



# Superannuation Risk in Australia— the Defined Benefit Liability

Watson Wyatt Australia Pty Ltd



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## Introduction

In 2007, Watson Wyatt carried out a study to examine the accounts of the major listed companies on the Australian Stock Exchange to assess the materiality of superannuation risk in corporate Australia and help companies assess their comparative situation. This report presents the results of the 2009 update to that study.

The superannuation liabilities of companies in Australia can be analysed using the information set out in their annual accounts. For this update, Watson Wyatt has examined the accounts of 143 of the top 200 listed companies on the Australian Stock Exchange, for whom reliable information is readily available, to assess the materiality of superannuation risk. Of these, 54 companies continue to have a Defined Benefit (DB) Superannuation obligation. The remaining companies provide Defined Contribution (DC) arrangements only.

The information contained in each company's annual accounts is based on the application of the relevant accounting standard (AASB119). Of course, there are other measures of a company's DB Superannuation liabilities, such as:

- Vested Benefits, which is relevant if all members resigned on the measurement date; and
- Actuarial Accrued Benefits, which is relevant for the long term funding of the benefits.

Using the Accounting Value of DB Superannuation liabilities, this study shows that the major listed companies in Australia are carrying over \$58.4 billion worth of superannuation liability in DB form in their 2008 accounts, despite the long established trend away from DB. This liability is backed by over \$56.6 billion of assets. That is, in mid-2008, there was an accounting shortfall of \$1.7 billion just as the global financial crisis was about to deepen. In aggregate, corporate balance sheets reported a Net Superannuation Liability of \$2.3 billion.

The difference between the \$1.7 billion funding shortfall and the \$2.3 billion Net Liability represents the application of variations in accounting policy permitted under the relevant accounting standard.

Of course, while the aggregate funding position disclosed was a moderate accounting shortfall, 23 companies were actually reporting surplus positions. For those 31 companies reporting a shortfall, the aggregate reported shortfall was \$5.0 billion.

Since surplus positions cannot be used to offset deficit positions, arguably the \$5.0 billion shortfall is the number to concentrate on.

## Background

Australia continues to progress through a long process of widening the population's participation in superannuation and shifting the associated risks away from employers and towards individuals. While this trend is well established, it will take many years to complete due to longer serving members of the workforce still remaining in Defined Benefit Plans. Corporate Australia remains responsible for the various risks that are associated with the DB Superannuation obligations.

Under Australian accounting standards, companies that provide DB Superannuation must disclose certain information on those benefits. This includes data on the liabilities and expense of these benefits. In most cases, the benefits are backed by a pool of assets set aside specifically to meet future benefit cash flows. In these cases, information about the assets must also be disclosed.

To assess the materiality of superannuation risk in corporate Australia, the accounts of 143 of the top 200 companies listed on the Australian Stock Exchange, for which reliable information was readily available, were examined.

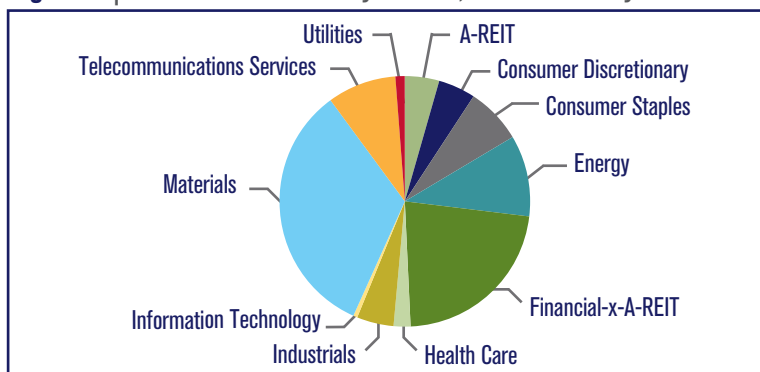
Of these, 54 companies continue to have a DB obligation, with the remaining companies providing Defined Contribution arrangements only, with no exposure to DB Superannuation.

For the remainder of this report, Defined Benefit Plans are referred to as **DB Plans** (see Glossary) and Defined Contribution Plans are referred to as **DC Plans**. In some companies, DC Plans may be referred to as accumulation plans.

Data was collected between 30 September 2008 and 31 December 2008 from consolidated financial reports and includes international subsidiary data, where relevant. Most reports analysed were for the year ended 30 June 2008. To make comparison easier, the analysis standardises the results by developing ratios rather than using absolute numbers.

The 143 companies included in this study are classified in the sectors of the market as shown in Figure 1.

**Figure 1** | Distribution of industry sectors, as classified by the ASX



### Employees as Creditors

Superannuation represents a type of debt obligation that the employer has to its employees. The debt arises because part of the employee's remuneration is deferred (by law) and can be paid only on retirement (or on earlier death or disability).

The exact nature of the debt varies, depending on whether the employer uses a DB Plan or a DC Plan. In a DC Plan, the debt is transferred from the employer to the trustee of the superannuation Plan at the time each deferred remuneration payment is contributed to that Plan.

During the duration of the debt, the accumulated value of the deferred remuneration can rise or fall, depending on how well or otherwise it is invested. However, the employee has no recourse to the employer or trustee to make good any perceived investment 'shortfall'.

The debt inherent in a DB Plan remains with the employer. If assets backing the debt fall in value, the employer incurs a liability for the shortfall. Conversely, if assets increase in value beyond that required to meet the debt, that surplus allows the employer to offset future cash contributions. The debt can rise or fall and for any given employee is not actually known until that employee receives their final payment.

Accounting standards require companies that have DB Plans to account for this uncertainty using a prescribed method.

Companies, regulators and trustees also use other measures to assess the company's DB obligations.

## Analysis

In our analysis, we considered the following elements:

- The method of accounting for actuarial gains and losses
- The significance of the Net Superannuation Liability to overall liabilities
- The significance of the superannuation Pension Expense to overall expenses

### Accounting for actuarial gains and losses

The Australian Accounting Standard AASB119 allows an entity to use one of three means of accounting for actuarial gains and losses. Actuarial gains and losses arise when actual events differ from what was assumed. For example, investment returns, expense rates, demographic turnover and salary inflation rates must all be modelled in advance using actuarial techniques. The actual experience emerges later and the resultant financial effect, relative to that assumed, is referred to as an actuarial gain or loss.

These gains and losses can be recognised using one of the following methods:

- Immediately through profit and loss;
- Gradually through profit and loss by way of a consistent amortisation method; or
- Through equity, and disclosed in the Statement of Recognised Income and Expense (SORIE).

The SORIE method is most commonly used, as shown in Figure 2.

A significant majority of companies, particularly when weighted by the size of the **DB Liability**, use the SORIE method for recognising actuarial gains and losses. The effect of this choice is to protect the profit and loss account from volatility arising from fluctuations in the **Net Superannuation Liability**. Often these fluctuations are driven predominantly by market returns on assets rather than by the underlying operating results of the company.

Only a very small proportion of Australian companies let the actuarial gains and losses flow directly through the profit and loss account in the year in which they occur. The analysis shows that it is more typically companies with smaller DB Liabilities that let actuarial gains and losses directly affect profit and loss.

Where companies amortise gains and losses over time, the amount recognised in the balance sheet as a Net Superannuation Liability is not necessarily the same as the shortfall in funding. The difference is held off balance sheet and amortised using a pre-determined method.

## The significance of the liability

The total value of DB Liability reported by the 54 companies in this study amounted to \$58.4 billion. The Net Superannuation Liability is usually the difference between the value of the DB obligation accrued to the employees and the value of assets held in trust to fund those liabilities.

To the extent that the DB Liability exceeds the **Asset Value**, a Net Superannuation Liability is recorded on the reporting entity's balance sheet. Companies with no DB exposure do not record any Net Superannuation Liability. Companies providing DB Superannuation show either a Net Superannuation Liability or a Net Superannuation Asset, depending on the extent to which the DB Liability is backed by assets. Off balance sheet items can remain where gains and losses are amortised.

The total value of Net Superannuation Liability for the studied companies was reported to be \$2.3 billion, which is an aggregate accounting shortfall. However, the majority of the financial information analysed was for the year ending 30 June 2008 and so these figures will not fully reflect the current position in light of the subsequent deepening of the global financial crisis.

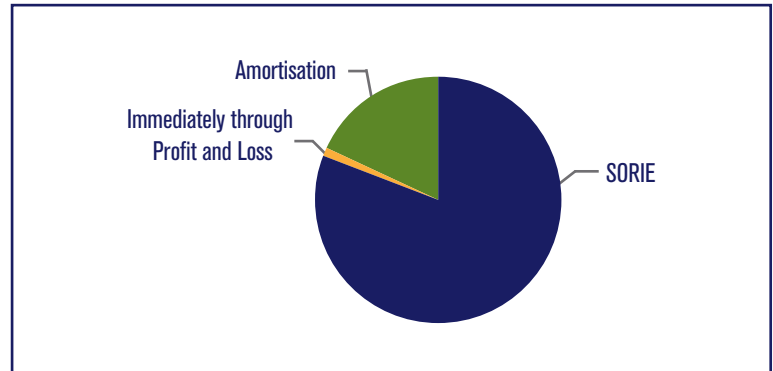
The Net Superannuation Liability is a non-current liability in accounting terms. **Figure 3** shows the extent of the Net Superannuation Liability when compared to total non-current liabilities for the companies in the study. 23 companies report a Net Superannuation Asset. For the 31 companies with a Net Superannuation Liability, the average value is less than 4% of the company's non-current liabilities.

(Note that negative values represent a Net Superannuation Asset.)

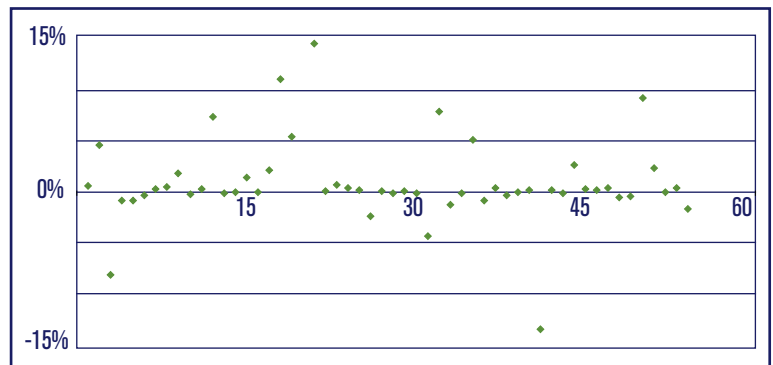
## The liability by sector

In **Figure 4**, the distribution of the shortfalls across sector is shown with the significant bulk of shortfall being associated with the Materials sector.

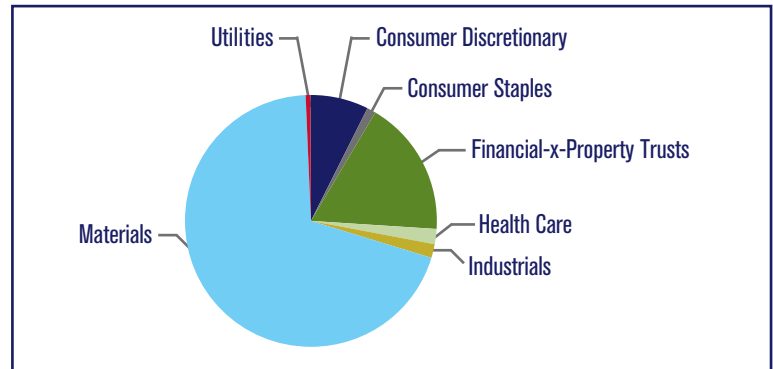
**Figure 2 |** Method of accounting for actuarial gains and losses weighted by DB Liability



**Figure 3 |** The ratio of Net Superannuation Liability to total non-current liabilities for companies with DB Plans



**Figure 4 |** The distribution of the Net Superannuation Liability by Sector



## A comment about comparing some Australian multinationals' results

In comparing the disclosed global AASB119 accounts of Australian multinational companies, it is important to note that some (often significant) countries' pension systems do not require retirement plans to be externally funded. In fact, sometimes the tax regime encourages book reserving.

For example, in Germany, it is common to hold a book reserve for DB arrangements, rather than hold external assets. In Germany, local tax authorities grant tax relief on actuarial certified levels of book reserves. There is also a national insolvency insurance scheme providing some protection to at least a minimum level of employees' benefits. Therefore, there can be good reason for companies to retain working capital rather than hold external assets.

In the US, authorities place caps on the extent to which promised retirement benefits can be funded externally on a tax effective basis. Therefore, companies will often hold book reserves for any promised amount in excess of such caps. In Sweden, many larger companies also fully book reserve benefits.

Although holding adequate book reserves may make business sense in the countries concerned, such provisions do not count as assets for AASB119 purposes.

This means that if an Australian multinational company is operating a DB arrangement in such countries, at least some of the global DB Liability disclosed under AASB119 will simply include the full value of the defined benefit accrued to the employees, with no offsetting AASB119 asset value (i.e. the assets are effectively held elsewhere in the company, in its working capital and other assets).

When comparing such a company with those operating only in jurisdictions that require external retirement Plan assets to be held:

- The disclosed "deficit" could appear disproportionately large; and
- Unfunded plans' AASB119 Net Superannuation Liability will not be directly affected by asset valuation falls. However, like all retirement plan accounting under AASB119, the value of the DB obligation accrued remains sensitive to changing discount rates.

## The significance of the Pension Expense

In a DB arrangement, the Pension Expense reported in the sponsoring company's profit and loss is not necessarily equal to the cash contributions paid. The Pension Expense is determined using actuarial methods in accordance with accounting standards. Cash contributions do not affect the Pension Expense, but simply improve the Net Superannuation Liability position with a corresponding reduction in cash levels. Overall, this is neutral to the balance sheet (ignoring tax effects), but does reduce both the company's current assets and non-current liabilities.

The significance of the Pension Expense has been considered as a proportion of the company's total expenses reported and the results are shown in Figure 5 for the 54 companies with a DB exposure. This figure shows that, in some cases, the Pension Expense is a material component of total expenses. A negative Pension Expense usually indicates the amortisation of a DB surplus.

## Funding levels

The Net Superannuation Liability gives a general understanding of funding. An additional measure is the ratio of assets to the DB Liability. This ratio is shown in Figure 6 for the 54 companies with a DB exposure.

The range in values of this ratio is notable. Where values are less than 100%, DB Plan participants are in a similar position to an unsecured creditor; in essence, part of their remuneration is on loan to the sponsoring company and the assets pledged as security are insufficient to cover the loan value. This may be of concern to both employees and government regulators. In contrast, where the ratio exceeds 100%, the company is applying more shareholders' funds than necessary under the accounting standard to secure the obligation to the employees only under the accounting standard method.

These surplus assets are invested in market securities and could, depending on performance relative to the company's own performance, improve or reduce shareholder returns.

However, it is unlikely that shareholders would want their company to maintain a significant surplus position in a DB Plan for any extended length of time.

## Overall Position in Mid 2008

Despite the trend to DC Plans over the past ten to fifteen years, DB Liabilities remain material to corporate Australia, with \$58 billion of DB Liability disclosed on the balance sheets of 54 of the top 200 ASX companies, up from \$50 billion in our 2007 report. Based on the prescribed accounting method, the financial position is "unsatisfactory" in aggregate, with a Net Superannuation Liability of \$2.3 billion compared to a Net Superannuation Asset of \$1.6 billion in our 2007 report.

By number, 23 (43%) reported a Net Superannuation Asset and 31 (57%) reported a Net Superannuation Liability. For those companies reporting Net Superannuation Liabilities, the average value of that amount was \$162 million and the aggregate value was \$5.0 billion.

Figure 5 | Ratio of Pension Expense to total expenses in the Profit & Loss

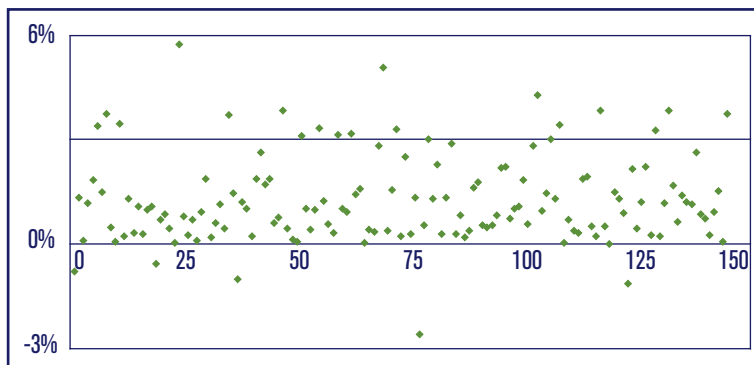
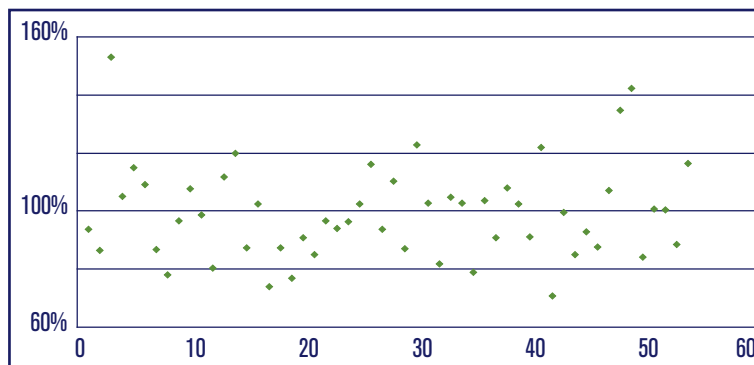


Figure 6 | Funded status: The ratio of asset values to the DB Liability for companies with a DB Plan



## The Global Financial Crisis



As explained earlier in the study, most of the analysed reports were for the year ending 30 June 2008 and therefore do not capture the effects of the second half of 2008 during which the global financial crisis severely worsened. The significant falls in stock markets combined with significant reductions in central bank interest rates combined to stress balance sheets in the second half of 2008.

Over the six months from 1 July 2008, yields on ten year Commonwealth Government bonds fell from 6.5% pa to 4.0% pa. This yield is important because it is central to determining the actuarial value of future cash flows. \$1.00 payable in ten years time is currently worth \$0.53 if discounted at 6.5% pa. If that discount rate is reduced to 4.0% pa, the present value increases from \$0.58 to \$0.68. That is, the reported liability value increased by 28% as a result of the falling discount rate. Since superannuation liabilities are of approximately ten years duration, depending on the actual design of a company's DB Liabilities, this can be indicative of the effect on reported superannuation liabilities as yields fall.

Over the same period, the value of assets was falling. The *Watson Wyatt Investment Performance Survey* shows that the median investment return of growth funds, after tax and fees, was -14.7% for the six months to 31 December 2008. Growth funds are defined as those with 61%-80% growth assets, which is typical, but not universal, for DB Plans.

For a reporting entity with a \$100 million DB Superannuation liability and \$100 million in superannuation assets at 30 June 2008, the balance sheet would have had a zero Net Superannuation Liability. Re-measuring at 31 December 2008 could see a Net Superannuation Liability of \$42.7 million (if the liability increased by 28% to \$128 million) and the assets reduced by 14.7% to \$85.3 million. From zero to \$42.7 million liability in six months is a change of significant magnitude.

Applying this more broadly would suggest that the aggregate superannuation Net Superannuation Liability surveyed in corporate Australia has increased from \$5 billion in mid 2008 to something closer to \$20 billion by the end of 2008 for companies that were already reporting a shortfall before the global financial crisis. Companies that reported a positive position ahead of the global financial crisis are now expected to be holding an aggregate shortfall of \$5 billion, bringing the combined shortfall to \$25 billion. Obviously, individual circumstances are relevant and this broad projection does not allow for each DB Plan's actual asset allocation, funding programs, benefit design, salary inflationary expectations and other such factors.

## Conclusion

The deepening global financial crisis in the latter part of 2008 has made what was a moderate shortfall worse and the accounting shortfall could now be as high as \$25 billion. Still, by international standards, corporate Australia's defined benefit shortfall is proportionately small, leaving Australian companies in a better relative position than in some other countries.

Overall, there has been a weakening in financial strength of superannuation plans generally. However, there is evidence that company sponsors and trustees are taking corrective action. Mostly, this involves short term additional funding programmes to boost the asset value backing the liability. Generally, agreed funding plans have been adopted by companies and trustees over recent years, specifically to handle these circumstances. The experience of 2002, when DB Plan returns were last negative, assisted stakeholders to appreciate the long term cyclical nature of investment markets and understand the process for developing strategies for funding DB Superannuation liabilities.

## Glossary

**DC Plan:** An employee benefit programme whereby contributions are made on a regular basis using a predetermined methodology (e.g. as a percentage of salary or wages) and where the end benefit is the net accumulated value of those contributions. Over the longer term, the main determinant of benefit value is the investment performance. The contributions are defined, the benefit is unknown in advance. A DC Plan is also known as an accumulation plan.

**DB Plan:** An employee benefit programme whereby the benefit is linked to a monetary amount or salary. Typically, retirement benefits are determined in terms of a multiple of salary at or near retirement. In this typical design, the investment performance of the fund does not affect the value of the end benefit. The benefit is defined, the contributions are unknown in advance.

**DB Liability:** The present value of the expected future cash flows arising from service completed by the employees as at the measurement date determined using a prescribed accounting method in this case.

**Asset Value:** The AASB119 standard requires plan assets to be measured at fair value.

**Net Superannuation Liability:** Where actuarial gains or losses are not amortised, it is the difference between the accounting value of the DB liability and the Asset Value. The relationship between DB Liability and Asset Value is sensitive to the discount rate used to value the benefits and the investment performance of the assets that are held in the DB fund. Where actuarial gains or losses are amortised, those amounts not yet recognised are excluded from the Net Superannuation Liability.

**SORIE:** The Statement of Other Recognised Income and Expense provides a means by which companies can report a change in balance sheet items without having a profit and loss effect. As well as being used for actuarial gains and losses, it is used for revaluations arising from foreign exchange fluctuations.

**Pension Expense:** The amount recognised in the profit and loss account. Essentially, it comprises three items: an operational cost, a financing cost and allowance for special events and gains and losses (where applicable).

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## Further information

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