Derivatives present companies with a dilemma. If treasuries fail to hedge their activities, they risk heavy losses. If they use derivatives carelessly, or without understanding them properly, again they can lose. Recent disastrous losses illustrate the dangers, and the issues which must be considered by regulators. Michael Gearin and Jennifer Oh examine those issues.

Derivatives are complex, obscure and difficult to understand, but they're here to stay. A recent estimate put the annual global growth rate for derivatives since 1987 at between 25 and 40 per cent. As a result, these complex mathematical-based instruments have received wide coverage in the financial press.

Derivatives are an effective instrument to reduce risk; however, if not used properly they can result in highly volatile returns and significant losses. Recent publicity has focused on large corporate losses attributed to the use of derivatives, particularly over the past 12 months.

Metallegesellschaft Corporation, the US subsidiary of the German group Metallgesellschaft AG, lost about $US1.34 billion in energy derivatives and nearly bankrupted the Metallegesellschaft group. Japanese conglomerates Kashima Oil and Showa Shell Sekiyu each lost nearly $US1.5 billion in currency derivatives and foreign exchange forwards. US consumer products giant Procter & Gamble lost $US157 million in closing out leverage-related interest rate swaps.

In view of the sizeable market for derivatives and the financial impact the instruments have upon corporate balance sheets and profit-and-loss accounts, it is difficult for regulators and governments to ignore them. In a recent article in Fortune International derivatives were described in a more vivid way:

Derivatives are regulatory nightmares. They are off balance sheet instruments whose mere existence obscures what's going on at the store. They make leverage all too easy to come by. Concocted in unstoppable variation by rocket scientists who rattle on about delta, gamma, rho, theta and vega, they make total hash out of existing accounting rules and laws.

For the Australian Securities Commission to be effective as a regulator of securities markets, it has to keep abreast of recent developments, respond in a flexible and responsible manner, and ensure that appropriate information about derivatives is provided in financial reports.

Two major international companies that have suffered major losses as a result of derivatives - Metallegesellschaft AG and the Procter & Gamble Company - illustrate the impact that derivatives have on corporate balance sheets and profit-and-loss accounts.

**Metal Group**

Metalgesellschaft AG and its subsidiaries (Metall Group) is one of Germany's leading metals, mining and industrial entities, with total assets at 30 September 1993 of DM16.6 billion and net tangible assets of DM1 billion. In its annual report for the year ended 30 September 1993, Metal Group reported a pre-tax loss of DM1.8 billion, compared with a pre-tax profit of DM245 million for the previous year.

Metal Group's poor result can be attributed primarily to the losses incurred by its financial services arm, US subsidiary Metalgesellschaft Corp (Metall Corp). These losses were incurred in the 1993 fiscal year and at the beginning of the 1993/94 year.
following the realisation and rollover of individual futures contracts as a result of the decline in the price of oil and oil products.

The 1993 annual report stated:

In the past fiscal year and the current 1993/94 fiscal year, the North American subsidiary, Metallgesellschaft Corp., New York, generated losses which are threatening the Metallgesellschaft Group's existence. Metall Corp. has tried to hedge long term delivery commitments towards customers who had concluded fixed price contracts with short term revolving oil futures dealings.

A year earlier, Metall Group's 1992 annual report included these notes about its accounting policies in respect of these derivatives:

**Accounting and Evaluation Principles for Provisions/Liabilities**

Other provisions are provided in the amount of their estimated usage; they cover all known risks as well as liabilities for which the amounts is not yet certain. In determining the losses from pending contracts, hedge transactions undertaken to cover the losses are taken into account.

**Note 10 - Other Provisions**

The other provisions include primarily provisions for risks from mining projects, as yet unfulfilled forward contracts for metals and options and open foreign exchange items.

It appears from published information that these derivative contracts could have been in place for a number of years and that the reporting and management systems did not provide adequate understanding and monitoring of the on-going risks and exposure of the Metall Group. The full picture of the Metall Group's exposure and risks was not disclosed to the group's board until December 1993. The report of the supervisory board, signed on 11 February 1994, states:

In the course of the 1992/93 business year and at the beginning of 1993/94, potential losses resulted from the dealings in oil products by our US Group Companies, which led to a severe crisis threatening the Company's existence. The Supervisory Board was informed for the first time in December 1993 of the nature and extent of the operations responsible for the losses.

Additional provisioning was made in the Metall Group's 1993 financial statements following a detailed study by its auditors, KPMG, who were commissioned to review the repercussions of the situation. The circumstances were exacerbated by the margin call payments made to the New York Mercantile Exchange from the rollover of the short-term revolving oil futures contracts. Metall Corp. experienced a significant liquidity problem and had to borrow from its parent, Metallgesellschaft AG. Metallgesellschaft AG relied on its bankers, which provided fresh credit lines of $US900 million to meet the Metall Group's overall funding requirements.

As a result of the high gearing levels, the possibility of insolvency proceedings and the substantial writedowns, the executive board accepted a restructuring proposal from the bankers in which additional equity was raised and DM1.3 billion of debt was converted into convertible participating rights.

**Procter & Gamble**

The Procter & Gamble Company (P&G) is one of the world's leading consumer goods companies, with total assets at 30 June 1993 of approximately $US25 billion and shareholders' equity of $US7.4 billion. P&G reported a $US157 million pre-tax loss for the quarter ended 31 March 1994, arising from closing out two highly leveraged interest-rate swaps contracts. In a press release P&G stated that the decision followed a dramatic rise in interest rates. The release said:

Procter & Gamble, like many large corporations, has successfully used interest rate swaps to manage exposure to interest and exchange rates, and to reduce the cost of borrowing. Unlike the other swaps the company has historically used, it turned out that the two leveraged swaps in question were based on highly complex formulas that multiplied the effect of interest rates increases. These types of transactions are inconsistent with the company's policy.

In its 30 June 1993 annual report - nine months before the loss was reported - P&G had the following to say about its financial and management policies on derivatives:

**Note 6 - Financial Instruments (US Dollars)**

Off balance sheet foreign exchange forward contracts and currency swaps, on hand at June 30 1993 and 1992 totalled $2,409 million and $1,403 million in face or contract value and are used primarily to hedge transactions denominated in foreign currencies ... Market gains and losses on these contracts offset market effects on the exposure being hedged. Credit risk is considered remote. These financial instruments are used to minimise exposure and to reduce risk from exchange and interest rate fluctuations in the regular course of the Company's global business.

US Statement of Financial Accounting Standards No. 107 Disclosures about Fair Values of Financial Instruments requires companies to disclose the fair value and carrying value of financial instruments. The fair value of a financial instrument is defined under Statement 107 as the amount at which the instrument could be exchanged in a current transaction between willing parties, other than in a forced or liquidation sale. It appears that P&G disclosed the fair values of its financial instruments as at 30 June 1993.

However, it is difficult to determine from published information when these swaps were entered into. P&G reported the loss on these derivative contracts during the quarter ended 31 March 1994. It is conceivable that these contracts may have been entered into during the 1993 fiscal year or soon after balance date.

P&G's 1993 annual report stated that derivatives were used to minimise exposure and reduce risks arising from offshore operations. For P&G, the amount of the funds invested was quite small - however, according to a Reuter business article, the losses multiplied because the position was heavily leveraged.

The article commented:

Procter & Gamble's disclosure that it lost $US102 million when interest rates jerked higher this year shows that even big guys get burned when they bet heavily and the market turns dicey. Procter's loss on so-called derivatives, contracts that allow investors to bet on the direction of the market, is an embarrassing setback for a company that must hold its profit and loss statements up to shareholders' scrutiny.

It appears from published material that the treasury department of P&G departed from set management policies and guidelines concerning derivatives. This would mean that the company's reporting and management systems for monitoring exposure and risk were inadequate. It also appears that the derivative instruments used were complex and P&G may not have fully understood them or the associated risks.
The Reuter article reported that after the loss, P&G stated: 

"Derivatives like these are dangerous and we were badly burnt. We won't let this happen again. We have thoroughly reviewed the company's remaining swap contracts with an outside financial advisor. Based on this review, we are certain the remaining portfolio is consistent with the company's policy."

Disclosure in the US
In October 1994, the US Financial Accounting Standards Board (FASB) released Statement of Financial Accounting Standards No. 119 on Disclosures about Derivative Financial Instruments and the Fair Value of Financial Instruments. The statement encourages the disclosure of quantitative information. Paragraph 13 of the statement recognises that the appropriate ways of reporting this information will differ for different entities and are likely to evolve as management techniques improve. Possible disclosure includes:
- more details about current positions and perhaps activity during the period;
- the hypothetical effects on equity, or on annual income, of several possible changes in market prices;
- a gap analysis of interest rate repricing or maturity dates;
- the duration of the financial instruments;
- the entity's value at risk from derivative financial instruments and from other positions at the end of the reporting period and the largest value-at-risk level during the year.

Australian companies should consider adopting a similar approach.

The Australian position
The summary of accounting policies required by accounting standard AASB 1001 includes disclosure of derivatives activities where these are material. Also, if the year-end exposure from derivatives contracts was material, this information would have to be disclosed as a contingent liability pursuant to Clause 23, Schedule 5, to the Corporations Regulations.

Derivatives activities after the end of the financial year must be considered pursuant to accounting standard AASB 1002 Events Occurring After Balance Date, and in the directors' report pursuant to subsections 305(10) and 305(11) of the Corporations Law. Specific disclosure requirements will come into effect if the exposure draft ED 59 is adopted as an Australian accounting standard.

The disclosure requirements would include securitisation/hedging activities undertaken by the entity during the reporting period and the extent of risk or hedged risk exposures at the reporting date (paragraphs 176 and 177). ED 59 also requires further details for each type of risk at the reporting date.

Role of the directors
Directors of companies have a responsibility to ensure they have an adequate understanding of derivatives and the risks they involve. Strict policies and reporting systems must be in place to monitor the risks undertaken by treasury departments and to keep them within acceptable limits, which may differ between companies.

Directors must take an active and possibly a "hands-on" role in monitoring and policing activities to ensure compliance with these internal policies and guidelines. They must identify the risks inherent in the company's business activities, and provide the necessary reporting and management systems to monitor those risks.

There must be full disclosure in the financial statements including information about the company's policies on derivatives to ensure that the accounts are true and fair in accordance with the Corporations Law. In the framework of enhanced disclosure now operating in Australia, there is a need to report material activities in derivatives, since these activities can significantly affect a company's financial position.

In addition, companies should provide a clear statement of the policy on derivatives activities to be undertaken in the future. This would ensure that the financial statements comply with accounting standards and give a true and fair view. A significant change to existing policy may well require an announcement under enhanced disclosure.

Conclusion
Companies can find themselves in a difficult position. If they fail to hedge their activities they may be exposed to the risk of loss. If they hedge their derivatives activities and the derivatives activities extend, even unwittingly, beyond hedging to speculation, the companies can expect the results to be volatile, with the risk of substantial loss.

Procter & Gamble incurred heavy losses on complex derivatives activities. Will we see an increase in unexpected losses from derivatives on the Australian market? A recent survey investigated the use of derivatives by the major corporates in this country. Steve Bowman, executive director of the Australian Society of Corporate Treasurers, was quoted in a Sydney Morning Herald article on the survey as saying: "It is easy to create another Procter & Gamble here."

Does Australia have potential P&Gs? If so, will they be looking for a scapegoat for their losses? It is inconceivable that the black-letter law and accounting standards will be able to identify, set limits and legislate every type of derivative dreamed up by the rocket scientists and market geniuses. In the absence of black-letter law and accounting standards, the directors have a responsibility to provide a true and fair view in financial statements and comply with enhanced disclosure requirements.

Australia must learn from the overseas experience and cannot afford to be complacent. The ASC must work with industry where possible in the complex area of derivatives to continue, in the words of Graeme Lee, director of Standard & Poor's international finance division, "to improve monitoring systems and public disclosures to increase the transparency and understanding of the business".

NOTES
1 "Numbing numbers, but do they add up?", John McMurtrie, JASSA, September 1994, pp. 5-9.
2 "The risk that won't go away", Carol J. Loomis, Fortune, 7 March 1994, pp. 30-38.
3 1993 annual report of Metallgesellschaft.
4 Procter & Gamble profit report for the quarter ended 31 March 1994, filed with the US SEC.
5 Press release filed on 12 April 1994 with the US SEC, as Form 8-K, Current Report.
7 Corporate Derivative Survey, September 1994, commissioned by Price Waterhouse in association with the Australian Society of Corporate Treasurers.