after tax profit), thereby increasing median ETRs in the majority of years (although these results were not statistically supported).

Statistical support was found with respect to deferred taxes reducing the variation to the PF30 during the AIFRS period, although not for the AGAAP period. Irrespective of the lack of significance within the AGAAP period, deferred taxes consistently reduced variation to the static rate of 30 per cent PBT in every year within the stated timeframe. The statistical support improved during the AIFRS period on removal of loss making company observations, although when industry was considered statistical support was all but lost and more variation in direction was observed.

Table 5-18 summarises the outcomes of the stated hypotheses and the findings. These are further reflected on in the discussion found in Chapter 6. Before moving to the discussion chapter, the following section shifts focus to the balance sheet to consider the consequences of seeking normalisation, in respect of the permanent postponement argument as well as the relative impact.

Table 5-18 Hypothesis Outcomes

	Hypothesis	Pooled	Profit	MAE	FIN	IND	ОТН
	$H_{0.1}$ There is no relationship between profit before tax and profit after tax including deferred taxes (data set 1).	R					
	$H_{0.2}$ There is no relationship between profit before tax and profit after tax excluding deferred taxes (data set 2).	R					
ic	$H_{0.3}$ There is no relationship between profit before tax and profit after net tax cash flows (data set 3).	R					
celations	H _{1.1} There is a strong relationship between profit before tax and profit after tax including deferred taxes (data set 1).	S					
of the R	$H_{1,2}$ There is a strong relationship between profit before tax and profit after tax excluding deferred taxes (data set 2).	S					
The Nature	$H_{1.3}$ There is a strong relationship between profit before tax and profit after net tax cash flows (data set 3).	S					
	$H_{1.4}$ The relationship specified in data set 1 is more likely to be stronger than the relationship specified in data set 2 during the AGAAP period.	S					
	H _{1.5} The relationship specified in data set 3 is more likely to be weaker than the relationships specified in data sets 1 and 2 during the AGAAP period.	S					
	$H_{1.6}$ The relationship specified in data set 1 is more likely to be stronger than the relationship stated in data set 2 during the AIFRS period.	R	S	S	R	S	S
	$H_{1.7}$ The relationship specified in data set 3 is more likely to be weaker than the relationships specified in data sets 1 and 2 during the AIFRS period.	R	R	S	R	S	R

Profits	$H_{0.4}$ During the AGAAP period, the mean difference is zero: Md. (SW.1, SW.2) = 0. $H_{0.5}$ During the AIFRS period, the mean difference is zero: Md. (SW.1, SW.2) = 0.	S S					
t on Tax and	$H_{1.8}$ The directional impact of deferred tax on reported income tax (after tax profit) will be equally increasing and decreasing, during the AGAAP period: Md. (SW.1, SW.2) = 0 (concurring with null hypothesis $H_{0.4}$).	S					
Impac	H _{1.9} The directional impact of deferred tax on reported income tax (after tax profit) will <u>not</u> be equally increasing and decreasing, during the AIFRS period: Md. (SW.1, SW.2) \neq 0.	R	R	R	R	R	R
	$H_{0.6}$ During the AGAAP period, the mean difference is zero: Md. (PF30) = 0.	S					
F30	$H_{0.7}$ During the AIFRS period, the mean difference is zero: Md. (PF30) = 0.	R					
act on P	H _{1.10} The directional impact of deferred tax on the PF30 will <u>not</u> be equally increasing and decreasing, during the AGAAP period: Md. (PF30) \neq 0.	R					
dwj	$H_{1.11}$ The directional impact of deferred tax on the PF30 will <u>not</u> be equally increasing and decreasing, during the AIFRS period: Md. (PF30) \neq 0.	S	S	R	R	R	R

S=Supported, R= Rejected

5.3 THE CONSEQUENCES OF NORMALISATION

Moving from a focus on the presence and effectiveness of normalisation, the following section considers the consequences of seeking normalisation on the balance sheet, forming the second subsidiary question: what are the consequences of applying tax effect accounting on the balance sheet? This consideration is relevant in light of the justification to deferred tax being intrinsic to the income statement and at a potential (and by some accepted) cost to balance sheet 'purity'. As a result, much literature has focused on the issue of permanent postponement. This research aims to link the key findings in respect of normalisation presented in the previous sections with such notions of the balance sheet impact. It then extends those notions to consider the overall impact: the inclusion of deferred tax assets and then bringing in growth as a control factor, which is present in more recent research.

In respect to the notion of permanent postponement, differing patterns were noted in respect to net deferred taxes, and deferred tax assets and deferred tax liabilities in isolation. For net deferred taxes a pattern was observed, in that during the AGAAP period more debit movements were observed compared with credit movements and vice versa for the AIFRS period. This was compared with a more consistent pattern observed for deferred tax assets and deferred tax liabilities, with mostly debit and credit movements respectively noted. However, the proportions identified were generally insignificant, although deferred tax asset debit movements were mostly significant during the AGAAP period and also during the AIFRS period around the time of the GFC, which was also accompanied by increased volatility.

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When the dollar value of the movements were considered, credit dollar movements exceeded debit dollar movements in 70.0 per cent of years observed, reflecting an even proportion between the AGAAP and AIFRS periods (66.7%) and also encompassing the transition year observed. Such a result is indicative of permanent postponement, albeit not in the traditional sense of deferred tax liabilities in isolation. For deferred tax liabilities, the percentage was reduced: overall 60.0 per cent of observations were noted with credit dollar movements in excess of debit dollar movements. However, the AIFRS period reflected a more neutral position (50.0%) compared to the AGAAP period (66.7%). Again, the debit movements surrounding the years of the GFC were noted, particularly 2009. The impact of the 2008 and 2009 debit movements led to a cumulative debit balance in all three deferred tax measures.

When growth was considered, deferred taxes had a minimal impact on the balance sheet; representing less than two per cent of total assets, without considering the set-off provisions. This increased to slightly above three per cent when set-off provisions were taken into account. The impacts reduced during the AIFRS period before set-offs were reversed, whilst increasing on reversal. In addition, AIFRS did not improve the strength of relationship between deferred taxes and total assets; instead the strength of relationship was reduced compared to the AGAAP period.

5.3.1 PERMANENT POSTPONEMENT

Applying the approach taken by Davidson et al. (1977), Davidson et al. (1984) and Wise (1986), the directional and cumulative dollar movement in deferred taxes was assessed under the two sub-periods as well as the comparative year. Rather than considering deferred tax liabilities only, permanent postponement was considered in respect to

deferred tax liabilities, net deferred taxes in line with Sidhu and Whittred (1993) and deferred tax assets in line with Patel (1991). This enables a more robust consideration, particularly in light of the set-off provisions allowed by the accounting standard.

Company observations were broken down into categories based on their directional movement: debit movement (decrease in DTL/increase in DTA), no movement, credit movement (increase in DTL/decrease in DTA) and non-recognition. The summary of movement categories are found in the three succeeding tables – Table 5-19, Table 5-20 and Table 5-21 – reflecting net deferred taxes, deferred tax assets and deferred tax liabilities. The first notable feature of the diagnostics, repeating earlier results, is the substantial reduction in non-recognition. During the AIFRS period, non-recognition was only 0.6 times that of the AGAAP period.

The tables then focus on those observations representing debit or credit movements, to consider the proportion within each category and applies the one-sample chi square test to test the proportions against the null hypothesis of an even spread between debits and credits (with statistically significant findings shaded). The dollar amounts of the movements in each category are also introduced, which will then be considered in the following sub-section. By function, the first year in each sub-period is lost (2002 and 2005.2), however the latter is encompassed in considering the transition year.

For net deferred taxes, the AGAAP period presented with consistently more debit movements than credit movements, debit movements ranging from 50.7 to 55.9 per cent. This observed pattern became inversed for the majority of years during the AIFRS period, credit movements encompassing 51.3 to 61.0 per cent of movements. The transition year movement was revealed to be consistent with the AIFRS findings. Most of these proportions are understandably insignificant. The two exceptions to the inversed pattern observed are the 2009 and 2011 years. Noticeably, 2009 and 2010 are the only years with directional movement accompanied by statistical significance, reflecting a period where volatility is observed in relation to a swinging direction of movement.

Unlike the inversion pattern observed in respect to the net deferred taxes, a more consistent pattern was revealed when considering deferred tax assets and deferred tax liabilities in isolation, suggesting a dollar value influence. For deferred tax assets, for the majority of years debit movements were in excess of credit movements for both the AIFRS and AGAAP periods, with debit movements encompassing between 51.7 and 77.1 per cent of movement (2008 and 2010 being the exceptions). Statistical significance was observed for the majority of AGAAP years, however only the 2009 year was significant for the AIFRS period. The transition to AIFRS had an equally debit (credit) impact on deferred tax asset movements. For deferred tax liabilities, credit movements exceeded debit movements for most years, including the transition year, ranging between 54.6 and 67.7 per cent (the only exceptions were 2004 and 2009). Minimal statistical significance was noted for the entire timeframe in respect to deferred tax liabilities.

What can be seen in contemplating directional activity (without yet considering the corresponding dollar magnitudes) is that throughout the specified timeframe, both deferred tax assets and liabilities are increasing. This is somewhat tentatively indicative of the traditional notion of permanent postponement, extended to include deferred tax assets. However, when combined to consider net deferred taxes, a different story is presented: during the AGAAP period, deferred taxes were moving in the asset direction (debit

movements), whilst in the liability direction (credit movements) during the AIFRS period: a change in behaviour. Despite this result, when the AIFRS years were combined, there were slightly more debit movements than credits (50.7%). Such a result highlights the non-significance observed for most years.

This assessment so far does not consider the dollar magnitude of movements. The dollar magnitude of each movement category presented further insight into the balance sheet impact, particularly where there is a suggestion of dollar value influence. The credit (debit) dollar movements were not always in excess of debit (credit) dollar movements nor aligned with the movement patterns described above. In 60 per cent of cases (whether considering net deferred taxes, deferred tax assets or deferred tax liabilities), there was consistency in movement category and dollar impact: where credit (debit) movements were in excess of debit (credit) dollar impact – in that credit (debit) dollar movements were in excess of debit (credit) dollar movements. This was most often the case during the AIFRS period (and transition year).

Overall credit dollar movements exceeded debit dollar movements in 70.0 per cent of years observed in respect of net deferred taxes (66.7% of years for both the AGAAP and AIFRS years as well as in the transition year). This is again somewhat indicative of permanent postponement, in that more often credit dollar movements are in excess of debit dollar movements, despite the inclusion of deferred tax assets in the assessment. For deferred tax assets specifically, this was the case for 30.0 per cent of years, all of which relate to the AIFRS period. For deferred tax liabilities, 60.0 per cent of years were observed with credit dollar movements in excess of debit dollar movements (66.7% for the AGAAP period, 50% for the AIFRS and the transition year).

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Looking slightly closer at the AIFRS period, 2009 presented a clear pattern. Regardless of whether the net deferred tax, deferred tax asset or deferred tax liability position is being considered, or the AIFRS pattern observed, 2009 stands out as having consistently more debit movements than credit movements, as well as having the greatest dollar magnitude (2008 following thereafter), supported statistically for the net deferred taxes and deferred tax assets. This suggests that companies were impacted by the economic activity with unusual debit movements, either by reducing deferred tax liabilities or by increasing deferred tax assets. The dollar and cumulative dollar movements are now considered more closely.

	Movement Category		ory		Credit Movement			Debit Movement		One-Sample Chi-Square	
					Percentage of			Percentage of			
			Observed		Total Companies	Dollar		Total Companies	Dollar		
	Deferred		with Debit/		Observed with	Amount of		Observed with	Amount of		
	Taxes not	No	Credit	No. of	Change	Increase	No. of	Change	Increase		
Year	Recognised	Movement	Movement	Companies	(%)	(\$M)	Companies	(%)	(\$M)	χ² (df=1)	P-Value
						AGAAP					
2003	21	0	69	34	49.28	-1229.04	35	50.72	1959.25	0.014	0.904
2004	21	1	68	30	44.12	-744.15	38	55.88	642.64	0.941	0.332
2005	17	1	72	34	47.22	-1725.80	38	52.78	497.34	0.222	0.637
AGAAP	111	2	209	98	46.89	-3698.99	111	53.11	3099.23		
						AIFRS					
2006	12	0	78	40	51.28	-2373.07	38	48.72	1737.77	0.051	0.821
2007	10	0	80	48	60.00	-3770.30	32	40.00	1272.63	3.200	0.074
2008	10	1	79	41	51.90	-1244.19	38	48.10	5992.10	0.114	0.736
2009	10	0	80	21	26.25	-425.06	59	73.75	8563.98	18.050	0.000
2010	8	0	82	50	60.98	-3253.63	32	39.02	1332.51	3.951	0.047
2011	6	0	84	38	45.24	-2573.49	46	54.76	1751.81	0.762	0.383
AIFRS	56	1	483	238	49.28	-13639.74	245	50.72	20650.80		
TOTAL	115	3	692	336	48.55	-17338.73	356	51.45	23750.03		
Transition	14	1	75	43	57.33	-2589.21	32	42.67	1265.95	1.613	0.204

Table 5-19 Movement in Net Deferred Tax Balances

	Movement Category			Credit Movement				Debit Movement		One-Sample Chi-Square	
					Percentage of			Percentage of			
			Observed		Total Companies	Dollar		Total Companies	Dollar		
	Deferred		with Debit/		Observed with	Amount of		Observed with	Amount of		
	Taxes not	No	Credit	No. of	Change	Increase	No. of	Change	Increase		
Year	Recognised	Movement	Movement	Companies	(%)	(\$M)	Companies	(%)	(\$M)	χ² (df=1)	P-Value
						AGAAP					
2003	21	5	64	31	48.44	-730.56	33	51.56	735.34	0.063	0.803
2004	21	7	62	23	37.10	-435.15	39	62.90	792.89	4.129	0.042
2005	17	6	67	24	35.82	-447.83	43	64.18	727.70	5.388	0.020
AGAAP	59	18	193	78	40.41	-1613.54	115	59.59	2255.92		
						AIFRS					
2006	12	12	66	28	42.42	-2031.86	38	57.58	1318.21	1.515	0.218
2007	10	15	65	28	43.08	-1488.91	37	56.92	1070.93	1.246	0.264
2008	10	17	63	33	52.38	-769.36	30	47.62	3450.12	0.143	0.705
2009	10	19	61	14	22.95	-903.03	47	77.05	5806.36	17.852	0.000
2010	8	18	64	35	54.69	-3087.87	29	45.31	1249.65	0.563	0.453
2011	6	16	68	26	38.24	-985.14	42	61.76	1397.09	3.765	0.052
AIFRS	56	97	387	164	42.38	-9266.17	223	57.62	14292.37		
TOTAL	115	115	580	242	41.72	-10879.71	338	58.28	16548.29		
Transition	14	6	70	35	50.00	-1150.42	35	50.00	1264.60	0.000	1.000

Table 5-20 Movement in Deferred Tax Asset Balances

	Mov	ement Catego	ory		Credit Movement		Debit Movement			One-Sample Chi-Square		
					Percentage of		Percentage of					
			Observed		Total Companies	Dollar	Total Companies		Dollar			
	Deferred		with Debit/		Observed with	Amount of	Observed with		Amount of			
	Taxes not	No	Credit	No. of	Change	Increase	No. of Change		Increase			
Year	Recognised	Movement	Movement	Companies	(%)	(\$M)	Companies (%)		(\$M)	χ² (df=1)	P-Value	
	AGAAP											
2003	21	3	66	38	57.58	1129.29	28	42.42	-1854.73	1.515	0.218	
2004	21	5	64	32	50.00	943.81	32 50.00		-484.56	0.000	1.000	
2005	17	5	68	43	63.24	1869.62	25 36.76		-361.29	4.765	0.029	
AGAAP	59	13	198	113	57.07	3942.72	85	42.93	-2700.58			
AIFRS												
2006	12	11	67	39	58.21	2163.03	28	41.79	-2241.38	1.806	0.179	
2007	10	12	68	46	67.65	3334.14	22	32.35	-1254.45	8.471	0.004	
2008	10	11	69	42	60.87	1344.01	27	39.13	-3411.17	3.261	0.071	
2009	10	9	71	33	46.48	418.61	38	53.52	-3654.20	0.352	0.553	
2010	8	16	66	40	60.61	1281.34	26	39.39	-1198.43	2.970	0.085	
2011	6	18	66	36	54.55	2098.35	30	45.45	-864.72	0.545	0.460	
AIFRS	56	77	407	236	57.99	10639.49	171	42.01	-12624.34			
TOTAL	115	90	605	349	57.69	14582.21	256	42.31	-15324.92			
Transition	14	13	63	35	55.56	3311.27	28	44.44	-1603.83	0.778	0.378	

Table 5-21 Movement in Deferred Tax Liability Balances

Continuing with the assessment of the movement, the dollar changes were further assessed in respect to year-end balances. The following three tables – Table 5-22, Table 5-23 and Table 5-24 – present the total deferred tax balances for all companies reporting deferred taxes, by year and totalled over each sub-period. The yearly debit and credit movements as well as the net change, ratio of credit to debit and cumulative movement are included.

In respect to net deferred taxes, during the AGAAP period the pattern previously observed, being credit dollar movements in excess of debit dollar movements occurring most often, is more explicit in the net dollar change (Column 6, Table 5-22) with the exception being the first movement (2003). By the end of the AGAAP period, the cumulative balance is revealed to be in credit (Column 8, Figure 5-22). This observation can be compared with the AIFRS period in which 2008 and 2009 revealed substantial debit movements – where credit movements were merely 0.21 and 0.05 times that of the debit movements. Despite the remaining four years dollar credit movements being in excess of the debit movements (described earlier), by the end of the AIFRS period more dollar debits had been recognised and the cumulative balance is therefore a debit position. Although, from 2009 the net debit position has reduced. On average, net deferred taxes during the AGAAP period were observed to move in the credit direction (increasing deferred tax liabilities or decreasing deferred tax assets) by \$199.2 million per year, compared to debit movements (decreasing deferred tax liabilities or increasing deferred tax assets) of \$1,168.5 million per year during the AIFRS period.

For deferred tax assets, as previously noted, the AGAAP period presented continuously greater dollar debit movements than credit movements, whilst the AIFRS period's results were evenly mixed. For the first couple of years of the AIFRS period, the deferred tax assets were being credited, however again the 2008 and 2009 period resulted in substantial debit movements (where credit movements were merely 0.22 and 0.16 times the debit values). The year 2010 presented a substantial credit dollar movement, however this was largely reduced in 2011. Overall, deferred tax assets were volatile during the AIFRS period and resulted in a cumulative debit balance. On average, during the AIFRS period, the deferred tax assets increased by \$837.8 million per year, a greater rate than observed during the AGAAP period, for which the comparable figure was \$214.1 million.

For deferred tax liabilities, as previously noted, during the AGAAP period more often the dollar credit movements exceeded the debit movements; again, such a pattern is reflected in the net dollar change (Column 7, Table 5-24). This resulted in a cumulative credit balance. Despite 50 per cent of the observed years within the AIFRS period being observed with credit dollar movements in excess of debit dollar movements, the 2008 and 2009 years again had a substantial impact on the cumulative balance, negating those credit movements. Following 2009, some reversal of the debit is observed, however not sufficient to prevent a cumulative debit balance at the end of the AIFRS period. On average, during the AIFRS period, the deferred tax liabilities reduced by \$330.8 million per year, compared to increasing by \$414.1 million per year during the AGAAP period. Figure 5-36 highlights the impact of 2008 and 2009 on the yearly and cumulative dollar movements in deferred tax assets and liabilities (the stacked values reflecting the net deferred tax balances).



Figure 5-36 Stacked Net Dollar Change in Deferred Tax Assets and Liabilities

Key: Positive values represent debit movements, negative values represent credit movements

Figure 5-36 clearly reveals the substantial dollar impact of the 2008 and 2009 years, coinciding with the GFC. This is particularly relevant given that overall in respect to yearly net deferred tax movements, credit dollar movements exceeded debit dollar movements in 70 per cent of years observed (as previously stated, 66.7% under both AGAAP and AIFRS and in the transition year). This is suggestive of some permanent postponement effect, although the net deferred tax is not the traditional focus; whilst the dollar movements of deferred tax assets and liabilities in isolation as well as the cumulative dollar balance tells a somewhat different story, particularly for the AIFRS period. Building on these results, the analysis now shifts to consider the growth of a business in respect to the impact of deferred taxes, to take into account of the fact that deferred taxes may be relative to the company's assets.

1	2a	2b	3	3	3a	3b	3c	4	5	6	7	8
	Firms with	Firms								Dollar		
	Deferred	Recognising		Average		Presence of	Median			Credit as a	Net Dollar	Cumulative
	Taxes not	Deferred		Account		Extreme	Account	Total Credit	Total Debit	multiple of	Change	Dollar
	Recognised	Tax	Sum	Balance		Outliers	Balance	Movement	Movement	Dollar Debit	(4-5)	Change
Year	(N)	(N)	(\$M)	(\$M)	Skew	(Y/N)	(\$M)	(\$M)	(\$M)	(4/5)	(\$M)	(\$M)
AGAAP												
2002	19	71	-1290.26	-18.17	-3.363	Y	-0.02					
2003	21	69	-561.33	-8.14	0.766	Y	0.00	-1229.04	1959.25	0.63	730.21	730.21
2004	21	69	-661.96	-9.59	-0.677	Y	0.14	-744.15	642.64	1.16	-101.51	628.70
2005	17	73	-1890.42	-25.90	-1.919	Y	1.29	-1725.80	497.34	3.47	-1228.46	<u>-599.76</u>
TOTAL								<u>-3698.99</u>	3099.23		<u>-599.76</u>	CREDIT
Mean (Y)								-1233.00	1033.08		-199.92	
						AIFRS						
2005	14	76	-3483.69	-45.84	-0.583	Y	-0.86					
2006	12	78	-4118.99	-52.81	-2.286	Y	-0.44	-2373.07	1737.77	1.37	-635.30	-635.30
2007	10	80	-6616.66	-82.71	-3.174	Y	-2.08	-3770.30	1272.63	2.96	-2497.67	-3132.97
2008	10	80	-1874.52	-23.43	1.373	Y	-8.73	-1244.19	5992.10	0.21	4747.91	1614.94
2009	10	80	6264.40	78.31	3.221	Y	3.09	-425.06	8563.98	0.05	8138.92	9753.86
2010	8	82	4343.28	52.97	2.882	Y	9.95	-3253.63	1332.51	2.44	-1921.12	7832.74
2011	6	84	3521.60	41.92	2.735	Y	-0.56	-2573.49	1751.81	1.47	-821.68	<u>7011.06</u>
TOTAL								<u>-13639.74</u>	<u>20650.80</u>		<u>7011.06</u>	DEBIT
Mean (Y)								-2273.29	3441.80		1168.51	

Table 5-22 Dollar Changes in Net Deferred Tax over Time

1	2a	2b	3	3	3a	3b	3c	4	5	6	7	8
	Firms with	Firms								Dollar		
	Deferred	Recognising		Average		Presence of	Median			Credit as a	Net Dollar	Cumulative
	Taxes not	Deferred		Account		Extreme	Account	Total Credit	Total Debit	multiple of	Change	Dollar
	Recognised	Тах	Sum	Balance		Outliers	Balance	Movement	Movement	Dollar Debit	(4-5)	Change
Year	(N)	(N)	(\$M)	(\$M)	Skew	(Y/N)	(\$M)	(\$M)	(\$M)	(4/5)	(\$M)	(\$M)
AGAAP												
2002	19	71	7096.55	99.95	3.837	Y	14.46					
2003	21	69	7097.84	102.87	3.601	Y	21.98	-730.56	735.34	0.99	4.78	4.78
2004	21	69	7455.57	108.05	3.939	Y	17.79	-435.15	792.89	0.55	357.74	362.52
2005	17	73	7735.44	105.96	4.004	Y	17.60	-447.83	727.70	0.62	279.87	<u>642.39</u>
TOTAL								<u>-1613.54</u>	<u>2255.92</u>		<u>642.39</u>	DEBIT
Mean (Y)								-537.85	751.97		214.13	
						AIFRS						
2005	14	76	7849.61	103.28	4.395	Y	11.75					
2006	12	78	7135.96	91.49	4.815	Y	16.89	-2031.86	1318.21	1.51	-713.65	-713.65
2007	10	80	6717.98	83.97	4.313	Y	18.06	-1488.91	1070.93	1.39	-417.98	-1131.63
2008	10	80	9391.30	117.39	6.827	Y	20.97	-769.36	3450.12	0.22	2680.76	1549.13
2009	10	80	14294.63	178.68	4.775	Y	30.69	-903.03	5806.36	0.16	4903.33	6452.46
2010	8	82	12456.42	151.91	4.342	Y	26.80	-3087.87	1249.65	2.47	-1838.22	4614.24
2011	6	84	12868.38	153.19	4.820	Y	25.09	-985.14	1397.09	0.71	411.95	<u>5026.19</u>
TOTAL								<u>-9266.17</u>	<u>14292.37</u>		<u>5026.19</u>	DEBIT
Mean (Y)								-1544.36	2382.06		837.70	

Table 5-23 Dollar Changes in Deferred Tax Assets

1	2a	2b	3	3	3a	3b	3c	4	5	6	7	8
	Firms with	Firms								Dollar		
	Deferred	Recognising		Average		Presence of	Median			Credit as a	Net Dollar	Cumulative
	Taxes not	Deferred		Account		Extreme	Account	Total Credit	Total Debit	multiple of	Change	Dollar
	Recognised	Тах	Sum	Balance		Outliers	Balance	Movement	Movement	Dollar Debit	(4-5)	Change
Year	(N)	(N)	(\$M)	(\$M)	Skew	(Y/N)	(\$M)	(\$M)	(\$M)	(4/5)	(\$M)	(\$M)
AGAAP											_	
2002	19	71	8386.81	118.12	3.840	Y	16.90					
2003	21	69	7659.17	111.00	3.427	Y	22.33	1129.29	-1854.73	0.61	-725.44	-725.44
2004	21	69	8117.53	117.65	3.763	Y	20.20	943.81	-484.56	1.95	459.25	-266.19
2005	17	73	9625.86	131.86	3.368	Y	15.74	1869.62	-361.29	5.17	1508.33	1242.14
TOTAL								<u>3942.72</u>	<u>-2700.58</u>		<u>1242.14</u>	CREDIT
Mean (Y)								1314.24	-900.16		414.05	
						AIFRS						
2005	14	76	11333.30	149.122	2.876	Y	17.84					
2006	12	78	11254.95	144.29	3.311	Y	22.99	2163.03	-2241.38	0.97	-78.35	-78.35
2007	10	80	13334.64	166.68	3.325	Y	28.03	3334.14	-1254.45	2.66	2079.69	2001.34
2008	10	80	11265.82	140.82	3.866	Y	25.69	1344.01	-3411.17	0.39	-2067.16	-65.82
2009	10	80	8030.23	100.38	2.807	Y	17.89	418.61	-3654.20	0.11	-3235.59	-3301.41
2010	8	82	8113.14	98.94	2.985	Y	19.28	1281.34	-1198.43	1.07	82.91	-3218.50
2011	6	84	9346.77	111.27	4.029	Y	20.87	2098.35	-864.72	2.43	1233.63	-1984.87
TOTAL								<u>10639.49</u>	<u>-12624.34</u>		<u>-1984.87</u>	DEBIT
Mean (Y)								1773.25	-2104.06		-330.81	

Table 5-24 Dollar Changes in Deferred Tax Liabilities over Time
5.3.2 THE RELATIVE IMPACT

The trend was examined to determine – if deferred taxes have been increasing overtime – whether, that increase was in fact proportionate to the asset base of the company, i.e. keeping stead with the business rather than just increasing in magnitude. Focusing on those company observations where deferred taxes were recognised on the balance sheet, the deferred tax impact was assessed as a proportion to total assets (excluding deferred taxes). Before the trends are considered specifically, the general trend in the business was observed to gain a perspective of the general company context in question.

5.3.2.1 THE BUSINESS ACTIVITY PERSPECTIVE

Table 5-25 presents the yearly median balances in the key accounts to gain an understanding of what the general company trend is. As previously identified, not all company observations were shown to be recognising deferred taxes on the balance sheet. More non-recognition occurred in the earlier years under AGAAP (ranging between 17 and 21 company observations) compared to the AIFRS period (ranging between six and 14 company observations).

Year	N	Total Assets (\$M)	Total Liabilities (\$M)	Net Assets (\$M)	Deferred Tax Assets (\$M)	Deferred Tax Liabilities (\$M)	Net Deferred Taxes (\$M)
2002	71	1293	759	477	14.46	16.90	-0.02
2003	69	1527	783	626	21.98	22.33	0.00
2004	69	1651	845	758	17.79	20.20	0.14
2005.1	73	1821	969	717	17.60	15.74	1.29
2005.2	76	1726	926	673	11.75	17.84	-0.86
2006	78	1852	1057	684	16.89	22.99	-0.44
2007	80	2118	1170	877	18.06	28.03	-2.08
2008	80	2776	1288	1195	20.97	25.69	-8.73
2009	80	3098	1491	1264	30.69	17.89	3.09
2010	82	2581	1127	1287	26.80	19.28	9.95
2011	84	2474	1190	1303	25.09	20.87	-0.56

Table 5-25 Median Yearly Balances in Key Accounts

From the table it can be gleaned that there is growth occurring in the company context, with median net assets ranging between \$477 and \$758 million (\$281m range) during the AGAAP period, increasing to a range of \$630 million – the greatest median net asset balance occurring in the final year observed. This final observed median of \$1,303 million is being 2.7 times that of the first year observed.

Figure 5-37 highlights this general upward trend in net assets, although it also reveals a general drop in both median assets and median liabilities from 2009. Additionally, the figure highlights the slight dip in all three balances in the transition year.



Figure 5-37 Median Yearly Balances in Key Accounts

Recognised deferred taxes also show somewhat increasing trends over the timeframe; however this is less consistent, with a slightly more cyclical effect apparent: Figure 5-38. The year of transition shows a drop in deferred tax assets (reduced to 0.7 times the original 2005 balance), however a 1.1 increase in deferred tax liabilities. Before 2007, deferred tax liabilities tended to have a greater presence on the balance sheet compared to deferred tax assets. Between 2007 and 2009 there is some volatility observed, with an inversion of that pattern. This divergence in balances reduces from 2009, however does reach convergence by the end of the timeframe observed. The highest balance sits in 2009 with respect to median deferred tax assets balance, tipping slightly over the \$30 million figure. Overall, there is not a substantial increase in dollar value over time. Deferred tax assets ranged between \$11.8 and \$30.7 million, whilst deferred tax liabilities ranged between \$15.7 and \$28.0 million.

Figure 5-38 Median Yearly Deferred Taxes



Both AASB 112 and the former AASB 1020 allow for the set-off of deferred tax assets and deferred tax liabilities. The rationale provided for such action rests on intention or likelihood, depending on the standard, creating scope for professional judgement and choice. This existence of potential choice means that what has been reflected upon in the previous figure falls short of the full reflection of how deferred taxes impact on financial statements. Eliminating the set-off effect reveals a much larger dollar presence, with a larger impact on transition and a substantial increasing trend over the timeframe. Table 5-26 outlines the reduced company set (those that detailed the set-off of deferred tax assets and liabilities), repeating the balances before the set-off is reversed then the balances after the set-off is reversed.

Table 5-26 Reduced Company Set - Impact on Median Deferred Tax Balances

		Pre Revei c	rsal of Set- off	Post Reversal of Set-off			
Year	N	Deferred Tax Assets (\$M)	Deferred Tax Liabilities (\$M)	Deferred Tax Assets (\$M)	Deferred Tax Liabilities (\$M)		
2002	18	21.48	20.92	21.48	21.67		
2003	15	40.70	25.35	40.70	30.67		
2004	13	46.90	88.40	50.88	88.40		
2005.1	14	52.19	54.42	56.35	54.42		
2005.2	70	11.75	20.06	27.95	37.08		
2006	71	18.15	25.50	29.95	59.12		
2007	71	18.77	34.73	42.50	57.99		
2008	70	20.97	26.34	58.45	86.12		
2009	71	30.38	18.17	74.40	73.19		
2010	70	24.62	19.94	88.63	85.12		
2011	71	24.93	22.85	82.29	83.20		

The table highlights the lack of disclosure during the AGAAP period. Despite overall similar numbers of company observations recognising deferred taxes over both regulatory timeframes, the level of disclosure differed vastly. Most observations during the AGAAP period had insufficient detail within the notes to add any further insight to the deferred tax balances. Generally, this was in the form of a direct repeat of the balance recognised in the balance sheet. This was the case for between 53 and 59 of the company observations; whereas during the AIFRS period, only one to two companies had similarly insufficient detail. Although the problem identified in respect to these disclosures and set-off was that a number of company observations merged deferred tax asset and liabilities disclosures, so that there was a lack of clarity for determining the set-off provision made. The occurrence of this ranged between four and 12, increasing over the timeframe.

Figure 5-39 presents the reversed set-off median balances. During the AGAAP period, the set-off provisions have fairly minimal impact although, there is more volatility overall compared to the initial analysis done on the full set of company observations. The effect of set-off provisions observed in the AIFRS period is quite substantial. Prior to reversing the set-off balances, there is fairly consistent trend compared to the full set of company observations. Once set-offs are reversed, a substantial increase in balances occur over time, for both deferred tax assets and deferred tax liabilities.



Figure 5-39 Median Yearly Deferred Taxes with Set-off Reversed

Now the study turns to the relative nature of the deferred tax balances.

5.3.2.2 RELATIVITY TO TOTAL ASSETS

From gaining an understanding of the general company context in relation to the components involved in assessing the relative impact of deferred taxes, the findings now turn to consider the relative impact. Table 5-27 presents the median proportionate impacts of deferred tax assets and deferred tax liabilities and the associated rho value, indicating the correlation between the deferred taxes and total assets.

Year	N	Deferred Tax Assets (%)	Rho*	Deferred Tax Liabilities (%)	Rho*
2002	71	1.30	0.838	1.46	0.843
2003	69	1.60	0.787	1.70	0.801
2004	69	1.48	0.683	1.20	0.778
2005.1	73	1.56	0.664	1.08	0.764
2005.2	76	1.48	0.546	1.30	0.684
2006	78	1.30	0.480	0.89	0.639
2007	80	0.84	0.386	0.98	0.646
2008	80	0.79	0.532	1.86	0.536
2009	80	0.98	0.599	0.98	0.459
2010	82	0.85	0.596	0.92	0.454
2011	84	0.94	0 505	0 74	0 460

 Table 5-27 Proportionate Deferred Tax Impact with Rho Value

*Significance at p<0.05 (2-tailed).

In general, what can be observed is a downward trend for the majority of the timeframe, with some volatility, particularly in respect to deferred tax liabilities in 2008. For each year within the AGAAP period, deferred tax assets and liabilities ranged between one and two per cent of total assets. This reduced during the AIFRS period, with most years presenting with relative impacts of less than one per cent of total assets. The few exceptions included the transition year, then 2006 for deferred tax assets and 2008 for deferred tax liabilities.

In line with these results are the reducing correlations over time with respect to both deferred tax assets and deferred tax liabilities, although they remained statistically significant throughout the timeframe. Correlations ranged between 0.664 and 0.843 during the AGAAP period, for the most part only representing a moderate³⁶ relationship. The correlation then dropped to a weak³⁷ relationship: a range between 0.386 and 0.684 during the AIFRS period. Deferred tax liabilities reported the strongest correlations up until 2009; thereafter, deferred tax assets presented slightly stronger correlations. This downward trend can be observed in Figure 5-40.





³⁶ Moderate relationship defined as a correlation between 0.5 and 0.79.

³⁷ Weak relationship defined as a correlation between 0.3 and 0.49.

Considering the set-off provisions once more provides new insight, however, in contrast with the initial analysis. Table 5-28 reproduces the proportions and related correlations to find that there is more stability in the relative impact of deferred taxes once set-off provisions are reversed. In addition, a clear contrast can be seen between the AGAAP period and the AIFRS period.

Year	N	Deferred Tax Assets (%)	Rho*	Deferred Tax Liabilities (%)	Rho*
2002	18	1.35	0.946	1.45	0.928
2003	15	1.62	0.950	1.39	0.929
2004	13	1.50	0.923	1.37	0.890
2005.1	14	1.08	0.758	1.41	0.815
2005.2	70	2.30	0.806	2.92	0.831
2006	71	2.35	0.801	2.70	0.847
2007	71	2.39	0.741	2.85	0.870
2008	70	2.30	0.868	2.46	0.859
2009	71	2.52	0.881	2.79	0.818
2010	70	2.74	0.861	3.04	0.874
2011	71	2.82	0.830	3.19	0.843

Table 5-28 Proportionate Deferred Tax Impact with Rho Value – Set-off Reversed

*Significance at p<0.05 (2-tailed).

Again, during the AGAAP period the deferred taxes are relatively stable at between one and two per cent of total assets. This then jumps instead of reduces, sitting between 2.3 and 3.2 per cent of total assets during the AIFRS period. Correlations are also statistically significant and strong, above 0.741, for the majority of years considered strong.³⁸ Figure 5-41 presents this clear stable relationship with total assets – with the business and furthermore that there is a clear amplification when comparing the regulatory change. Regardless of that increased presence, the correlation remains consistent.

³⁸ Strong relationship defined as a correlation above 0.8.



Figure 5-41 Proportionate Deferred Tax Impact with Rho Value – Set-off Reversed

The findings suggest a similar impact between deferred tax assets and deferred tax liabilities, where the set-off provisions obscure the underlying pattern of stability with total assets.

5.3.3 SUMMARY

In order to consider the consequences of seeking normalisation – a shift in focus to the balance sheet – the historical argument of permanent postponement was firstly considered. It was not only considered in respect to deferred tax liabilities, but also net deferred taxes and deferred tax assets, due to the intermingling of deferrals through the available set-off provisions. This analysis considered both the direction and magnitude of impact of deferred taxes, before leading into a consideration of relativity; that is, the

deferrals are likely to be linked to levels of business activity. Such a consideration involved total assets excluding deferrals being used as a control for growth.

By looking firstly at permanent postponement, a different pattern was observed when comparing net deferred taxes to deferred tax assets and deferred tax liabilities. An inversed pattern was observed for net deferred taxes; during the AGAAP period more debit movements were observed compared with credit movements, which then inverted during the AIFRS period. Whereas, a more consistent pattern was observed when deferred tax assets and deferred tax liabilities were looked at separately: the former presenting mostly debit movements, whilst the latter mostly credit movements. However, the proportions identified were generally insignificant, with the exception of the deferred tax asset debit movements during the AGAAP period and a number of years during the AIFRS period, mostly surrounding the GFC period, where increased volatility was also observed.

Bringing in the dollar value of movements provided additional insight. Credit dollar movements exceeded debit dollar movements in 70.0 per cent of the years observed (66.7% for the AGAAP and AIFRS period and as well as the transition year). Such findings are somewhat, or tentatively, indicating permanent postponement, however not in the traditional sense of permanent postponement relating to deferred tax liabilities only. For deferred tax liabilities the percentage observed was reduced: overall 60.0 per cent of observations were noted with credit dollar movements in excess of debit dollar movements; however when associated with each regulatory period and the transition year, the AIFRS period reflected a more neutral position (50.0%), unlike the AGAAP period (66.7%), which was more reflective of the net deferred tax findings. The years

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surrounding the GFC and particularly 2009 itself had substantial impact on the overall findings, with the 2008 and 2009 debit movements leading to a cumulative debit balance in all three deferred tax measures.

Bringing into account growth resulted in deferred taxes having minor impacts on the balance sheet. Less than two per cent of total assets related to deferred tax balances, without considering set-off provisions, and just in excess of three per cent when set-offs were reversed. Before, taking into account those set-offs, the impact of deferred taxes was at a reduced percentage to total assets under AIFRS, however they comprised an increased proportion when set-offs were reversed.

The following Table 5-29 summarises the outcomes of the stated hypotheses, with the findings further reflected upon in the following discussion chapter.

Table 5-29 Hypothesis Outcomes

	Hypothesis		Outcome					
			DTA	DTL	DTA^	DTL^		
	$H_{0.8}$ There will be an even proportion (50/50) of credit and debit movements during the AGAAP Period $H_{0.9}$ There will be an even proportion (50/50) of credit and debit movements during the AIFRS Period	S	R	S				
nement	$H_{1.12}$ There will be more credit movements than debit movements during the AGAAP period $H_{1.13}$ There will be more credit movements than debit movements during the AIFRS period	R (3DR) S*(4CR)	R (3DR) R(4DR)	S*(2CR) S*(5CR)				
Permanent Postpor	H _{1.14} There will be more credit dollar movements exceeding debit dollar movements during the AGAAP period H _{1.15} There will be more credit dollar movements exceeding debit dollar movements during the AIFRS period	S	R	S				
	$H_{1.16}$ The cumulative dollar balance will be in credit during the AGAAP period $H_{1.17}$ The cumulative dollar balance will be in credit during the AIFRS period	S R	R	S R				

			Outcome					
	Hypothesis	Net DT	DTA	DTL	DTA^	DTL^		
Relative Impact	$H_{0.10}$ There is no relationship between deferred taxes and total assets excluding deferred taxes during the AGAAP period		R	R	R	R		
	H _{0.11} There is no relationship between deferred taxes and total assets excluding deferred taxes during the AIFRS period		R	R	R	R		
	H _{1.18} There is a strong relationship between deferred taxes and total assets excluding deferred taxes during the AGAAP period		R	I	S	S		
	H _{1.19} There is a strong relationship between deferred taxes and total assets excluding deferred taxes during the AIFRS period		R	R	S	S		
	H _{1.20} The relationship between deferred taxes and total assets excluding deferred taxes during the AGAAP period should be relatively stable		R	R	S	S		
	H _{1.21} The relationship between deferred taxes and total assets excluding deferred taxes during the AIFRS period should be relatively stable		R	R	S	S		
	H _{1.22} The relationship between deferred taxes and total assets excluding deferred taxes is more likely to be stronger during the AIFRS period than the AGAAP period		R	R	R	R		
	H _{1.23} The relative impact of deferred taxes on the balance sheet will be higher under the AIFRS period compared to the AGAAP period.		R	R	S	S		

S=Supported, R=Rejected, I=Inconclusive S*=Supported without statistical significance, in brackets number of years with majority of debit (DR) or credit (CR) movements ^Set-off Reversed

6 DISCUSSION

This enquiry began with a concept of fundamental importance to financial accounting: the reported income tax expense of corporate reporting entities. The purpose of the study was to investigate and explore the phenomenon described as the normalising effect, which has been traditionally offered as the original justification underpinning the application of TEA. Such an enquiry brings together the methods of notable literature on TEA, both internationally and domestically placed. This examination is placed narrowly in a contemporary Australian setting, including those corporations listed on the S&P/ASX 200 with an enduring nature over the specified timeframe.

Normalisation is described as what 'ought' to happen on the inclusion of deferred taxes – a normative theory this study has aimed at understanding. In particular, this study sought to assess whether to refute the presence of TEA's underlying justification (normalisation) and assess its effectiveness, thereby considering what TEA does achieve. The manner in which this exploration was carried out was considered appropriate, given the pragmatic perspective that accounting is a dynamic social construct; where the subjective underpinning is not ignored, but rather both the subjective and objective are embraced. Such an analysis can provide for a logical and thoughtful investigation, rather than strict positivism focusing on the numbers alone – as value free constructs.

This study follows from decades of debate in respect to TEA, which more recently encompassed a drive for international harmonisation and a move to a balance sheet orientation. It was this transition that provided the impetus for a renewed consideration of the historical justification of TEA, which relates to an income statement orientation. That is, a clear point of difference has been identified, between the historical theory of what 'ought to happen' and the contemporary application.

From a review of the literature, it became clear that normalisation stemmed from a normative era of what 'ought' to happen, with a lack of quantitative evidence to support the presence and effectiveness of such a convention. Therefore, the primary research question posed was:

P₁. For Australian listed companies, what impact has the transition to the balance sheet approach under AASB 112 had on the normalising effect of tax effect accounting?

From that primary research question, two subsidiary questions were developed. The first focused on measuring the presence and effectiveness of the normalising effect in the contemporary Australian context:

S₁. Does tax effect accounting have a normalising effect on the income

statement and was this accentuated by AASB 112?

By determining the nature of the relationship between profit before tax and profit after tax including deferred taxes, compared with profit after tax excluding deferred taxes, the study was able to compare which after tax income measure provided the closer relationship to profit before tax. The presumption was that the closer the relationship the more 'effective' TEA was. The extent of effectiveness was then considered by assessing the direction and magnitude of impact followed by an extension to consider ETRs and prima facie tax. This method provided a blend of approaches to enable a robust insight into the contemporary normalising effect within the company set in Australia, particularly in light of the regulatory change towards AIFRS.

This was followed by an analysis of the notion of permanent postponement and the proportionate impact of deferred taxes on the balance sheet: the consequences of seeking normalisation, as reflected in the second subsidiary question:

S₂. What are the consequences of applying tax effect accounting on the

balance sheet?

Such consequences have been debated as either adverse or negated as merely part of accepting to allocate tax. By considering this impact, new insights were gained into the permanent postponement phenomenon, which is particularly relevant over the period that traverses the regulatory change.

This assessment was carried out across the specified 10 year timeframe (2002 to 2011 including the 2005 comparative year, an effective 11 year timeframe). Although normalisation considers each accounting period individually – a cross-sectional perspective – a picture can emerge as to the consistency over time of the presence and effectiveness of the normalisation phenomenon.

The following section interprets these findings in light of the literature as well as considers the implications of such, with a reflection upon TEA's historical justification. TEA was introduced in order to normalise reported profits, or at least it 'ought to'. Such an interpretation begins with a reflection of the contemporary Australian context which was explored.

6.1 AN INITIAL REFLECTION OF THE CONTEMPORARY CONTEXT

From the outset, the balance between presentation and measurement – the fluid and dynamic relationship within the accounting discipline – became clear. It was immediately acknowledged that substantial judgement was involved, reflecting the various shades of grey within the accounting context. The pattern of non-disclosure provided thought-provoking insight in to the level of transparency under both regulatory periods (where the former AASB 1020 provided for segregation of the components of income tax expense based on materiality, rather than by mandate as delineated by the current AASB 112).

Most non-disclosures occurred during the AGAAP period (equating to over half of the AGAAP company set) and mostly related to loss making companies. Those nondisclosing company observations were revealed to have lower median reported profits and taxes, with less variability. In addition, they presented with lower recognised deferred tax liabilities. Such results indicate that the lack of disclosure is likely due to immaterial deferred tax balances, rather than any non-disclosure bias in the results.

Minimal non-disclosure occurred during the AIFRS period, particularly for profit makers. Whether the increase in disclosure during the AIFRS period can be connected with improved transparency in respect to the transition to AIFRS, is therefore debatable. Similarly, whether it was the enduring nature of the company set – the strengthening positions of companies and/or reducing number of loss makers – that enabled more material deferred tax components, as opposed to the increased disclosure requirements in the standard, cannot be confirmed.

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It was considered inappropriate to expand the defined contemporary context, as further issues could have equally arisen through a lack of coverage across the time period, encroaching on the maintenance of comparability of the changing nature and prominence of firms as they evolve and the prevention of smaller firms being proliferated throughout the timeframe, particularly in the latter stages (Dichev & Tang, 2008; Donelson et al., 2011; Jin et al., 2015). The approach utilised allowed for a company set that provides an unbroken string of information, which maximised coverage, akin to Dyreng et al. (2008). It must be accepted that this research does not fall within the strict experimental domain, but rather encompassed a somewhat natural quasi-experimental feature by the disclosure of certain financial information. Such a defined company context links into the normative theory behind TEA's application, reflecting an 'ideal' setting of continuity. The limitations stemming from such an approach were anticipated and are accepted. The aim of this study is to examine this contemporary context – rather than extrapolation and generalisation to a wider population. Here, it is about providing insight and being complementary to those larger studies (Fields et al., 2001).

In addition, increasing the transparency of the financial statements provides further information to users in respect to the company's tax profile. Although current tax is not necessarily coinciding with the tax return, it is one step closer to offering insight into the actual tax obligations of the company accompanied by the accounting judgement. These results are consistent with Whittington (2015), who described how contemporary financial reports are more informative – referring specifically to the level of disclosures. However, Whittington (2015) also suggested that the financial reports are more complete and authoritative, resulting in more comparability and usefulness. These latter

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perspectives could, however, be linked to rationalised myths, perceptions of improved usefulness, and comparability in appearance only.

The discussion now turns to consider the presence and effectiveness of the normalising effect explored in this contemporary setting.

6.2 THE PRESENCE AND EFFECTIVENESS OF NORMALISATION

In order to answer the first subsidiary question – S1. Does tax effect accounting have a normalising effect on the income statement and was this accentuated by AASB 112? – the nature of the relationship between profit before tax and profit after tax including deferred taxes was compared with those same profit measures excluding deferred taxes. This was done to determine whether deferred taxes led to a closer relationship, described here as 'effective'. As well as this, a third relationship was considered, profit before tax and profit after net tax cash flows, providing a benchmark in the event that profit after tax excluding deferred taxes was revealed to have a closer relationship with profit before tax (linking into the concept of cash-basis accounting). The concept of effectiveness arose from Copeland (1968) and in a similar manner applied by Slade (1990). Copeland (1968) described the net change caused by the device (here deferred taxes,) as effective, the closer to one the rho value becomes.

The normalising effect (or lack thereof) was then built upon by considering the magnitude and direction of movement in respect to reported taxes and reported profits by reference to the methodology found in Sidhu and Whittred (1993) and in consideration of the recent concern over the business tax system. A number of ratios were computed (including SW.1, SW.2, ETR.1, ETR.2 and PF30) to explore the extent of, or lack of, the normalising effect. This enabled a robust insight into the contemporary normalising effect in Australia, particularly in light of the regulatory change to AIFRS.

All three data sets (PBT and PAT including, excluding and net tax cash flows) presented a strong relationship, thus leading to the rejection of the null hypotheses $H_{0.1-0.3}$ (in that no relationship between variables was hypothesised) and supporting the alternate hypotheses $H_{1.1-1.3}$ (in that a strong relationship between variables was hypothesised). Although effective normalisation is revealed during the AGAAP period – consistent with Slade's (1990) findings – the AIFRS period presented a different story.

The findings revealed that during the AGAAP period deferred taxes effectively normalised reported profits, whilst during the AIFRS period this was the case only after loss makers were removed (or alternatively when industry segregation occurred, with the exception of the FIN grouping). As part of these findings, in most years during the AGAAP period, deferred taxes decreased reported taxes (increasing after tax profits) with the opposite occurring during the AIFRS period (although not statistically, supporting the null hypotheses H_{0.4}, and H_{0.5}; as well as the alternative hypothesis, H_{1.8}. Whilst rejecting H_{1.9}, in that there is no statistical difference between the number of increases and decreases). These findings are consistent with the post-DS4 period considered by Sidhu and Whittred (1993), although ranging between 1.2 and 1.8 times the observations increasing reported income tax; compared to 1.8-3.0 times within the post-DS4 period, most closely in agreement with the latter post-DS4 period where recognition requirements were restricted. These results present a noticeable comparison to the earlier Australian study by Sidhu and Whittred (1993), who found that overall there was a significant impact on the direction and magnitude of TEA on reported profits, with the exception of the pre-DS4 period (1970-1974), on adopting TEA. In particular, it was found that TEA more likely reduced reported income tax (increasing reported profits), with the extent varying over the post-DS4 period when the restriction over future income tax benefits occurred. Where liberalisation of the recognition occurred, the magnitude of decreasing reported taxes was three times that of increases, with that magnitude reducing slightly where recognition restrictions tightened.

Unlike the timeframe assessed by Sidhu and Whittred (1993), TEA in this contemporary context is mandatory and has been for quite some time. Therefore, such a pattern observed in their study was not anticipated to continue once adoption became mandatory. Speculation can be raised that there has been a drift towards the impact being just as likely to increase as decrease the reported income tax (profits). Such a standpoint links into the saturation or plateau of build-up in reported deferrals over time (permanent postponement), or Copeland's (1968) requirement of a future action – being reversal. Alternatively, the small sample size could restrict the power of the statistical tests. It was hypothesised therefore, that during the AGAAP period, there would be equality between increases and decreases. Whilst the regulatory change, on adopting AIFRS, would lead to the plateau becoming destabilised and, therefore, an unequal spread between increases and decreased would be observed. This is based on the loosening recognition criteria as well as the increased capture of deferred taxes under the balance sheet approach. Yet the findings did not statistically support this.

Captivatingly, during the AIFRS period statistical support was given to deferred taxes reducing variation to prima facie tax (a reduction in variation was also noted for the AGAAP period, although without statistical support). The AIFRS finding was improved on removal of loss making observations.

The following sub-sections interpret the findings in relation to the regulatory periods, the cash flow benchmark as well as the alternative interpretation of the normalising mechanism.

6.2.1 A COMPARISON OF THE REGULATORY PERIODS

The impact of deferred tax allocation during the AGAAP period can be described as effectively normalising reported profits: 'pulling' (whether up or down) the reported tax to the 'correct' tax, as if it were a function of profit before tax, and removing the supposed unreal fluctuations from the tax system. Without deferred taxes, the relationship is reduced. Therefore, TEA's 'what ought to happen' was observed in this context and consistent with Slade (1990), who also assessed the income statement approach to TEA.

It was found that the 'pulling' direction was more often in the form of a reduction in reported income tax, ranging between 9.7 and 24.1 per cent of pre-deferral tax. This range is notably similar to the median increase in reported income tax (between 11.4% and 24.6%), both ranging around 13 to 14 percentage points.

Transitioning to the balance sheet approach to TEA under AASB 112 was said to lead to a more holistic inclusion of the tax consequences, although much of the additional deferred taxes brought in would not impact the income statement, instead being directed to equity (Hanlon, Navissi, et al., 2014). It was hypothesised that the effectiveness of TEA identified during the AGAAP period should at minimum be maintained during the AIFRS period (H_{1.5} and H_{1.6}), although concern over levels of 'noise' or 'garbling' have not gone unnoticed.

A pattern is observed, to a certain extent, during that AIFRS period: swinging between ineffective to effective normalisation. This was also observed in the direction and magnitude of the deferred tax impact. Moreover, in contrast with the AGAAP period, deferred taxes did not perform as well at normalising reported profits during the AIFRS period and only effectively normalised in two years. The year 2009 was the most ineffective. The AIFRS findings are inconsistent with the findings by Slade (1990), although Slade (1990) considered only the income statement approach to TEA.

The 'pulling' direction of the deferred tax impact is also revealed to be in contrast with the AGAAP period. In that, more often deferred taxes increased reported taxes (decreasing reported profits). Furthermore, that impact was to a greater extent and with greater variability: between 13.3 and 48.1 per cent (spread of 34.8 percentage points). This increase in reported tax impact (decreased reported profits) observed within the company set is consistent with an earlier Australian study considering the impact of the transition to AIFRS (Goodwin et al., 2008). In particular, that study found that more firms had decreases in earnings compared to increases,³⁹ leading to the conclusion that

³⁹ As well as finding increases in total liabilities and decreases in equity.

accounting risk was higher under AIFRS (Goodwin et al., 2008). The median reducing impact was between 13.5 and 31.7 per cent (spread of 18.2 percentage points).

These findings could instead be akin to what Copeland (1968) and Beidleman (1973) described as an anti-smoothing effect. That is, the application of TEA (unlike a smoothing device) creates a commitment to a future action. As such, although there can be a short term gain in the form of effective normalisation, there is a future reversal creating issues with the future ability to normalise. This may not have been present during the AGAAP period because of the lack of connection to the balance sheet build up. However, given the AIFRS period is rooted in the assets and liabilities, rather than the reported income and expenses, 'noise' is created (borrowing the term described by the likes of Dichev (2008)). Such results are consistent with concern over higher volatility in the reported earnings under the balance sheet orientation (Dichev, 2008). However, segregating the company set during the AIFRS period revealed clearer findings in respect to the direction and magnitude of impact, although from a statistical point of view hypothesis H_{1.9} continued to be rejected, regardless of whether loss makers were removed (or when industry grouping was considered).

On the removal of loss makers from the company set, the swinging pattern observed was isolated. This resulted in consistent effective normalisation over the period 2006-2009, although the final two years remain ineffective. Furthermore, in all years, more increases in reported tax (decreases in after tax profits) were observed compared to decreases (increases), which therefore increased the median ETRs in the majority of years. Such findings strengthen the connection to Goodwin et al.'s (2008) findings. A slight narrowing of spread occurred for those observations experiencing an upward 'pull' in

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directional impact: the increasing impact ranged between 12.2 to 44.2 per cent, a spread of 32 percentage points (compared to the pooled observations ranging between 13.3% and 48.1%, a spread of 34.8 percentage points). A more substantial narrowing occurred where there was a downward 'pull'. Where deferred taxes led to a reduced reported income tax, the median impact ranged between 10.1 and 20.7 per cent (reflecting a spread of 10.6 percentage points); compared to the pooled observations, which ranged between 13.5 per cent and 31.7 per cent (equating to a spread of 18.2 percentage points).

Such results suggest that the loss makers could have been concealing the underlying pattern of effective normalisation experienced by profit makers. Furthermore, this suggests that the loosening of recognition criteria may have been meaningfully different. This is in contrast to Herbohn et al. (2016) and Herbohn et al. (2010), who suggested that the judgment and discretion allowed under both standards meant they are not meaningfully different. Or more simply, that the results reflect the lack of functional relationship between accounting and taxation, increased by accounting's balance sheet orientation and more evident in the case of loss makers. Simply put, there is no tax balance sheet (despite its imagined state in order to calculate tax bases in applying TEA).

Without disregarding these findings, TEAs impact was also considered from the alternative perspective of industry grouping. The argument being that, the loss making companies are characteristic of the industry groups, particularly given that the MAE group has been observed to have substantial loss makers compared to the other industry groups (FIN, IND and OTH). In particular, the findings that loss makers impaired effective normalisation, raises the question as to whether an industry effect was emerging.

This was particularly pertinent to the AIFRS period due to the increase in recognition rates of loss makers compared to the AGAAP.

Considering this alternate perspective revealed that it was the MAE and OTH groups that presented the most effective normalisation (although the effectiveness was not substantially more than when profit makers were considered). This adds strength to the overall results observed. The FIN group's lack of effective normalisation could be linked with the differing tax profiles between industry groups. Simply put, for the FIN group, there may be minimal impact that can be gained from TEA's application compared to that of MAE or OTH. Tax policies differ across industries and institutions; whether there is a multinational aspect of the company (exposing them to a mix of tax rates), differing levels of capital investment, availability of losses, double tax agreements, levels of depreciable assets, accrued employee entitlements, warranty and inventory provisions and so forth all play a part in the scale of deferred taxes (ASB, 1995; Chambers, 1968; Landry, 1998). Although, the results were consistent even when the big four banks and loss makers were isolated. An alternate explanation to the contrasting findings, could relate to the bimodal nature of the FIN group, the more dispersed spread of deferred taxes, and/or the small number of observations in each year. Such data characteristics form limitations to this study at the industry level.

More generally, when normalisation was ineffective, it was ineffective by a more substantial drop in correlation (compared to when normalisation was effective, accompanied by a smaller increase in correlation). As highlighted in the findings, the troughs observed in correlation appear consistent with the troughs observed in the loss makers' cohort, suggesting that loss making company observations in part lead to the observed ineffectiveness of the normalising effect, perhaps more so than industry classification. This further supports the suggestion that the loosened recognition criteria may have made a meaningful difference to the normalising effect, in that the effectiveness is reduced.

Overall, it can be said that the industry and institutional characteristics affect the extent to which TEA normalises reported profits as well as the direction and magnitude of this impact. Furthermore, the examination suggests that a point of saturation has been reached, where the impact of deferred taxes is just as likely to increase as decrease reported taxes and profits. Although, transitioning to a new method provided scope for that plateau to be shifted and destabilised, there was no substantial movement.

In contrast, the years surrounding the GFC continued to present heightened variability, suggesting economic activity also impacts on the ability of TEA to effectively normalise. Such a storing up of fluctuation was no doubt seen in Patel's (1991) examination of companies in financial distress: insubstantial amounts slowly building up until a point is reached at which that build up either plateaus or some other economic impact occurs, destabilising the built up deferrals. This may be the case of the balance sheet being overstated (such as described in the context of earnings surprises in Barton and Simko (2002)) or an example of the longer term sacrifice – the volatility surrounding the GFC representing that sacrifice – in order for yearly normalisation to be achieved (in the context of smoothing earnings in Graham et al. (2005)). That is, as a result of the GFC, previously recognised deferred taxes impeded the ability to make the greater 'correction'.

In light of these findings, interpreting the cash flow benchmark based on the argument that cash flows are not obscured by accountant's judgement and subjectivity is relevant in light of the literature suggesting non-TEA is equivalent to cash-basis accounting.

6.2.2 THE CASH FLOW BENCHMARK

Considering the data set 3 (net tax cash flows) provided an indication of whether excluding deferrals is simply a surrogate for cash flows. The analysis revealed a sharp difference between the strengths of relationships during the AGAAP period. Although all three measures are considered strong, there is a notable decline for net tax cash flows compared to the other two measures, particularly for the 2004 year. Over the AGAAP period, including deferrals provided the highest correlation for most years, excluding deferrals followed next, with net tax cash flows performing most poorly. This is consistent with Beaver and Dukes (1972) and consistent with hypotheses H_{1.4} and H_{1.5}. This supports the notion that although cash flows do not suffer from the issues of accounting 'noise', they are not devoid of timing issues in relation to accounting numbers, as was theorised within the literature review. Building upon this, the data set excluding deferrals is observed to be more consistent with the data set including deferrals than with the net tax cash flows data set. This is consistent with Chambers' (1996) argument that the flow through method is not consistent with cash-basis accounting. In the single year during the AGAAP period that effective normalisation was not observed (2005.1), excluding deferrals was not observed to be a 'surrogate' for net tax cash flows given its superior placing and net tax cash flows' poor comparative correlation.

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In addition, the relationships excluding deferred taxes were more consistent in strength over time compared to either net tax cash flows or including deferrals, although, they were generally weaker during the AGAAP period. Net tax cash flows was only noted to have the weakest correlation twice during the AIFRS period. Instead, net tax cash flows most often sat in between the other two income measures. This is at odds with the argument that cash flow data suffers from timing problems. Where ineffective normalisation is observed, there was inconsistency as to whether net tax cash flows were weakest, matched the association of the excluding data set or encompassed the closest association. Most often the correlation was either the lowest overall, or at least lower than the excluding data set. There was a clear variation between the trend in excluding deferrals and net tax cash flows' again consistent with the argument that the flow through method is not comparable to cash-basis accounting. As such, hypotheses $H_{1.6}$ and $H_{1.7}$ were rejected.

An additional implication of such swinging behaviour is that the TEA mechanism is simply differentiated from the traditional notion of accrual accounting, such as Chambers (1996) detailed (accrual accounting being associated with smoothing, not the TEA mechanism). As Rosenfield and Dent (1983b) emphasized, the differing objectives behind taxation, connected with the mix of fiscal and policy objectives, create volatility within the income tax expense between periods and between entities. That volatility is therefore informative, and as Chambers (1968) described; there is no 'normal' tax charge, those differing objectives will create variation and will create unpredictability (thus contrary to any smoothing behaviour as associated with accrual accounting). Despite this, the analysis in relation to the alternative interpretation of the normalising effect produced some additional insights.

6.2.3 AN ALTERNATIVE INTERPRETATION OF NORMALISATION

Considering the movement in ETRs after the inclusion of deferred taxes, provided insight into the political impact of taxation in the media and the impact deferred taxes can have on those political perceptions. Sidhu and Whittred (2003) already described the notion of TEA's adoption having a political foundation and it has been observed that deferred taxes have an impact on reported income taxes and reported profits. This has substantive impact on the political debate that is occurring in contemporary Australia in relation to corporate taxes and, in particular, corporations paying their 'fair share' of corporate taxes.

The most notable study in the public debate has been the report released by the United Voice and Tax Justice Network Australia (2014). The tax forgone (being the difference between the 30 per cent prima facie tax and the ETR including deferred taxes) it detailed failed to note that tax obligations do not arise from accounting profit, nor does the income tax reported equal necessarily the tax obligation found in the corporate tax return. Such issues as accounting profit before tax instead of taxable income and reported income tax instead of the corporate tax obligation creates inaccuracies in any calculated 'tax forgone'. Such an analysis ignores the differing objectives, the differing methodologies underpinning the accounting system and the taxation system.

In particular, the findings revealed that, in relation to the movement in ETR on the inclusion of deferred taxes during the AGAAP period, the median ETR most often increased with the inclusion of deferred taxes, closing in on the 30 per cent corporate rate. Although, not by a substantial amount. Specifically, it ranged between 25.3 and 27.5 per cent before deferred taxes, increasing to a range between 25.8 and 28.4 per cent on the inclusion of deferred taxes. This is a movement towards the 30 per cent corporate tax rate.

In contrast, the median ETRs before deferred taxes were substantially lower during the AIFRS period compared to the AGAAP period, ranging between 23.5 and 26.1 per cent. Despite this, once deferred taxes were included, the median ETR range was quite similar to the AGAAP period, ranging between 25.2 per cent and 28.1 per cent. Therefore deferred taxes appeared to have a greater impact on ETRs during the AIFRS period, despite the varying degree of effective normalisation revealed. More generally, irrespective of the degree of impact on ETR, deferred taxes consistently lead to an ETR closer to 30 per cent prima facie tax. This is despite corporate income tax being more complicated and dynamic than that of the static rate of tax.

This leads into consideration of the normalising effect interpreted in a slightly different manner. A more narrow interpretation of the normalising effect, in relation to prima facie tax, was offered. In particular, the application of TEA – the recognition of temporary differences (deferred taxes) – enables reported income tax to equal prima facie tax under accounting principles. Such a perspective is consistent with the notion of TEA enabling reported tax to be 'as if' it were a function of accounting, rather than taxation. Rather than normalisation being reflective of the dynamic nature of corporate income tax, it is given a static definition connected to the Australian corporate tax rate, currently 30 per cent. This

is irrespective of international trade, offsets, credits and other permanent differences that can arise regardless of the profit measure, reflecting the social engineering nature of income tax. In this instance, effectiveness arises where the variation to the static rate, or benchmark, which was set at 30 per cent of profit before tax: prima facie tax (PF30) reduces – essentially closing the gap. This was assessed by considering the pre and post ETR measures.

It was hypothesised that with respect to the political climate – given the aim of TEA is to normalise and that prima facie tax sits at 30 per cent – the application of deferred taxes would reduce the variation to PF30. On examination, statistical support was not found in respect to the AGAAP period for reduced variation (supporting the null hypothesis $H_{0.6}$ and rejecting the alternative hypothesis $H_{1.10}$), however statistical support was given for the AIFRS period (rejecting the null hypothesis $H_{0.7}$ and supporting the alternative hypothesis $H_{1.11}$).

These results are in contrast to the initial normalisation effect observed. Despite the AGAAP period not having statistical support, all years throughout the contemporary timeframe examined (2002-2011) consistently experienced more impacts that reduced variation than increased variation. Therefore, as previously highlighted, a lack of statistical support connected with the AGAAP period could be explained by the low number of observations.

For the AGAAP period, between 53.3 and 63.3 per cent of observations reduced the variation to prima facie tax. Overall, over the AGAAP years the variation reduced from between 5.5 and 9.0 per cent, to between 3.2 and 5.8 per cent once deferred taxes were included. The first four years of the AIFRS period presented reduced variation with statistical support, ranging between 60.2 and 63.1 per cent of yearly observations. The following three years were between 51.2 and 58.4 per cent. The variation to prima facie tax before deferred taxes was higher during the AIFRS period, ranging between 6.7 and 13.9 per cent and reducing to between 3.2 and 8.4 per cent once deferred taxes are included. The higher variations were noted during the final three years.

Similar to the initial analysis, the statistical support was improved when loss makers were removed (further supporting Hypothesis H_{1.11}). Only the 2009 year was left unsupported statistically, despite the higher proportion of reduced variation compared to increased variation. However, the statistical support was mostly lost when industry grouping was considered (diminishing the statistical support for H_{1.11}). Although, the majority of years continued to present a higher proportion of observations with reduced variation compared to increased variation. The variability in median variations particular to the MAE group highlights the contrasting tax and risk profiles of differing industry groups and are consistent with the differing median movements in ETR on including deferred taxes previously highlighted (see for example Table 5.13). The substantial loss makers within the MAE group likely impacted these findings. This may be reflective of the fact that deferred taxes are reconciled with institutional assets and liabilities, whereas loss makers have more general recognition requirements based on the probability of available taxable profits.

Having considered the presence and effectiveness of normalisation, the discussion now shifts to consider the consequences of such an objective. Here, the consequences on the balance sheet are evaluated by considering the traditional assessment of the permanent postponement argument as well as bringing in growth, applied to the context of normalisation.

6.3 THE BALANCE SHEET CONSEQUENCES

Shifting the analysis to the balance sheet consequences brought with it further insights within the context of exploring the normalisation phenomenon. Whilst that phenomenon seeks a normalised reported profit - an income statement perspective - its effects are arguably adverse to the balance sheet, which in turn have been simply accepted as part of seeking to normalise. More impartially, TEA has been described as simply a cycle, flowing between the income statement and the balance sheet. As such, any balance sheet impact (such as permanent postponement) is pertinent in considering the effectiveness of TEA at normalising reported profits. Furthermore, this contemporary context is of particular interest given the regulatory change that occurred: the transition to the balance sheet approach. In order to answer the second subsidiary question $-S_2$. What are the consequences of applying tax effect accounting on the balance sheet? - the magnitude and direction of impact was examined in respect to net deferred taxes, deferred tax liabilities and deferred tax assets. Despite the traditional permanent postponement relating only to the deferred tax liabilities, the blurring of balances through the set-off provisions highlighted the need to broaden the analysis. This followed with a consideration of growth, the relative impact of deferred taxes, in order to assess whether balances simply reconcile to the level of business activity.

With respect to permanent postponement, the findings revealed an inverse pattern when comparing the direction of movement for net deferred taxes to deferred tax assets and deferred tax liabilities. For net deferred taxes during the AGAAP period, more debit movements were observed compared with credit movements, which then reversed during the AIFRS period. In contrast, a more consistent pattern was observed in respect of deferred tax assets and deferred tax liabilities: deferred tax assets revealed mostly debit movements, whilst deferred tax liabilities mostly credit movements. These proportions are generally unsupported statistically (relating to hypotheses H_{0.8}, H_{0.9}, H_{1.12} and H_{1.13}), although significant proportions were noted during the AGAAP period for deferred tax assets as well as surrounding the GFC, where increased volatility was observed.

Considering the dollar value of movement (relating to hypotheses $H_{1.14}$ and $H_{1.15}$), revealed that credit dollar movements generally exceeded debit dollar movements in respect to net deferred taxes (evenly spread between 66.7% for the AGAAP and AIFRS period as well as the transition year). These finding tentatively indicate permanent postponement, however not in the traditional and isolated sense of deferred tax liabilities. Moreover, the proportion was reduced for deferred tax liabilities during the AIFRS period to a neutral position (evenly spread between credit and debit dollar movements), unlike the AGAAP period (66.7%), which was more reflective of the net deferred tax findings. The years surrounding the GFC substantially impacted the overall findings, with the 2008 and 2009 debit movements leading to a cumulative debit balance in all three deferred tax measures.
Further weakening the permanent postponement argument were the findings in relation to the relative impact. Once the growth factor was included, deferred taxes had a minimal impact on the balance sheet, representing less than two per cent of total assets before considering the set-off provisions. Once the set-off provisions were considered, the impact increased to slightly above three per cent. During the AIFRS period, the strength of relationship between deferred taxes and total assets was not improved; in contrast, comparing the strength of the relationship between regulatory periods revealed a stronger relationship during the AGAAP period.

The following sub-section interprets the findings in relation to the consequences of seeking to normalise reported profits, described by some as an accepted consequence, whilst viewed by others as being of dubious merit.

6.3.1 PERMANENT POSTPONEMENT

The traditional argument of permanent postponement generally sat with the deferred tax liability, and empirical evidence supported the argument (for example, Davidson et al., 1984; Davidson et al., 1977; Wise, 1986). Here, a more complete consideration is given to the balance sheet impact, more reflective of the cycle of deferred taxes between the income statement (seeking normalised reported profits) and the balance sheet (arguably the cost of seeking normalised reported profits). Considering deferred tax liabilities biases the findings towards observing permanent postponement, whilst ignoring the intermingling of deferred tax liabilities and deferred tax assets through the application of the set-off provisions. Furthermore, deferred tax assets have been shown to have important implications in respect to financial distress (Patel, 1991) as well as signalling (for example, Herbohn et al., 2016). Therefore, as well as deferred tax liabilities, this analysis considered net deferred taxes and deferred tax assets.

The results suggest a tentative indication of 'permanent postponement'; in that deferred tax liabilities most often experienced credit movements, ignoring the dollar values attached. However, in the same sense deferred tax assets most often experienced debits, supportive of a "permanent capitalisation of deferred taxes" argument. Therefore, both are noted to be increasing, more simply reflecting a function of the normal balances of assets and liabilities: asset accounts normally a debit; and liability accounts normally a credit: therefore negating each other to a certain extent. Overall, net deferred taxes throughout the AGAAP period resulted in more debits than credits, whilst during the AIFRS period they resulted in more credits than debits, although without being statistically significant. It is as if the movements simply ebb and flow with the movement of time. As previously described, there is some argument – given deferred taxes are now mandatory, and have been for many years – that accounting for deferred taxes may have reached a plateau where there is simply not much room for any kind of traditional permanent postponement or permanent capitalisation of deferrals. The balance sheets are saturated, only able to shift with the various forces at play within the accounting system – whether it is via accounts manipulation by the managers in order to achieve their self-interested goals, whether it is the economy reaching the peak of a boom, or bottoming out in the GFC, or the regulatory change allowing for some wriggle room - or all of the above, all at once. All of these may form a reflection of the underlying real world events, reaching out above the single numerical perspective of the published financial statements. This perhaps explains the statistical significance in direction of movement occurring to a certain extent surrounding the GFC.

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Considering the magnitude of these movements adds weight to such an argument, that although credit dollar movements exceed debit dollar movements the majority of time for net deferred taxes, again tentatively supporting permanent postponement, the ebb and flow of the underlying real world still peaks through, particularly around the 2009 GFC period. Such findings reject the notion that deferred taxes continually build up even during economic busts. Here, it was quite the contrary in that the economic activity was accompanied by very unusual and large debit movements. Such findings are somewhat consistent with what Acheampong et al. (2013) found. Where increases in the DE ratio were observed, they occurred during the financial crisis, however unlike the findings in this study, they were small in magnitude.

A further point of differentiation was found in comparison to Davidson et al. (1977, p. 58), who concluded that the evidence they obtained made it "impossible to conclude that ... deferred tax credits are being liquidated", as described in the methodology in this study. The findings presented here therefore reveal that, it *is* possible to conclude that deferred tax liabilities are being liquidated – as evidenced by the cumulative debit balance found in deferred tax liabilities during the AIFRS period. Such an interpretation is more conservatively confirmed in the observed net deferred tax cumulative balances (relating to hypotheses $H_{1.16}$ and $H_{1.17}$).

Given the timing matching up with the GFC, the liquidation of deferred taxes is likely to be related with the economic slow-down experienced surrounding the 2009 year. Such volatility surrounding the GFC is generally observed and noted throughout this study and is contrasted with earlier studies, such as those by Davidson et al. (1977) and Wise (1986). These earlier studies found economic recessions did not have a noticeable impact, although others have highlighted that during such economic times businesses begin to contract, reduce the scale of operations or face a decline in capital investment (Barton, 1970; Wise, 1986). Relative to considering the more complete picture – the trend in the assets and liabilities – did not reveal this to be the case until 2010; however a plateau was noted in net assets from 2008.

As such, it can be argued that considering net deferred taxes is in one sense a more complete consideration of permanent postponement, or perhaps a more conservative approach – in light of the research by Patel (1991, who found increasing deferred tax assets in companies suffering financial distress despite the stricter recognition criteria). This research, however, is not complete either – it does not consider the unrecognised deferred tax assets, nor the deferred taxes recognised in other areas of the financial statements – such as other comprehensive income and equity. This is by and large due to the focus on the normalising effect: the phenomenon seeking to normalise reported profits on the income statement and its subsequent effect on the balance sheet. Equity and other comprehensive income are, therefore, outside of the scope of normalisation, albeit creating a weakness nonetheless.

The focus on normalisation creates a further limitation, in that the company context was devised to match the ideal setting in which the phenomenon would be apparent. Having a company set with an enduring nature – a form of survival bias – creates the bias towards permanent postponement. Therefore the setting for this research, although arguably more complete and more conservative, is alternatively seen as incomplete and lacking conservatism. It is simply one more numerical perspective of the financial information

found, based on one other numerical perspective of real world events. This, in itself, is based upon the subjective, political and time dependent system that accounting is.

Considering the permanent postponement argument has ignored the time value of money, the growth (or decline) of firm's overtime, as well as being impeded by outlier activity. Therefore, there was a clear need to assess the relative nature of the deferred tax impact.

6.3.2 RELATIVITY

Without extending the analysis to consider growth – a reflection of business activity – deferred taxes are arguably overstated (Chang et al., 2009). Once growth was considered, by utilising total assets, the null hypotheses $H_{0.10}$ and $H_{0.11}$ were rejected for both regulatory periods (where no relationship between deferred taxes and total assets was hypothesised). Despite this, the relationships were found to be not necessarily strong, nor relatively stable.

From beginning with an analysis of the assets and liabilities on the balance sheet, what is revealed is simply business activity, the ebb and flow as time progresses. The years surrounding and including 2009 continued to reveal itself as a volatile period, where both assets and liabilities increase. Net assets in general present an upward trend, although is observed to be somewhat plateaued from 2008. For deferred taxes, there is not a substantial increase in dollar value over time and levels were variable. However, the presence was more sizable when set-off provisions were reversed for those companies providing sufficient information within the notes to do so.

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A limitation is noted, however, in that those companies that disclosed more information have more to disclose compared to those that do not disclose sufficiently. In particular, it was observed that, during the AIFRS period, there were similar medians for the prereversals for the reduced company set, yet during the AGAAP period there were much higher medians for that reduced set; jumping from around the \$20 million benchmark to almost \$90 million. This suggests that there was a materiality factor influencing those that disclosed the components of deferred taxes during the AGAAP period. In particular, there were more substantial median balances compared to those that did not disclose the components. Irrespective of this, however, during the AGAAP period the set-off provisions appear to have had little impact. This again contrasts with the AIFRS period where a substantial set-off effect occurred. In particular, a substantial increasing trend in deferred tax balances was noted.

Without set-off, deferred taxes were revealed to have a generally weak to moderate relationship to total assets for both the AGAAP period and the AIFRS period. The strongest yearly relationships were noted during the AGAAP period for deferred tax liabilities. Rather than being aligned with the argument that the inclusion of deferrals is dubious and lead to permanently deferred balances, the balances are instead aligned proportionately to the assets of the entity – ebbing and flowing with business activity. Such a hypothesis is aligned with research describing deferrals as having a revolving nature similar to other debts and other assets (Moonitz, 1957; Sands, 1959). As a going concern, new debts replace old debts, so in an aggregate sense, nothing is ever truly paid off. In that respect, the deferred taxes having questionable legal enforceability, with no corresponding provisions in the books of the tax authorities – such as Slade et al. (1996) highlighted – becomes less relevant. Or on the other hand, given that ebb and flow,

perhaps the importance of adjusting taxes to be as if they were based on accounting profit is less relevant. This is particularly so, when such an amount is expectational and dependent on another system's measure of profit. The discussion naturally returning to earlier comments regarding the informative content of the tax systems influence. Yet, based on the strength of relationship failing to be strong, that argument is weakened (and hypotheses $H_{1.18}$ and $H_{1.19}$ are not supported).

When set-off provisions are reversed (on the reduced company set) the null hypotheses again continued to be rejected ($H_{0.10}$ and $H_{0.11}$, hypothesising no relationship between variables) for both regulatory periods. However, unlike the pre-set-off data, the strength of the relationship between deferred taxes and total assets strengthened for both regulatory periods. This suggests that the set-off provisions blur the nature of the relationships and there is a strong alignment to total assets. Rather than these findings supporting permanent postponement, findings are somewhat supportive of the relative perspective, suggesting stability over time proportionate to the business activity.

Again these findings can be considered in light of the contemporary context reaching some form of point of saturation. Connected to the concept of a plateau is the business acquisition pattern, described by for example, Voss (1968). If there is no more 'wriggle room', then similar to the literature suggesting recurring items having no value relevance (as such, being in support of partial allocation; for example, Amir et al. (1997)), there is an inability to improve correlation as business activity has reached a plateau. This perspective is different to the perspective given by Davidson (1958), who argued that deferred tax liability balances will grow to significant proportions due to increasing depreciation claims. The latter ignores, however, the overall growth of a firm and as Voss (1968) suggested there can be an upper limit of activity experiencing infinite growth. Stretching this further, in that sense, tax consequences within a stable environment would no longer be depicted as being 'repugnant' or 'misleading', so normalisation would be unnecessary.

As to whether the relationship did maintain stability, each regulatory period was assessed for changes in strength and for both deferred tax liabilities and deferred tax assets. Both deferred tax assets and deferred tax liabilities were unstable, fluctuating between moderate and strong during the AGAAP years and between weak to moderate during the AIFRS period (therefore rejecting hypotheses $H_{1.20}$ and $H_{1.21}$). These results highlight an intriguing outcome: with the transition to the balance sheet orientation (where of primary importance is the valuation of assets and liabilities and where essentially all tax consequences are now captured), there is an observed reduction in strength of relationship – contrary to such a view point. In particular, contrasting to key scholars, such as Chaney and Jeter (1994), who highlighted the importance of growth in their model due to the likely correlation between assets and timing differences.

Not only this, but there is a general downward trend in the proportionate impacts over the timeframe, with a notable peak in 2008 for deferred tax liabilities. For the AGAAP period, deferred tax assets and liabilities ranged between one and two per cent of total assets, that proportion reducing during the AIFRS period, with most years revealed to have less than one per cent of total assets with few exceptions.

Such results are quite consistent with Sidhu and Whittred's (1993) Australian research (generally ranging between 0.4% and 3.5%), yet substantially lower than other international research considering the relative impact (for example, Beechy, 1983; Colley et al., 2006, 2009). These results suggest a lack of permanent postponement, a lack of stable balances throughout economic cycles, and a lack of more substantial balances. These findings hint at a potential geographical factor. On speculating, such findings could be linked to Australia's acceptance of asset revaluations compared to the likes of America's prohibition. Goodwin et al. (2008) highlighted that asset revaluations are a common adjustment leading to deferred tax liabilities and such items were considered by Hanlon, Navissi, et al. (2014) revealing value relevance under the balance sheet approach. However, without direct assessment of the components of TEA, such a connection to this research is only theoretically via the asset revaluation process being connected to market activity. Nor did the analysis examine industry grouping in relation to the relative impact, due to low numbers within the AGAAP period imposing constraints (as previously noted).

Overall, it was hypothesised ($H_{1.22}$) that the strength should increase and that there would be a higher relative impact under the AIFRS period ($H_{1.23}$). Both hypotheses were rejected for deferred tax assets as well as deferred tax liabilities. Again, once the set-off effect was removed, their obscuring nature was revealed. In particular, based on the reduced company set, a more stable and increasing impact were observed. The relative impact of deferred taxes continued to be between one and two per cent of total assets during the AGAAP period, whereas the impact increased to between 2.3 and 3.2 per cent of total assets with strong correlations during the AIFRS period, therefore supporting hypotheses $H_{1.20}$, $H_{1.21}$ and $H_{1.23}$. Such findings show that for those disclosing the set-off components, TEA led to an amplification of impact under the AIFRS period (the balance sheet approach) compared to the AGAAP period (the income statement approach). As a result, the 'plateau', or 'saturation', was destabilised on transition to the balance sheet approach. However, this was without a substantial change in strength of relationship. Without such a substantial change in the strength of the relationship, and in conjunction with the normalisation and prima facie tax findings, although the income statement has become in principle subservient to the balance sheet, it has not lost relevance to the extent the balance sheet impact was previously described. Any concern over the impact on the income statement is not disregarded and accepted as simply a consequence of seeking a complete reflection of the entity tax position of the balance sheet.

Deferred taxes can be seen along a subjective continuum, as characterises the greater accounting system in which they preside. On one end of that continuum is the worst outcome: where their presence has dubious benefit or usefulness, such as Beechy (2007) described and the intermingling of fact and fancy within the strange twilight world of accounting as West (2003) described. However, what of the other end of that continuum? By exploring the defined Australian context for the contemporary normalising effect, issues such as the correctness of numbers – the subjective nature of accounting – which have been considered for decades (such as Jones (1796)), provide a thought-provoking narrative concerning the accounting system. TEA provided an intriguing example of the shifting sands of accounting, the consequences of the ebb and flow between the income statement and the balance sheet, the accounting system and the greater business system it is a part of.

7 CONCLUSION

Deferred taxes, resulting from the application of TEA, are an important financial variable within the ambit of the economic consequences attributed to the accounting system. This inquiry involved an exploration of the implications arising from the application of TEA, with the key research question being asked: For Australian listed companies, what impact has the transition to the balance sheet approach under AASB 112 had on the normalising effect of tax effect accounting? Such an inquiry has provided an example of the shifting sands of accounting. The idea of TEA arose during the normative era, prescribing what 'ought' to happen, linking into the true income prescriptive theory. This study asked whether TEA has had the effect of normalising reported profits – as per its prescriptive rationale – and, if so, was this effect accentuated on transition to the balance sheet approach. The inquiry then contemplated the possible costs of such an aim by considering the implications for the balance sheet.

The normalising effect, as a cross-sectional perspective, was examined over the study's timeframe, providing a necessary series of 'pictures' in order to examine its presence and effectiveness. Just like May (1962a) noted so long ago, a series of pictures is needed rather than a single snapshot in time – particularly in an increasingly complex environment. Within the examined timeframe was the transition to the balance sheet approach to TEA under AIFRS. This transition created a clear point of differentiation, between the historical justification underpinning TEA – the normalisation of reported profits – and its contemporary application, which has experienced a conceptual realignment.

This chapter brings the thesis to a close by firstly providing a review of the contributions to the literature, then contemplating the implications for such contributions. As part of that contemplation, includes more general reflections. The chapter concludes with a detailing of further research opportunities.

7.1 CONTRIBUTIONS TO THE LITERATURE

The contribution this study provides is a quantification and evaluation of the normalising effect within the context of contemporary Australia. The notion of 'normalisation' is not predominant within contemporary literature, rather its presence has dissipated over time as preference has shifted towards what Whittington (2015) described as a 'new generation' of academics in finance and econometrics. Such a drive has led to extant literature revealing TEA's application as important in economic decision making – deferrals being found to be 'real' and value relevant, at least in part (Beaver & Dukes, 1972; Chang et al., 2009; Dotan, 2003; Givoly & Hayn, 1992; Sansing, 1998). Moreover, it has been found that TEA impacts on the balance sheet, for example, in relation to borrowing constraints and reputation (Colley et al., 2012; Wong, 2005).

This research more generally contributes to the literature in a number of ways. Firstly, by stepping back to consider the early justification of TEA: the normalising effect. Here, the contemporary nature of reported income tax can be better understood in light of its history, particularly where Australia has experienced a conceptual re-alignment in approach, combined with recent research that has suggested a lack of understanding of what users perceive as useful when it comes to tax disclosures (EFRAG & FRC, 2013). This is particularly important given the contemporary accounting system rests upon the

theory of decision usefulness, whereas normalisation is more aligned to the true income theory. Without understanding the early justification, without having that historical awareness, there is a potential for inappropriate or incomplete interpretations (Previts et al., 1990).

Secondly, this research contributes to the limited Australian literature on TEA. Such areas of relevant literature include the adoption of TEA in Australia, such as the political benefits associated with allocating deferred taxes (as was seen in Sidhu and Whittred (1993)), institutional variation, as well as the literature on the adoption of AIFRS (for example, Goodwin et al., 2008; Hanlon, Navissi, et al., 2014). Finally, this research provides a link between the permanent postponement and value relevance literature.

7.1.1 THE TECHNICAL FACET AND NORMALISATION

From this examination, effective normalisation was observed throughout the defined timeframe, albeit not its entirety – the effectiveness varying as to which 'slice of life' was examined. In particular, for the AGAAP period, it was found that TEA effectively normalised reported profits, whilst for the AIFRS period, it was only after loss makers were removed (or for the most part, where industry grouping occurred) that TEA was observed to effectively normalise reported profits in the majority of years. TEA can therefore be described as partially successful, which is somewhat consistent with the AIA's (1944) original assertion that it would be a part solution only. In that sense, if the underlying theory is accepted, TEA enabled the financial information provided to be more relevant and meaningful and therefore more useful to users. The enabling mechanism in this process is that deferred taxes 'pulled' reported income tax to what it 'ought to be' – the 'correct' tax – and therefore allowing reported tax to be closer to what it would be if it

were a function of accounting. The pulling direction most often reducing reported income tax during the AGAAP period, whilst most often increasing it during the AIFRS period.

This research highlights the importance of institutional variation within the literature. Industry and institutional characteristics affected the extent of effectiveness of normalisation. This was most notable in relation to the findings suggesting that loss makers concealed the underlying pattern of effective normalisation experienced by profit makers. Such a concealment suggest that the loosening of recognition criteria for deferred tax assets may be meaningfully different – unlike what was suggested by Herbohn et al. (2016) and Herbohn et al. (2010). Additionally, this research highlights a potential geographical difference, with balance sheet consequences substantially lower than has been revealed in international research, whilst consistent with Sidhu and Whittred (1993).

In a similar fashion this study exemplifies the substantial limitation found within the political debate surrounding companies paying their 'fair share' of tax (for example, United Voice & Tax Justice Network Australia, 2014). The impact of deferred taxes can greatly shift what tax has been perceived as 'forgone' (being the difference between the 30 per cent prima facie tax and the ETR including deferred taxes).

7.1.2 AIFRS Adoption and a Shift in Normalisation

For the AIFRS period, the question seemed to turn to whether normalisation continues to be relevant, raising questions in relation to tax disclosures more generally. By defining normalisation more narrowly in respect to the Australian corporate tax rate – a static rate of tax – revealed that TEA enabled reported tax to more closely equal prima facie tax under accounting principles. For example, during the AIFRS period deferred taxes led to a reduced variation to prima facie tax (with such findings strengthened on removal of loss makers). Reduced variation was also observed during the AGAAP period, however without statistical significance. These results are despite the dynamic and complex nature of corporate taxation; irrespective of international trade, offsets, credits and other permanent differences.

However, it could be argued that this result is contrary to the decision useful environment with which accounting is now placed, given the backdrop of public pressure over transparency and 'fair share' of corporate tax obligations. Accountants are purported to be constructing financial information on the basis that the information will be useful for decision making, yet these findings add weight to the recent findings of lack of an understanding of what users perceive as useful (as found by EFRAG and FRC (2013)). In that sense, this research is not consistent with the value relevance research, or rather it is aligned more-so with partial value relevance. This partial value relevance could be connected with the institutional factors shown to impede the general success of TEA's normalising mechanism.

Irrespective of this, as previously detailed, the original adoption of TEA in Australia was not necessarily consistent with the theoretical justification of normalisation. Rather, there was instead international influence (Carnegie, 2009; Gibson, 1984; Morris & Barbera, 2014; Wise & Wise, 1988) and/or political costs (Sidhu & Whittred, 2003) at play. This research contributes to that 'desirability' research, in that the findings suggest political motivators are at play, as the findings show a general trend of reducing variation to prima facie tax, although such findings warrant further investigation. More generally, the volatility that was observed throughout the AIFRS period is consistent with concern over a balance sheet orientation. As previously noted, a return to a balance sheet orientation has been described as shifting away from the 'normal' operating earnings, and therefore creating 'noise' and increased volatility. In that context, Dichev (2008) raised concern over earnings becoming meaningless and eroding the accounting function. Such complexity highlights the social and dynamic nature of the accounting system: the system has evolved immensely since the time that the normalising theory was developed. Therefore, this research may provide useful insights to policy makers for decision making processes.

7.1.3 PERMANENT POSTPONEMENT AND VALUE RELEVANCE

This research did not reveal an 'outrageous' build-up of deferrals on the balance sheet, suggesting that permanent postponement was not occurring, contrary to the related literature. Rather, credit/debit movements were more generally reflective of the normal balances of assets and liabilities, and the magnitude of movements was reflective of the ebb and flow of business activity (with volatility particularly present around the GFC period).

This contemporary setting reflects a period, where TEA has been mandated for many years. Deferred taxes remained substantially unchanged throughout the timeframe relative to total assets (reflecting proportions of less than two per cent of total assets). Moreover, the AGAAP period represented higher relative balances than the AIFRS period. There was an increased presence of deferred taxes under AIFRS only once set-off provisions were reversed. These findings reveal an amplification of TEA's impacts under the balance sheet approach; however they were not substantially higher, ranging only one percentage

point higher than prior to the set-off reversal. Additionally, the strength of the relationship was not improved on this transition. These results are in line with Sidhu and Whittred (1993) and hint at a geographical difference between countries.

It was noted that any 'outrageous' impact may be limited due to a plateau, where an upper limit to growth in balances has been reached: a point of saturation. This line of thought is consistent to the argument described by Voss (1968) in relation to asset acquisition patterns and contrary to scholars such as Davidson (1958), who suggested that deferrals could continually increase. It is here that a connection to value relevance literature can be observed again, with particular reference to partial relevance: those deferrals that are recurring have no value relevance (Amir et al., 1997). Linking such findings back to the normalisation literature, in this sense such findings, suggest that those tax consequences would not be considered 'repugnant' or 'misleading' and, therefore, normalisation is no longer unnecessary.

7.2 IMPLICATIONS FOR TAX EFFECT ACCOUNTING

It was clear early on that the transition to the balance sheet approach to TEA would be more onerous for preparers, than the former income statement approach. For example, EFRAG and ASB (2011) recently highlighted the increased level of complexity and risk to reliability. As well as this, the costs highlighted included not only the preparation of the standard itself, but also education costs, system costs and on-going compliance costs. Within the Australian context, the tax rules have been noted to be particularly complex and continually changing and the notional tax balance sheet has been described as 'not well understood' (CPA Australia Ltd, 2015). With clearly identified and anticipated costs, the benefits have remained more theoretical: the balance sheet approach was considered more consistent with the Framework's focus on assets and liabilities; providing a more faithful representation of financial statements; a more thorough reflection of the tax position; and therefore, a more complete reflection of assets and liabilities (EFRAG & ASB, 2011). The implications of this research are that those benefits of completeness are perhaps an emerging myth or reflective of the shifting sands of accounting.

Within a context of TEA – having arguably partial value relevance only, where there is a lack of understanding of what is perceived as useful when it comes to tax disclosures, combined with a growing concern over the corporate tax system – this study reveals inconsistency in effective normalisation. Instead, a consistent reduction in variation prima facie tax is evident (despite variation in business activity, despite the favour-burden inequity of the tax system going beyond taxable income as well as increased globalisation). Furthermore, the strength of the relationship of deferred taxes to the balance sheet was not improved on transition to the balance sheet approach.

It can perhaps be argued that the costs are clear to the preparer; however the benefit to the user remains unconfirmed, which poses problems for standard setters and the accounting profession in general. Having a more 'holistic' reflection of the entity tax system has not substantially improved the normalising effect and, therefore, unless the normalising justification has evolved into something new, then the benefit of a 'better' or normalised profit comes under fire. Perhaps the benefit lies in the preparer's ability to reduce the variation to prima facie tax, to improve reputation. Such an implication is consistent with arguments by Sidhu and Whittred (2003) and more generally the literature on the Australian adoption of TEA. However, that is not where the benefit of the accounting

system ought to rest: although the preparer bears the costs, it is the user that should gain the benefit.

TEA may have been legitimised through the passage of time through the prescriptive theory of normalisation. However, more recently TEA may more be legitimised through a rationalised myth of completeness, where its role has shifted away from the early justification of normalising reported profits. Simply by stating that the balance sheet approach (as part of harmonisation with AIFRS) is more holistic – a more complete reflection of the entity tax position – is not necessarily congruent with the original justification that stemmed from an income statement perspective, where profit was the focus and assets and liabilities subservient.

Just as Chambers (1996) described an habituated use of the term 'accrual', the description of recognising 'more items' (largely relating to the balance sheet) leading to 'more complete' reflection of an entity's tax position, is a slip into old habits. Rather than 'more' deferrals being appropriate to the purpose of TEA, 'more' deferrals have created something different. That inclusion has then been legitimised by TEA's survival within the accounts over time. Such a position is unreflective, highlighting the lack of understanding or connection to TEA's historical justification. Rather than debate resting upon why to allocate tax, it has shifted towards which method, concerning which procedure is the most preferred.

Irrespective of whether the focus of TEA is on the 'why to apply it' or the 'which method to use', its continued survival, may be due to its application not being ideal, but rather a 'better than nothing' approach, such as Deegan (2000) and more recently Whittington (2015) suggest in relation to historical cost accounting. Just as we have proceeded with the classification of income tax as an expense, as described by Chambers (1968), we have simply proceeded 'as if' TEA normalises and 'as if' tax was a simple accounting entry. For Oliver (1997), such activities with no obvious purpose are of particular theoretical interest.

Through the passage of time, social influence and political pressures for conformity have likely shaped the way in which TEA has become impenetrable, as Beechy (2007) described – despite being characterised as having 'dubious' benefit or usefulness. As Moore (2009) described, accepting the superficial objective nature of accounting numbers is simpler than considering what is behind those numbers. Now, TEA has re-emerged into something completely detached from its beginnings. Rather than being more comprehensive or more holistic, it has transformed, altering its underpinning nature.

This can be linked more accurately to Boland's (1982) description of the codification of techniques being established, with new myths then emerging from within. In that sense, there has been a shift towards the more subjective nature of accounting, reflective of accounting's interpretive and social role. Therefore, the earlier framework described in Chapter 3 is revised and reproduced in Figure 7-1, with a clear evolution stemming from within the accounting system, rather than returning fully to the real world events underpinning the accounting system. Part of that re-emergence is conformity in appearance: regulations prescribe the conformity to standards despite substantial diversity

stemming from the complex taxation and multi-jurisdiction context, irrespective of cost or efficiency.

Perhaps what has been observed in this study is simply a shifting of sands. TEA has changed and adopted a new role, exemplifying Hopwood's (2007) description that things simply change: they become what they were not, at least in part. In that respect, despite TEA's original place linked to the profit measure, that profit measure is now a by-product of the balance sheet process and so too is the normalising effect, whether it is achieved or not.

7.2.1 FURTHER REFLECTIONS

Accountings' social conformity flows separately to that of the taxation context: having its own rules, norms and beliefs of the same business foundations. With the growing pressures in respect to tax transparency, further impetus for change may occur – perhaps demanding a step towards the objective real world foundations to which the accounting and tax systems relate: an acceptance of corporate tax resting on differing objectives and differing methodologies. Such an acceptance embraces the notion that companies are many things at once, and that the financial statements produced are one single numerical perspective, just as Morgan (1988) stated so many years ago. Is a convention stemming from 1940s – where there was a lack of globalisation, where corporate taxation was only in its infancy – still appropriate?

Rather than being steadfast in history, in this sense accounting needs to be adaptive – not just in evolving from a rationalised myth. As Beechy (2007) highlighted, there may have been innocent beginnings in respect to TEA, however it is arguably a tangled mess inhabiting an environment that is turbulent and unstable. Knowledge is a matter of perspective (Morgan, 1988) and given TEA's complex nature, based on assumptions arguably lost through time, where profit is said to be inundated with 'noise', why should the 'noise' of tax – more connected to a determined obligation – be ignored and accepted as being plagued by misleading and unusual effects. After all, throughout history tax has been said to influence and 'strengthen' the accounting profession (Most, 1977). Simply accepting the reporting of corporate income taxation as a technical facet that has been reduced to a procedural modus vivendi, where values have been obfuscated by procedure, may no longer be appropriate.

This study has enabled a better understanding of the TEA convention to be garnered. By being aware of how TEA can manifest itself within a defined context provides important insights for the accounting profession. Such an awareness enables the profession to continue learning and advancing the processes within the system rather than walking blindly, simply accepting what has gone before, regardless of whether TEA is considered a part solution or holistic: after all, they are merely words providing a single numerical perspective.



Figure 7-1 The Accounting System and the Normalising Effect - Revised

7.3 LIMITATIONS AND FUTURE RESEARCH

Despite contributing to academic knowledge, this study is not without limitations and these limitations must be acknowledged. The limitations have been identified within the discussion chapter, and developing from this acknowledgement further research opportunities have been identified to expand the knowledge gained from this study.

As part of accountings social underpinning, is a balance between presentation and measurement. Throughout the specified timeframe, there was a lack of consistency across time and across companies. To maximise consistency and appropriateness of treatment, substantial judgement was involved. Furthermore, levels of disclosure proved problematic and led to lower observations than anticipated, particularly in the early years. However, as discussed, changing the boundaries of the company set to overcome this would also bring various problems and therefore this limitation was accepted and formed part of the reflection of the contemporary context examined.

Extrapolation of findings was not the objective of this research study, rather it was the provision of insight and be complementary to larger studies. The aim of this study was focused on examining what was happening in the 'ideal' setting. Developing this study around that 'ideal' setting is inherently limited. Most notably, the inclusion of companies with enduring natures embraces the survival bias, and furthermore, the use of a non-random data set does not conform to probability sampling (as there is a violation of basic assumptions). Such limitations were anticipated and part of the design, as inferential statistics was not the purpose of this study. As a result, the data set was referred to as a

company set and *company context*, rather than as a sample or population, in order to avoid misleading the reader towards incorrect assumptions.

This approach, therefore, utilised non-parametric statistics to support the analysis. Although, non-parametric tests have arguably reduced power, violation of basic assumptions can negate the power of parametric tests (Sheskin, 2011). More problematic is the risk within the findings that low numbers in certain groupings/years could further reduce the power of the tests and lead to Type II errors. Solidifying the findings from this study would be in the form of replication with an altered company context (so as to overcome issues surrounding the enduring nature of companies, industry and institutional factors such as loss makers, the potential for non-disclosure bias and level of observations). In addition, a geographical comparison of the normalising effect would provide further insight, particularly given the differing impact observed in the Australian setting (both in this study as well as prior Australian research) compared to that observed abroad.

Furthermore, key opportunities for future research include expanding the scope of the research to consider the sources of deferred taxes. This would enable an assessment as to whether the recurring nature of deferred taxes, in connection with partial allocation, is consistent with the normalisation concept and therefore consistent with investor perceptions. As part of this assessment could be a closer examination of the impact of the set-off provisions.

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In addition, a more focused study on political motivations of the preparers of financial statements is warranted. In particular, to examine the reduction in variation to prima facie tax is warranted. This would require a quantitative examination to isolate and confirm the effect for an appropriate sample and possibly be followed by a survey of the preparers to assess the intention behind the numbers, given the breadth of professional judgement allowed.

Finally, an examination of users of tax disclosures is warranted. Such an investigation would consider the normalising effect with respect to what users perceive as useful and whether the normative theory is consistent with decision usefulness. This would help to complete the cycle between the information produced in the black box that is the accounting system and the underlying real world events that it is attempting to depict. This is important for standard setters, particularly in light of the recent spotlight on corporate taxes. Such an examination could be in the form of discrete choice experimentation.

8 APPENDICES

8.1 MARKET CAPITALISATION OF COMPANY SET

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8.2 DATA COLLECTION COMPLEXITIES

Item	Description	Treatment
Scope	Income tax includes all domestic and foreign taxes	Amounts such as royalty taxes
	which are based on taxable profits: AASB 112.2. Can	and PRRT were included in
	include withholding tax, royalty related income tax,	reported income tax to the
	PRRT. Variation in the presentation was observed. For	extent clearly identifiable. The
	example, in some instances income tax reported on the	assumption was made that
	face of the income statement is split between income	where it was not clearly
	tax expense (benefit) and royalty related income tax	identifiable either it is already
	expense (benefit).	included or not applicable to
		the company.
		Reported income tax on the
		income statement was
		reconciled to the total
		components of income tax
		within the notes.
Scope	Income tax recognised on the income statement is not	The concept of normalisation is
	necessarily representative of the complete scope of	concerned primarily with the
	income tax:	income statement therefore
	Income tax is recognised in the income statement except to the extent that it relates to items recognised directly in equity, in which case it is recognised in equity (TPM, 2011, p. 40).	data collected did not include
		components of income tax
		reflected in other
		comprehensive income or
		equity statements.
Component	Current Tax	Where over or under provision
	Items Included in current tax where necessary:	was separately listed, the

• Adjustments recognised in the period for current	amount was included in a
tax of prior periods (under/overs)	separate sub category of
	current tax within the database
	established, labelled:
	'over/under provisions from
	prior years' within the database
	established.
• Other specific observations:	
ABC - Uplift on inclusion of subsidiary into TCG	Income tax component of
(2009)	\$3.5m determined to be current
The notes specify that ABC is the head entity therefore	tax, as notes to the financial
recognises the tax liabilities of subsidiaries as if those	statements indicate the amount
transactions, events and balances were its own. The	to be an adjustment to tax
separate taxpayer within the group approach is noted to	payable not deferred taxes
be applied (ABC, 2008, p. 43).	(ABC, 2008, p. 89).
ORI – Pharmaceuticals Tax Case (2010)	The tax case was settled with a
	\$98 million loss recorded and a
This [non-current receivables of \$103.1m]	corresponding write off of the
includes in 2009 \$100.0million that was	tax receivable listed in non-
paid during the financial year ended 30	current other receivables, not
September 2005 to the ATO in relation to	an adjustment to deferred tax.
the sale of the pharmaceuticals business to	Additionally, franking credits
Zeneca in September 1998. The Federal	were claimed. This amount is

	Court only partially allowed Orica's	concluded therefore to be a
	appeal against that amended assessment.	current tax component.
	The effect of the Federal Court judgement	
	was that the ATO's claim was, for the	
	most part, upheld. Orica appealed that	
	decision but agreed with ATO to settle the	
	case on 6 August 2010, As a result of the	
	settlement, Orica has recognised a loss of	
	\$97.8 million as an individually material	
	item for the year ending 30 September	
	2010 (ORI, 2010, p. 69).	
Component	Deferred Tay	
Component	Deformed toy is acconticilly the net meyoment in deformed	
	Deferred tax is essentially the net movement in deferred	
	tax balances for the period (CPA Australia Ltd, 2015).	
	Given the bespoke items identified during data	
	collection; based on AASB 112/AASB 1020, items	
	were included in deferred tax where necessary:	
	• Benefits previously recognised now written off	
	• Timing differences (losses) not brought to account	
	• Reduction of deferred tax on sale of subsidiary	
	• Reduction of deferred tax taken to goodwill	
	• Effect of change in tax rate	
	• Translation to presentation currency	
	Changes in accounting policy	
	• Benefits recognised arising from previously	
	unrecognized tax losses, tax credits or temporary	
	differences of a prior period	
	• Other specific observations:	

ASX - Long-Term Incentive Plans (LTIPs) (2010, 2011)

Relate to the vesting of performance rights from 'partial attainment' of the performance hurdles under a 2007 LTIP.

The Group provides performance rights to ordinary shares of the Company to executives and certain staff members as part of the Long-Term Incentive Plan. The fair value of the performance rights granted is recognised over the vesting period as an expense with a corresponding increase in equity compensation reserve. The fair value of the market based component is determined by an external valuer using Black Scholes valuation and a Monte-Carlo simulation method, taking into account the terms and conditions upon which the performance rights were granted. The fair value of the non-market based component is the ASX quoted market bid price on the day of issue. The amount recognised as an expense is adjusted to reflect the actual number of performance rights expected to vest, with a corresponding adjustment to the equity compensation reserve. However where the performance rights did not subsequently vest due to a market condition (e.g. Total

These relate to the remuneration of directors, therefore fall under the umbrella of employee benefits, in particular share-based payment transactions detailed in paragraphs 68A to 68C AASB 112.

The rights are noted to be recognised over the vesting period, adjusted for expectations as necessary. It is interpreted that the separate amounts are adjustments for expectations, with corresponding amounts in equity. As such, the amounts are treated as adjustments to the deferred taxes recognised (ASX, 2011, p. 117).

	Shareholder Return) not being attained,	
	the expense is not reversed (ASX, 2011, p.	
	99).	
		Treated as deferred tax
	BPT - Application of AASB Interpretation 1003 –	component. The breakdown of
	PRRT (2011, 2009, 2008, 2007)	deferred taxes show the
	The PRRT Component is separately listed in income	amount is incorporated into net
	tax.	deferred tax balance (BPT,
		2008, p.73). Further, the
		amounts are represented as
		component of deferred tax
		asset in note 21 (BPT, 2008, p.
		84).
Discontinued	The income statement generally presents discontinued	Given the variability, it was
Operations	operations net of tax after disclosing profit before tax,	concluded that the solution was
	income tax expense and profit after tax (as continued	to add discontinued operations
	operations). This is not of concern except to the extent	and the related tax expense to
	the components of income tax expense (current and	profit before tax, income tax
	deferred) are aggregated with the discontinued	expense and profit after tax.
	operations tax.	Essentially shifting the
	There was a lack of consistency in how these figures	amounts from below the profit
	were disclosed. In some instances they were disclosed	after tax line to above, keeping
	separately and do not pose a problem.	them on the income statement.
		Therefore the current and
		deferred components would
		accurately reflect the income
		tax expense.
		Where adjusting the profit

		figures would not lead to a
		correctly reflected income tax
		component summary, no
		adjustment made.
		Number of adjustments made:
		66
Deferred Tax	Balance Sheet Presentation	The items were disaggregated
Assets and	Most commonly deferred taxes are listed as non-current	on data collection
Liabilities	assets or liabilities, clearly identifiable. In some	Potential for taxes being
	instances, however, this was found not to be the case.	omitted on data collection.
	Either deferred taxes were found within current assets,	Given reconciliation process
	current taxes were found in non-current assets or on the	taken on data collection, this
	face of the financial statements current and deferred	risk was considered as low.
	components were combined.	
	Furthermore, on occasion current taxes were found	Number of observations
	within other accounts, such as 'other receivables' or	impacted: 33
	'other payables'.	
	Set-Off Provisions	Judgment was used to establish
	Variability in company disclosure of deferred tax assets	four categories for collection
	and liabilities within the notes. In some full listing of	data on deferred taxes from the
	components of deferred tax assets and liabilities were	notes, with particular attention
	identified, either both deferred tax assets and liabilities	given to ability to ascertain
	together or in individual notes.	whether a set-off occurred.
	Alternatively, minimal details were provided, often a	Refer to chapter discussion for
	repeat of balance sheet balances only, either for one of	details and findings for
	deferred tax assets or deferred tax liabilities or both.	frequency diagnostics.
8.3 COMPANY SET GRAPH MATRICES (\$M/YEAR)

Legend

PBT
PAT Inc
PAT Exc

Materials and Energy (MAE)





Financials (FIN)



Industrials (IND)



Other Industries (OTH)





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