CHAPTER ONE: INTRODUCTION

1.1 Introduction

Derivative financial instrument recognition, measurement, presentation, and disclosure standards have been on the agenda of Australian accounting regulatory bodies for the past decade. Any emanating prescriptions have the potential to influence the behaviour of preparers and users of financial statements (Hodder et al. 2001), with consequential capital market reactions (Schrand 1997, Venkatachalam 1996).

Accounting for financial instruments is complex and controversial. In Australia, this is evidenced by the intensity of lobbying against the recognition and measurement prescriptions contained in ED 59 Financial Instruments (ED59). That lobbying was successful, with recognition and measurement issues deferred, and the release of exposure draft ED65 Presentation and Disclosure of Financial Instruments (ED65) and subsequent approved accounting standard AASB1033 Presentation and Disclosure of Financial Instruments (AASB1033) dealing with presentation and disclosure issues only.

The purpose of this study is to investigate and explain a response of financial statement preparers to the financial instrument reporting requirements proposed by the Australian accounting standard setting bodies, namely ED65, and those recommended by the Australian Society of Corporate Treasurers (ASCT). The investigation is conducted by examining the voluntary disclosure of derivative financial instrument information in Australian firms' annual reports. It investigates empirically whether the disclosure levels can be explained using both costly contracting theory and legitimacy theory.

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1 The Australian regulatory bodies responsible for accounting standard setting during this timeframe are the Australian Accounting Standards Board (AASB) and Public Sector Accounting Standards Board (PSASB).
2 The Australian Accounting Research Foundation (AARF) received 120 comment letters on ED59.
3 The Australian Society of Corporate Treasurers is now referred to as the Finance and Treasury Association (FTA).
4 Other responses by firms, not examined in this thesis, include lobbying, changes in financing, operating, and investment decisions and reviewing risk management strategies.
Section 1.2 of this chapter defines the instruments that are the focus of this thesis. Sections 1.3, 1.4, and 1.5 specify the research issue, motivate the study, and explain the contribution of this thesis to the financial accounting literature respectively. Section 1.6 explains the method used to conduct the research and section 1.7 summarises the findings. The structure of the remainder of the thesis is outlined in section 1.8.

1.2 Definitions: Derivative Financial Instruments

Derivative financial instruments can be defined as:

"Instruments whose value stems from that of some underlying asset, such as commodities, equities or currencies, or from an index such as the stock exchange index, or from an indicator such as an interest rate. Derivative products include swaps, forwards, futures, options (puts and calls), swap options, caps, floors and collars. The list is constantly evolving."


A change in the value of the underlying asset, index or indicator rate changes the value of the corresponding derivative financial instrument. To facilitate familiarisation with financial instrument terminology, a glossary of derivative financial instrument related terms appears as appendix 1 of this thesis.

1.3 Specification of the Research Issue

Accounting promulgations could be aimed at standardising accounting rules determining the recognition and measurement of figures presented in the financial statements, or at prescribing the nature, quality and quantity of accounting information to be presented and disclosed in the financial statements. Both categories of promulgation aim to enhance the relevance, reliability and comparability of financial statements. This study focuses on the presentation and disclosure of derivative financial instruments.

Firms' reactions to a proposed accounting standard associated with disclosure issues can be differentiated at five levels:

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5 An Australian promulgation on measurement issues has yet to be issued, hence firms' responses to recognition requirements, other than formal submissions commenting on ED59 requirements, cannot be examined.
Chapter I – Introduction

(1) The extent to which firms' voluntary disclosures conform with the recommendations in the proposed accounting standard;
(2) Whether and when firms adopt the standard's minimum disclosure requirements;
(3) The nature, extent and timing of firms' disclosures of information recommended by the standard, but not mandated;
(4) Firms' lobbying activity; and
(5) Changes to firms' operating, investment and financing activities in response to the standard.

The thesis examines firms' responses at the first three levels identified above. It aims to test what costs are reduced through the voluntary disclosure of derivative financial instruments. Such an examination assists in understanding managers' motives and levels of support for applying non-mandatory and mandatory accounting pronouncements. It will assist in understanding and predicting managers' responses to both non-mandatory and mandated accounting rules and disclosures.

Specifically, this thesis addresses two broad questions:
(1) Why, and to what degree, do Australian entities voluntarily comply with the derivative financial instrument disclosure requirements contained in ED65 and the ASCT Industry Statement?
(2) Are there systematic differences in the characteristics of entities with high disclosure compliance versus low disclosure compliance in relation to derivative financial instruments?

1.4 Motivation

The motivation for investigating issues surrounding the presentation and disclosure of derivative financial instruments by Australian entities derives from five considerations:

(1) The significance of the proposed regulation, given that the requirements apply to all reporting entities and many entities use derivative financial instruments;
(2) The international significance of the proposed standard;
(3) The controversial and complex nature of the issues being regulated;
(4) The opportunity to delineate the development stages associated with this regulation; and
(5) The opportunity to examine management preferences purely in relation to presentation and disclosure issues.

(1) The significance of the proposed regulation, given that the requirements apply to all reporting entities and many entities use derivative financial instruments

The term 'financial instrument', as defined in AASB1033 section 8.1, embraces "a wide range of items from cash and accounts receivables to interest rate and currency options, swaps and other derivative financial instruments." The broad nature of the definition means that financial instrument accounting regulations affect many reporting entities, as the use of such instruments is widespread. Financial instruments can be used to manage interest rate risk, foreign currency risk, commodity risk, to assist in the raising of debt or equity capital, as trading instruments to produce fee income, as trading instruments in a speculative capacity, and for incentive remuneration.

The growth in the use of derivative financial instruments is attributable to both the effectiveness and efficiency such instruments provide to entities in managing risk/reward strategies. The deregulation of the Australian financial systems, commencing in the early 1980s, intensified the need for entities to use such instruments to reduce the impact of increased volatility and uncertainty in interest rates, foreign currencies, commodity prices and equity prices. Derivative financial instrument reporting requirements affect many Australian listed entities irrespective of industry classification. Hence, a wide and dispersed sample population can be used to determine and explain voluntary derivative financial instrument reporting. Previous Australian studies restrict the investigation of derivative financial instrument disclosures to a particular industry (Matolcsy et al. 1998, Taylor and Redpath 2000) or a single period timeframe (Berkman,

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6 As stated in AASB1033 page 5, paragraph (a).
7 Evidence of this growth is documented in Chapter 2 (Table 2.1).
8 Replacing the fixed exchange rate with a floating exchange rate and the granting of banking licenses to overseas banks are examples of deregulatory events.
Bradbury, Hancock and Innes 1997, Ernst and Young 1997, ASIC 1998). Their findings are not necessarily generalisable to a broader cross-section of firms or alternative temporal settings.

(2) The international significance of the proposed standard
Accounting standard setters in various countries (including the United States (US), Australia, New Zealand, United Kingdom and Canada) have focused on financial instrument recognition, measurement, presentation and disclosure since the late 1980s. This study documents how national accounting bodies in Australia and the US, as well as the International Accounting Standards Committee (IASC), have addressed the issue, particularly in light of the push for harmonisation of accounting standards.

The central areas of divergence between the Australian requirements and the requirements of other jurisdictions are explored. Observing firms' disclosures in response to ED65 has implications for Australian accounting standard setters in terms of the harmonisation of Australian standards with international standards. If departures are to be made from IASs, how do the regulators justify them and do financial statement preparers support them?

(3) The controversial and complex nature of the issues being regulated

"Mention derivatives and most people wince, either because they associate these apparently esoteric instruments with stories of hair-raising losses or because they find the concept of derivatives baffling, or both."

The lack of understanding and knowledge of complex derivative financial instruments, combined with the increased use of these instruments, has intensified the potential for their abuse. Calls for an improvement in the disclosure of derivative financial instruments have come from a variety of sources including regulatory bodies (such as banking regulators and securities' commissions), and the Association for Investment Management and Research. The absence of a formalised framework for the recognition, presentation and measurement of assets and liabilities has impeded accounting regulation governing these instruments.
The lack of a suitable framework has resulted in accountants developing an ad hoc approach to the recognition of such instruments and the basis on which they are to be brought to account (Benston and Mian 1997). Attempts to regulate practice are impeded by the complex nature of some instruments and controversy associated with mandating a previously unregulated area of accounting. The controversy and complexity suggests costs are associated with derivative financial instrument recognition, measurement, disclosure and presentation. This enhances the environment for investigating the cost/benefit tradeoff associated with voluntary disclosures.

(4) The opportunity to delineate the development stages associated with this regulation

The opportunity to examine how managers behave in the absence of mandatory disclosure requirements is valuable because this is a precursor to determining the welfare implications of mandatory disclosure requirements. The culmination of events resulting in mandatory disclosure requirements for financial instruments is unique relative to other accounting standards. During the time lapse between the withdrawal of ED59 and the issue of ED65 in June 1995, the ASCT issued an industry statement specifying voluntary guidelines for the disclosure of derivative financial instruments in financial reports. The Australian Securities and Investment Commission (ASIC) unconditionally supported this statement. This provides a unique opportunity to observe disclosure levels given the multiple authoritative bodies involved in the regulation of such instruments. This complements extant research on financial instrument disclosures comparing firms' voluntary disclosures in a single period with the disclosures in the initial mandatory period (Taylor and Redpath 2000) and disclosures prior to, and after, the release of regulatory supplementary disclosure requirements to enhance existing accounting standard requirements (Roulstone 1999). Examining disclosure levels during a period in which two Australian exposure drafts (one being subsequently withdrawn) and an Industry Statement are issued provides valuable information as to the relative significance firms apportion to the

9 Table 2.2 in Chapter 2 documents some of the significant losses associated with derivative trading activities.
disclosure requirements issued by national accounting bodies and non-accounting professional bodies.

(5) The opportunity to examine management preferences purely in relation to presentation and disclosure issues

The majority of accounting standards prescribe the manner in which various transactions are to be recorded and reported in the firm’s statements of financial performance, position and cash flow. ED65, with the exception of paragraphs relating to accounting for compound financial instruments, concentrates on disclosure issues that have no direct consequences for these statements. Academic attention has predominantly focused on recognition standards, although studies of disclosures of unrecognised items have appeared more recently (Barth et al. 1996, Eccher et al. 1996). This is to be expected given that disclosures of unrecognised items are relatively new to the accounting standard setting environment. Investigating the response of managers to a disclosure only requirement informs the disclosure versus recognition debate and responds to the call for more research on disclosure issues (Johnson 1992).

The user environment can be perceived as one that involves analysts, users and consumers. The users of financial statements can be deemed a heterogeneous group who vary in their ability to handle accounting information. The availability of processed financial data from analysts affects the extent to which users utilise remaining sources of information. If financial statement information is received indirectly (as opposed to directly), the users become a more homogeneous group. The argument for greater disclosure dissipates if disclosures exceed users’ needs. If analysts satisfy users’ information needs, increasing the volume and sophistication of annual report disclosures is unwarranted, unless this information is unavailable to analysts through any other mechanism. High firm disclosures imply the perceived benefits to the firm of disclosing exceed the firm’s costs of

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10 This classification is based on Bimberg (1995) and defines the categories in the following manner:

a. Analyst - anyone who processes information outputs from non accounting data stream, financial press, and the financial reporting system and presents evaluative information derived from that data;

b. User - utilises the available information to make an economic decision;

c. Consumer - represents both analysts and users.
disclosure. This has implications for the identification of users of such information. Should preparers believe the user group is heterogeneous and/or unlikely to be able to absorb and interpret the information and/or uninformed, disclosure may be low. Alternatively, if preparers believe the group is more homogeneous, sophisticated and informed, more extensive disclosures are predicted.

1.5 Significance of the Study

The thesis contributes to financial accounting literature in four main ways. Each contribution is explained below.

The first contribution of the thesis is to examine the degree to which Australian entities comply with the derivative financial instrument disclosure requirements contained in ED65 and the ASCT Industry Statement. It is crucial to understand how managers behave in the absence of mandatory disclosure requirements if the welfare implications of mandating various disclosure requirements are to be assessed. Any change in firms' disclosure policies must result from reassessing the costs/benefits of the disclosures. By observing the disclosures longitudinally over the period 1992-1997, changes in disclosures can be explained and predicted by shifts in the cost/benefit tradeoff.

The time frame examined can be divided into two distinct regulatory phases in relation to this accounting issue: a pure voluntary phase and a coercive disclosure regime. Most extant studies, when examining disclosure or accounting policy choice, involve a voluntary period and mandatory period and do not have the opportunity of examining a coercive period. The observation of disclosures pursuant to the Industry Statement and exposure draft also assists in identifying the more authoritative disclosure rules. Furthermore, given the demand for derivative financial instrument transparency (Wilson and Smith 1997), the disclosures during the voluntary period highlight the self-regulatory nature of accounting. Any changes in disclosures during the coercive disclosure regime are potentially indicative of the ability of a non-accounting body to influence the content of financial statements.

The study's second contribution is to provide evidence on corporate risk management. Evidence of corporate risk management has been hampered by
difficulties in obtaining data due to non-comprehensive disclosure rules (Raposo 1999). Consequently, inconsistencies in the empirical literature exist. By observing firm disclosures, particularly in the years post 1994, this study assists in assessing the validity of alternative theoretical explanations for risk management.

The study’s third contribution is the simultaneous application of legitimacy and contracting theories to a financial reporting issue. Many studies in the accounting literature investigate voluntary disclosure within a contracting research paradigm. This study examines the implicit, as well as the explicit, contractual arrangements of firms. The implicit contracts extend beyond contracts between shareholders and debtholders and/or shareholders and managers. Legitimacy theory has been used to explain firms’ social and environmental disclosures (Belkaoui and Kaprik 1989, Cowen et al. 1987, Deegan and Gordon 1994, Patten 1991). This study extends the literature by applying the legitimacy and institutional theoretical frameworks to a financial accounting disclosure issue. As recognised by Carpenter and Feroz (1992), such an approach complements the extant contracting literature.

The fourth contribution of this study is to examine firm attributes that are new to accounting disclosure choice studies. In operationalising legitimacy, the study introduces new explanatory variables to the disclosure choice literature. The attributes examined relate to firms’ affiliations with professional organisations that pressure firms to make derivative financial instrument activities more transparent.

1.6 Method

The study involves a longitudinal examination of derivative financial instrument disclosures during each of the 1992 through 1997 reporting periods for up to 199 Australian firms. An equally weighted voluntary disclosure index (VRDI), based on disclosure requirements of the ASCT Industry Statement and ED65, captures firms’ derivative financial instrument disclosures each reporting period. The VRDI scores 1 (0) for each item of information disclosed (not disclosed) in any

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11 Watts and Zimmerman (1990) discuss the contracting paradigm. In doing so, a review of empirical studies using this theoretical framework is provided.

12 The sample size changes for individual reporting years due to data availability.
section of the sample firm’s annual report. A firm’s disclosure score is the sum of the scores assigned to each of the information items. This disclosure score represents the dependent variable used to test the hypotheses relating firm attributes to levels of voluntary disclosure.

1.7 Findings

The transparency of derivative financial instrument activity by Australian firms increases during the 1992-1997 reporting periods. In 1995, coinciding with the issue of professional body regulations (an *ex ante* effort to make financial statement preparers disclose) and an accounting exposure draft, the number of firms making voluntary disclosures increases significantly. This implies that the events of 1995 prompted a reassessment of firms’ derivative financial instrument disclosure strategies with many concluding that the benefits of pursing a disclosure policy exceed the costs associated with continuing a non-disclosure policy.

Statistical test results support extractive industry activities and firm size as factors influential in firms’ commitment to derivative financial instrument disclosures. This suggests that large firms and firms in the extractive industry engage in hedging activities using derivative financial instruments. Support is also provided for legitimacy and reputation cost considerations influencing derivative financial instrument disclosure policies from 1995 onwards. Financial statement preparers’ legitimacy concerns combined with institutional pressures confronting them to be responsive to information demands appear to be effective conduits for attaining enhanced disclosures. Some support is provided for an association between firm leverage, a contracting variable, and derivative financial instrument disclosures.

1.8 Thesis Structure

Chapter 2 provides an historical perspective of accounting for derivative financial instruments. The chapter describes why firms use derivative financial instruments. This chapter also describes the alternative accounting methods that can be used to recognise and measure derivative financial instruments, and presents a review of users’ and preparers’ perspectives on these alternative methods. Finally, the
Chapter 1 – Introduction

Chapter 1 details the various developments, both nationally and internationally, in the promulgation of accounting rules for derivative financial instrument recognition, measurement, disclosure, and presentation.

Chapter 3 provides the theoretical underpinnings of this study and reviews the voluntary disclosure literature. It examines the various paradigms used to explain disclosure, and describes the evolution of this thesis from existing research.

Chapter 4 examines theoretical models and empirical studies of corporate risk management. Espoused theories argue that market imperfections, costly contracting, and alternative means of managing risk, influence a firm’s hedging activities. An examination of these models is pertinent given the supposition that firm attributes associated with engaging in corporate risk management are linked with disclosures concerning risk management activities. Chapter 5 develops the hypotheses relating to derivative financial instrument voluntary disclosures. The hypothesis development centers around five propositions. Namely:

(1) The benefits associated with strong personal and firm reputation and legitimacy affect financial statement preparers’ voluntary disclosure strategies;

(2) A firm’s need to engage in hedging activities influences financial statement preparers’ voluntary disclosure strategies. Financial distress costs, alternative risk management practices and agency costs are predictors of firms’ hedging activities;

(3) Information asymmetry influences financial statement preparers’ voluntary disclosure strategies;

(4) Information production costs influence financial statement preparers’ voluntary disclosure strategies; and

(5) The proprietary nature of information influences financial statement preparers’ voluntary disclosure strategies.

The methodology used to empirically test the hypotheses relating to voluntary disclosure is described in Chapter 6, and Chapter 7 reports the results. The final chapter, Chapter 8, summarises the arguments developed in this thesis. The chapter provides a summary of the findings as well as the study’s future implications. The chapter also describes the study’s limitations and further research directions emanating from the study.
CHAPTER TWO: HISTORICAL PERSPECTIVE OF DERIVATIVE FINANCIAL INSTRUMENT RECOGNITION, DISCLOSURE, PRESENTATION AND MEASUREMENT ISSUES

“While progress in setting accounting standards may have been slow, the rate of discovery of new forms of derivative financial instruments has been rapid and dramatic, if not explosive. Consequently we can safely predict many more interesting days ahead for standard setters as they grapple with the new financial order.”


2.1 Introduction

Issues associated with derivative financial instrument disclosure are the focus of international attention. Standard setting authorities in countries such as the United States (US), New Zealand, Canada, United Kingdom (UK), and Australia have endeavoured to develop derivative financial instrument disclosure rules that give users greater insight into risk taking activities and their potential consequences. Some authorities (Financial Accounting Standards Board (FASB) and the International Standards Accounting Committee (IASC)) have progressed as far as prescribing rules for the recognition and measurement of derivative financial instruments. However, the Australian accounting standard setting body (AASB) is still deliberating this issue.13

The use of derivative financial instruments effectively allows entities to buy and sell the risk of favorable or unfavorable variations in expected cash flows. Accepting that the objective of financial statements is one of decision usefulness,14 the financial statements should allow users to understand the purpose and extent of transactions, identify the risks involved, know how transactions are accounted for, and understand the risk management policies of entities. Being privy to information that determines the risk profile of an entity will affect the expected rate of return that financial report users demand for that entity and impact upon their decision-making.

13 Recently, the AASB and PSASB have merged resulting in one standard setting body in Australia, known as the Australian Accounting Standards Board (AASB).

14 Conceptual frameworks formulated by the FASB, IASC, and AASB are all based on the premise of decision usefulness. Alternative premises could be based on accountability or stewardship principles.
This chapter explores key issues associated with the recognition, presentation, disclosure and measurement of derivative financial instruments. It identifies alternative accounting treatments for derivative financial instruments. This contributes to understanding the complexities of the accounting issue and the impact of the various accounting methods on firms' financial statements. The chapter also provides an historical perspective of regulatory bodies' attempts to develop accounting standards relating to such instruments. The chronology identifies the delineation of development stages associated with derivative financial instrument regulation. This highlights the uniqueness of the Australian environment, and justifies investigating derivative financial instrument disclosures in an Australian context. Furthermore, the chronology informs the study's choice of reporting periods to examine and identifies regulatory developments that may explain time series variation in managers' disclosure practices.

Sections 2.2 and 2.3 discuss derivative instruments and their associated risks and the purpose of derivative dealings respectively. Different methods of accounting for derivative instruments are outlined in Section 2.4. Given that derivative accounting is being deliberated in an era of harmonisation, Section 2.5 discusses the harmonisation process. International and Australian professional accounting pronouncements on derivative financial instruments are described in Section 2.6 and Section 2.7 summarises and concludes the chapter.

2.2 Derivative Financial Instruments and Their Associated Risks

The expansion and globalisation of world markets, in conjunction with the deregulation of financial systems, has increased the volatility of financial markets. In turn, this has the potential to increase risks associated with trading in derivative financial instruments involving interest rates, foreign currency and commodity contracts. The risks, categorised as counterparty, liquidity, price and

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15 Appendix 2 provides graphs highlighting the volatile nature of financial markets over the 1992-1997 periods. Graph 1 depicts the AUD relative to the USD. The gold price over the period 1992-1997 is shown in Graph 2. Graph 3 charts the All Ordinaries Accumulation Index, and the yield on 6 month Treasury Notes is shown in Graph 4.

16 Counterparty risk is also referred to as credit risk.
personnel, pertain to all financial instruments of which derivative financial instruments are a subset.

"Each physical commodity, whether it be shares, cash or fixed interest, is being dissected to identify the specific risks inherent in financial transactions involving those commodities. Those risks are then separated, packaged and transferred elsewhere...of course, the risk has not gone away, it simply has been spread through the financial industry. Tracking that risk and where it resides is becoming more and more difficult."


**Counterparty Risk**

A party to a private arrangement involving a derivative trade is exposed to counterparty risk. This is the risk that the counter party will fail to discharge an obligation, resulting in the other party incurring a financial loss. The need to consider counterparty risk and the legal capacity of the counterparty to enter the transaction was highlighted by the legal case involving Hammersmith and Fulham, a London borough. Over the period 1987 to 1989, Hammersmith entered into swap transactions involving a notional principal of $6.2 billion. Its auditor initiated proceedings seeking to invalidate the transactions. In April, The House of Lords decreed that all swap market transactions entered into by a London council were illegal.

Losses associated with counterparty risk can be minimised by practices such as strict internal controls governing credit limits, monitoring exposure to any single counterparty in over the counter markets, and requiring collateral to be provided by the counterparty.

**Liquidity Risk**

Liquidity risk is the risk that an entity may encounter difficulty in converting the instrument easily and with minimum loss into cash. Such risk is related to whether the frequency and volume of trade, pertaining to the market in which the financial instrument is traded, can satisfy both buyers and sellers. An instrument that is traded in a market with high volumes and frequency of trade has less liquidity risk compared to an instrument traded in a thin market. The liquidity of a market can

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17 A private arrangement means that the trade has not occurred on a regulated exchange. Trades undertaken on organised exchanges do not create an exposure to credit risk as the exchange guarantees the performance of the contract.
be assessed by the bid/offer spread, speed of entry and exit, accessibility, associated costs, transparency in terms of price, and the depth of the market in terms of its ability to cope with large volumes of trades.

**Price Risk**

Price risk embraces the risk that the value of a financial instrument will fluctuate. The fluctuation in the value of the instrument could be associated with currency risk, interest rate risk and/or market risk. Currency risk refers to the risk that the value of a financial instrument will fluctuate due to changes in foreign exchange rates. Interest rate risk is the risk that changes in market interest rates will result in a fluctuation in the value of a financial instrument. Market risk is the risk that the value of a financial instrument will fluctuate as a result of changes in market prices due to factors affecting all market-traded securities.

**Personnel Risk**

Personnel risk is the risk entities are exposed to should traders engage in unauthorised transactions. This risk needs to be managed by strictly supervising and separating the functions of trading, position valuation, execution and accounting.

### 2.3 Purpose of Derivative Financial Instrument Dealings

The size, growth and importance of the derivative markets indicate widespread use of derivative financial instruments by financial intermediaries and corporate entities. Futures and options are traded actively on many different exchanges. Trading can be conducted through organised exchanges such as the Sydney Futures Exchange (SFE) and Australian Stock Exchange Derivatives (ASX Derivatives). In addition, regular trading associated with instruments such as forward contracts, swaps and various options also occurs outside of the organised exchanges (over-the-counter markets). Whilst it is difficult to estimate the worldwide dollar value of the outstanding notional principal of derivative financial instruments, Table 2.1 provides evidence of the expansion of derivative financial instruments, Table 2.2 in Chapter 2).
financial instrument activity in the Australian market place from 1990 to 1997 inclusive.\textsuperscript{19} Trades in derivative financial instruments effectively allow entities and financial institutions to 'buy' the risks and rewards they demand. The intent of the derivative financial instrument trades could be speculative, hedging or arbitrage.

2.31 Speculation

A speculator takes a position (buy or sell) in the market and bets on future movements in the price of the underlying asset. In expectation of a rise (fall) in the price of the underlying physical asset a speculator would buy (sell) the associated derivative financial instrument. Such trades result in profits (losses) should the speculator correctly (incorrectly) anticipate the direction of the future price movement in the underlying asset. The profit (loss) on the trade is realised when the speculator closes out the position held in the derivative market. The aim of speculative trading is to enhance bottom line profit, however such trading has resulted in some spectacular losses being recorded by organisations (refer to Table 2.2).\textsuperscript{20}

\textsuperscript{19} Conway (1996) estimates the outstanding face value of derivative instruments traded on over the counter markets and organised exchanges around the world was around SUS$60.2 trillion at the end of 1995.

\textsuperscript{20} For example, the losses reported in Table 2.2 for 1994 total in excess of US$5 billion.
Table 2.1: Activity in the Over-the-Counter (OTC) and Exchange Traded Derivative Markets in Australia over the period 1990-1997

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<td>3279</td>
<td>4833</td>
<td>6044</td>
<td>14036</td>
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</table>

2.32 Hedging

Derivative financial instruments can be used to manage the pre-existing foreign currency, commodity and interest rate risk exposures of corporate entities. Trading in derivatives for such purposes is deemed to be hedging. The widely accepted interpretation of hedging is that it allows the hedger to reduce the loss that would be associated with adverse price movements in the physical market by taking out an opposite position in the derivative market. Should favorable price movements occur in the physical market, a loss would result in the corresponding derivative trade, thus negating the profit associated with the physical position. A broader perspective of hedging regards it as a means of achieving a desirable level of risk that may be higher or lower than the risk in a non-hedged environment (risk adjustment). Irrespective of which view is adopted, hedging effectively involves setting the price today for a future transaction.

2.33 Arbitrage

Trades in derivative financial instruments may also occur for the purpose of taking advantage of rate, price or condition inconsistencies between different markets or maturities. Arbitragers trade to take advantage of these inconsistencies by simultaneously entering into transactions in different markets or different maturities. The theory of capital market efficiency suggests that arbitrage profits should be quickly eliminated.

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21 The degree to which the profit or loss on the physical position is negated by the derivative trade depends on the extent to which a perfect hedge was intended and achieved.
Table 2.2: Examples of Significant Derivative Financial Instrument Trading Losses Incurred by Organisations

<table>
<thead>
<tr>
<th>Organisation</th>
<th>Year</th>
<th>Domicile</th>
<th>Loss</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sumitomo Corporation</td>
<td>1996</td>
<td>Japan</td>
<td>US$3.5 billion associated with copper futures</td>
</tr>
</tbody>
</table>
| Orange County                       | 1994 | US       | US$2 billion in losses associated with using complex instruments such as inverse floaters and repurchase agreements.  
| Kashima Oil                         | 1994 | Japan    | US$1.5 billion loss associated with foreign currency derivatives      |
| Barings PLC                         | 1995 | England  | US$1.4 billion loss associated with unauthorised trading in Nikkei index futures |
| Showa Shell Sekiyu                  | 1994 | Japan    | US$1580 million loss associated with foreign exchange forward contracts |
| Metallgesellschaft                  | 1993 | Germany  | US$1,340 million loss related to the use of energy futures and other derivatives that were hedges of future fixed price sales commitments |
| Piper Jaffrey                        | US   |          | US$700 million loss in mutual funds from investments in interest rate derivatives |
| Kidder Peabody                      | US   |          | US$350 million "phantom" profit related to trading in government strips |
| Proctor and Gamble                  | 1994 | US       | US$157 million loss on closeout of leveraged interest rate swaps      |
| Investors Equity Life Insurance Company of Hawaii | US | | US$90 million loss resulting from trading in treasury bond futures |
| Harris Trust and Savings Bank       | US   |          | US$51 million loss in investments in collateralised mortgage obligation derivatives |
| National Westminster                | 1996 | England  | Expected $50 million (sterling) loss associated with interest rate options |
| AWA Ltd                             | 1987 | Australia| $49.8 million loss associated with forward foreign exchange contracts |
| Gibson Greetings                    | 1994 | US       | US$19.7 million loss associated with leveraged swaps                  |
| Mead Corporation                    | US   |          | $7.4 million loss from hedging transactions including a leveraged interest rate swap. |


Inverse floaters are notes with the interest rate structured as a fixed rate less a floating index. Although not derivative instruments, they exhibit characteristics which allow investors to take a speculative position in the market.
2.4 Alternative Accounting Methods for Derivative Financial Instruments

"I welcome the attention...to the critical issues of accounting and disclosure. These are crucial issues because squeezing derivatives into existing accounting structures can conceal and distort information and the decision-making that depends on that information. In addition, the increased use of derivative instruments, combined with the inadequacy of current accounting concepts in this area, has reduced the transparency of a firm’s exposures and of the financial system more broadly."

(McDonough 1993)

Despite the extensive use made of derivative financial instruments by corporate entities and financial institutions, transactions involving the instruments are often not recorded as assets and liabilities in the balance sheet. Hence, they are often 'off balance sheet' items. The accounting treatment of these instruments (or lack of it) raises questions as to whether the information provided in financial reports is relevant and reliable.

Perceived problems associated with accounting for derivative financial instruments, as articulated by Benston and Mian (1997) and Wilson and Smith (1997) include:

1. Incomplete accounting guidance as, up until 1996, accounting standards specifically addressed only a limited number of derivative financial instruments mainly related to foreign currency (forward foreign exchange contracts and exchange traded futures contracts). This has resulted in inconsistent practices by preparers and confusion for financial statement users;

2. Inconsistent approaches and definitions across pronouncements. For example, assessing risk on a transaction basis (forward contracts) versus an enterprise basis (futures).

3. Inconsistent hedge accounting guidance, given that the prescribed accounting treatment differed depending on the type of instrument used to hedge exposures. For example, hedges of anticipated transactions only

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23 Effective from 31 December 2000, the prescribed terminology as per AASB1040 (AASB1018) is Statement of Financial Position (Statement of Financial Performance) for the Balance Sheet (Profit and Loss Statement). The terms are used interchangeably in the thesis.

24 These problems were also expressed by an assistant project manager and the Director of Research and Technical Activities of the FASB in a Highlights of Financial Reporting Issues Status Report tabled at the 1997 Group of 100 National Congress, Melbourne.
qualify as hedges for accounting purposes if a futures contract or purchased option is used as the hedging instrument;

(4) The complexity associated with accounting guidance for derivative financial instruments and hedging. As no comprehensive consistent approach to accounting for derivative financial instruments and hedging exists, preparers are forced to make their own interpretations, reducing comparability among firms; and

(5) The non-transparency of the effects of derivatives, since derivative financial instruments are not always recognised within the accounting model if they do not entail an initial cash outlay. An example of such an instrument is an interest rate swap. Recognition in the financial statements only occurs when a cash flow reflecting the settlement of the interest differential occurs between the parties to the agreement. Instruments such as options and futures initially involve small cash outflows and the accounting treatment to record these outlays varies.

The accounting profession's apparent inability to document and codify the accounting treatment for derivative financial instruments has been attributed to the following: (1) the adoption of an historic cost model of accounting; (2) a transaction based recording system; (3) difficulty associated with presenting information dealing with uncertainty; (4) and the delay in developing a conceptual framework for accounting (Hancock 1996).

The accounting issues surrounding any financial instruments (including derivatives) revolve around two key questions:

(1) Does the instrument satisfy the criteria to be regarded as an asset or liability?

(2) If an asset or liability is deemed to exist, how should it be reflected in the Statement of Financial Position?

The three principal methods that could be used to account for financial instruments, and satisfy the conceptual framework recognition criteria are: (1) fair value accounting (A); (2) cost or lower of cost and net market value accounting (B); and hedge accounting (C).

25 The fair value method is also referred to as 'mark to market accounting'.
These three alternatives, and their respective accounting implications, are described in subsections 2.41, 2.42 and 2.43 respectively and depicted in Figure 2.1. The figure traces the possible accounting consequences of adopting each method highlighting the diversity, both within and between, the accounting methods. Subsection 2.44 discusses preparers' and users' perspectives of the alternative accounting treatments.

2.41 Fair Value Accounting

The fair value approach involves measuring financial assets and liabilities at their fair value, defined as the amount for which an asset could be exchanged, or a liability settled, between knowledgeable and willing parties in an arm's length transaction. Fair value determination is relatively straightforward for instruments for which market quotes are available, however specification of the rate to be used is debatable - should it be the bid, ask, or mid rate? Generally, the current bid price would be used to determine asset fair values and the current ask price for determining the fair value of liabilities. Determining the fair value for instruments in markets where the market is not well established and there is infrequent and/or small trading activity is considerably more difficult and subjective. It requires estimates such as the price of the most recent transaction, reference to values of another similar instruments, discounted cash flow analysis, or option pricing models. Using a fair value approach, entities recognise gains and losses associated with changes in fair values as revenues or expenses in the profit and loss statement in the period they occur (pathway A1 in Figure 2.1).

Accounting standards dealing with foreign currency transactions have prescribed this method to account for foreign currency transactions involving monetary items provided the transactions are not hedging instruments (AASB1012 par. 11 and 12). The exception is if the item is a hedge of a specific foreign currency exposure. If the specific foreign currency exposure involves establishing the price for the purchase or sale of goods and services, exchange differences occurring up to the date of sale or purchase and at the time of entering into the transaction are deferred and included in the measurement of the sale or purchase (pathway C2 in

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26 This is the definition provided in Australian accounting standard AASB1033 and International Accounting Standard IAS32.
Figure 2.1 as per par. 34 of AASB1012). If the transaction hedges a net investment in a self sustaining foreign operation, the exchange differences relating to monetary items are brought to account in the earnings of the period they relate to and, on consolidation, transferred to a reserve account – foreign currency translation (pathway C1 in Figure 2.1 as per AASB1012 par. 35).

2.42 Cost or Lower of Cost and Net Market Value Accounting (LOCOM)

The cost or lower of cost and net market value method of accounting for financial instruments results in assets and liabilities initially being carried at their cost value in the balance sheet. Should the net market value of financial asset decline below its carrying value, the financial asset is written down with the reduction in carrying value expensed in that period (pathway B1 in Figure 2.1). This treatment is consistent with the general accounting principle of valuing assets at the lower of their cost and net market value and reflects the principle of conservatism. ‘Net market value’ as it applies to financial instruments is defined in paragraph 102 of ED65 as:

- In reference to an asset, “the amount that could be expected to be received from the disposal of an asset in an orderly market after deducting costs expected to be incurred in realising the proceeds of such a disposal”; and
- In reference to a liability, “the amount that could be expected to be paid to extinguish the liability in an orderly market, including costs expected to be incurred in carrying out the extinguishment.”

AASB1033 replaced ‘net market value’ with ‘net fair value’. Net fair value as it applies to assets is the fair value less the cost of disposal or exchange. The net fair value of a liability is its fair value plus the costs of settlement (AASB1033 section 8.1).
Figure 2.1: Alternative Accounting Methods for Derivative Financial Instruments and Hedging Activities

A. Fair Value Accounting (FVA)
- ALL Financial Instruments Recorded at Fair Value
  - Gain/losses on changes in fair value
    - A1: Current period's Profit and Loss

B. Cost or Lower of Cost and Net Market Value (NLMV) Accounting
- Financial Instruments Recorded at LONMV
  - If asset's NAV is less than cost, the asset is written down

C. Hedge Accounting
- Hedging Instrument Marked to Market
  - Mark to market hedge accounting (MMA)
  - Comprehensive income hedge accounting (CHA)
  - Realized gain on hedging instrument
  - Unrealized gain on hedging instrument

- Hedged item: a specific, recognized commitment
- Hedged item is an unrecognized, anticipated transaction
- Gain/loss transferred to a reserve account
- Gain/loss deferred and incorporated into carrying amount of asset/liability

C1. Gain/loss deferred and incorporated into carrying amount of asset/liability

C2. Current period's Profit and Loss

C3. Current period's Profit and Loss

C4. Gain/loss deferred as a separate balance Sheet item until future transaction occurs

C5. Gain/losses hedged item and hedging instrument reported in Profit and Loss in same period

C6. Current period's Profit and Loss

C7. Gain/losses reported in equity and transferred to Profit and Loss when realized
Under the cost method, when the financial asset or liability is removed from the balance sheet, the gain or loss resulting from the instrument at settlement is recognised in the profit and loss statement at settlement (pathway B1 in Figure 2.1).

2.43 Hedge Accounting

In general, hedge accounting involves mirroring the accounting treatment of the hedged item in the accounting treatment of the hedge instrument. The three broad means of accounting for hedging instruments are: (1) deferral hedge accounting; (2) mark to market hedge accounting; and (3) comprehensive income hedge accounting.

Deferral hedge accounting involves ascertaining if the hedge is one involving a specific commitment or an anticipatory commitment. Accounting for the former can require the gain/loss on the hedging instrument to be deferred and incorporated into the carrying amount of the hedged item (pathway C2 in figure 2.1). For example, if the hedge is of a specific foreign currency commitment and involves establishing the price for the purchase or sale of goods and services, exchange differences occurring up to the date of sale or purchase and at the time of entering into the transaction are deferred and included in the measurement of the sale or purchase. Should the transaction hedge a net investment in a self sustaining foreign operation, the exchange differences relating to monetary items are brought to account in the profit and loss in the period they relate to and, on consolidation, transferred to a reserve account – foreign currency translation (pathway C1 in Figure 1). Alternatively, the accounting treatment can involve taking gains and losses to the current period’s earnings if the gains and losses on the hedged item are also taken to earnings (pathway C3 in Figure 2.1). On the other hand, if the hedge is associated with an anticipated commitment, the gain/loss is normally deferred as a separate balance sheet item until the future transaction eventuates (pathway C4 in Figure 2.1).

Mark to market hedge accounting involves marking to market both the hedged item and the hedging instrument with associated gains/losses being recognised in earnings simultaneously (pathway C5 in Figure 2.1). It is based on the premise that the effects of changes in market rates or prices of the hedging instrument and
The hedged item should be recognised concurrently in the profit and loss statement. Theoretically, a perfect hedge would result in the gain (loss) on the hedged item being exactly offset by the loss (gain) on the hedging instrument. Given that perfect hedges are unlikely, issues arise in respect of the extent to which the gain or loss on the hedged item should be matched with that on the hedging instrument in the profit and loss statement.

A comprehensive income approach to hedge accounting requires the hedging instrument to be marked to market with the accounting treatment differing depending on whether the gain/loss is realised or unrealised. Realised gains (losses) on the hedging instrument are taken to earnings in the period they are realised, as are the losses (gains) on the hedged items (pathway C6 in Figure 2.1). Unrealised gains (losses) are taken to equity and transferred to earnings when realised, along with the losses (gains) on the hedged items (pathway C7 in Figure 2.1).

The three accounting approaches discussed - fair value, cost or lower of cost and net market value, and hedge-out - are not exhaustive of all approaches that could be adopted. Alternative approaches, based on derivations of these, are possible.28 The Financial Accounting Standards Board (FASB) and the IASC have each issued pronouncements specifically dealing with accounting for derivative financial instruments. Their proposals are discussed in subsections 2.61 and 2.62.

2.44 Preparers' and Users' Perspectives of the Alternative Accounting Methods

The array of possible accounting treatments for financial instruments warrants an examination of the practices employed and report of user preferences. Deloitte Touche Tohmatsu (1995), on behalf of the Australian Financial Markets Association (AFMA), conducted a postal survey of 113 organisations that were full AFMA members. The survey sought preparers' views on how financial instruments should be accounted for in company financial reports. It specifically addressed respondents' accounting policies in relation to various derivative financial instruments including forward rate agreements, swaps, options and

futures. Across the 63 respondents, there was diversity in accounting practices, ranging from mark to market (most frequent), to hedge accounting, deferral accounting, and cash basis. The main conclusions were strong support (88% of all respondents) for the marking to market of trading transactions and a lack of consensus on marking to market for all financial instruments. Fifty-three percent of respondents supported the marking to market for all financial instruments on the basis that this approach reflects changes in economic and market conditions and it improves the relevance and currency of reported information. Expressed concerns with applying this method for all financial instruments focused on the reliability and independence of market valuations and the reported earnings volatility it would introduce. The mark to market policies of responding organisations provides for market values to be adjusted for illiquid markets, market anomalies, and basis risk.29

Given the decision usefulness objective underpinning the preparation and presentation of financial statements, which is the preferred method of accounting for derivative financial instruments from a user’s perspective? The limited research undertaken with respect to this question offers conflicting results. Thinggaard (1996) investigated the preferences of Danish professional financial statement users for a measurement system based on net market value, cost and hedge accounting. His survey elicited information on attitudes to different methods of accounting for a financial options contract and a speculative financial forward contract. The survey was sent to 200 members of the Danish Organisation of Financial Analysts. The 95 useable responses indicate a preference for the net market value method of accounting. The respondents deemed this method provided higher quality information that was equally reliable as alternate methods.

29 The Australian Financial Markets Association (AFMA) commissioned a similar survey in 2000. Responses received from 51 organisations overwhelmingly identified the need for further accounting guidance in relation to derivative instruments. The responses also suggest a lack of consensus for adoption of full fair value accounting for all instruments. The survey also sought information on hedge accounting. Applying the five hedge accounting criteria in SFAS133, respondents suggested their firms would have difficulty satisfying these stringent hedging requirements.
Such findings contrast with a survey study conducted in the US by KPMG (1992). Sixty-eight percent of users responding (professional investors, independent analysts and regulators) preferred historical cost as the measurement basis, with a positive attitude to more disclosures of the fair values of derivative financial instruments. The reluctance of users to prefer a market value based system of financial reporting stemmed from concerns with the reliability, comparability and timeliness of the information. International differences are expected given that, at the time these studies were undertaken, mark to market accounting was being used in some countries but not in the US. Also, the KPMG study does not have the same generalisability as Thinggaard's (1996) study since the KPMG survey obtained only a 15% response rate from the 265 surveys distributed.

2.5 International Harmonisation of Accounting Standards

It is important to understand the demand for international harmonisation of accounting standards since accounting for derivative financial instruments was the second Australian accounting standard to be harmonised with International Accounting Standards. The harmonisation process commenced in 1966 with the formation of the Accountants' International Study Group. In 1972 the IASC was established and it commenced operations in 1973.

The objectives of the IASC as per its constitution are:

(1) To formulate and publish in the public interest accounting standards to be observed in the presentation of financial statements and to promote their worldwide acceptance and observance; and

(2) To work generally for the improvement and harmonisation of regulations, accounting standards and procedures relating to the presentation of financial statements.

30 The International Study Group was a co-operative venture of the professions in the US, the United Kingdom and Canada.
31 In 1983, IASC joined forces with the International Federation of Accountants (IFAC). This effectively expanded the membership base of the IASC to include all members of the IFAC (professional accounting bodies from around the world) in addition to the professional bodies that were parties to the original agreement.
Harmonised financial reporting will only occur if entities conform to international accounting standards. The IASC, and the standards they issue, have no legal backing, hence conformity will only occur if one (or more) of the following prevails:

(1) National accounting requirements that conform with International Accounting Standards are adopted by national standard setting bodies;

(2) Securities' regulators require financial statements to conform with International Accounting Standards; or

(3) Entities opt to present financial statements that conform with International Accounting Statements in addition to satisfying national requirements.

In 1994, the Australian Accounting Research Foundation (AARF) and the AASB agreed to pursue a program of harmonisation Australian accounting standards with those of the IASC. To facilitate this process the Australian Stock Exchange (ASX) imposed a levy on listed companies to provide funding of $1 million over two years to assist in the task. The aim of the program was that by the end of 1998 an Australian entity complying with Australian accounting standards would also be complying with IASC standards.

Demands for the harmonisation of accounting standards has come from preparers, users and regulators. From a multinational firm's perspective, comparable reporting across jurisdictions achieves congruency between internal and external reporting systems and reduces financial statement preparation costs. The lack of uniformity in accounting treatments across jurisdictions detracts from the accounting profession's credibility. Reporting different profits in different jurisdictions potentially confuses users, limits comparability of financial statements and hinders investment decisions. Security exchanges strongly support harmonisation on the grounds of enhanced capital market efficiency and competitiveness.

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32 A case that illustrates this is the comparison of News Corporation's profits prepared under Australian GAAP versus US GAAP. Over the period 1985-1991 and 1992-1997, the cumulative effect of the AUD difference in the Australian versus US reported profits is $97 million and $282 million respectively (Australian Financial Review, Robert Murdoch and the $1 billion gap, 21-23 March 1998, pp. 26-27)

33 An alliance between the Technical Committee of the International Organisation of Securities Commissions (IOSCO) and the IASC has been influential in persuading national standard setting bodies to adopt national requirements that conform to International Accounting Standards (IAS). In 2000, the IOSCO president's committee approved the use of a core set of accounting standards for
Choi and Levich's (1991) interview surveys of institutional investors, corporate issuers, investment underwriters and market regulators in Germany, Japan, Switzerland, United Kingdom and the US support these user, preparer and regulator perspectives. Nonetheless, harmonisation is controversial (Collett et al. 1998, Howieson 1998) with more empirical research needed to address the potential benefits to firms and users (Brown and Clinch 1998).

2.6 Professional Accounting Requirements

The development of accounting standards dealing with derivative financial instruments has been protracted and has generated considerable debate about how financial reporting of entities should inform investors, creditors, analysts and other financial statement users of their use. The size, growth and importance of the derivative markets indicate widespread use of such instruments by entities. Entities of various market sizes, representing industries ranging from manufacturing to retail, use such instruments to buy the risks and rewards they desire. The demand for regulated communication with respect to these instruments has been stimulated and intensified by the significant losses incurred by organisations in relation to their derivative transactions.

The premise underlying the derivative financial instrument disclosure requirements is that users of financial reports, particularly shareholders and potential investors, wishing to evaluate entities that use derivative financial instruments need to be able to determine and measure the characteristics of the risks (lack of knowledge and expertise, insufficient operational controls, and price risk, all of which have the potential to result in losses for the entity) and rewards (higher profits and/or reduction in the impact of financial market volatility on the firm's cash flows) which exist as a result of the arrangements in place. This premise is articulated in the various accounting standards issued on financial instruments.

Approaches adopted to develop standards dealing with derivative financial instrument recognition, measurement, disclosure and presentation have varied cross border listings. National regulators, such as the SEC and ASIC, will need to adopt the IOSCO resolution before non-domiciled firms are permitted to prepare accounts using IAS standards rather than national accounting standards.
between jurisdictions in terms of timing and coverage. The approach adopted in the US has been to target and pursue a particular area for investigation. The alternative approach initially adopted by the IASC, Canada and Australia attempted to tackle the whole financial instrument spectrum in one document. The IASC, Canadian and Australian accounting standards setting bodies subsequently adopted a more fragmented approach in line with the US approach.

Table 2.3 provides a detailed analysis of the derivative financial instrument disclosure requirements contained in US, Australian, and IASC pronouncements over the time period relevant to this study (pre 1998). A brief discussion of these requirements, in addition to subsequent developments, is provided in subsections 2.61 through 2.63.
Table 2.3: Comparison of Derivative Financial Instrument Disclosure Requirements Issued by Australian and US Professional Accounting Bodies and the IASC

<table>
<thead>
<tr>
<th>Requirement</th>
<th>ED65</th>
<th>AASB1033</th>
<th>IAS32</th>
<th>SFAS119 (*) &amp; SFAS107 (†)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Accounting policies and methods adopted, including the criteria for recognition and the basis of measurement adopted.</td>
<td>✓ par 43a</td>
<td>✓ par 5.2a</td>
<td>✓ par 47</td>
<td>✓ par 8b *</td>
</tr>
<tr>
<td>• Extent and nature of the underlying financial instruments including significant terms and conditions that may affect the amount, timing and certainty of future cash flows, including where applicable and summarised as appropriate:</td>
<td>✓ par 43b</td>
<td>✓ par 5.2b</td>
<td>✓ par 47</td>
<td>✓ par 8 *</td>
</tr>
<tr>
<td>i. principal, stated, face, nominal or other similar amount</td>
<td>✓ par 43bi</td>
<td>x recommended only</td>
<td>x recommended only</td>
<td>x recommended only</td>
</tr>
<tr>
<td>ii. stated rate or amount of interest, dividend or other periodic return on principal and the timing of the payments</td>
<td>✓ par 43bii</td>
<td>x recommended only</td>
<td>x recommended only</td>
<td>x recommended only</td>
</tr>
<tr>
<td>iii. date of maturity, expiry or execution</td>
<td>✓ par 43biii</td>
<td>x recommended only</td>
<td>x recommended only</td>
<td>x recommended only</td>
</tr>
<tr>
<td>iv. collateral held, or pledged</td>
<td>✓ par 43biv</td>
<td>x recommended only</td>
<td>x recommended only</td>
<td>x recommended only</td>
</tr>
<tr>
<td>• Objectives for holding or issuing derivative financial instruments, the context needed to understand those objectives and strategies for achieving those objectives.</td>
<td>✓ par 52</td>
<td>✓ par 5.3</td>
<td>x</td>
<td>✓ par 10 and 11 *</td>
</tr>
<tr>
<td>• Interest rate risk exposure, including</td>
<td>✓ par 55a</td>
<td>x only the contractual repricing or maturity dates (whichever dates are earlier) need to be disclosed</td>
<td>x only the contractual repricing or maturity dates (whichever dates are earlier) need to be disclosed</td>
<td>x but par 12 and 13 in * encourage quantitative information including details about current positions and activity during the period, hypothetical effects on equity or income of several possible changes in market prices, gap analysis, duration and value at risk</td>
</tr>
<tr>
<td>a. carrying amounts of financial assets or financial liabilities in the class, classified according to the time periods from the reporting date to the earlier of the contractual repricing or maturity dates for the underlying financial instruments.</td>
<td>✓ par 55b</td>
<td>✓ par 5.4b</td>
<td>✓ par 56, but only requires disclosure of the effective rate</td>
<td></td>
</tr>
<tr>
<td>b. the effective interest rates or weighted average effective interest rate.</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>
### Table 2.3 cont’d: Comparison of Derivative Financial Instrument Disclosure Requirements Issued by Australian and US Professional Accounting Bodies and the IASC

| ED65 | AASB1033 | IAS2 | SFAS119 (*) | SFAS107 (#) & SFAS105 (>)
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Credit risk exposure</strong>, including:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. the amount that best represents its maximum credit risk exposure at the reporting date, without taking account of the value of any collateral or other security, in the event other parties fail to perform their obligations under financial instruments.</td>
<td>✓ par 66a</td>
<td>✓ par 5.5a</td>
<td>✓ par 66</td>
<td>✓ par 17 &gt;</td>
</tr>
<tr>
<td>b. the entity’s policy with respect to obtaining collateral or other security, assess to that collateral and brief description of collateral or other security supporting the financial instruments.</td>
<td>✓ par 66b (policy only)</td>
<td>x</td>
<td>x</td>
<td>✓ par 18 &gt;</td>
</tr>
<tr>
<td>c. for concentrations of credit risk that arise from exposures to a single debtor or to groups of debtors having a similar characteristic such that their ability to meet their obligations is expected to be affected similarly by changes in economic or other conditions:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>i. description of the similar characteristic that identifies each concentration arising from exposure to a group of debtors.</td>
<td>✓ par 66c</td>
<td>✓ par 5.5b</td>
<td>x Disclosure of credit risk concentration required, but types of disclosures are not mandated.</td>
<td>✓ par 20 &gt;</td>
</tr>
<tr>
<td>ii. the amount that best represents the maximum credit risk exposures for each concentration, without taking account of the value of any collateral or other security held.</td>
<td>✓ par 66cii</td>
<td>✓ par 5.5bii</td>
<td>As Above</td>
<td>✓ par 20a &gt;</td>
</tr>
<tr>
<td></td>
<td>As Above</td>
<td></td>
<td>✓ par 20b &gt;</td>
<td></td>
</tr>
<tr>
<td><strong>Fair value information</strong> including:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. aggregate fair value as at the reporting date, showing separately the aggregate fair value of those financial assets or financial liabilities which are not readily traded on organised markets in standardised form.</td>
<td>✓ par 78b However, ED65 used the term 'net market value' instead of fair value.</td>
<td>✓ par 5.6a. However AASB1033 uses the term 'net fair value'.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. methods adopted in determining fair value.</td>
<td>✓ par 78b</td>
<td>✓ par 5.6b</td>
<td>✓ par 81</td>
<td>✓ par 10 #</td>
</tr>
<tr>
<td>c. any significant assumptions made in determining net fair value.</td>
<td>✓ par 78c</td>
<td>✓ par 5.6c</td>
<td>✓ par 79</td>
<td>✓ par 10 #</td>
</tr>
<tr>
<td></td>
<td>✓ par 88a</td>
<td>✓ par 5.7a</td>
<td>✓ par 88a</td>
<td></td>
</tr>
<tr>
<td></td>
<td>✓ par 88b</td>
<td>✓ par 5.7b</td>
<td>✓ par 88b</td>
<td></td>
</tr>
<tr>
<td><strong>For financial assets carried at an amount in excess of their net fair value</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. carrying amount and the net fair value of either the individual assets or appropriate groupings of those individual assets.</td>
<td>✓ par 88a</td>
<td>✓ par 5.7a</td>
<td>✓ par 88a</td>
<td></td>
</tr>
<tr>
<td>b. the reasons for not reducing the carrying amount, including evidence providing the basis for management’s belief that the carrying amount will be recovered.</td>
<td>✓ par 88b</td>
<td>✓ par 5.7b</td>
<td>✓ par 88b</td>
<td></td>
</tr>
<tr>
<td><strong>For financial instruments involving a hedge of risks associated with anticipated future transactions</strong>:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. description of the anticipated transactions.</td>
<td>✓ par 91a</td>
<td>✓ par 5.8a</td>
<td>✓ par 91a</td>
<td>✓ par 63 *</td>
</tr>
<tr>
<td>b. description of the hedging instruments.</td>
<td>✓ par 91b</td>
<td>✓ par 5.8b</td>
<td>✓ par 91b</td>
<td>✓ par 63 *</td>
</tr>
<tr>
<td>c. amount of any deferred or unrecognised gain or loss and the expected timing of recognition as revenue or expense.</td>
<td>✓ par 91c</td>
<td>✓ par 5.8c</td>
<td>✓ par 91c</td>
<td>✓ par 63 *</td>
</tr>
<tr>
<td>d. description of transaction or event that results in the gains/losses being recognised in earnings or deferred.</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>✓ par 63 *</td>
</tr>
</tbody>
</table>
2.61 US Pronouncements

Figure 2.2 provides a timeline depicting the timing of the significant pronouncements in the US and Australia, as well as those by the IASC, relative to financial reporting dates. As evident in Figure 2.2, FASB added financial instruments and off-balance financing to its technical agenda in the early 1980s. The most significant pronouncements related to these instruments are:

- **SFAS80** Accounting for Futures Contracts (August 1984).
- **SFAS105** Disclosure of Information about Financial Instruments with Concentrations of Credit Risk (March 1990).
- **SFAS107** Disclosures About Fair Value of Financial Instruments (December 1991).
- **SFAS126** Exemption for Certain Disclosures about Financial Instruments for Certain Non Public Entities (December 1996).
- **SFAS133** Accounting for Derivative Instruments and Hedging Activities (June 1998).

The FASB's approach involves dividing the project into separate phases dealing with recognition, measurement, disclosure and presentation, and distinguishing between liabilities and equity. The FASB's deliberations on derivatives and hedge accounting culminated in 1998 with the issue SFAS133, a standard dealing with accounting for derivative financial instruments and hedge activities, effective for the first accounting period commencing after 15 June 2000. The aim of this standard is to establish accounting and reporting standards for derivative financial instruments and other similar financial instruments and for hedging activities. This proposal requires an entity to recognise all derivative financial instruments as either assets or liabilities to be reported in the balance sheet at fair value. Market sources to determine fair values can be exchange markets, dealer markets, brokered markets, and principal-to-principal markets. Unlike Australian accounting pronouncements, discussed in subsection 2.63, the US accounting standards require 'fair value' disclosures as distinct from 'net fair value' disclosures.
Figure 2.2: Timeframe Depicting Significant US, Australian and IASC Accounting Pronouncements with Implications for Derivative Financial Instruments
Chapter 2 - Historical Perspective of Derivative Financial Instrument Recognition, Disclosure, Presentation and Measurement Issues

Under SFAS133, the method of accounting for realised and unrealised gains and losses depends upon the intended use of the instrument. Gains (losses) associated with trading instruments or undesignated hedges are to be taken to earnings as they arise (pathway A1 in Figure 2.1). The standard establishes three classifications of hedges: (1) fair value; (2) cash flow; and (3) foreign currency. To qualify as a hedge strict criteria exist in relation to the hedge documentation and hedge effectiveness.

Instruments designated as hedges of fair value exposure are to be accounted for using a modified mark to market method. The gain (loss) on the derivative hedging instrument is recognised in earnings in the period it arises. It is counterbalanced by the loss (gain) on the hedged item, which is also marked to market (a modified version of pathway C5 in Figure 2.1). Accounting for hedges of anticipated cash flow exposures (anticipatory hedges) requires gains (losses) on hedging instruments to be reported in the equity section with the cumulative gains (losses) included in earnings in the period the expected cash flow eventuates (pathway C4 in Figure 2.1).

Given that the fair value and cash flow hedge rules differ from those prescribed in SFAS52 Foreign Currency Translation, the standard provides for two exceptions in relation to foreign currency hedging. First, non-derivative financial instruments denominated in a foreign currency can be designated as fair value hedges of a firm commitment with any gains/losses incorporated into the carrying amount of the asset and liability (pathway C2 in Figure 2.1). Secondly, that hedges of foreign currency exposures of a net foreign investment can be fair value hedges with the changes in fair value associated with exchange rates movements recorded in a translation reserve (pathway C1 in Figure 2.1).

34 The FASB considered alternative accounting treatments for hedge accounting, including:

a) Measure all financial instruments at fair value with no special accounting for hedging activities (pathway A1 in Figure 2.1).

b) Hedge accounting based on a classification of the derivative instruments being classified as trading or risk management. All derivatives would be marked to market with realised gains or losses taken to the profit and loss (pathway C6 in Figure 2.1). Unrealised gains or losses associated with trading instruments would be taken to profit and loss, but those for risk management would be taken to equity and transferred to profit and loss when realised (pathway C7 in Figure 2.1).

c) Mark to market hedge accounting involving marking both the hedged item and instrument to market with the related gains and losses taken to profit in the period they arise (pathway C5 in Figure 2.1).
2.62 International Accounting Standard Board Pronouncements

The work by the IASC on financial instruments has been in conjunction with the Accounting Standards Committee of The Canadian Institute of Chartered Accountants (CICA). Contrary to the approach adopted in the US, the IASC attempted to develop rules for recognition, disclosure, presentation and measurement simultaneously. This inclusive approach was subsequently withdrawn and a fragmented approach akin to that of the US has been implemented. As detailed in Figure 2.2, the pronouncements to date are:

- E40 Financial Instruments (November 1991)
- E48 Financial Instruments (January 1994)
- IAS32 Financial Instruments: Presentation and Disclosure (June 1995)

As the outcomes of the IASC deliberations (prior to the release of IAS39) are similar to those of Australian accounting standard setting bodies, the specifics of the IASC pronouncements are discussed in subsection 2.632 in conjunction with the discussion of the Australian pronouncement ED65. IAS39 prescribes that all financial instruments, inclusive of derivatives, be recognised initially at cost. Subsequently, they are to be remeasured to fair value unless they are loans and receivables originated by the enterprise and not held for trading; other fixed maturity investments that the enterprise intends and is able to hold to maturity; or financial assets whose fair value cannot be measured reliably. These financial instruments are generally to be measured at amortised cost less repayment. Derivatives and liabilities held for trading are remeasured to fair value. An enterprise remeasuring its financial instruments to fair value has a single, enterprise-wide option to either: (1) recognise the entire adjustment in the earnings for the period (pathway A1 in Figure 2.1); or (2) recognise gains and losses on financial instruments held for trading in the earnings for the period and defer non-trading value changes in equity until the financial asset is sold, at which time the realised gain or loss goes to earnings. Derivative financial instruments are deemed to be trading unless they are designated as hedges. Horton & Macve (2000)
provide further discussion on moving to fair value for financial instruments as required by IAS39.

2.63 Australian Pronouncements

The Australian pronouncements on accounting for financial instruments have their roots in the IASC pronouncements. As stated in ED65’s preface “ED59 was based on Exposure Draft E40 ‘Financial Instruments’, which was issued by the IASC... the AASB and PSASB have developed this exposure draft using as a basis International Accounting Standard IAS32 ‘Financial Instruments’... the Board acknowledges the significant work of the IASC and CICA on accounting for financial instruments.” The Australian accounting regulatory bodies have issued the following pronouncements (refer to Figure 2.2):

- **AAS20/AASB1012** Foreign Currency Translation (December 1987).
- **DP14** Financial Reporting by Financial Institutions and Accounting for Financial Instruments (December 1990).
- **ED59** Financial Instruments (March 1993).
- **ED65** Presentation and Disclosure of Financial Instruments (and Revision of Set-Off Criteria in AAS23 and AASB1014 (June 1995).
- **AAS33/AASB1033** Presentation and Disclosure of Financial Instruments (December 1996).
- **Urgent Issues Group (UIG) abstracts dealing with hedging transactions.**

The AASB has recently released an Invitation to Comment on the Joint Working Group (JWG) Draft Standard on Accounting for Financial Instruments. This document is deemed to be a comprehensive approach to the recognition and measurement of financial instruments. It is not currently reflected in any of the

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35 IAS39 is effective for financial statements for financial years beginning on or after 1 January 2001.
36 The relevant UIG abstracts dealing with hedges include: Abstract 15 (Early termination of foreign currency hedges); Abstract 18 (Early termination of gold hedges); Abstract 25 (Redesignation of hedges); Abstract 27 (Designation as hedges – Sold/ written options); Abstract 29 (Early termination of interest rate swaps); Abstract 32 (Designation of hedges – Rollover strategies); and Abstract 33 (Hedges of anticipated purchases and sales).
jurisdictions of participating members. The main aspects of the draft are that all financial instruments are to be measured at fair value at reporting date and all changes in fair value are to be recognised as revenue or expense in the statement of financial performance in the period when they occur. If adopted, this abolishes hedge accounting.

2.631 ED59

ED59 attempted to be comprehensive in addressing recognition, definition, measurement and disclosure rules and was subjected to much criticism from preparers of financial statements, regulatory authorities and academics. The criticism of ED59 was weighted heavily towards recognition and measurement issues associated with financial instruments. ED59 proposed two measurement bases for financial instruments: (1) net market value based accounting (as discussed in subsection 2.42); and (2) the purpose-led method of accounting (Hancock 1994).

What form of hedge accounting was recommended? Paragraph 145 states that the change in the value of the hedging instrument is to be measured and recognised on the same basis as the hedged item (or the anticipated hedged item). This could involve using a LOCOM basis, and is affected by whether the hedge involves a recognised or an unrecognised contractual commitment. If the hedged item is accounted for using the net market value and is a recognised financial commitment, mark to market hedge accounting applies and the gains (losses) associated with both the hedged item and hedging instrument are recognised as revenues (expenses) as they occur (pathway C5 in Figure 2.1). If the hedged item is accounted for using the cost method and is a recognised financial commitment, the gains (losses) associated with the hedging instrument are deferred until the matching losses (gains) on the hedged item are recognised (pathway B1 in Figure 2.1). Following purpose led accounting, the gains (losses) associated with the

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37 The JWG comprises representative or members of accounting standard setters or professional organisations in Australia, Canada, France, Germany, Japan, New Zealand, five Nordic countries, United Kingdom, US and the IASC.

38 The term 'net market value' was used in ED59 and ED65 as apposed to the term 'net fair value'.

39 The purpose-led method involves ascertaining why instruments are acquired. Instruments can be acquired for trading, investing and financing, or hedging purposes and accounting methods employed differ across these categories, as is explained earlier in the chapter.
hedging instrument are deferred until the matching losses (gains) on the hedged item are recognised (pathway C6 or C7 in Figure 2.1, depending on whether the gains (losses) on the hedging instrument are realised).

For hedges involving an unrecognised, anticipated contractual commitment, it is necessary to establish the degree of correlation between the movements in the hedged item and hedging instrument. If the hedged position is marked to market, the gain (loss) on the net market value of the hedging instrument is deferred in order to be matched in the future against the change in the net market value of the future hedged item (pathway C4 in Figure 2.1, followed by pathway C5 when the hedged item is recognised). However, any gain (loss) due to the hedge being imperfect is recognised in earnings in the period the net market value changes. If the hedged position is accounted for using the cost method, the gain (loss) on the net market value of the hedging instrument is deferred until the loss (gain) on the hedged position is recognised (pathway C4 in Figure 2.1, followed by pathway C7 then C6). Again, any gain (loss) due to the hedge being imperfect is recognised in earnings in the period the net market value changes. These hedge accounting treatments are summarised in Figure 2.3.

ED59 was controversial as indicated by the 120 submissions received by the Australian Accounting Research Foundation commenting on various aspects of the exposure draft. Of particular concern to corporations were the proposed lower of cost and net market value accounting approaches and the proposed method of hedge accounting. The AASB took notice of ED59 respondents' concerns and withdrew the exposure draft. Given that the AASB compromised their position on financial instrument recognition and measurement, this may be reflected in lobbyists using the compromised position (e.g. disclosing and presenting financial instrument information) rather than their preferred position.

2.632  ED65

This exposure draft, issued in June 1995, generally seeks to establish only presentation and disclosure rules for derivative financial instruments. However, it is important to note that measurement issues are captured within the exposure draft, as measurement is central to the requirements to disclose the net market
values for classes of financial instruments and to implement split accounting for compound instruments.

The following summarises the main requirements of ED65 in relation to classes of derivative financial assets and liabilities:

- Accounting policies;
- Extent and nature of underlying financial instruments including principal, interest rate, timing of payments, maturity date and collateral pledged;
- Objectives for holding or issuing the instruments;
- Exposure to interest rate risk; and
- Aggregate net market value at reporting date with supporting information as to the derivation of the values.

IAS32 was the basis for ED65 with the latter embracing the whole of IASC32 with some additional disclosure requirements. It is not surprising that in the context of international harmonisation of accounting standards, criticism concentrated on issues where the Australian accounting standard setting bodies demanded disclosures exceeding the requirements of the international standard. In contrast, there are examples, such as the wider definition of financial instruments to incorporate commodity contracts settled by means other than physical delivery, where financial statement preparers applauded departures from IAS32. The imperfect alignment of ED65 and IAS32 demonstrates the controversial and complex character of financial instrument disclosures.

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40 This representative view is encapsulated by the following quote extracted from Westpac's response to ED65: "In particular we are concerned that there are inconsistencies between ED65 and IAS32 and that ED65 goes beyond IAS32 in its disclosure requirements. It is not clear to us why this was considered necessary given the comprehensive nature of IAS32 and the growing support for international harmonisation of accounting standards."
Figure 2.3: Alternative Accounting Methods for Hedging Activities Proposed in ED59

Investing and Financing Instruments

Net Market Value Accounting Method

Hedge of Recognised Contractual Commitment

Change in net market value of both hedging instrument and hedged item recognised when occur

Gain/loss on hedging instrument deferred until the matching loss/gain on hedged position is recognised. Extent of imperfect hedge is recognised in profit and loss

Hedge of Unrecognised Contractual Commitment

Hedge of Recognised Contractual Commitment

Recognition of gain/loss on hedging instrument deferred until matching loss/gain on hedged item is recognised

Hedge of Unrecognised Contractual Commitment

No recognition of gain/loss on hedging instrument until hedged item is recognised. Extent of imperfect hedge is recognised in profit and loss

Cost Method of Accounting
The divergence between IAS32 and ED65 is even more significant given the AASB’s and PSASB’s commitment to harmonisation. The Australian accounting regulatory boards established a program of amending existing Australian standards to conform with existing IASC standards, considering existing IASC standards for issues not covered by Australian standards, and amending existing Australian standards or create new ones to conform with new or revised IASC standards. Harmonisation implies that compliance with Australian accounting standards ensures compliance with International Accounting Standards. ED65’s requirements exceed the scope of IAS32.

2.633 ASCT Industry Statement

The regulation of disclosure requirements for derivative financial instruments is unique relative to other accounting standards as during the time lapse between the withdrawal of ED59 and the issue of ED65, the ASCT issued an industry statement specifying voluntary guidelines for the disclosure of derivative financial instruments.41 The Industry Statement contained recommended minimum disclosure for derivative financial instruments (Part A) and recommended interim disclosure guidelines for derivatives in annual reports (Part B). The scope of the Industry Statement was narrower than ED65. It related only to derivative financial instruments and required only qualitative disclosures with quantitative disclosures recommended. The Industry Statement recommended disclosures in relation to internal control procedures that are not a requirement of ED65. The recommended disclosures contained in Part A and Part B are summarised in Table 2.4.

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41 Other Australian industry standards dealing with derivative instruments have been the Australian Financial Markets Association (AFMA) Derivative Practices and the Companies and Securities Advisory Committee (CASAC) review of derivative regulation. The Insurance and Superannuation Commission has also reviewed controls over the use of derivatives by superannuation funds.
Table 2.4: The ASCT Recommended Derivative Financial Instrument Disclosures

<table>
<thead>
<tr>
<th>Part A: Recommended Minimum Disclosure for Derivative Instruments</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) The specific purposes for which derivatives are used, for example hedging, trading or investment.</td>
</tr>
<tr>
<td>b) The accounting policies the entity applied when preparing and presenting the disclosing the entity’s financial statements and the consolidated financial statements.</td>
</tr>
<tr>
<td>c) The nature and types of financial risks on and off balance sheet that the disclosing entity is exposed to. These may include credit, market and liquidity risk.</td>
</tr>
<tr>
<td>d) Any significant concentrations of credit risks, such as the credit rating or investment grade of counterparties, regional or country risks, or currency risks.</td>
</tr>
<tr>
<td>e) The entity’s policies in giving collateral, security and credit enhancement arrangements.</td>
</tr>
<tr>
<td>f) How the entity monitors and controls the risks, for example, credit approval procedures, setting authority limits and separation of duties; and</td>
</tr>
<tr>
<td>g) The entity’s financial controls, for example spot audit checks and verifying transaction records.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Part B: Recommended Interim Disclosure Guidelines for Derivatives in Annual Reports</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disclosure Guidelines</td>
</tr>
<tr>
<td>DG1 the Face Value or Contract Amount (or notional principal amount if there is no Face Value or Contract Amount); separate amounts to be shown for hedging and non hedging portfolios. These amounts should be the gross values, although net amounts may be used where there is a legal netting arrangement in place, with appropriate disclosure of its existence.</td>
</tr>
<tr>
<td>DG2 significant terms and conditions that may affect the amount, timing, and certainty of future cash flows.</td>
</tr>
<tr>
<td>DG3 the period of time to maturity, expiration or execution (which may be a weighted average maturity).</td>
</tr>
<tr>
<td>DG4 a general description of the credit risk associated with each category of derivative financial instrument used by the entity, in terms of its maximum credit exposure and the method of measurement/determination.</td>
</tr>
<tr>
<td>DG5 the accounting policies of the entity as they apply to each category of derivative financial instrument, including measurement standards - separate disclosures should be made for instruments entered for hedging and non hedging purposes.</td>
</tr>
</tbody>
</table>

The disclosures should be supported by the following additional guidelines, or disclosed in a manner which incorporates the following into the above guidelines, in accordance with the appropriate classification of the purpose of the derivative financial instrument, namely

a. hedging purposes  
b. non hedging activities

Other classifications that may be adopted in the disclosure of derivative financial instruments are into the broad categories of:

- exchange rate related derivatives  
- interest rate related derivatives  
- other (including commodity and equity related derivatives)

and within the general classes of:

- forwards and futures  
- swaps  
- options

Chapter 2 – Historical Perspective of Derivative Financial Instrument Recognition, Disclosure, Presentation and Measurement Issues

The Industry Statement was touted as a timely and positive industry reaction given the significant losses, linked to derivative trades, reported by entities and the absence of accounting regulation for such instruments.\(^{42}\) As stipulated in the Statement’s Part B introduction, “with the increased utilisation of derivative instruments by all sorts of organisations, and the growing number of entities exposing losses and/or exposures in respect of derivatives that have not been externally (and in some cases internally) reported, the need for increased and better disclosure of derivatives in financial accounts is clear.” (p.3). The Statement specified that the guidelines were to be placed in the context of a communication exercise and “not at this stage as a prescriptive and reactionary compliance initiative.” (p.3). In a media release on 30 March 1995, the Australian Securities and Investment Commission (ASIC) endorsed the Industry Statement. In a further release on 20 June 1995, the ASIC stated they expected firms to comply with the Industry Statement requirements for the financial year ending 30 June 1995. The ASIC stated that it would be difficult for disclosing entities to meet the requirement to give a true and fair view in the accounts without adopting the minimum requirements of the Industry Statement. In providing guidance on derivative financial instrument disclosures, the Industry Statement sought to “fill the void that exists in this respect as a result of the existing Accounting Standards framework not providing clear direction in many aspects …”

The interposition of the Industry Statement between the two accounting exposure drafts on this issue presents a unique opportunity to observe disclosure levels given the multiple bodies issuing disclosure recommendations and the unique breaks in reporting requirements for derivative financial instruments. The timeframe provided in Figure 2.2 indicates that derivative financial instrument disclosures by Australian entities were of a voluntary nature for financial report years ended 30 June 1992, 1993, 1994, 1995, 1996 and 1997. However, the pressure on financial report preparers to disclose such information was intensifying and post 1994 could be described as coercive. Such an environment enriches the examination of ‘voluntary’ disclosure.

\(^{42}\) The ASIC chairman refers to relying on ‘moral suasion’ to win compliance with the Industry Statement due to the lack of progress by Australian standard setting bodies in formulating accounting standards for derivatives (Australian Financial Review, 30 March 1995, page 1).
Chapter 2 – Historical Perspective of Derivative Financial Instrument Recognition, Disclosure, Presentation and Measurement Issues

2.6.34 AASB1033

AASB1033, issued in December 1996, is the culmination of the AASB’s and PSASB’s efforts to prescribe the financial instrument disclosures to be made in financial reports. The standard is operative and applies to financial years ending on or after 31 December 1997. The major amendments pertaining to derivative financial instruments that have been incorporated into AASB1033 are:

1. Removal of the requirement for parent entities to comply with the disclosure requirements when the parent’s financial affairs are presented with those of the economic entity and the latter abides by AASB1033 requirements;
2. A change from mandatory to recommended disclosure requirements relating to obtaining collateral, terms and conditions for financial instruments and interest rate risk;
3. Change in terminology from ‘net market value’ to ‘net fair value’; and
4. Inclusion of gold contracts in the definition of financial instruments.

The AASB1033 and IAS32 requirements are consistent except for the requirement to report all instruments at fair value. IAS32 does not require fair values to be disclosed if it is impractical to do so. Furthermore, in relation to fair value disclosures, IASC32 requires disclosures of fair value as distinct from the AASB1033 requirement for net fair value disclosures. IAS32 does refer to the fair value of a financial instrument traded in an active and liquid market, as “its quoted market price adjusted for the transaction costs that would be incurred in an actual transaction.” (par. 81). Thus, both the IASC and AASB requirements are for disclosures of fair value, net of transaction costs, despite differences in wording.

2.7 Summary and Conclusions

This chapter traces the key stages of historical development, within Australia and overseas, of accounting prescriptions relating to derivative financial instruments and hedge accounting. In doing so, it highlights the international significance of this accounting issue and the delineation of development stages associated with

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43 The definition of net fair value, as per AASB1033 section 8.1, was previously defined in footnote 27.
Australian prescriptions. Prior to the introduction of AASB1033, which is applicable for financial statements after 31 December 1997, Australian firms had no mandatory requirement to disclose information with respect to derivative financial instruments. However, the release of the ASCT Industry Statement, FASB, and IASC pronouncements on derivative financial instruments creates a coercive reporting environment. On this basis, the study examines Australian firms' disclosure practices for individual reporting periods spanning 1992-1997. By incorporating 'pure voluntary' (1992-1994) and 'coercive' (1995-1997) disclosure regimes, time series variation in disclosure practices can be linked to regulatory developments. The study draws on the theoretical frameworks of contracting, legitimacy and institutional theories to explain firms' disclosure strategies. Chapter 3 discusses these paradigms, reviews empirical voluntary disclosure studies, justifies the application of these paradigms to this study, and identifies the contribution of this thesis to this body of literature.
CHAPTER THREE: THEORETICAL UNDERPINNINGS AND LITERATURE REVIEW

3.1 Introduction

As described in Chapter 1, this thesis investigates firms' voluntary derivative financial instrument disclosures. Figure 3.1 positions this research within the context of general discretionary information production decisions. The concentration of this thesis is on disclosure strategies as distinct from accounting policy choices or accrual strategies. The disclosure strategies can be revealed in the firm's supplemental disclosures and/or lobbying activities. This study focuses on supplemental disclosures. Accordingly, this chapter surveys the voluntary disclosure literature. The purpose of the review is to inform the study as to the determinants of voluntary disclosure, highlight those gaps in the extant literature that are addressed by this study, and assist in the development of testable hypotheses in Chapter 5. A review of a firm's need to engage in hedging activities (Chapter 4) also helps to explain why firms may (may not) be disposed to making supplemental disclosures.

As figure 3.1 depicts, capital market, contracting, signalling, production cost and legitimacy incentives are associated with voluntary disclosures. These incentives influence firms' voluntary disclosures. The literature review demonstrates extensive use of economic consequence theories as determinants of such activities. This thesis extends extant financial disclosure studies by considering alternative frameworks (legitimacy and institutional theories) to explain supplemental disclosures. The study does not investigate the consequences of derivative financial instrument disclosures. However, given that the information disclosure decision involves a cost/benefit tradeoff, one of the perceived benefits of voluntary derivative financial instrument disclosures is a favourable capital market reaction. Accordingly, it is pertinent to review the capital market based research examining the usefulness of derivative financial instrument disclosures.

\(^{44}\) The extant literature suggests that discretionary accounting policy choices and accrual strategies are motivated by capital market considerations (e.g. DeAngelo 1988, Bürgstahler and Dichev 1997, Teoh, Wong and Rao 1998) contracting motivations (e.g. Holthausen and Leftwich 1983, Healy 1985, DeChow and Sloan 1991) and regulatory motivations (e.g. Collins, Shackelford, and Wahlen 1995, Key 1997).
Figure 3.1: Financial Statement Preparers' Discretionary Information Production Decisions

Discretionary Information Production Decisions

Accounting Methods Accrual Strategies

Information Disclosure Strategies

Incentives influencing discretionary production decisions:
- Legitimacy & Reputation Concerns
- Market Imperfections
- Contracting Theory
- Information Signalling
- Information Production Costs

The information production decision regarding derivative instrument disclosures will also be influenced by firms' hedging activities

Revealed Preferences

Lobbying

Voluntary Disclosures

Potential Outcomes

Reduced Cost of Capital

Higher Firm Value

Enhanced Legitimacy & Reputation

Reduced Agency Costs
This chapter proceeds as follows. Section 3.2 discusses the voluntary disclosure literature. An overview of discretionary disclosure theories and their empirical testing is provided, in subsection 3.21. Subsection 3.22 examines the limited extant literature on derivative financial instrument disclosures. A review of the usefulness of such disclosures is provided in subsection 3.23. Section 3.3 summarises the voluntary disclosure literature and concludes the chapter.

3.2 Voluntary Disclosure Literature

Voluntary financial reporting can be defined as "financial statement information that is presented in a superior format to required disclosure prescriptions or disclosure of accounts and notes over and above those required by extant regulations" (Dolley and Priest 1994 p.94). In terms of voluntary disclosure, this section seeks to describe discretionary disclosure theories and empirical studies (subsection 3.21), review the extant literature on derivative financial instrument disclosures (subsection 3.22) and to provide evidence supporting the usefulness of these disclosures (subsection 3.23).

3.21 Discretionary Disclosure Theories and Empirical Studies

The purpose of this subsection is to elucidate the theories and empirical studies underlying voluntary disclosure strategies. In devising a corporate disclosure strategy due consideration needs to be given to the likely beneficiaries of the disclosure. Lev (1992) identifies the beneficiaries as being stakeholders, financial analysts, competitors, management and regulatory bodies. An assessment is required as to whether the beneficiaries can utilise the information in a manner that is detrimental or enhancing to the value and reputation of the disclosing firm. This necessitates consideration of the benefits and costs to the firm associated with disclosure. However, identifying and predicting the benefits and costs (and their magnitude) is difficult given the simultaneous and sometimes contradictory forces invoked by the disclosure (or lack thereof). The forces take the form of product market competition, financial market valuation, political and contracting cost considerations, and information cost issues (Nagarajan and Sridhar 1996).

To understand the motives driving the decision to disclose (or refrain from doing so) models of voluntary disclosure have been constructed. The models explain
discretionary disclosure from three perspectives: (1) an information perspective; (2) a contracting perspective; and (3) a legitimacy perspective. The information and contracting perspectives are discussed in subsections 3.2.11 and 3.2.12 respectively. A review of the extant literature using information and/or contracting frameworks is discussed in subsection 3.2.13. Subsection 3.2.14 explores legitimacy theory as a rationale for voluntary disclosure. In this descriptive section, reference is made to the social and environmental disclosure literature. While the discretionary disclosure perspectives emanate from different frameworks, their predictions are not necessarily mutually exclusive and may sometimes be empirically indistinguishable. A summary of the theoretical disclosure model used in this thesis is provided in subsection 3.2.15.

3.2.11 Discretionary Disclosure: An Information Perspective
Early disclosure models promoting full disclosure of information by firms are premised on disclosure being a means of differentiating firms (Akerlof 1970, Grossman 1981, Milgrom 1981). Firms that disclose more are perceived as having more positive attributes to disclose than firms that disclose less. The full disclosure model assumes: (1) common knowledge that firms have private information; (2) should the firms disclose the information they do so truthfully; and (3) firms are concerned with financial market valuation. The practice of full disclosure is not widespread. This suggests that further complexities need to be added to the ‘disclosure equation’ to explain the impetus of managers to engage in supplemental disclosures.

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45Disclosure, explained from an information perspective, includes information signalling, information asymmetry, proprietary nature of information, and the role of information in assisting capital raisings. A contracting perspective refers to the role of information in reducing agency costs and political costs. Disclosure, according to legitimacy theory, has a role to play in managing the relations between the firm and society.
46The threat of litigation should attest to the truthfulness of the disclosure (Kellogg 1984).
47Skinner (1994) finds that over 1981-1990, there are 374 earnings related disclosures for 93 firms. This equates to less than one voluntary earnings related disclosure per firm per year.
The Directional Nature of the News

Early research attempting to understand a manager's disclosure motive incorporates the directional nature of the news. A greater propensity exists to disclose 'good' news earlier than 'bad' news (Ball and Brown 1968) and quantitative good news and qualitative bad news (Skinner 1994). In a discretionary environment good news disclosures are more likely than bad news disclosures (Lev and Penman 1990, Waymire 1994). Belkaoui (1976) examines stock price reactions for firms disclosing pollution control expenditures relative to firms not making such disclosures. Pollution control expenditure is deemed to be socially responsible disclosure and disclosing firms record a positive stock market reaction relative to non-disclosing firms. This validates the decision to disclose such expenditure.

Examining information disclosures in an experimental setting between divisional and central managers (this relationship is likened to that of management and shareholders), King and Wallin's (1996) results support the good/bad news hypothesis. Divisional managers exhibit tendencies to disclose good news but to delay bad news. In reviewing corporate earnings-related voluntary disclosure practices of 93 US listed firms spanning 1981-1990, Skinner (1994) provides evidence suggesting managers are confronted with asymmetric loss functions when devising a disclosure strategy. Good news disclosures are designed to signal a firm's superior performance whereas preemptive bad news disclosures are designed to reduce the threat of litigation and/or reputation damage.

The difficulty associated with management's development of a derivative financial instrument disclosure strategy is the assessment of how the information, if disclosed, will be interpreted by the market. As referenced by Kuhner (1997):

"In an environment that lacks transparency, a firm that discloses more information about its risks than others may fear that outsiders erroneously perceive its riskiness to be greater than other firms. Such concern may have hampered progress in voluntary disclosure of risk exposures. However if consensus developed on an appropriate framework of understanding such disclosures, enhanced disclosures could be seen as an indication of strength." (p. 6)
Chapter 3 – Theoretical Underpinnings and Literature Review

Proprietary Costs

Proprietary costs can help explain discretionary disclosures, or the lack thereof. A proprietary cost is any possible reduction in future cash flows associated with erosion of competitive advantage due to competitors benefiting from the disclosures. Models promoting full disclosure do so on the basis of zero proprietary costs. Verrecchia (1983) and Dye (1986) incorporate proprietary costs into the elementary voluntary disclosure framework model of good/bad news and in doing so align empirical work, noting an absence of full disclosure, with the existing economic theory. A manager’s threshold level of disclosure is introduced by Verrecchia (1983) and this refers to “the point, or degree of information quality, above which he discloses what he observes, and below which he withholds his information.” (p.179). The determination of the threshold disclosure level is intertwined with traders’ expectations and conjectures concerning non-disclosure. Managers have a dichotomous choice to disclose or not disclose and the information central to this choice may be good or bad news.48 Verrecchia (1983) recognises that disclosure involves a cost in addition to preparation and dissemination costs. The potentially damaging nature of the disclosure, its proprietary cost, is important. This complicates the process as non-disclosure can have two possible explanations: (1) the information is bad news; or (2) the information is good news but the benefits of disclosure are less than the proprietary costs involved.

Verrecchia (1983) posits that the proprietary costs associated with disclosures are positively related to the competitiveness of the firm’s industry and the sensitivity of the disclosure item. An increase in proprietary costs is associated with an increase in the threshold level of disclosure. Should information possess high proprietary costs and hence have a high disclosure threshold, non-disclosure should have less of a negative impact on the firm’s value. The model developed by Verrecchia (1983) describes an equilibrium threshold level of disclosure “below which a manager’s motivation to withhold information is consistent with traders’ conjecture as to how to interpret that action.” (p.192). In doing so it offers another dimension to empirical testing. Not only is the probability of a firm disclosing positively associated with the favourableness of the news subject to the
disclosure, it is also negatively associated with the proprietary costs attached to the disclosure.

Verrecchia (1990) introduces quality of information available to managers as a variable that also determines the threshold level of disclosure. He posits a positive association between information quality and the probability of disclosure. If managers withhold information of a high quality the market will discount the value of the firm further than it would if the information was of lower quality. Penno (1997) challenges this directional relationship. Positing a relationship between *ex ante* voluntary disclosure and quality of privately held non-proprietary information, he demonstrates that if the probability that the manager obtains information is independent of its *ex post* quality, then the frequency of disclosure is also independent of quality.

### 3.2.12 Discretionary Disclosure: A Contracting Perspective

Utilising a framework based on Jensen and Meckling (1976), information disclosures can reduce agency costs and be value enhancing. Akin to accounting method choice (Watts and Zimmerman 1978, Holthausen 1990), minimising the agency costs associated with debt and equity has a role to play in formulating a disclosure strategy. Agency costs arise because an agent is expected to act in his/her own interest which is not necessarily congruent with the principal's interest. This divergence is anticipated by principals (debtholders and shareholders). Hence, they price protect their respective claims and/or engage in *ex post* settling up. Principals can constrain and monitor agents' behaviour and agents can enter into bonding arrangements to restrict their divergent behaviour. Expenditures on monitoring reduce agency costs. Since managers have a competitive advantage in the production and dissemination of information, voluntary disclosures enable principals to monitor managers' behaviour while reducing costs that managers would otherwise bear. The reduction in agency costs is a product of narrowing the information gap and reducing uncertainty.

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44 The possibility of information being withheld due to its non-existence is ignored.
Companies can use disclosures as a cost-effective means of limiting potential wealth transfers in the political process. The political process can be viewed as: (1) a mechanism for remedying perceived market failures; or (2) competition among individuals for wealth transfers (Watts and Zimmerman 1986). Perceived market failures include inadequate disclosures by firms. Voluntary disclosures can remedy the market failure thereby deferring or removing the necessity for political and regulatory intervention. Alternatively, politicians and regulatory bodies can use voluntary disclosures to transfer wealth. In relation to derivative financial instruments, the disclosures may prompt politicians and regulators to reassess the taxation and fee arrangements for such instruments. As noted by SEC Commissioner Steven Wallman:

"As regulators we recognise we, and public opinion, represent a risk to the derivatives markets. This occurs in at least two ways. As alluded to earlier, if we do not understand how these instruments and markets work, we run the risk of overreacting to any given derivatives problem and imposing unnecessary costs on the market...Alternatively, even if we do not overreact, we run the risk of falling too far behind the curve in terms of understanding the market if we are not diligent in our efforts. The implications of this in terms of a regulator's ability to protect the public interest are apparent, because the backlash from appearing to have done too little can be as bad as having done too much."


3.213 Empirical Studies of Information and Contracting Theories of Voluntary Disclosure

There is an extensive body of research investigating firms' voluntary disclosures. This thesis initially draws on the extant voluntary disclosure literature to explain derivative financial instrument disclosures in annual reports. Given that the topic of investigation is derivative financial instrument disclosures, it also draws on theoretical models of hedging (as described in Chapter 4) for context-specific explanatory variables.

Consistent with the voluntary disclosure models described in subsections 3.211 and 3.212, the theoretical foundation traditionally used to explain the disclosures is information signalling and/or contracting. The empirical literature can be broadly categorised into examinations of: (1) general disclosures; (2) specific disclosures; and (3) environmental and social disclosures. The purpose of this section is to provide an overview of the extant literature of general and specific disclosure studies. Table 3.1 provides a summary of a selection of such studies.
Panel A documents a selection of general voluntary disclosure studies and panel B summarises a selection of specific annual report disclosure studies.\textsuperscript{49}

Initial general disclosure studies test the association between voluntary disclosure and firm characteristics premised on information signalling (Singhvi and Desai 1971, Buzby 1975, Firth 1979). The commonly included independent variables in the early general disclosure studies are size, listing status, firm profitability and audit firm. All explanatory variables are predicted to be positively associated with voluntary disclosure. Larger firms are hypothesised to engage in greater disclosures due to their wider ownership\textsuperscript{50} and ability to absorb information production costs. A positive association for listing status (listed versus unlisted) is premised on the greater information expectations for listed companies. Profitable companies are hypothesised to engage in more voluntary disclosures to increase investor confidence by signalling their superior performance.

The positive accounting era heralded the incorporation of contracting variables such as financial leverage and assets in place into general disclosure studies (Chow and Wong-Boren 1987, Cooke 1989, 1992, Raffournier 1995). Positive associations are predicted on the basis that greater disclosure reduces monitoring costs and enhances firm value. Other variables posited to be associated with voluntary disclosure are external financing needs and ownership structure.

\textsuperscript{49} The studies documented are restricted to voluntary disclosures occurring in, or supplementary to, annual reports. Furthermore, the specific disclosure studies detailed focus on Australian studies. Studies have also examined voluntary disclosures in media other than financial reports. For example, Clarkson \textit{et al.} (1992) and Skinner (1994) study earnings related disclosures in Initial Public Offerings and the Dow Jones News Retrieval service respectively.

\textsuperscript{50} Wider ownership implies higher potential agency costs due to greater separation of control.
### Table 3.1: Summary of a Selection of Empirical Voluntary Disclosure Studies

<table>
<thead>
<tr>
<th>Study</th>
<th>Disclosure Issue</th>
<th>Sample</th>
<th>Dependent Variable (Disclosure)</th>
<th>Theoretical Perspective</th>
<th>Independent variables</th>
<th>Independent variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>Singhvi &amp; Desai (1971)</td>
<td>100 listed &amp; 55 unlisted US companies (n=155)</td>
<td>Weighted index comprising 34 items</td>
<td>Information</td>
<td>Size</td>
<td>Number of shareholders</td>
<td>Number of shareholders</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Listing status</td>
<td>Audit firm</td>
<td>Rate of return</td>
</tr>
<tr>
<td>Buzby (1975)</td>
<td>44 listed &amp; 44 unlisted US companies (n=88). Matched pair design</td>
<td>Weighted index comprising 39 items</td>
<td>Information</td>
<td>Size</td>
<td>Listing status</td>
<td>Listing status</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(No multivariate tests are conducted; results are based on tests of statistical association)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Firth (1979)</td>
<td>a) 40 listed &amp; 40 unlisted US companies (n=80). Matched pair design</td>
<td>Weighted index comprising 48 items</td>
<td>Information</td>
<td>Size</td>
<td>Listing status</td>
<td>Listing status</td>
</tr>
<tr>
<td></td>
<td>b) 100 listed companies</td>
<td></td>
<td></td>
<td>(No multivariate tests are conducted; results are based on tests of statistical association)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chow &amp; Wong-Boren (1987)</td>
<td>52 listed Mexican firms</td>
<td>Weighted index comprising 24 items</td>
<td>Contracting</td>
<td>Size</td>
<td>Financial leverage</td>
<td>Financial leverage</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Assets in place</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cooke (1989)</td>
<td>38 unlisted companies, 33 Swedish stock exchange listed companies, &amp; 19 multiple listed companies (n=90)</td>
<td>Non-weighted index comprising 224 items (including disclosures required by law)</td>
<td>Information</td>
<td>Size</td>
<td>Listing status</td>
<td>Listing status</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Parent company relationships</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cooke (1992)</td>
<td>35 listed Japanese companies</td>
<td>Non-weighted index comprising 165 items (including mandatory disclosures)</td>
<td>Information</td>
<td>Size</td>
<td>Listing status</td>
<td>Listing status</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Industry type</td>
<td></td>
<td>Industry type</td>
</tr>
</tbody>
</table>

51 The items included in disclosure indices for general disclosure studies are items deemed to be useful to users. The construction of the index is usually guided by surveys of user groups (e.g. financial analysts). Various categories of voluntary information are included in the index such as management discussion and analysis items, historical results, and forecast information.
Table 3.1 continued: Summary of a Selection of Empirical Voluntary Disclosure Studies

<table>
<thead>
<tr>
<th>Study</th>
<th>Disclosure Issue</th>
<th>Sample</th>
<th>Dependent Variable (Disclosure)</th>
<th>Theoretical Perspective</th>
<th>Independent variables (* = significant in multivariate analysis unless otherwise specified)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Raffournier</td>
<td></td>
<td>161 listed Swiss companies</td>
<td>Non-weighted index comprising 30 items</td>
<td>Information Contracting</td>
<td>Size*, Listing status, Profitability, Ownership structure, External financing, Internationality, Audit firm, Industry type</td>
</tr>
<tr>
<td>(1995)</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Panel B: Specific Disclosure Issue Studies</td>
<td></td>
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<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>financial statements</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deegan and</td>
<td>Value added</td>
<td>215 Australian firms (30 disclosing and 185 non-disclosing)</td>
<td>Dichotomous classification (disclosing/ non-disclosing)</td>
<td>Contracting</td>
<td>Labour intensity*, Industry volatility, Taxation, Rate of return, Size*, Concentration</td>
</tr>
<tr>
<td>Hallam (1991)</td>
<td>statements</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Data</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Study</td>
<td>Disclosure Issue</td>
<td>Sample</td>
<td>Dependent Variable</td>
<td>Theoretical Perspective</td>
<td>Independent variables (* = significant in multivariate analysis unless specified)</td>
</tr>
<tr>
<td>------------------------------</td>
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<td>-------------------------------------------------------------------------------------</td>
<td>--------------------------</td>
<td>----------------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| Clarkson, Kao and Richardson (1994) | Forecasts in MD&A section of annual report                                         | 905 Canadian firm years         | Dichotomous classification (disclosing/ non-disclosing) with sample divided into good and bad news firms | Information              | External financing \*  
Barrier to entry \*  
Size  
Earnings volatility \*  
Earnings shock \* |
| Dolley and Priest (1994)    | Voluntary reporting by local government                                          | 59 Western Australian local councils | Non-weighted index based on requirements of AAS27                                     | Information Contracting  | Size (rate revenue) \*  
Audit firm  
Financial leverage  
Voter participation |
| Scott (1994)                | Defined Benefit Pension Plan information                                          | 288 Canadian firms              | Ordinal – no disclosure, pension only disclosure, both pension and interest disclosure Plan – non-weighted index based on 6 specific items | Information              | Strike incidence \*  
Payrate \*\*  
Rate of return on assets relative to industry \*\*  
Trading volume  
Public issues  
Ownership structure  
Materiality \*  
Listing status \*  
Size \*  
(a = significant for plan details  
b = significant for ordinal classification) |
| Klumpes (1995)              | Promotion of investment contracts by life insurers                                | 32 firms                        | Non-weighted 32 item index                                                          | Information Contracting  | Fees \*  
Size (fees under management) \*  
Investment risk & return \*  
Liability risk  
Marketing cost \*  
(Univariate testing only) |
<table>
<thead>
<tr>
<th>Study</th>
<th>Disclosure Issue</th>
<th>Sample</th>
<th>Dependent Variable</th>
<th>Theoretical Perspective</th>
<th>Independent variables (' = significant in multivariate analysis unless otherwise specified)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Christopher and Hassan (1996)</td>
<td>Cash flow reporting</td>
<td>172 listed companies (18 disclosing and 154 non-disclosing)</td>
<td>Dichotomous classification (disclosing/ non-disclosing)</td>
<td>Information Contracting</td>
<td>Ownership structure, Size, Market risk, Press coverage, Overseas associations, Industry type</td>
</tr>
<tr>
<td>Cassar, Frost and Holmes (1999)</td>
<td>Social reporting</td>
<td>8 listed Australian banks</td>
<td>Number of social responsibility words</td>
<td>Contracting (political)</td>
<td>Size, Number of shareholders, Ownership structure, Profitability, Financial leverage, Press coverage</td>
</tr>
</tbody>
</table>
General disclosure studies measure the dependent variable by an index of disclosure. There is considerable variation in the type and quantity of items included in the index. Some studies use a weighted index (Singhvi and Desai 1971, Buzby 1975, Firth 1979, Chow and Wong-Boren 1987) whereas others elect to use a non-weighted index (Cooke 1989, 1992, Raffournier 1995).

The statistical observations in relation to firm characteristics and voluntary disclosure are ambiguous, except for size and listing status. The Marston and Shrives (1991) review of the disclosure literature prior to 1986 finds size, listing status, leverage, profitability and audit firm size are the commonly included explanatory variables. Inconsistent and inconclusive results are noted for all variables except size and listing status. Ahmed and Courtis (1999) conduct a meta-analysis of the associations between firm characteristics and disclosure by integrating 29 general disclosure studies. The purpose of their study is “to identify the overall degree of association between selected corporate attributes and disclosure levels, and to identify possible factors affecting results.” (p.37). They conduct overall and moderator variable tests based on index construction (voluntary, statutory or aggregate), explanatory variable measurement and firm country (UK or non-UK). A highly significant positive association between size and disclosure level is evident for overall and moderator tests. A positive significant relationship is also evident for listing status, leverage and profitability. They find no significant association between audit firm and voluntary disclosure.

The interpretation of the size variable in disclosure studies is ambiguous given that it can be a proxy for omitted variables. This study acknowledges the ambiguities associated with size when predicting voluntary derivative disclosures. Accordingly, size is included as a control variable. The alternative associations between size and derivative financial instrument disclosures are discussed in detail in Appendix 3: Firm Size and Voluntary Disclosure.

Explanatory variable measurement involves many permutations, particularly in relation to the size variable. Table 3.2 details explanatory variable measurements used in disclosure studies. As indicated in Table 3.2, this thesis incorporates most of these explanatory variables into the derivative financial instrument disclosure
model. The rationale for their inclusion is contained in Chapter 4 (relating a firm's need to engage in hedging activities to firm attributes) and Chapter 5 (the formal hypothesis development chapter). The measurement of the explanatory variables is detailed in Chapter 6: Research Design.

Voluntary disclosure studies also examine specific information disclosures in annual reports. A selection of such studies appears in Table 3.1 Panel B. Specific disclosure items examined include: (1) the production of additional non-mandatory financial statements such as current cost financial statements, value added statements and interim reporting (e.g. Christopher and Hassan 1996, Deegan and Hallan 1991, Leftwich et al. 1981 and Wong 1988a); and (2) the voluntary inclusion of specific types of financial information in annual reports such as segment information, cash flow reporting and pension plan information (e.g. Bradbury 1992, Clarkson et al. 1994, Mitchell et al. 1995, Percy 1999 and Scott 1994). Like their general disclosure counterparts, the studies include explanatory variables depicting size, leverage and profitability as well as context-specific variables. The inclusion of market concentration, to capture proprietary costs, and press coverage, to capture information asymmetry, extends the general disclosure models. Confirmatory to general disclosure studies' results, size is consistently statistically significant. Results for other explanatory variables are inconsistent between studies.
## Table 3.2: Summary of Independent Variable Definitions used in Voluntary Disclosure Studies

<table>
<thead>
<tr>
<th>Explanatory Variable</th>
<th>Proxy</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Panel A: Information perspective</strong></td>
<td></td>
</tr>
<tr>
<td>Financing requirement</td>
<td>Amount of equity raised by firm on 12 month period subsequent to annual report date</td>
</tr>
<tr>
<td></td>
<td>Amount of equity and debt raised by firm on 12 month period subsequent to annual report date</td>
</tr>
<tr>
<td>Shareholder dispersion</td>
<td>Number of shareholders</td>
</tr>
<tr>
<td></td>
<td>% shares not held by Top20 (or known) shareholders</td>
</tr>
<tr>
<td>Press</td>
<td>Number of press articles</td>
</tr>
<tr>
<td>Concentration</td>
<td>Firm's income after taxes/ industry's income after taxes</td>
</tr>
<tr>
<td>Profitability</td>
<td>Net profit/ net worth</td>
</tr>
<tr>
<td></td>
<td>Net profit/ net sales</td>
</tr>
<tr>
<td><strong>Panel B: Contracting perspective</strong></td>
<td></td>
</tr>
<tr>
<td>Size</td>
<td>Total assets</td>
</tr>
<tr>
<td></td>
<td>Log total assets</td>
</tr>
<tr>
<td></td>
<td>Sales turnover</td>
</tr>
<tr>
<td></td>
<td>Log sales</td>
</tr>
<tr>
<td></td>
<td>Number of shareholders</td>
</tr>
<tr>
<td></td>
<td>Log number of shareholders</td>
</tr>
<tr>
<td></td>
<td>Market value of equity (MVE)+ book value of debt (BVD)</td>
</tr>
<tr>
<td></td>
<td>Capital employed</td>
</tr>
<tr>
<td></td>
<td>Number of subsidiaries</td>
</tr>
<tr>
<td></td>
<td>Market capitalisation</td>
</tr>
<tr>
<td></td>
<td>Current assets</td>
</tr>
<tr>
<td></td>
<td>Fixed assets</td>
</tr>
<tr>
<td></td>
<td>Shareholder funds</td>
</tr>
<tr>
<td></td>
<td>Bank borrowings (applicable to Japanese studies)</td>
</tr>
<tr>
<td>Leverage</td>
<td>Debt/assets (where assets are measured as MVE + BVD or at book value)</td>
</tr>
<tr>
<td></td>
<td>Debt/equity</td>
</tr>
<tr>
<td></td>
<td>Total debt</td>
</tr>
<tr>
<td>Assets in place</td>
<td>Book value fixed assets (net of depreciation)/ total assets</td>
</tr>
<tr>
<td>Growth opportunities</td>
<td>Book value/market value equity (or assets)</td>
</tr>
<tr>
<td></td>
<td>Tobin's Q</td>
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<tr>
<td></td>
<td>Book value PPE/ firm value</td>
</tr>
<tr>
<td></td>
<td>Earnings/price</td>
</tr>
<tr>
<td></td>
<td>Depreciation/firm value</td>
</tr>
<tr>
<td></td>
<td>R&amp;D/assets (or sales or firm value)</td>
</tr>
<tr>
<td></td>
<td>CAPX/firm value</td>
</tr>
<tr>
<td></td>
<td>Variance of returns</td>
</tr>
<tr>
<td>Management compensation</td>
<td>Percentage of shares outstanding owned by managers</td>
</tr>
<tr>
<td></td>
<td>Market value of managers' share and option holdings</td>
</tr>
<tr>
<td><strong>Panel C: Other variables</strong></td>
<td></td>
</tr>
<tr>
<td>Listing status</td>
<td>Multiple/ non-multiple</td>
</tr>
<tr>
<td></td>
<td>Listed/ non-listed</td>
</tr>
<tr>
<td></td>
<td>SEC listing/ non-SEC</td>
</tr>
<tr>
<td>Audit firm</td>
<td>Big firm/ non- big firm</td>
</tr>
<tr>
<td>Parent Company Relationships</td>
<td>Number of subsidiaries owned by the parent</td>
</tr>
<tr>
<td></td>
<td>Number of subsidiaries with a foreign parent company</td>
</tr>
<tr>
<td>Market risk</td>
<td>Beta</td>
</tr>
<tr>
<td>Industry type</td>
<td>Resource/ non-resource</td>
</tr>
</tbody>
</table>

*Explanatory variable included in the model of voluntary derivative financial instrument disclosures tested in this thesis.*
A review of the extant voluntary disclosure literature using information and contracting perspectives suggests that their explanatory power is weakened in the absence of environmental considerations. Adhering to a non-disclosure policy in the absence of an impetus suggests that agency and/or information costs confronting the firm are weak. If managers believe a reduction in agency cost is possible, disclosures will be forthcoming. This implies a need to examine voluntary disclosure strategies using alternative theories. Examining the social and environmental disclosure literature suggests that legitimacy theory is an appropriate complementary theoretical framework. Legitimacy theory is discussed in subsection 3.214. It informs this study as to the inclusion of additional explanatory variables, capturing legitimacy and reputation concerns of individuals and firms, when examining associations between firm characteristics and voluntary disclosures.

3.214 Discretionary Disclosure: A Legitimacy Perspective

The preceding analyses of factors affecting discretionary disclosures address the impact of disclosure on active market agents but fail to consider a more embracing impact – the impact on society in general. General equilibrium economic analysis and economic consequences analysis are frameworks for understanding and valuing the role of accounting reports at the broader societal level. The former framework involves the analysis of information in a market context. It seeks to identify the role of information in the allocation of resources between all market participants. The latter is concerned with understanding the value of accounting reports, and the information contained therein, on the decision-making behaviour of a range of market participants including managers, shareholders, government, investors, unions and creditors.

Studies of economic consequence analysis are generally concerned with identifying impacts on corporate managers' decisions. Analyses of economic consequences are grounded in costly contracting theory with decision-making explained by management compensation systems, debt contracts and the impact on the firm's expected cash flows. Such a framework assumes that individual actions are driven by self-interest.
Cooper and Sherer (1984) recommend a broader approach to valuing the information in the corporate report—a political economy approach. This removes the preoccupation with the shareholder/manager class permitting an examination of the role of accounting reports in distributing income, wealth and power in society. The tenet of political economy theory is the existence of a social contract. A firm is assumed to be influenced by, and have influence over, the society in which it operates. Accordingly, disclosure policies are strategies by which firms can influence relationships with their stakeholders (including society, industry bodies, investors, and interest groups).

Legitimacy theory and stakeholder theory are derived from political economy theory. Legitimacy theory and stakeholder theory share similarities, necessitating them to be treated as coexisting. Gray et al. (1995) states that the theories are overlapping perspectives “which are set within a framework of assumptions about political economy”, implying that the differences are “in levels of resolution of perception rather than arguments for and against competing theories as such” (p.52). Legitimacy theory is defined as a systems oriented theory given it permits a focus on the role of information and disclosure in the relationship(s) between organisations, the State, individuals and groups (Gray et al. 1996). A firm’s legitimacy can be assessed using any combination of the following three spheres: (1) its economic viability; (2) its adherence to laws; and (3) its congruency with generally accepted social values and norms. This study adopts the view that all three spheres are used to assess legitimacy. Accordingly, the definition of legitimacy suitable to this investigation is that by Suchman (1995):

"a generalised perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs and definitions"(p.574).

If a firm’s value system differs from the larger social value system incorporating the entity, a legitimacy gap exists. Legitimation serves to limit the disparity

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53 O’Donovan (2000) explores differential aspects of legitimacy and stakeholder theories, identifying three areas of differentiation:

1) Legitimacy theory focuses on managing stakeholders need or demands to ensure legitimacy whereas stakeholder theory is not concerned with the management of the relationships;

2) Legitimacy theory is concerned with social issues rather than stakeholder specific issues; and

3) The identification of stakeholders in legitimacy theory is based on those able to confer or withdraw legitimacy whereas for stakeholder theory it is based on the most powerful stakeholder in relation to the issue.
between the value systems of the organisation and society. Organisations in which values, outputs or operational methods are at variance with norms will tend to alter their values, outputs or operational methods to ensure conformity (Dowling and Pfeffer 1975).

Figure 3.2 provides a diagrammatical perspective of how legitimacy theory is used to explain voluntary disclosure. The diagram illustrates the key tenets of the theory, namely: (1) the existence of a social contract; (2) the emergence of a legitimacy threatening issue requiring management; and (3) how and why firms respond to the issue. The following paragraphs address each of these tenets.

Legitimacy and reputation are inexplicitly linked. To be reputable, an organisation is required to be legitimate and an organisation could not be regarded as legitimate if it is not reputable. The notion of a firm's legitimacy is perception based. Perceptions are diverse across various stakeholder groups and not stagnant. This implies that to be designated as legitimate, a firm needs to: (1) determine community expectations; (2) identify important stakeholders; and (3) manage the potential legitimacy gap.

Legitimacy threatening issues are those that cause an increase in public pressure on the firm. For the issue to be relevant to a firm it must have a firm specific impact, be controversial and expectation gaps must exist (Wartick and Mahon 1994). Management must be cognisant of legitimacy threatening issues. The awareness of such issues can be created through the media\footnote{Brown and Deegan (1999) examine annual report environmental disclosures and media attention for a sample of Australian firms. Their findings suggest a causal relationship between media attention and increased community concern for particular issues.} that in turn influences firms' disclosure strategies. O'Donovan (2000) interviews senior executives from large Australian companies and finds support for the media's role in identifying community expectations in relation to environmental disclosures. A legitimacy gap can also develop as a consequence of regulatory or institutional pressures (Deegan and Rankin 1996), interest group pressures (Deegan and Gordon 1996, Tilt 1994), evolving social awareness (Patten 1992) and/or corporate (industry) crises (Deegan, Rankin and Voight 2000).
Figure 3.2: Voluntary Disclosure: A Legitimacy Theory Perspective

Social Contract

Attention to issue due to:
- media
- legal requirement
- community views
- political issue
- power & influence of institutional process
- influence of pressure groups
- personally held social values and beliefs of manager

Stakeholder Theory

Legitimacy Theory

Legitimacy threat: Issue requiring management

Corporate responsiveness (The process of legitimation)

Theories of corporate responsiveness
1. Institutional
2. Impression management
3. Resource dependence
All incorporate aspects of legitimacy

Purpose of response
- Conform with social values/expectations
- Alter social values/expectations
- Alter social perceptions of firm
- Avoid
- Enhance legitimacy
- Maintain legitimacy
- Repair legitimacy

Communicate messages to manage legitimacy via annual report disclosures
In this study, the media attention given to substantial firm losses associated with derivative activities (identified in Chapter 2, Table 2.2), is the catalyst influencing stakeholders’ concerns. Further shaping of community expectations occurs due to institutional and interest group pressures (the ASCT Industry Statement) and regulatory pressure (the ASIC’s unconditional support for this statement). These matters both received media attention heightening community awareness derivative activity transparency demands.

In the quest for legitimacy, a firm must pay particular attention to the expectations of important stakeholders. Legitimacy is acquired when there is endorsement and support for a firm from audiences that are critical to the firm’s reputation and visibility (Pfeffer and Salanick 1978).

The identification of relevant and important stakeholders is critical (Lindblom 1994), and only certain stakeholders have the standing to confer legitimacy. The identification process should be based on the attributes of power, legitimacy and urgency (Mitchell et al. 1997). Power refers to the ability of a group to do something that otherwise would not have been done. For example, a regulatory body has power over organisations and can confer legitimacy (regulatory endorsement). The second attribute, legitimacy, acknowledges that if a group is to make demands of management, the group must themselves be perceived as legitimate. The final attribute, urgency, is described as the immediacy of the stakeholders’ call for action. In this study, stakeholder groups possessing these attributes are the ASCT, professional accounting bodies and the ASIC. Collectively these groups have the ability to exert power over firms’ financial reporting practices, are legitimate bodies and required firms’ immediate attention to derivative financial instrument transparency concerns. Furthermore, these professional bodies serve as the vehicle to reflect other stakeholders’ views and concerns. Consequently, the expectations of these professional bodies require attention. The appropriate response from a firm desiring to maintain and/or enhance legitimacy is to initiate a derivative disclosure strategy. Non-conformity with institutional demands and peers disclosing derivative financial instrument information will affect a firm’s reputation.

Legitimacy requires managing and the purpose of management responses may be to gain, maintain or repair legitimacy. Alternative theoretical frameworks are used
to explain the processes of managing legitimacy – institutional, impression management and resource dependence theories. Institutional theory contends that legitimacy is achieved by conforming to current conventional practice and external pressures with a de-emphasis on the role of self-interest (DiMaggio and Powell 1983, Elsbach 1994). Institutional conformity refers to a firm’s strategies, structures or procedures and processes being isomorphic with those of legitimate organisations at a given point in time. In turn, isomorphism confers legitimacy (Deephouse 1996). Impression management theory states that an individual’s personal beliefs, combined with managerial discretion, determine tactics employed to manage organisational legitimacy. Comparing these two theories, institutional theory focuses on legitimacy management from the perspective of an organisation whereas impression management is premised on legitimacy management from an individual’s perspective. The theories are interrelated given that what may begin as a manager acting in self-interest culminates in the achievement of long term institutional goals (Elsbach and Sutton 1992). In addition, individual managers are able to influence adherence to institutional norms. Resource dependence theory relates organisational legitimacy to the management of relationships with groups that control resources central to firms’ operations.

Carpenter and Feroz (1992) use a case study approach to investigate the institutional, organisational and economic factors preceding, motivating and affecting the decision of the state of New York to adopt GAAP. To the author’s best knowledge, this is the only study applying alternative theoretical frameworks incorporating institutional theory to a financial reporting issue. The authors note the following:

"Institutional theory is in a state of infancy but offers a strong theoretical base for expanding understanding of accounting choice. The theoretical perspectives provide insights that are useful in understanding accounting choice but none is adequate alone in explaining the complex motives, conditions, processes and constraints that influence accounting choice. Economic consequence theory, political science theory on power and politics and institutional theory should be viewed as complementary rather than competing theories. The general framework of institutional theory provides a vehicle in which these complementary perspectives can be integrated." (p.638)

55 The inter-relationship between these theories possibly explains the lack of, and/or ambiguous, distinction between these theories in the extant literature.
Central to the process of legitimacy management is the need for communication. Voluntary disclosures in financial statements play a critical communicative role. This study investigates the symbolic response of management, derivative financial instrument disclosures in annual reports, to a legitimacy threat. The thesis uses institutional theory as the means by which legitimacy is managed. This is further explored and developed in Chapter 5: Hypothesis Development.

In considering voluntary disclosures from a social product perspective, references have been made to the extant literature. Predominantly, the concept of legitimacy is used in the accounting domain to explain social and environmental reporting practices in firms' annual reports. The findings generally support the view that large firms and firms operating in socially or environmentally sensitive industries engage in greater disclosures (Belkaoui and Kaprik 1989, Cowen et al 1987, Deegan and Gordon 1994, Patten 1991). Evidence also supports arguments that smaller firms try to improve disclosure standards using larger firms' disclosures as models.

Early studies operationalise legitimacy using firm size and industry variables. Specific events are used to determine the explanatory power of legitimacy as a catalyst for social and environmental disclosures (Guthrie and Parker 1989, Patten 1992). Deephouse (1996), studying the relationship between isomorphism in commercial bank strategies and legitimacy, develops alternative operational definitions of legitimacy. The study identifies two types of legitimacy: (1) regulatory endorsement; and (2) public endorsement. Regulatory endorsement is proxied by enforcement actions against the banks, and the number of articles in the print media is the measure for public endorsement. Firm attributes of age, size and performance are also employed.

Alternative voluntary disclosure measurement classification systems are evident in the environmental and social studies extant literature. To measure disclosure levels, disclosure indices (weighted and non-weighted) and content analysis (word, sentence, page and picture counts) are used.

The main contributions of this thesis to the extant empirical voluntary disclosure studies set in a legitimacy theory framework are:

(1) The study overcomes the perceived dangers in using annual reports to make a connection between voluntary disclosure and legitimacy. The perceived
dangers are the inability to identify what impulse triggers the response, the limit to the amount of information that can be provided in this setting, and the fact that information is released beyond the annual report domain (Woodward, Edwards and Birkin, 1996). This study overcomes these inherent dangers given that there is a plausible explanation as to what impulse prompted the response (media attention, interest groups and institutional pressure), recommended disclosures have been issued (by the ASCT and accounting standard setting bodies), the information demanded is quasi regulatory (supported by ASIC), and derivative financial instrument information is unlikely to be communicated in a forum other than the financial report.

(2) Difficulties associated with collecting, evaluating and integrating the diversity in the information needs of diverse groups make it problematic to incorporate them into the formulation and understanding of managers’ disclosure strategies. However, the environment regarding the demand for derivative disclosures is a rich setting for attempting this integration given that the preferences of multiple stakeholders are aligned with respect to derivative financial instrument transparency. Applying institutional theory is effective as the disclosure demands are not conflicting or inconsistent. Similar to Carpenter and Feroz (1992), the thesis incorporates legitimacy and institutional theory as explanations of disclosure policies in an unregulated environment. Such an approach provides insights not evident if the analysis is restricted to costly contracting and information signalling theories. The study also develops issue-specific constructs of legitimacy as alternatives to size and industry that appear in the extant literature. The ability to operationalise and apply legitimacy and institutional theories using new constructs increases the number of hypothesised variables that are used to explain voluntary disclosures.

(3) This thesis applies legitimacy and institutional theories in an alternative setting. It is the only Australian study extending the application of legitimacy theory beyond environmental and social disclosures to a financial reporting disclosure issue.
3.215 Summary of Disclosure Model

Subsections 3.211 through 3.214 identify factors managers need to consider when formulating disclosure strategies. Disclosure is socially responsible, aligns the firm's intrinsic and extrinsic values, reduces information asymmetry and has the potential to reduce agency costs. Disclosures also incur costs. The direct cost of disclosing is the production and dissemination costs, but indirect costs also need to be considered in the strategy formulation. Proprietary costs and political costs can outweigh the benefits of disclosing. The opposing nature of these factors and difficulties associated with their quantification complicates management's task in formulating a disclosure strategy and impedes the interpretation of non-disclosure by the market. Is information withheld because it is bad news or do the costs of disclosure exceed the perceived benefits?

Drawing from the literature, preceding discussions suggest the disclosure model can be posited as follows:

\[
\text{DISCLOSURE} = f (\text{directional nature of the news} +, \text{proprietary costs} -, \text{preparation and dissemination costs} -, \text{information quality} +, \text{agency costs} +, \text{political costs} ?, \text{legitimacy and reputation concerns} +)
\]

\( (+ = \text{positive}, - = \text{negative}, ? = \text{ambiguous})\)

Hypotheses related to the disclosure model are developed in Chapter 5: Hypothesis Development. The operational definitions of the variables to capture the costs/benefits identified in the model, as well as the dependent variable measurement, are detailed in Chapter 6: Research Method.

The remaining discussion on voluntary disclosure focuses on derivative financial instrument disclosures. Subsection 3.22 reviews the existing empirical studies and subsection 3.23 discusses the usefulness of these disclosures in financial statements.
3.22 Empirical Studies of Derivative Financial Instrument Disclosures

This section reviews the literature examining derivative financial instrument disclosures. Subsection 3.221 reviews Australian studies, subsection 3.222 reviews the international literature (predominantly US based) and subsection 3.223 identifies the contributions of this study to the extant derivative financial instrument disclosure literature.

3.221 Australian Evidence

Previous research investigating derivative financial instrument disclosures of Australian firms restricts the examination to single period disclosures (Berkman, Bradbury, Hancock and Innes 1997, Ernst and Young 1997, and ASIC 1998), multiple period disclosures for specific industries only (Taylor and Redpath 2000), or internal disclosures (Matolcsy and Petty 2001). Berkman et al (1997) examine the derivative disclosures in the 1994 (1995) annual reports for New Zealand (n=116) and Australian firms (n= 195) respectively. The disclosures by Australian firms are far less than those of New Zealand firms, a factor attributable to mandatory reporting requirements operating in New Zealand. The study reports that 52% of Australian firms are non-users on the assumption that no reporting equates to non-use. Such an assumption is likely to understate the number of firms using derivatives, as a non-disclosure strategy in a voluntary disclosure regime does not necessarily mean that the firm is not a derivative instrument user. The study identifies the method of accounting, disclosures of contract and fair values, and the presence of comparative figures for foreign currency, interest rate and commodity derivatives. The findings suggest a lack of detail in the disclosures given that it is not generally possible to identify firms' accounting treatments for foreign currency, interest rate or commodity derivatives.

Ernst and Young (1997) survey the 1996 annual reports of 141 of the Top 200 Australian companies. The primary purpose of their survey is to examine the extent to which firms' disclosures will have to improve to satisfy the AASB1033 disclosure requirements. Of the 141 companies included in the survey, 72% are reported as disclosing derivative financial instruments. In respect of derivatives only, the survey finds 52% of the companies do not disclose the objectives for holding such instruments. Both studies (Berkman et al. 1997 and Ernst and Young
1997) conclude that there is considerable scope for improved disclosures. Even after the reporting requirements became mandatory the ASIC surveillance unit's review of selection of 1998 financial reports, also find a lack of compliance with AASB1033 reporting requirements.

Taylor and Redpath (2000) undertake a cross sectional analysis of derivative disclosures by Australian firms. The study examines disclosures pre (1996) and post (1998) AASB1033. The study's aims are not dissimilar to this thesis, namely the relationship between the extent of mandatory and voluntary disclosures and the determinants of voluntary disclosures. The determinants of voluntary disclosures are restricted to two theories: (1) political costs (as represented by size and leverage); and (2) the proprietary nature of the information (captured by the firm's investment opportunity set). Support is found for the proposition that mandatory disclosures generate parallel increases in associated voluntary disclosures (measured using both a word count and item count of voluntary disclosures). However, the findings suggest that very few companies are voluntarily complying with the requirements of AASB1033 in the period prior to its enforcement. A positive (negative) relationship between size (investment opportunity set) and voluntary disclosure is evident. The relationship between leverage and voluntary disclosure is more ambiguous given that the relationship is significant for 1998 but not 1996.

3.222 International Evidence

International studies of discretionary derivative financial instrument disclosures are also limited in both number and scope. Until recently, the majority of studies concentrate on financial institutions' disclosures. The Basle Committee on Banking Supervision and Technical Committee of IOSCO annually reports on the trading and derivatives disclosures of major G-10 banks and securities' firms. The annual reports of 67 banks and 11 securities firms domiciling in 11 countries (excluding Australia) and spanning the 1993-1997 period are examined. Reviewing the Management Discussion and Analysis Report and Annual

56 The study does not explore that size, leverage and investment opportunity set can be proxies for costs other than political costs (e.g. agency costs of debt, financial distress costs, and information production costs).
Financial Statements, subjective judgment is used to determine the presence of particular disclosures. A frequency count, sub categorised by country of domicile, is provided for each item of disclosure. The findings support considerable improvement in the amount, detail and clarity of disclosures over the 1993-1997 period, particularly in relation to disclosures of market values, counterparty credit quality and concentrations, market risk information, and operational and legal risks.

Kuhner's (1997) survey of fifty 1995 annual reports of financial institutions domiciled in 15 countries (excluding Australia) finds the quantity and quality of market risk disclosures differ dramatically between institutions. The study lists 8 categories of disclosures representing market risk and uses a dichotomous classification to record their presence (absence) in the annual report. The paper reports the number of disclosing firms within each category. The author states that attempts are made to explore the relationships between disclosure levels and figures characterising business activity, business success and financial stability, however no relationships are reported.

Peters (2000) undertakes a more definitive examination of the influence of proprietary costs on derivative disclosures. The study focuses on commodity derivative disclosures and examines whether voluntary disclosure decisions are consistent with firms reacting to perceived proprietary cost and benefit influences found in their competitive environments. The analysis is conducted on 178 non-financial US firms. The study examines proprietary costs associated with industry product markets (industry concentration, a firm's use of derivatives to purchase raw materials and the extent of product market competitors also using derivatives) and commodity derivative markets (volume, market concentration, presence of commodity speculators and large traders). Size, debt structure and issuance of capital are firm characteristics investigated to assess the impact of the perceived disclosure benefits. The findings suggest that the competitive environment in which commodity firms operate and the perceived benefits of the disclosure

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57 Items of disclosures are grouped according to whether they constitute qualitative information (19 items), gross position indicators (10 items), or credit risk (16 items).
58 Kuhner's (1997) disclosure categories are: (1) division of trading profits according to risk categories, (2) nominal values and market values, (3) maturity profiles, (4) bank supervisory market risk position, (5) sensitivity analysis, (6) value at risk measures, (7) distribution of realized profits and losses and (8) gap analysis.
influences disclosure strategies. Less disclosures occur when the firm’s derivative positions involve the procurement of raw materials, the firm operates in more concentrated industries and the firm trades in commodity derivative markets with less volume and more speculators and large traders. Firms disclose more when they have recently issued capital.

A study of particular relevance to this study is that by Roulstone (1999). This research compares disclosures of 25 SEC registrant firms prior to (1996) and after (1997) the adoption of Financial Reporting Release 48 Disclosures of Accounting Policies for Derivative Financial Instruments and Derivative Commodity Instruments and Disclosures of Quantitative and Qualitative Information About Market Risk Inherent in Derivative Financial Instruments, Other Financial Instruments and Derivative Commodity Instruments (FRR No. 48). This SEC release is designed to supplement the disclosure requirements of SFAS119 Disclosure about Derivative Financial Instruments and Fair Value of Financial Instruments. The research questions addressed are:

1. How did registrants’ 1997 accounting policy and market risk disclosures compare to their 1996 disclosures?
2. Did registrants’ FRR No. 48 disclosures accomplish the SEC’s objectives?
3. Did registrants’ disclosures display any systematic compliance weaknesses?

Roulstone (1999) finds greater disclosures in 1997 relative to 1996, however he notes a lack of consistency and clarity in the information presented. The study concludes that the major weaknesses of the disclosures are the lack of detail pertaining to market risk measures and the lack of discussion on firms’ risk management activities.

3.223 Contribution to Extant Derivative Financial Instrument Disclosure Literature

This study makes several contributions to the existing empirical evidence on derivative financial instrument disclosures by Australian firms. Namely:

1. The study’s finding will be more generalisable. Taylor and Redpath (2000) restrict their sample to thirty Australian mining companies. This thesis
examines derivative disclosures for a considerably larger sample of companies (n=199) operating across most industries.

(2) This study permits a more extensive examination of time series variation in voluntary disclosures of derivative financial instruments. The use of a longer time window (1992-1997) enables shifts in voluntary disclosure strategies to be identified and incorporates a time period (1995) during which the industry standard is released. Given that this is a multiple period study examining an accounting disclosure issue, as distinct from a recognition issue, it contributes to understanding firms' responses to information demands in a changing regulatory environment. The triangulation associated with the derivative financial instrument disclosure pronouncements combined with the ability to delineate the reporting periods into voluntary and coercive disclosure regimes facilitates an examination of the information that is provided in the absence/presence of quasi and actual regulation.

(3) The study uses a much larger set of explanatory variables to examine determinants of voluntary derivative disclosures. It incorporates variables representing information, contracting and legitimacy theoretical frameworks.

(4) This thesis addresses similar research questions to those investigated by Roulstone (1999), but the precipitator of derivative disclosure changes is a professional body's, rather than a corporate regulator's, pronouncement. This addresses an issue that remains relatively unexplored, namely the ability of a professional body, other than an accounting related organisation, to influence the financial report disclosures. This is achieved by examining whether firms' disclosures accomplish the ASCT's objectives and whether there are systematic weaknesses in firms' disclosures.  

59 It can also be argued that the study is examining whether firms' disclosures accomplish the ASIC's objectives given that it unconditionally supported the ASCT Industry Statement.
3.23 Usefulness of Derivative Financial Instrument Disclosures

Underlying voluntary disclosure is the rationale that corporate annual reports are useful and information contained in the reports will be value relevant. The question of value is primarily examined from a private value perspective focusing on either the usefulness of annual reports to individual user groups or on aggregate shareholder behaviour. Aggregate shareholder response studies involve share price reaction and value relevance studies (Barth 2000).

Stock price reaction studies examine share price behaviour surrounding pronouncement events associated with a mandated or discretionary accounting policy or disclosure choice. This approach to identifying value relevance is questionable since capital market reaction studies are joint tests of market efficiency and asset pricing models. Furthermore, capital market allocation mechanisms, other than the capital market, exist (Cooper and Sherer 1984). Value relevance studies examine whether differences in market and book values of common equity can be explained by additional disclosures or recognition of items previously unrecognised. This methodology, discussed below, has been used to examine the value relevance of financial instrument disclosures.

The remaining stage in the development of accounting for derivative financial instruments, given the disclosure and presentation issues are enshrined in law, is the measurement issue: How are the instruments to be recognised and accounted for in financial statements? Chapter 2 discusses the accounting pronouncements focusing on financial instruments and it appears the standard setting authorities are ascribing to the use of fair value accounting for these instruments. It is necessary to make an *a priori* argument for value relevance of derivative financial instrument disclosures to justify one of the perceived benefits of disclosing, namely favourable capital market reactions.

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60 The major conclusions emanating from voluntary corporate disclosures are that disclosures do have an impact on: security prices and volumes of trade, analyst following, stock liquidity, shareholder mix, corporate governance, confidence of suppliers and customers, perceptions as to value, and the alignment of a company's intrinsic and extrinsic value. This thesis does not review the literature from which these conclusions are drawn as the focus is on the factors driving the disclosure rather than the actual consequences of the disclosure. An overview of this literature can be found in Lev (1992).

61 Hines (1984) notes that no market reaction can be due to the information being confirmatory, the presence of a learning effect, lack of homogeneity in users/firms and managers, and the cognitive process of information interaction.
A brief review of empirical studies examining the notion of value relevance in relation to financial instruments is pertinent to justify this study’s assumption that the information is useful. Stock price reaction, value relevance and attitudinal studies are used to ascertain if fair value information has real economic consequences. A review of this literature is contained in subsections 3.231, 3.232 and 3.233 respectively.

The results of the cited studies justify the assumption that derivative financial instrument disclosures are value relevant and disclosures are warranted. Emerging in the literature is the investigation of proprietary costs of disclosures and the magnitude in the reduction in information search costs afforded by disclosures. Further examination of firm characteristics leading to a greater propensity to disclose derivative financial instrument information will partially assist in resolving these unanswered questions.

### 3.231 Stock Price Reaction Studies

Stock price reaction studies are concerned with whether an event conveys information precipitating a reappraisal of share price. Cornett, Rezaee and Tehranian (1996) examine price records for 416 banks over the 1989-1993 period. They identify 23 events associated with fair value accounting pronouncements during this period. Measuring average abnormal performance, 7 events produce significant negative stock price movements. These events signal an increased probability of fair value accounting requirements. Five events result in significant positive stock price movements and these events signal a reduced likelihood of enacting fair value accounting. This suggests that banks’ stock prices are affected by fair value disclosures hence rendering the disclosures value relevant. However the direction of the change in prices imply that the costs of disclosure exceed the benefits. Confirmatory results are obtained by Beatty’s et al. (1996) study of US share price reactions to the passage of SFAS115.
3.232 Value Relevance Studies

The past few years have seen empirical studies concerned with the value relevance of financial instrument disclosures, particularly by financial institutions, emerging in the academic literature.\(^{62}\)

Barth, Beaver and Landsman (1996) and Eccher, Ramesh, and Thiagarajan (1996) examine the value relevance of banks' fair value disclosures under SFAS107. The former study utilises a sample of 136 US banks for 1992 and 1993 and the latter is based on fair value disclosures of 296 (328) banks in 1992 (1993). Barth et al. (1996) use the difference between the firm's market and book value of common equity as the dependent variable whereas Eccher et al. (1996) use deflated level regressions with the deflator being the book value of equity.\(^{63}\) The independent variables include: (1) variables based on SFAS No. 107 disclosures; (2) variables related to non-SFAS107 assets and liabilities; (3) potential competitors to SFAS107 variables; and (4) proxies for omitted variables. The results of both studies suggest that financial instrument fair value disclosures are value relevant with respect to estimates for securities, net loans, and long-term debt. The findings, in relation to the value relevance of off balance sheet instruments, are contradictory. Barth et al. (1996) find no evidence to suggest their value relevance, however Eccher et al. (1996) find the disclosures do provide value relevant information.

The contradictory findings could be due to ambiguities in fair value disclosures. SFAS119 removes some of the vagaries by extending the disclosures to include identification of the purpose for which derivative financial instruments are used, specification as to whether the aggregated fair value of this derivatives portfolio is

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\(^{62}\) In these studies, if the coefficient on the item of interest is as predicted and statistically significant, the item is deemed to be value relevant. Skinner (1996) argues that the interpretation is conditional upon econometric issues centered on the omission of correlated variables and the correct specification and measurement of other value relevant variable included in the regression. Furthermore he claims that the usefulness is inhibited by what the value disclosures do not tell and beliefs about the sophistication of market participants. The former argument is based on the fact that disclosures may not be the primary (or only) source of information. If the information were available from alternative sources it would not necessarily be value relevant. With respect to the sophistication of market participants, a coefficient that is not statistically different could have the following interpretations: it is irrelevant information; the market is sophisticated and the disclosures are not relevant; the disclosures are not capable of proper processing (this could be due to the information being too complex or incomplete); and the disclosures may be disregarded in the belief that they are unreliable or not capable of verification.

\(^{63}\) Barth and Kallapur (1996) argue that deflation of the variables can produce spurious inferences.
a net asset or liability and disaggregated information for fair values by category of instruments. Venkatachalam (1996) complements the previously mentioned studies by examining whether SFAS119 fair value disclosures for derivatives are reflected in share prices, whether notional amounts for derivatives provide incremental information, and how derivative values in conjunction with fair values for on balance sheet items assist in understanding banks' risk management techniques. The sample comprises 99 banks and covers the 1993 and 1994 reporting periods with the dependent variable being the market value of equity at year-end rather than the difference in the market and book value of equity (scaled or unscaled). The primary dependent variables are as per Barth et al. (1996) and Eccher et al. (1996) with the exception of off-balance sheet instruments being divided into 2 categories (derivative financial instruments used in asset-liability management and other), and the inclusion of the book value of other balance sheet assets and liabilities. Venkatachalam (1996) findings support the value relevance of fair value estimates of off-balance sheet derivative financial instruments. Schrand (1997) expands the application of value relevance studies to derivative financial instrument disclosures by regressing changes in firm value on the market value of the firm's on balance sheet portfolio in addition to a measure of derivatives use and assuming that cross sectional variation does exist in the effect of derivatives on firm value. Using a sample of savings and loans firms Schrand (1997) finds an association between disclosures and the market's perception of the impact of derivatives on interest rate sensitivity implying the value relevance of such disclosures. Matolcsy, Preda and Stokes (1998) is the only study known to the author examining the value relevance of derivative disclosures by Australian firms. The study is confined to disclosures by Australian banks (n=11) during the 1994-1996 voluntary reporting periods. An integrated model is used to test for a relationship between the market value of equity and the voluntary disclosures. The findings suggest that after controlling for on-balance sheet disclosures, the voluntary disclosure of off-balance sheet derivative financial instruments is value relevant.
The paper concludes with suggestions for future research. This thesis addresses all of the areas they identify as worthy of further examination, namely:

(1) The incentives for making the voluntary disclosures;
(2) Any changes in patterns over time; and
(3) Disclosure practices of companies from other industries.

### 3.2.3 Attitudinal Surveys

Halabi and Kamiya (1998) survey Australian institutional investors to ascertain if derivative activity of non-financial firms is an important variable to consider when analysing a firm. This study provides some casual empiricism in relation to the relevance of derivative disclosures to one category of general-purpose financial report users. The responses (n=66), based on sampling institutional investors across twenty organisations, suggest an affirmative answer to the research question. In response to a closed survey question on the importance of derivative activity of non-financial firms, 84% of respondents stated that they regard derivative activity as important when analysing firms.

### 3.3 Summary and Conclusions

This chapter reviews research that examines firms' voluntary disclosures. Tests of voluntary disclosure strategies are grounded in economic consequence theories, in particular information signalling and costly contracting frameworks. The empirical results generally support contracting related variables as factors motivating financial disclosure strategies and firm size being positively related to disclosures. As per the extant research, information and contracting effects are used in this study to explain firms' voluntary disclosures.

Social and environmental voluntary disclosures tend to be explained within a legitimacy theory framework. This study contributes to the literature by capitalising on the unique Australian environment surrounding the regulation of derivative financial instrument disclosures. This environment facilitates the use of

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64 Justification for using savings and loan firms is based on these firms possessing assets and liabilities sensitive to interest rates, the use of derivatives by such firms and the regulatory requirement of these firms to report derivative usage.

65 For the purpose of the study, institutional investors are limited to fund managers and analysts of bank trust departments.
a legitimacy paradigm, in addition to contracting and information theories, to explain managers' disclosure strategies.

The chapter reviews the extant literature on Australian firms' derivative financial instrument disclosures. The evidence suggests that disclosure practices have changed over the 1996-1997 period. However, the studies are restricted to a single year, single industry and/or single theoretical framework. This thesis aims to fill a void in the area of discretionary reporting of derivative financial instruments by concentrating on non-financial institutions, examining disclosure levels longitudinally and exploring relationships between the disclosures and a comprehensive set of firm characteristics.

The extant voluntary disclosure literature informs the development of testable hypotheses (Chapter 5: Hypothesis Development). Theoretical models of firms' hedging activities also inform hypotheses investigated in this thesis. This literature, and its relevance to this study, is reviewed in Chapter 4: Theoretical Models of Corporate Risk Management.
CHAPTER FOUR: THEORETICAL MODELS OF CORPORATE RISK MANAGEMENT

4.1 Introduction

Chapter 2 provides an historical perspective of accounting regulation governing derivative financial instrument disclosures by Australian firms. Chapter 3 provides the theoretical underpinnings for this thesis and reviews the extant voluntary disclosure literature. This chapter develops the theoretical framework used to explain the cost/benefit implications, for preparers of financial statements, of the regulated disclosures. It explores theoretical models and empirical testing of corporate financial risk management. Understanding the arguments rationalising firms' hedging is important to the hypothesis development contained in Chapter 5. Identifying industry or firm characteristics associated with hedging assists in predicting firms most likely to be engaging in hedging activities. This enables the identification of firms likely to be using derivative financial instruments. These firms should have a greater propensity to disclose derivative information relative to firms with less need to engage in hedging activities.

Many firms are exposed to price risk and engaging in hedging activities is one means of controlling this risk. Derivative financial instruments feature significantly in firms' hedging activities. The primary purpose of using derivative financial instruments to hedge is discussed in subsection 2.32 of Chapter 2. If capital markets are perfect, hedging activities do not create firm value. This is discussed in section 4.2. However, in the absence of perfect markets, hedging can be value enhancing for firms. Sections 4.3 through 4.6 identify the factors associated with a need for greater hedging activity. Section 4.7 examines the costs/benefits imposed on firms by mandated derivative financial instrument disclosures. Section 4.8 summarises and concludes the chapter.

4.2 Hedging Activities and Firm Value in Perfect Markets

The primary objective of firms, as depicted in equation 4.1, is the maximisation of the expected present value of cash flows, \( E(V) \).
Chapter 4 - Theoretical Models of Corporate Risk Management

\[ E(V_j) = \sum_{t=0}^{\infty} \frac{E(NCF_{j,t})}{(1 + r_j)^t} \]  
(Equation 4.1)

where:

\[ E(NCF_{j,t}) = \text{Expected net cash flows for firm } j \]

\[ r_j = \text{Weighted average cost of capital/ Required rate of return for firm } j \]

To increase firm value requires either an increase in the expected net cash flows and/or a reduction in the discount rate applied to the cash flows. If hedging activity impacts upon either of these variables, firm value is affected.

As discussed in Chapter 2 section 2.2, hedging activities alter liquidity, credit, and/or price-related risks. Portfolio theory is premised on such risks having no impact on firms' discount rates given that the risks constitute diversifiable risks that are not priced by market participants. Accordingly, firms' hedging activities should be non-value creating.

"Finance theory implies that stock market investors are concerned not with the total variability of the firm's cash flows but only with the co-variability of those flows with the performance of the economy as a whole. Finance theorists have therefore maintained that reducing risks at the corporate level that are diversifiable at the portfolio level does not benefit stockholders. Consequently, the argument goes, most company specific risks, provided they do not significantly raise the prospect of bankruptcy, can be managed more efficiently by stockholders." Shapiro and Titman (1985), p. 216.

Theoretically, a firm's hedging activities cannot be value creating given that individual investors have the capacity to replicate the hedging activity within their portfolio of investments. However, the substantial hedging practices of firms provide anecdotal evidence that managers perceive hedging activities as value enhancing. Given portfolio theory's assertion that total risk should not affect investors' required returns, the creation of value must be attributable to either a violation of the perfect market assumptions central to portfolio theory and/or the impact of hedging activities on firms' expected net cash flows.

A violation of perfect market assumptions reduces the investor's ability to replicate the hedging activities of the firm. Hedging undertaken by the firm can be more effective and produce cost efficiencies not available to individual investors. Accordingly, firm hedging can be a value enhancing activity. Extant research emerging on the reasons why corporations should undertake certain risk
management policies is evolving along certain lines (Raposo 1999). Theories developed and subsequently empirically tested include:


2. Hedging necessitated by a risk averse owner manager, whose stake in the firm is not fully diversified (DeMarzo & Duffie 1991, Ljungqvist 1994);


Sections 4.3 through 4.6 review the literature associated with the development and empirical testing of models of corporate risk management. Empiricists, until recently, relied on survey data and/or relatively crude data to differentiate between firms that do (do not) use derivative instruments. Consequently, the empirical results are ambiguous. The theoretical models explaining risk management are not consistently supported. Furthermore, the results are not consistent across the studies. Canil and Rosser (2000) is the only study to empirically test the theoretical models in the Australian environment.

4.3 Hedging Activities and Firm Value in an Imperfect Market

Financial economic theory suggests that hedging can be firm value enhancing in the presence of market imperfections. Imperfections identified in the literature as explanations for firms' hedging activities include taxes (in particular progressive effective corporate tax rates), expected financial distress costs, and transaction costs. Referencing empirical work, subsections 4.31 through to 4.33 describe these imperfections and the impetus they provide for firms' hedging activities.
4.31 Progressive Effective Tax Rates

Corporate taxes are payable on a firm’s pre tax income. The maximisation of firm value, as specified in equation 4.1, is based on a firm’s after tax expected net cash flows. *Ceteris paribus*, a reduction in corporate tax payable will enhance firm value. The opportunity to create value in the presence of corporate taxes depends on the nature of the tax schedule and the tax management strategies used by individual firms. Smith and Stulz (1985) state that a convex tax schedule in the range of the firm’s pre tax income means hedging can reduce the volatility of a firm’s cash flows and produce tax benefits.\(^{66}\) Reduced volatility of a firm’s cash flows facilitates more effective management of tax obligations. High earnings volatility results in large tax obligations when profits are high and reduces maximising tax benefits associated with low or negative earnings. Earnings management, and the consequential tax liability management, can enhance the after tax value of the firm.

Management of the effective marginal tax rate provides an incentive to hedge. The association between hedging activity and the nature of the tax schedule has been tested in a variety of contexts with inconsistent empirical findings emerging. Alternative specifications of the tax variable used in empirical testing include convexity in the tax schedule, tax rates, tax losses carried forward and income volatility. Nance, Smith and Smithson (1993) support the association, finding that US firms engaging in hedging activities have greater investment tax credits and more pre tax income in the progressive region of the tax schedule. Other studies supporting the relationship between progressive tax rates and corporate hedging include Berkman and Bradbury (1996), Graham and Smith (1999) and Jalilvand (1999). The tax explanation is not supported by the findings of Geczy et al. (1997) and Mian (1996). Geczy et al. (1997) find no support for the tax driven incentive when investigating currency derivative usage by US firms. Mian (1996) reports a non-robust association between hedging and the incidence of tax shields.

The argument presented, except for that related to investment tax credits, does not apply to Australian firms. Australian firms pay a flat rate of corporate tax and the government will refund firms’ carried forward tax losses (representing a 100% tax

\(^{66}\) Convexity in the tax schedule arises due to the government permitting losses to be carried forward at a rate less than the firm’s marginal rate.
loss carry forward). On a nominal dollar basis, the resulting tax schedule exhibits no convexity due to the progressivity of the tax code or the permission of less than a 100% equivalent tax loss carry forward. The only source of tax convexity for Australian firms is investment tax credits that permit the firm's marginal tax rate to exceed its average tax rate. Convexity is increased when the analysis is in present value terms. Although any losses can be carried forward at 100%, the present value of carried forward tax losses declines with the passing of time.Whilst it is recognised that hedging activities may be influenced by differences in firms' tax functions, the lack of convexity in the Australian tax system reduces the tax benefit of hedging as a risk management tool. Accordingly this thesis does not develop the link between firms with greater hedging activities driven by tax considerations and the costs/benefit implications of derivative financial instrument disclosures.

4.32 Expected Financial Distress Costs
Costs associated with financial distress can be classified as direct (bankruptcy, reorganisation and liquidation costs) or indirect (high contracting costs with employees, suppliers and customers). Given that hedging activities reduce firm value variability, they reduce the probability that the firm will encounter financial distress, and the expected costs of financial distress (Mayers and Smith 1982, Smith and Stulz 1985). Smith, Smithson and Wilford (1990) emphasise that the magnitude of the cost reduction is related to the probability of financial distress if it does not hedge and the costs it will be confronted with if it does run into financial distress. The probability that the firm will encounter financial distress is directly related to the magnitude of the firm's fixed claims relative to the value of its assets. *Ceteris paribus*, the larger the fixed claims, the greater the probability of encountering financial distress costs.

Business risk determines the volatility in a firm's income and also affects its cash flow variability. The higher this volatility the greater the likelihood of the firm defaulting on its fixed claims. The greater the firm's business risk, the lower the capacity of the firm to absorb the financial risk imposed by leverage. Hedging activities, by reducing earnings volatility imposed by business risk, increase debt capacity.
Shapiro and Titman (1985) identify firm specific and industry specific risk factors that are likely to be associated with higher financial distress costs. The industry specific characteristics (related to products) are:
(1) products that require repairs;
(2) goods or services whose quality is an important attribute but it is difficult to determine in advance;
(3) products for which there are switching costs;$^67$
(4) products whose value to customers depends on the services and complementary products supplied by independent companies; and
(5) products whose value depends upon uncontrollable factors such as environmental, climatic, or economic factors.
Firm specific factors leading to higher financial distress costs are:
(1) high growth opportunities;
(2) an asset base that is principally intangible; and
(3) large excess tax deductions.
Firms with high expected financial distress costs have relatively lower risk capacities. Hedging is a risk reducing technique. Accordingly, firm and industry characteristics, as identified above, are expected to be associated with more extensive hedging activities relative to firms not exhibiting these characteristics.
In testing the association between financial distress costs and derivative usage, leverage, interest coverage, credit rating, size and cash flow volatility have been used to operationalise financial distress costs. Support for a positive association between financial distress costs and hedging activity is more uniform than that for the taxation driven market imperfection (Berkman and Bradbury 1996, Hardwick and Adams 1999, Jalilvand 1999). Canil and Rosser (2000) find that firms' hedging policies are significantly associated with revenue volatility and interest coverage, financial distress proxies.$^68$ These studies support the existence of

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$^67$ The examples cited by Shapiro and Titman (1985) of products with switching costs are computers or office and factory automation equipment. Technological developments and improvements result in new products with increased efficiency and effectiveness. The need to switch production and supplies to accommodate the new developments is associated with higher financial distress costs.

$^68$ Canil and Rosser (2000) examine the hedging policies of thirteen Australian firms including both industrial and mining stocks. They find hedging proportions are clustered around 50% of a firm's level of combined financial risk exposure. Significant relationships are found between hedging proportions and revenue volatility, interest coverage and the extent of fund ownership.
financial distress costs as a motive for engaging in hedging activity. However, Mian (1996) reports evidence inconsistent with the financial distress cost model.

4.33 Transaction Costs

Trades in derivative financial instruments incur costs related to the collection, negotiation and conclusion of contracts. The presence of such costs explains why hedging activities are value enhancing. Individual stakeholders could not replicate the hedging strategies without incurring transaction costs. The transaction costs incurred by individuals, relative to their wealth, are greater than those incurred by firms. Furthermore, the existence of transaction costs explains why the magnitude of the value enhancement differs across firms. Transaction costs are not linearly related to firm size. Firms engaging in more derivative financial instrument trades are expected to achieve: (1) proportionately less transaction costs afforded by the size of deals undertaken; (2) greater sophistication in risk management techniques; and (3) better market rates due to enhanced market presence. Empirical studies support the association between transaction based scale economies, typically captured by firm size, and hedging activity (Berkman and Bradbury 1996, Hardwick and Adams 1999, Jalilvand 1999, Mian 1996, and Nance, Smith and Smithson 1993). However, Canil and Rosser (2000) find no association between firms’ hedging policies and firm size.

4.4 Imperfect Knowledge

Information limitations restrict investors’ capacities to replicate firms’ hedging activities within their portfolio of investments. Investors may not possess the expertise and knowledge required to substitute corporate hedging activities with personal hedging activities. The inability of investors to identify the risks to hedge also impedes the replication process.

Asymmetric information (Breeden and Viswanathan 1990, DeMarzo and Duffie 1991) and career concerns (DeMarzo and Duffie 1995) provide managerial motives to explain firms’ hedging activities. The argument is that management engages in derivative instrument activities to maximise their utility. Hedging price fluctuations reduces the risk associated with the current period’s profit. In turn, this impacts upon the risk of the manager’s future compensation package.
Furthermore, disclosure of such activities reduces the noise in the reported earnings and increases the informational content. This favorably enhances the performance of management conveyed to the discerning managerial labour market and protects against wealth reductions.

4.5 Contracting Theory Framework

Financial economics theory suggests that hedging activities can reduce agency costs and hence enhance firm value. Underpinning the argument is the assumption that risk averse agents, who derive utility from a single firm’s cash flows, make hedging decisions. Subsections 4.51 to 4.53 describe the contracting paradigm. They explore the ability of hedging activities to reduce agency costs inherent with the existence of firm contracts.

4.51 Agency Relationships and Agency Costs

Jensen and Meckling (1976) define an agency relationship as “a contract under which one or more persons (the principal(s)) engage another person (the agent) to perform some service on their behalf which involves delegating some decision making authority to the agent.” (p. 308). The fundamental obligation of the agent is to act in the best interest of the principal. Differences in the interests of the agent and principal may encourage the agent to place his or her interests ahead of the principal’s. Subsequent actions that are contrary to principal’s interests are referred to as shirking. The primary concern of the principal is to ensure shirking is minimised. This is achieved by incurring agency costs.69 Agency costs are categorised as monitoring costs, bonding costs, and the loss in residual firm value. To ensure the agent’s behaviour is consistent with the objective of wealth maximisation for the principal, the principal incurs monitoring costs.70 Principals expend resources to restrict the agent’s opportunity to capture non-pecuniary benefits. While principals incur monitoring costs in the first

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69 Agency costs are borne by agents and principals. As such, both parties capture any gains associated with a reduction in agency costs. But in an efficient market, the monitoring and residual loss costs are borne by the agent due to ex ante price protection or ex post settling up.

70 Jensen and Meckling (1976) include compensation agreements and budget constraints as examples of ex ante monitoring costs. Such costs are designed to control the behaviour of agents. Ex post monitoring costs, such as auditing costs, are concerned with observing and measuring the agent’s behaviour.
instance, they transfer these costs to agents via price protection (e.g. lower initial salary) or through ex-post settling up (e.g. subsequently reduced salary). Thus, agents ultimately bear the monitoring costs if markets are efficient. Bonding costs are associated with measures initiated by the agent to encourage the congruence between the agent’s actions and actions preferred by the principal. Bonding costs reduce the need for monitoring costs. They are borne by the agent and include contractual guarantees designed to limit the agent’s activities. Residual loss is a consequence of wealth transfers that are expected to occur (irrespective of the presence of monitoring and bonding costs) from principals to agents.

The agency relationships generally explored in the financial accounting literature involve:

(1) debtholders as principals and management, acting on the behalf of shareholders, as agents; and

(2) shareholders as principals and management as agents.

A discussion of each of these relationships follows in subsections 4.52 and 4.53 with particular emphasis on the reduction in agency costs resulting from firms’ hedging activities.

4.52 The Role of Hedging in Reducing Agency Costs of Debt

The potential conflict between shareholders and debtholders can result in positive net present value projects being disregarded by shareholders if the anticipated gain resulting from the projects accrues to the debtholders. This incentive to underinvest, particularly for low value firms, can be reduced by risk management techniques such as hedging (Bessembinder 1991).71

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71 Smith, Smithson and Wilford (1990) provide an illustration of how hedging can increase a firm’s debt capacity.
Hedging allows equity stakeholders to capture a larger portion of the incremental benefit of a new investment. Highly levered firms face a greater potential for underinvestment and hence are more likely to employ risk management techniques to reduce this agency cost. As described by Bessembinder (1991), "hedging decreases the sensitivity of senior claim value to incremental investors, allowing equity holders to capture a larger portion of the incremental benefit from the new investment." (p. 520). Results from testing the proposition that the potential underinvestment costs provide incentives for hedging are inconsistent. Nance et al. (1993) and Geczy et al. (1997) find support for the relationship between potential underinvestment costs and hedging activity. This contrasts with other studies finding either no support for this relationship, ambiguous results or results sensitive to variable specifications (Berkman and Bradbury 1996, Jalilvand 1999, and Mian 1996).

Agency costs also arise as a consequence of shareholders and debtholders possessing differing risk attitudes. Shareholders are less risk averse than debtholders and prefer volatility in projects' returns given that increased volatility can lead to higher equity values. On the other hand, debtholders, given the nature of their fixed claim over the firm's assets, do not desire high variance projects. Accordingly, higher borrowing costs and restrictive covenants are used to protect their interests (Cotter 1998, Ramsay and Sidhu 1998). Risk management strategies reduce the volatility of a firm's cash flows and consequently lower the probability of financial distress. If the benefit of such strategies is recognised by debtholders, lower borrowing costs are likely to result.

4.53 The Role of Hedging in Reducing Agency Costs of Ownership and Control Separation

"The modern corporation is characterised by ownership of wealth without appreciable control and control of wealth without appreciable ownership." Berle and Means (1932)

The riskiness of the firm is important to managers since a substantial part of their wealth is invested in non-diversifiable human capital that depends on the firm's wealth. Shareholders, relative to managers, are less risk averse given that they can
diversify their shareholdings. Providing managers with an ownership stake in the firm reduces the potential for managers to act in their own self-interest at the expense of shareholders. This aims to alleviate the degree of management shirking.

"As the owner-manager's fraction of the equity falls, his fractional claim on the outcome falls and this will tend to encourage him to appropriate larger amounts of the corporate resources in the form of perquisites."

Jensen and Meckling (1976 p. 313)

Stulz (1984), Smith and Stulz (1985), and Eckl and Robinson (1990) argue that firms whose owners and managers have substantial wealth invested in the firm have a greater incentive to hedge given that a reduction in the volatility of firm value is wealth maximising for such managers. This assumes that it is less costly for the firm to hedge share price risk than it is for the manager. Firms with greater share-based management compensation are likely to engage in greater hedging activities. The empirical findings for this theory are mixed. Berkman and Bradbury's (1996) findings support this theory, however and Geczy et al. (1997) find no significant relationship between derivative usage and managerial ownership.

Managerial compensation can also include executive options. Smith and Stulz (1985) predict a negative relation between option holdings and derivative use. This is premised on the positive relationship between a call option's value and firm risk. Given that hedging reduces the volatility of cash flows and hence firm risk, this reduces the value of unexercised option holdings. Empirical testing of this prediction is also inconclusive. Geczy et al. (1997) find a significant positive association between option holdings and currency derivatives whereas Jalilvand (1999), examining derivative usage by Canadian firms, finds no significant relationship. Tufano (1996) finds an inverse relationship between managerial option ownership and gold price risk management and a positive relationship between managerial stock ownership and the management of gold price risk.

The extent to which a firm utilises off-balance sheet instruments to hedge risks affects the impact of derivative instrument disclosures on the firm. Assuming the market for managerial skills and expertise is efficient and discerning, hedging activity is an effective means to curb managerial shirking. As explained in section
4.4, managers prefer to report low variability in the firm's cash flows. Hedging assists managers to achieve this objective.

4.6 Alternative Means of Managing Risk

Risk management is achievable by pursuing financial policies other than hedging and using financial instruments other than derivative instruments. The pursuit of other financial policies/instruments reduces the firm's need to engage in hedging to minimise costs imposed by market imperfections and agency costs. The alternatives include:

1. using convertible debt or preference shares;
2. investing in more liquid assets or less risky assets; and
3. imposing dividend restrictions

The reasons underlying a convertible note issue are associated with conserving cash flow, risk synergy and/or reducing agency costs. Preference share issues decrease the probability of financial distress costs since a dividend omission, unlike interest payment default, does not result in bankruptcy proceedings being instigated. Given that convertible debt issues and preference share issues are alternative risk management strategies, the level of hedging activities involving off-balance sheet instruments is likely to be lower for firms with convertible debt and/or preference share issues.

Whilst this has implications for distinguishing firms that are more or less likely to be affected by the derivative financial instrument disclosures, the financial instrument accounting disclosure and measurement requirements in all the Australian accounting pronouncements apply to convertible notes and preference shares (e.g. split accounting required for compound instruments as per AASB1033 par. 4.2 and classification of preference shares is based on their economic substance as per AASB1033 par. 4.1.5). Apart from the bookkeeping costs associated with valuing and recording the instrument's components separately, any initial reclassification from equity to debt is likely to have implications for complying with existing debt covenants and restricting the future debt capacity of the firm. Thus, even though the impact of derivative financial instrument disclosures may be lower for firms employing these alternative risk strategies, the
firms will face costs associated with disclosure and measurement of compound instruments and certain preference shares.

*Ceteris paribus,* firms with larger investments in liquid assets and/or investments in less risky assets, have less probability of financial distress. Similarly, firms with lower dividend payouts have less probability assigned to financial distress. These firm characteristics reduce the agency costs of debt by increasing the likelihood of fixed claims being satisfied. Hence, hedging will be less intensive for firms with more liquid assets, lower risk investments and lower dividend payouts.

Empirical tests of corporate risk management models usually incorporate liquidity, dividend payout, and quasi equity variables to represent hedging substitutes. Nance *et al.* (1993) find support for the substitutability of hedging and other financial policies. His comparison of mean values for hedgers and non-hedgers suggests that hedgers have less liquid assets and significantly higher dividends. Berkman and Bradbury (1996) and Mian (1996) find that derivative usage is negatively related to liquid asset holdings and positively related to dividend payouts.

### 4.7 Implications of Derivative Financial Instrument Disclosures

The preceding sections discuss firm characteristics related to the need to engage in value-enhancing hedging activities. The enhancement in value is attributable to any, or all of: (1) individuals, in the presence of market imperfections, not being able to replicate the firm’s hedging activities; (2) the effect of hedging on reducing the variability of a firm’s cash flows; and (3) a reduction in agency costs.

Derivative financial instruments are used extensively in firms’ hedging programs. Firms with a higher probability of financial distress and a greater need to reduce agency costs have a greater incentive to hedge. Accordingly, such firms are more likely to be affected by mandatory derivative financial instrument disclosures. For firms striving to achieve value enhancement through hedging activities, the pursuit of such strategies becomes visible to the market place. For firms not actively engaging in hedging activities, but with firm characteristics suggesting they should be, the disclosure requirements are likely to indicate the sub optimal financial management practices of the firm. The specific costs and benefits of the disclosure requirements are explored in subsection 4.7.1.
4.71 Benefits and Costs of Derivative Financial Instrument Disclosures to Preparers

The primary aim of accounting regulators in mandating derivative financial instrument disclosures is to assist users of financial statements in their decision-making functions. This underlying philosophy is articulated in the accounting pronouncements as typified by the following:

"The objective of this Standard is to enhance financial report users' understanding of the significance of on-balance sheet (recognised) and off-balance-sheet (unrecognised) financial instruments to an entity's financial position, performance and cash flows." (Exposure Draft 65 par. 9 and AASB1033 par.3.1.1).

This thesis does not examine the informativeness of the disclosure requirements. To do so would require examination of the methods employed, costs incurred, and influence on the decision making process, by the market in the search for and utility of such information. The thesis presumes that the provision of relevant and meaningful information with respect to a firm's use of derivative financial instruments affords users the opportunity to make a more informed assessment of the risks and rewards associated with the arrangements in place. This ex ante assumption is not unrealistic given the evidence on the usefulness of derivative instrument disclosures presented in subsection 3.23 of Chapter 3.

Lev (1992) contends that a firm's disclosure strategy should be linked with the firm's investment, production and market policies. The aim is to ensure that the market value of securities and stakeholders' perceptions reflect the firm's overall strategy and the consequences of the firm's activities. Given a firm's risk management practices are an integral part of the firm's investment and financing decisions, the provision of such information provides outsiders with a more complete understanding of the firm's overall strategies. Should the information be useful to interested parties a reassessment of the firm's risk profile and/or expected cash flows may result. The reassessment could be either favourable (risk revised downwards and/or increase in expected cash flows) or unfavourable (upward revision of risk or downward revision of cash flows). The impact on firm value depends on the informational content of the disclosures to the users of financial statements.
Is the information incrementally informative with respect of the firm’s level of involvement in derivative trades and management’s views on risk management? Management’s disclosure strategies and any change in outsiders’ perceptions of the firm depend on the credibility of the information (Stocken 2000). The attribute of credibility is potentially dependent on the location of the information. This is interesting in light of disclosures with respect to derivative financial instruments. The exposure drafts and industry statement do not specify where disclosures are to be made. Not only do firms have discretion in relation to the disclosure decision prior to December 1997, but disclosing firms also have discretion as to the location of the information disclosure. The possibilities include the notes accompanying the financial statements and the managing director’s report. The former location for derivative financial instrument disclosures is predicted to enhance the credibility of the information given that it is subject to an external audit process.72

The fundamental question is: For the financial statement preparers, do the costs of derivative financial instrument disclosures exceed the potential benefits? Answering this question is difficult due to the simultaneous and contradictory effects the disclosures may have on various stakeholder groups and constituents (Lev 1992). The proceeding analysis considers the simultaneous effects of derivative financial instrument disclosures on the firm’s stakeholders and constituents. These effects shape the benefit/cost analysis of such disclosures for preparers of financial statements.

The derivative financial instrument disclosures stipulated in Australian accounting pronouncements and the ASCT Industry Statement are summarised in Chapter 2 (refer to Tables 2.3 and 2.4 respectively). Recapping, the broad categories of disclosures required are: accounting policies, extent and nature of the underlying financial instruments, objectives for holding or issuing the instruments, interest rate risk and credit risk exposures, fair value information, and hedging of anticipated future transactions. Disclosing such information has potential economic and contracting cost implications. Should the disclosure requirements result in sub-optimal reporting, the possibility exists for wealth redistributions

72 For this reason the location of the disclosures is recorded when data on voluntary disclosures are compiled.
between contracting parties. The possible cost effects are discussed in subsections 4.711 to 4.714.

4.711 Agency Costs

Users of financial statements are likely to reevaluate the firm's risk profile or expected cash flows in light of the information revealed as a consequence of derivative financial instrument disclosures. The extent to which a reevaluation occurs depends on the information asymmetry that exists with respect to a firm's use of derivative financial instruments, the completeness, credibility and representational faithfulness users attach to the disclosures, and the users' abilities to process and understand the information.

Taking a hypothetical case of where new derivative financial instrument disclosures have no impact on risk assessment or expected cash flows, agency costs would be reduced. The disclosures reduce the information search costs and reduce the difficulties outsiders encounter in monitoring and evaluating managers and firms' performance even if they only confirm expectations. Assuming no firms have voluntarily disclosed information to satisfy the new disclosures, this reduction in information search costs avails itself to all firms. Ceteris paribus, reduced agency costs lead to an increase in firm value.\(^7^3\)

Assuming the disclosures (or lack thereof) are likely to affect firm value as a consequence of changing outsiders' perceptions of the firm, the direction of the change in firm value is not generalisable across all firms. Risk reassessment or revisions in expected cash flows are most likely to be associated with the acquisition of knowledge in respect of disclosures concerning: the objectives for holding or issuing the instruments, the extent of the trades, interest rate exposure, and credit risk exposure. Table 4.1 identifies knowledge acquisitions on a singular basis and predicts the likely impact on firm risk assessment. The cumulative impact of all the disclosures on firm value is indeterminate, unless the risk indicators are unidirectional.

\(^7^3\) As noted for information production costs, the magnitude of the reduction in these costs is not expected to be consistent across all firms. It should reflect the size of the information gap between company insiders and outsiders.
Table 4.1: Impact on Firm Risk Assessment of Knowledge Acquired Through Derivative Financial Instrument Disclosures

<table>
<thead>
<tr>
<th>Knowledge Acquisition in Relation to:</th>
<th>Firm Risk Assessment Likely to Decrease if:</th>
<th>Firm Risk Assessment Likely to Increase if:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objectives for holding issuing derivative financial instruments</td>
<td>Hedging purposes only</td>
<td>Speculative purposes</td>
</tr>
</tbody>
</table>
| Extent of derivative instrument trades | • Reasonable compared to the size of the firm\(^{74}\)  
• Extensive collateral held | • Unreasonable compared to size of the firm (particularly if speculating in addition to hedging)  
• Extensive collateral pledged |
| Effective interest rate | • If represents a small margin over base rates | • If represents a large margin over base rates |
| Credit risk exposure | • Low credit risk exposure  
• Low concentration of credit risk | • High credit risk exposure  
• High concentration of credit risk |
| Net market value | • Indicates unrealised gains or unrealised losses consistent with movements in the underlying physical gain | • Indicates unrealised losses associated with speculative trades |

\(^{74}\) The reasonableness of the extent of derivative financial instrument trades relative to the firm size could be judged by comparing the fair value of the market related off balance sheet instruments with the book value of equity. However, for reporting periods 1992-1997, firms rarely provided fair value disclosures.
Should the combined effect of the disclosures produce a negative impact on outsiders' perceptions of the firm, agency related costs are likely to increase. Debtholders (existing and potential) need to protect against possible wealth transfers to shareholders is intensified. As illustrated in subsection 4.52, the probability of underinvestment increases as firm value falls. Higher borrowing costs with the possibility of a lower credit rating are likely to occur. To further protect their interests, the monitoring costs initiated by debtholders are also likely to increase.

The reduction in firm value lowers the residual claim of equity holders. Should bonding costs include a management compensation package with a component linked to firm value, the wealth of management also reduces. The visibility of a lower share price in the market place suggests poor management. This is likely to lead to greater scrutiny of managerial performance by the managerial labour market. Additional bonding costs are likely to be incurred to reinforce to outside interests that management action, detrimental to principals' wealth, is limited.

Should the combined effect of the disclosures produce a positive impact on outsiders' perceptions of the firm an opposite scenario is likely. Agency related costs are likely to reduce as the need to incur bonding and monitoring costs to protect principals' wealth lessens. The underinvestment problem and the probability of financial distress decline as firm value increases. The residual claim of equity holders increases and managers' wealth appreciates if their compensation package includes share ownership and/or call options on the firm's shares. The perception that managers act in the principals' best interests reduces bonding costs.

4.712 Political Costs
The accounting literature relates political costs to firm visibility. Firms subject to high political costs try to avoid such costs by choosing accounting methods to reduce earnings (Watts and Zimmerman 1978, Wong 1988a&b). Derivative financial instrument disclosures have no immediate earnings impact, however they may attract political costs. The disclosures, by providing a more complete and visible database of the nature and extent of firms' uses of financial instruments, can cause a re-examination of regulations governing such instruments. If firms are
shown to be riskier than originally perceived (prior to the disclosures), political costs may be incurred if the industry in which the firm operates is subject to close scrutiny or investigation. The possibilities for further regulation include tax reforms, regulation of markets in which the instruments are traded, and accounting regulations designed to measure the instruments for the purpose of bringing them on balance sheet.

Alternatively the disclosures could defer political and regulatory intervention. The inclusion of derivative financial instrument disclosures on the agenda of accounting regulators was hastened by the significant corporate losses associated with such trades. Should the disclosures provide information to suggest that corporate activities in this area are ‘sound’, as compared to ‘suspect’, potential political costs may be deferred or reduced.

4.713 Information Production Costs

Information production costs are a first order effect imposed by regulations. Costs are associated with the development or upgrading of financial reporting systems needed to capture the information required for financial statement disclosures. Costs are also incurred in the extraction and presentation of the reporting requirements. The disclosure requirements impose information production costs on all firms not already disclosing all information required to be disclosed under AASB1033. However, the information production cost impositions varies across firms. Recognition of this is provided in the development of hypotheses relating to firms’ voluntary derivative financial instrument disclosures.

4.714 Costs Associated with Commercially Sensitive Information Disclosures

The disclosure requirements contained in financial statements convey information to interested users with respect to the firm’s use of derivative financial instruments. The specific disclosure requirements, particularly in relation to collateral provided or pledged, effective interest rates, and credit risks could be classified as information that is commercially sensitive. Managers, believing their firms have a competitive advantage with respect to their risk management techniques, would be concerned that exposing these activities is likely to erode the
advantage. Conversely, other firms are likely to benefit from disclosures that make competitors' risk management techniques more transparent. Knowing what competitors are doing may provide firms with valuable insights to be incorporated into their risk management strategies.

4.8 Summary and Conclusions
This chapter uses an economic and contracting framework to suggest that hedging is a value maximising strategy for a firm. The theory developed suggests that firms with a high probability of financial distress and greater need to reduce agency costs are most likely to benefit from hedging activities. Firms with characteristics associated with high financial distress and agency costs are likely to be more affected by mandated derivative financial instrument disclosure requirements relative to firms not possessing these attributes. The chapter also identifies costs and benefits associated with the disclosure of derivative financial instruments. Connecting the theories of firms most likely to engage in hedging activities and the cost/benefit implications of disclosures provides the basis for the hypothesis development in Chapter 5. The following chapter predicts relationships between voluntary derivative financial instrument disclosures and firm characteristics.