

**Other people's money I:
A snapshot of Australia's funds
management industry and its
export potential**

*Part one of a two-part study by Lateral Economics
for the Investment and Financial Services
Association (IFSA)*

June 2007

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Executive Summary

The Australian funds management industry

Australia has developed a sophisticated and growing funds management industry, with funds under management passing the \$A1 trillion mark in 2006 – equalling the gross domestic product of the whole Australian economy.

This is a remarkable achievement. For example, at least according to some measures it means that Australia leads the world in terms of funds under management per person (currently \$50,000). And with double-digit growth likely to continue, funds under management could be in the range of \$A2.8 to \$A3 trillion by 2015.

The central driver of this stellar performance has been compulsory superannuation however the strengths of the industry now include an increasingly sophisticated investor base, innovative investment products, and strong oversight bodies operating within a well respected regulatory framework.

Funds management may account for as much as 40 per cent of the contribution the finance and insurance industry as a whole makes to the Australian economy, which would put its share of gross domestic product at around 3.4 per cent of the value added in the economy. This makes funds management a bigger contributor to the Australian economy than agriculture, utilities (electricity, gas and water) and communications. Its growing importance serves as a stark reminder of the changing nature of modern, service-dominated, economies such as Australia's.

It is arguable, however, whether the growing importance of service industries in general, and the funds management industry in particular, is fully reflected in government policy making.

The growth of the industry also offers an opportunity to broaden the base and so diversify away from more volatile sectors of the economy such as mining and agriculture. The increasingly important role played by the funds management industry in Australia would be further enhanced if the industry was able to ramp up exports – something other countries have been able to do enabling them to significantly enrich their citizens (e.g. Ireland and Luxembourg).

Offshore Financial Centres (OFCs)

Offshore Financial Centres are typically small jurisdictions, such as Macau, Bermuda, Liechtenstein or Guernsey, that seek to attract foreign capital. What they offer foreign businesses and well-heeled individuals is low or no taxes, political stability, and business-friendly regulation.

Offshore holdings now run to \$5-7 trillion, five times as much as two decades ago, and make up perhaps 6-8% of worldwide wealth under management, according to Jeffrey Owens, head of fiscal affairs at the OECD. Between 1982 and 2003 they grew at an annual average rate per person of 2.8%, over twice as fast as the world as a whole (1.2%), according to a study by James Hines of the University of Michigan. Individual OFCs have done even better. Bermuda is the richest country in the world, with a GDP per person estimated at almost \$70,000, compared with \$43,500 for America.

The business community in particular argues that in a fiercely competitive global economy where national tax regimes can vary widely, minimising tax payments is a competitive necessity and OFCs are one solution. OFCs themselves insist that they are specialist financial centres and have far more to offer than just low taxes.

Being a successful OFC is tougher than it used to be. The best-run of them compete not only with offshore rivals but also, in certain industries, with onshore ones. These days new OFCs must invest in regulation, legislation and enforcement up front.

Source: Economist special report on Offshore Finance, 24 February 2007.

The industry have very low levels of export orientation at present, having concentrated thus far on managing the savings of domestic investors who have mainly focused on local opportunities. That is changing, with an increasing emphasis on overseas investment opportunities. Also, Australia fund managers increasingly handle the Australian portfolio investments of foreigners (a responsibility commonly assigned to local affiliates of international investment houses). But missing thus far in the industry's development is a strong record of Australian funds managers exporting their services to the world: that is, being directly responsible for handling the domestic and overseas funds management requirements of foreigners.

The Australian funds management industry by type of institution

According to the way the Australian Bureau of Statistics (ABS) classifies firms engaged in funds management in Australia, cash management and public unit

trusts, plus superannuation funds have led the way in the growth stakes (recording average annual growth rates of 15.4 per cent, 14.8 per cent and 14.0 per cent respectively over the 18-years from 1989 to 2006).

This has been at the expense of the more slowly growing life insurance offices, common funds and friendly societies (with average annual growth rates of 7.4 per cent, 5.3 per cent and *minus* 2.2 per cent respectively).

The Australian funds management industry by type of asset

As well as classifying the managed funds industry by type of institution, ABS also provides a breakdown of the industry by type of asset.

Looking at emerging trends from this perspective, the big growth areas over the 1989 to 2006 period have been assets overseas (averaging 19.3% per annum), equities and units in trusts (15.7%) and cash and deposits (12.3%) – with below average growth recorded by 'other' assets (9.7%), short term securities (9.2%), land and buildings (8.9%), long term securities (6.4%) and loans and placements (6.2%).

Role of funds management in Australia's international investment position

Australian fund managers have been increasingly busy buying foreign equities on behalf of Australian firms and individuals, with the proportion of Australian investment abroad accounted for by portfolio investment trending upwards for nearly two decades (from 15% in 1988 to 38% in 2006). Indeed, it has recently become more important than direct investments abroad (which have been fairly flat albeit in recent decline, falling from accounting for 41% in 1988 to 35% in 2006). This represents a significant compositional change over time in favour of portfolio investment, and in particular investment in foreign equities.

Fund managers have also been busy buying Australian equities for foreigners (although equities as a proportion of inward portfolio investment is much lower than is the case with outward portfolio investment – 15% versus 76%, on average over the period). Thus, in terms of foreign investment in Australia, portfolio investment has risen steadily in importance (from accounting for 47% of total foreign investment in Australia in 1988 to accounting for 62% now), while the reverse is true of direct investment (which has declined from 32% to 23%).

Export orientation of the finance and insurance industry

For a type of service that is rapidly becoming highly tradeable, exports of Australian finance and insurance industry – of which the funds management industry is an important component – are very modest (at 2.9% of Australian production according to input-output tables compiled by the ABS). Indeed, the industry's export performance ranks 27th of the 35 industries that together comprise the Australian economy in the latest published tables (at this level of industry aggregation).

This is a weak export record, especially compared with similar industries overseas, which already export a high proportion of funds management services (e.g. Ireland, the UK). This lack of export performance stands out all the more starkly compared with its strong domestic growth.

The finance and insurance industry: Direct links with other industries

As measured by ABS figures, the finance and insurance industry's direct linkages with other sectors of the Australian economy are modest though it is a major purchaser of services from itself. One reason for such high levels of intra-industry transactions is that, being a highly specialised field of economic activity, the industry tends to hire all sorts of people with specialist skills to work within the industry itself (e.g. financial analysts and accountants, etc) – so that a lot of value-adding services are immediately available within the industry. However the industry is also a major purchaser of expensive professional services such as legal services which are not given the status of an 'industry' within the ABS classifications.

The finance and insurance industry: Indirect and flow-on effects to the economy

While the direct links the finance and insurance industry has with other domestic industries may be weak as measured using ABS classifications of industries, any stimulus originating in the fund management industry component of the finance and insurance industry will have indirect and other flow-on effects to the domestic economy as a whole. Such effects can be estimated using multiplier analysis.

Using simple multiplier analysis – about which we say more below – lifting finance and insurance exports as a share of Australian production from 2.9 per cent to 5 per cent would involve an eventual \$3.7 billion stimulus to the

Australian economy in today's prices, while lifting the share to 10 per cent would translate into a \$13 billion boost. These are big effects.

However multiplier analysis will generally produce strong overestimates of the extent to which the expansion of an industry expands the whole economy. For it presupposes that wherever the industry needs further inputs to expand it can acquire them at existing prices from the economy – an assumption that assumes that resources are already lying idle. In fact, most resources cannot be purchased at existing prices but must be bid from productive uses from elsewhere in the economy. This will lead to rises in the price of these resources.

The increase in total economic output will be given by the value of the expansion in finance less what contraction is necessary in other industries to enable that expansion to take place. This is usually a very small fraction (often a very small one) of the size of the initial expansion.

However the average job in the finance sector pays much more than does the average job in the economy. For this reason, if the financial service is able to provide relatively inexpensive 'on the job' training to workers receiving substantially lower incomes in other industries, the expansion of the industry will generate substantially more value than the contraction of industries from which it has bid resources. If so this would lead to a much more substantial economy wide gain than would be the case if the expansion had been in an industry paying closer to average wages.

Clearly, the Australian economy would be a big winner if its funds management industry were in a better position to export its expertise to the world. The accompanying policy paper assesses what would need to change for the industry to realise such an ambition.

Chapter One

Background

Spurred particularly by the introduction of compulsory superannuation, Australia has developed a sophisticated and growing funds management capability, with funds under management having grown to around 100% of the annual gross domestic product (GDP) of the Australian economy – which recently passed one trillion dollars. With the ratio of funds under management as a percentage of GDP now upwards of 100%, Australia is starting to compare favourably with the leading countries in the game (with the USA at 213%, the UK 178%, France 144% and Japan 126%) – as well as now being comfortably ahead of the average (87%).¹

The consolidated assets of Australian managed funds passed the \$A1 trillion mark in 2006, and show every sign of continued strong growth. Indeed, with annual growth over the 18-year period since 1989 averaging 11.6%, this figure is set to top \$A2.8 trillion by 2015.

These statistics support the proposition that Australia has become one of the major marketplaces for managed funds in the world, and the largest in the Asian-Pacific region (see later).

Australian financial services can now boast a mature market with a sophisticated investor base, innovative investment products, a supportive retirement incomes policy, and strong oversight bodies operating within a regulatory framework principally aimed at looking after the interests of domestic investors.

The funds management industry in Australia

Under the system of industry classification used by the Australian Bureau of Statistics (ABS), Investment and Financial Services Association (IFSA) members would be concentrated among Life insurance corporations, Pension (Superannuation) funds and Financial intermediaries not elsewhere classified (n.e.c.).²

¹ Fund Management, City Business Series, International Financial Services, London, 2006.

² See Attachment A: *Funds management in Australia: A statistical and graphical profile*.

Reflecting the relative importance of these industries in estimated assets of all financial institutions, the following chart graphs the estimated contribution of the funds management industry to the Australian economy.³ This approach to estimating the importance of the managed funds industry in Australia puts it at roughly 40 per cent of the financial sector as a whole (and growing).



Estimated on the above basis to account for 3.4% of GDP in 2006, the funds management industry is bigger than many other Australian industries, including agriculture (3.1%), electricity, gas & water (2.5%), accommodation, cafes & restaurants (2.2%), communications (2.6%), cultural & recreational services (1.6%) and personal & other services (2.0%).

This is a reminder of the nature of modern, service-dominated, economies such as Australia's. It is arguable whether the growing importance of services is fully reflected in government policies.

³ Unless specified otherwise, statistics cited or graphed in this report are based on figures compiled by the ABS and either published in hard-copy form or made available on its website (www.abs.gov.au).

Financial services can also play a valuable counter-cyclical role in cushioning shocks to the economy emanating from industries such as mining and agriculture, which are subject to the vagaries of commodity prices and the weather.

And that role would be enhanced to the extent that the industry was able to increasingly export its services to the world. What can be achieved by focusing on service exports even when a country ceases to be involved on the physical side of things is demonstrated by the comeback the UK has made in organising (rather than actually providing) shipping services (see Box 1).

Box 1. Services input to financial centre services

Other less salient parts of the City [of London] have been thriving. Shipping services have made a recent comeback; overseas earnings rose by a quarter between 2002 and 2004. London's 400 shipbroking firms match ships and cargoes in 50% of tanker chartering. And there has been a spectacular growth in legal services, which are vital in backing the work of a global financial centre. Over 200 foreign law firms have offices in London, which is also headquarters for three of the four largest firms in the world. Exports from Britain generated by international law firms are now three times higher than they were in 1995.

Source: The Economist, Oct 19th 2006.4.

The funds management industry: type of institution

In terms of ABS' breakdown of the managed funds industry by type of institution, cash management and public unit trusts plus superannuation funds have led the way in the growth stakes (with average annual growth rates of 15.4%, 14.8% and 14.0% respectively over the 1989-2006 period). This has been at the expense of the more slowly growing life insurance offices, common funds and friendly societies (with average growth rates of 7.4%, 5.3% and *minus* 2.2% respectively).

The funds management industry: type of assets

As well as classifying the managed funds industry by type of institution, ABS also provides a breakdown of the industry by type of asset. Looking at the

⁴ Accessed on 25th January 2007 at http://www.economist.com/opinion/displaystory.cfm?story_id=8058157

emerging trends from this perspective the big growth areas were assets overseas (19.3%), equities and units in trusts (15.7%) and cash and deposits (12.3%) – with below average growth recorded by 'other' assets (9.7%), short term securities (9.2%), land and buildings (8.9%), long term securities (6.4%) and loans and placements (6.2%).

These trends have affected the asset allocations of Australian fund managers over time, as reflected in the following table.

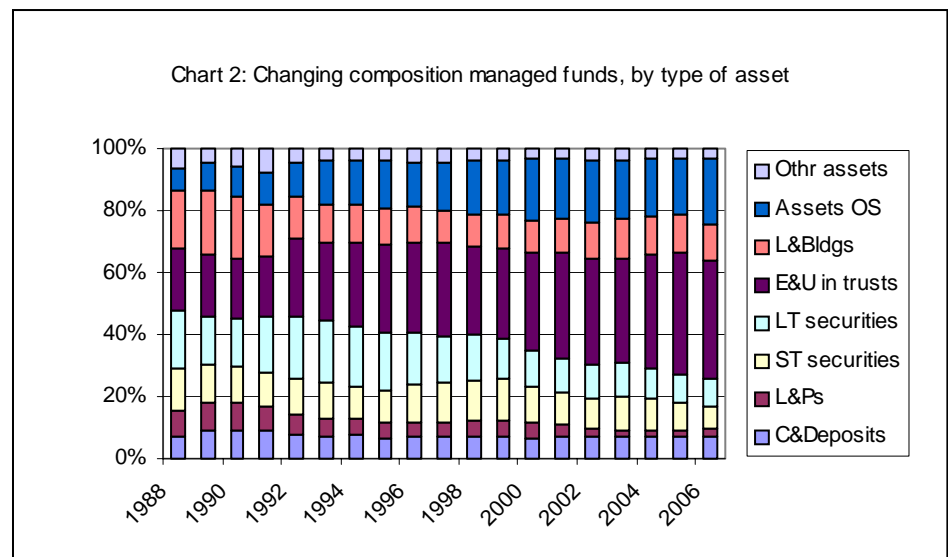
Table 1: Changing asset allocations of Australian fund managers (%)

Allocation	1994	2000	2006
Cash & deposits	7.8	6.4	7.3
Loans & placements	5.2	5.3	2.3
Short term securities	10.5	11.2	7.5
Long term securities	18.8	12.1	8.6
Equities and units in trusts	27.5	31.4	38.2
Land & buildings	12.0	10.6	11.6
Assets overseas	14.6	19.6	21.4
Other assets	3.6	3.4	3.0

Source: ABS Cat. no. 5655.0.

Thus, Australian fund managers – responding to client demands – have adjusted their asset allocations over time away from loans and placements and long and short term securities (and, to a lesser extent cash and deposits and land and buildings) towards better-performing equities and units in trusts and overseas assets.

Longer-term changes in asset allocations (since 1988) are illustrated in the following chart. Over this 18-year period (from the June quarter 1988 through to the December quarter 2006), the value of total funds under management grew more than sevenfold (from \$145.5 billion to \$1.042 trillion).



Those assets that grew in importance over the 1988-2006 period were:

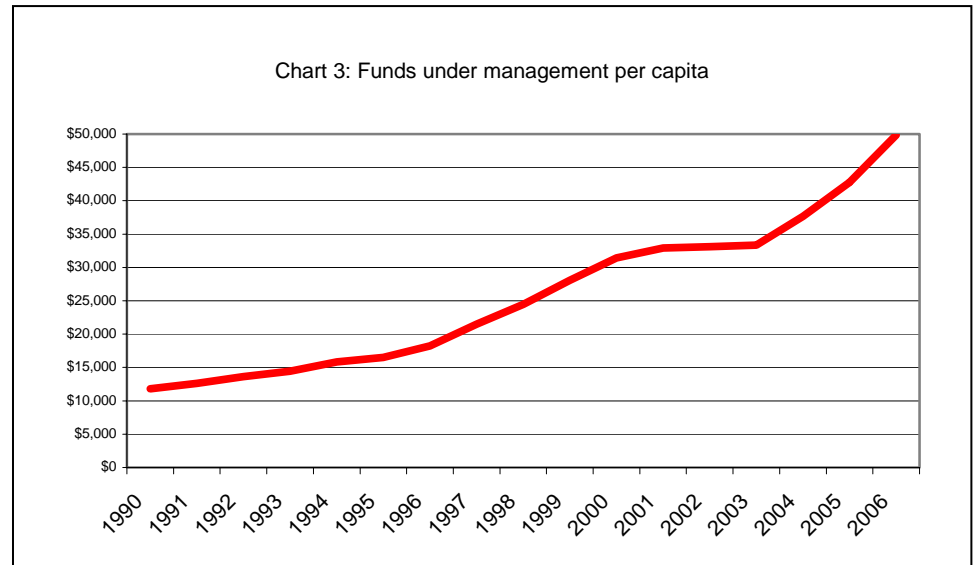
- Cash and deposits – whose share increased by 1.1 percentage points as the proportion it represented of the industry grew 2.0 per cent over the period (from a share of 7.1 per cent in 1988 to 7.3 per cent by 2006);
- Equities and units in trusts – whose share increased by 18.0 percentage points as the proportion it represented of the industry grew 89.3 per cent over the period (from a share of 20.2 per cent in 1988 to 38.2 per cent by 2006); and
- Assets overseas – whose share increased by 13.9 percentage points as the proportion it represented of the industry grew 184.7 per cent over the period (from a share of 7.5 per cent in 1988 to 21.4 per cent by 2006).

On the other hand, those assets that declined in importance over the 1988-2006 period were:

- Loans and placements – the share of which decreased by 5.9 percentage points as the proportion it represented of the industry fell 72.0 per cent over the period (from a share of 8.2 per cent in 1988 to 2.3 per cent by 2006);
- Short term securities – the share of which decreased by 6.1 percentage points as the proportion it represented of the industry fell 44.7 per cent over the period (from a share of 13.6 per cent in 1988 to 7.5 per cent by 2006);
- Long term securities – the share of which decreased by 9.9 percentage points as the proportion it represented of the industry fell 53.6 per cent over the period (from a share of 18.6 per cent in 1988 to 8.6 per cent by 2006);
- Land and buildings – the share of which decreased by 6.8 percentage points as the proportion it represented of the industry fell 37.0 per cent over the period (from a share of 18.4 per cent in 1988 to 11.6 per cent by 2006); and
- Other assets – the share of which decreased by 3.3 percentage points as the proportion it represented of the industry fell 52.5 per cent over the period (from a share of 6.3 per cent in 1988 to 3.0 per cent by 2006).

Funds under management per capita

The following chart graphs funds under management per capita, which recently topped the \$50,000 per head figure (see international comparisons by the Australian Finance Group below).



It is apparent from the chart that:

- the changes to Australia's retirement income arrangements (in particular the introduction of compulsory superannuation contributions from the early 1990s) started to bite from around the middle of that decade onwards; and that
- following poor returns in the early 2000s, there has been a strong recovery (from 2003 onwards).

International comparisons

There are claims that Australia leads the world in funds under management. For example, under the headline '\$50,000 a head – Australia's lead in managed funds just keeps growing', the Australian Finance Group (AFG) published the following tables⁵ showing managed funds per person in Australia leading the world at an estimated \$48,178. This reflected 5-year growth of 114.7 per cent with one-year growth at 13.6 per cent, well ahead of the USA (\$40,046) in per capita terms, but lagging Sweden (181.8%) and Spain (115.4%) in the 5-year growth stakes, and the UK (33.2%), Sweden (22.4%), Canada (16.7%) and France (15.9%) in terms of one-year growth.

⁵ See AFG's Global Fund Management Index (managed funds in Australian dollars) downloadable from <http://www.afgonline.com.au>.

**Managed Funds per capita – change over 5 years
to end June 2006 (in \$A)**

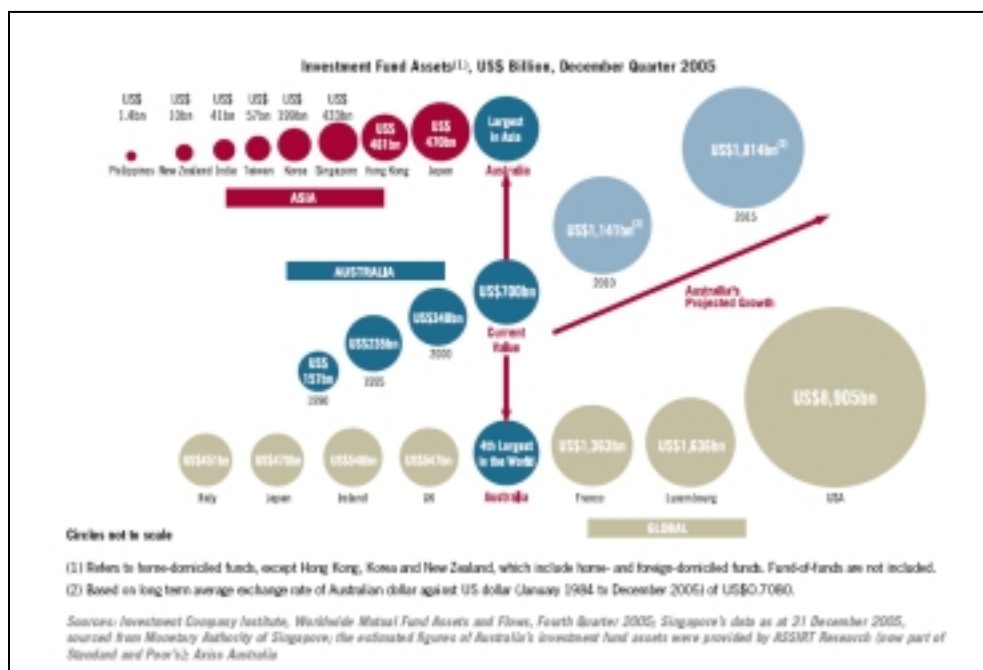
Ranking	Country	2006 (second quarter)	2001	Change over 5 years
1	Australia	\$48,178	\$22,431	+114.7%
2	USA	\$40,046	\$31,812	+ 25.8%
3	France	\$33,370	\$15,545	+114.6%
4	Sweden	\$20,659	\$7,330	+181.8%
5	Canada	\$20,404	\$11,022	+ 85.1%
6	Belgium	\$15,370	\$8,672	+ 77.2%
7	UK	\$14,222	\$6,893	+106.3%
8	Spain	\$11,172	\$5,185	+115.4%
9	Italy	\$9,802	\$8,087	+ 21.2%
10	Netherlands	\$7,744	\$6,425	+ 20.5%

**Managed Funds per capita – change over 12 months
to end June, 2005 (in \$A)**

Ranking	Country	2006 (second quarter)	2005 (second quarter)	Change over 12 months
1	Australia	\$48,178	\$42,408	+13.6%
2	USA	\$40,046	\$36,215	+10.5%
3	France	\$33,370	\$28,787	+15.9%
4	Sweden	\$20,659	\$16,862	+22.4%
5	Canada	\$20,404	\$17,470	+16.7%
6	Belgium	\$15,370	\$14,494	+ 6.0%
7	UK	\$14,222	\$10,675	+33.2%
8	Spain	\$11,172	\$9,881	+13.0%
9	Italy	\$9,802	\$10,216	-4.0%
10	Netherlands	\$7,744	\$7,586	+2.0%

Another international perspective on the managed funds industry in Australia comes from a recent Axis Australia benchmarking report on Australia as a global financial services centre.⁶

⁶ Axis Australia, Australia: A global financial services centre, Benchmark Report, August 2006.

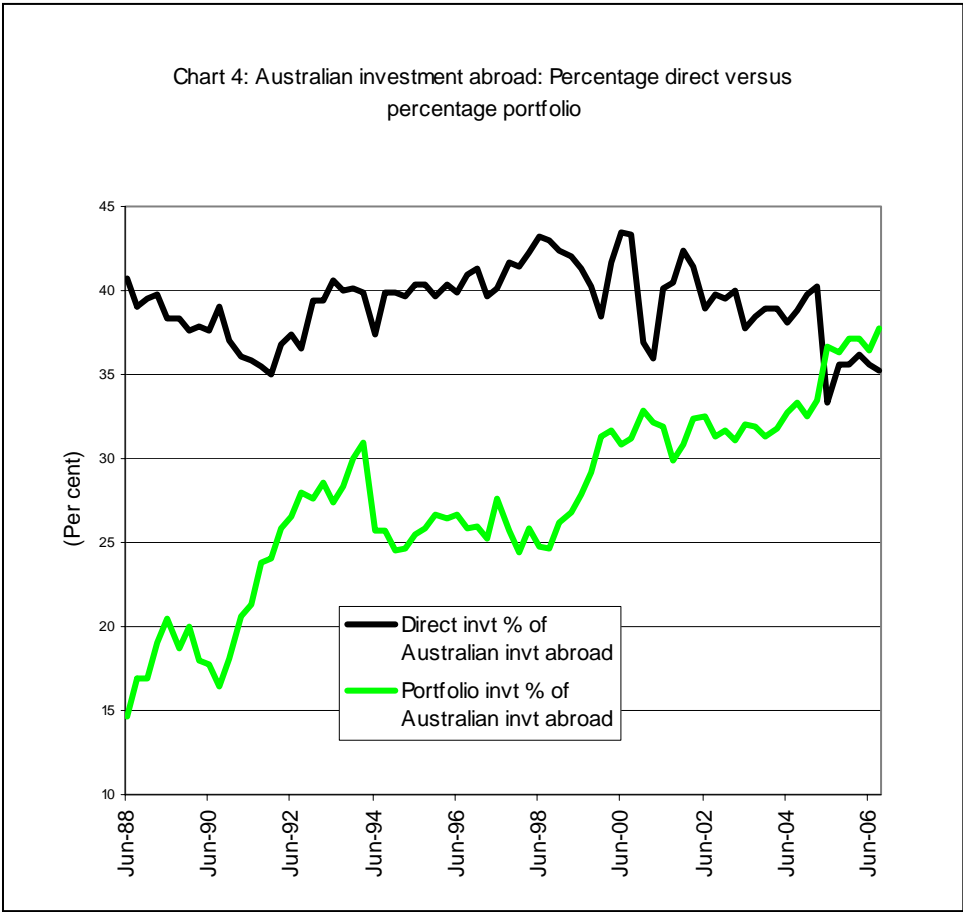


According to the information illustrated above, in 2005 Australia was the 4th largest in terms of investment fund assets, and was the largest in Asia.

Role of funds management in Australia's international investment position

The following charts look at Australia's international investment position and the role played by direct versus portfolio investments in both Australian investment abroad and foreign investment in Australia.⁷ Chart 4 graphs direct and portfolio investment as a percentage of Australian investment abroad covering the period from 1988 to the present, while Chart 5 looks at the relative importance of these components in terms of foreign investment in Australia.

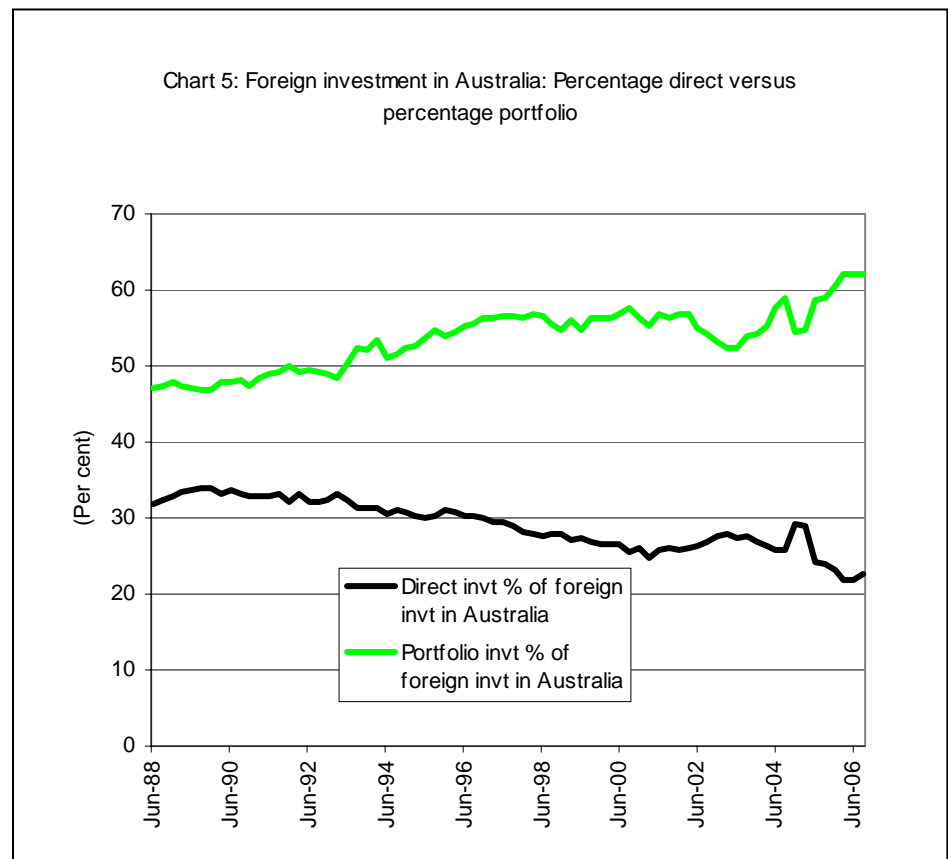
⁷ In the case of both outward and inward investment, the ABS disaggregates total investment into the following components: direct, portfolio, financial derivatives and other (plus reserve assets in the case of Australian investment abroad). In turn, direct investments are dominated by equity capital and reinvested earnings, while the equities component of portfolio investment has averaged 76% of outward investment over the 18-year period, but only 15% of inward investment – the other component of portfolio investment is debt securities of various kinds e.g. bonds and notes, and it is this component (rather than equities) that dominates portfolio inward investment.



Thus, the proportion of Australian investment abroad accounted for by portfolio investment has trended upwards over the period (from 15% in 1988 to 38% in 2006), and has recently become more important than direct investments abroad (which has been fairly flat albeit in recent decline, falling from accounting for 41% in 1988 to 35% in 2006). This is a significant compositional change over time in favour of portfolio investment, and in particular investment in foreign equities – which represent 76% (on average) of total portfolio investment abroad. Thus, fund managers have been increasingly busy buying foreign equities on behalf of Australian firms and individuals.

In a recent special report on offshore finance, The Economist (24 Feb 2007) commented that: “Canadians were alarmed by a government report showing that Canadian direct investment in offshore financial centres (OFCs) increased

eightfold between 1990 and 2003, to C\$88 billion (\$75 billion) – a fifth of all Canadian direct investment abroad. The bulk of this was in financial services, mostly in a few Caribbean countries.” In the Statistics Canada table referred to the leading countries were Barbados (Rank 3), Ireland (Dublin) (Rank 4), Bermuda (Rank 6), the Cayman Islands (Rank 8) and the Bahamas (Rank 11). This does not appear to be true of Australia where, according to the ABS,⁸ the Cayman Islands ranked 13th, Bermuda was 17th and Ireland 19th in terms of total investment abroad in 2005 – while in the case of portfolio investment the rankings were Ireland 20 and Bermuda 30 (while the figures for the Cayman Islands were not published).



Turning to foreign investment in Australia (and noting that equities play a much less significant role in inward investment – averaging 15%), portfolio investment

⁸ International Investment Position, Australia: Supplementary Country Statistics 2005 (Cat. no. 5352.0), Tables 5a and 5e.

has risen steadily in importance (from accounting for 47% of total foreign investment in Australia in 1988 to accounting for 62% now), while the reverse is true of direct investment (while has declined from 32% to 23%). Thus fund managers have also been busy buying Australian equities for foreigners.

In sum, on both sides of the balance sheet recording Australia's net investment position, assets in the form of foreign equities owned by Australian residents and Australian equities owed by foreigners are playing an increasingly important role.

Chapter Two

Domestic success in developing funds management capabilities

Within the context of a now service-dominated economy such as Australia's, this chapter looks at the role played by the finance and insurance industry in contributing to the success and resilience the domestic economy has exhibited now for a decade and a half.

The assessment draws on previous studies of the financial sector (of which funds management is becoming an increasingly important component – see Chapter One), and includes a section on the sector's export performance, and the contribution increased exports of fund management services to the world could make to increased economic activity.

Underpinning the assessment is a consideration of the direct and indirect linkages the financial sector has with other value adding activities that together comprise the domestic economy.

The financial sector in Australia

In gathering statistics showing the vital role finance plays in the Australian economy, the Australian Bureau of Statistics (ABS) adopts the following framework to describe the sector.

The financial system in Australia can be thought of as having three overlapping components. The first consists of financial enterprises (such as banks) and regulatory authorities (the Reserve Bank and the Australian Prudential Regulation Authority). The second consists of financial markets (e.g. the bond market) and their participants (issuers such as governments, and investors such as superannuation funds). The third is the payments system (that is, the cash, cheque and electronic means by which payments are effected) and its participants (e.g. banks). The interaction of these three components enables funds for investment or consumption to be made available from savings in other parts of the national or international economy.⁹

Financial enterprises are institutions which engage in acquiring financial assets and incurring liabilities: for example by taking deposits, borrowing and lending, providing superannuation, supplying all types of insurance cover, leasing, and

⁹ ABS, *2007 Year Book of Australia*, Cat. no. 1301.0.

investing in financial assets. Australian fund managers exemplify financial enterprises.

The following table shows the assets of financial institutions covering the period 2000-06, of which fund management activities would be concentrated in:

- Life insurance corporations;
- Pension (superannuation) funds; and
- Financial intermediaries not elsewhere classified (n.e.c.).

The estimates in Table 2 have been compiled by the ABS on a 'consolidated' basis, that is, financial claims between institutions in the same grouping have been netted out. The total is also consolidated, that is, financial claims between the groupings have been eliminated (so that the components do not add to the total).

Table 2: Assets of financial institutions, 30 June 2000 – 30 June 2005
(\$ billion)

Depository corporations

	<i>Reserve bank</i>	<i>Banks</i>	<i>Other</i>	<i>Life insurance corporations</i>	<i>Pension funds</i>	<i>Other insurance corporations</i>	<i>Central borrowing authorities</i>	<i>Financial intermediaries nec</i>	<i>Consolidated financial sector total</i>
2000	51.1	728.6	187.0	185.7	423.9	72.9	91.3	214.3	1400.3
2001	55.1	805.7	228.2	188.8	451.1	78.0	91.8	220.0	1506.5
2002	54.7	875.6	245.3	190.5	470.1	78.8	93.9	237.6	1610.8
2003	56.5	991.0	244.7	183.9	492.8	88.1	103.6	246.5	1725.6
2004	64.7	1126.0	235.3	192.5	590.1	93.9	101.6	320.3	1986.3
2005	75.1	1237.0	259.9	211.1	688.1	98.2	111.2	393.8	2212.2
2006	93.5	1423.5	265.8	230.7	840.6	117.2	112.0	521.0	2616.6

Source: ABS, Year Books of Australia, Cat. no. 1301.0.

According to the figures reported in the table, the assets of Life insurance corporations grew by 24 per cent over the 6-year period, those of Pension (superannuation) funds by 98 per cent and those of Financial intermediaries by 143 per cent – while the asset of the financial sector as a whole (after eliminating double counting of assets) grew by 87 per cent. Thus, by implication, the funds management industry grew faster than did the financial sector as a whole.

The finance and insurance industry has long constituted an important sector of the Australian economy. In 1990, for example it accounted for 5.1 per cent of total industry gross value added (GVA) measured at basic prices.¹⁰ By 2006

¹⁰ See accompanying Glossary for an explanation of terms.

(see table), this proportion had increased 52.5 per cent to 7.8 per cent – which was the highest percentage increase recorded by any industry over the period.¹¹ This meant that, by 2006, only the Property and business services (at 12.4%), Manufacturing (11%) and (the rather artificially constructed) Ownership of dwellings (8.5%) industries accounted for more economic activity than did finance and insurance (Table 3).

Table 3: Relative importance of individual industries in terms of their contribution to total gross value added at basic prices, 2006 (Per cent)

<i>Industry</i>	<i>2006</i>
Agriculture	3.1
Mining	7.5
Manufacturing	11.0
Electricity, gas & water	2.5
Construction	7.0
Wholesale trade	5.1
Retail trade	6.2
Accommodation, cafes & restaurants	2.2
Transport & storage	4.9
Communications	2.6
Finance & insurance	7.8
Property & business services	12.4
Government admin & defence	4.2
Education	4.7
Health & community services	6.7
Cultural & recreational services	1.6
Personal & other services	2.0
Ownership of dwellings	8.5
Total	100.0

Source: ABS Cat. no. 5204.0.

These estimates of comparative performance raise issues about how statistics are compiled on service-oriented industries. Industry classifications tend to be captives of the past – so that, for example, they typically go into great detail when it comes to the products of agriculture, mining and manufacturing industries (i.e. in respect of goods you can touch – many of which are the

¹¹ The average for all industries over the period was 4.1% – so that the Finance and insurance industry grew 13 times as fast as the economy as a whole.

products of industrialisation). Services, on the other hand, present something of a challenge to devisors of classification schemes – a challenge that is becoming more pressing as services start to account for 70% or more of modern economies, such as Australia's. Thus, tourism is a commonly referred to service-oriented industry that cannot be found in a standard industry classification.¹² Even once easily classified products are coming 'packaged' with necessary associated services (e.g. items of capital equipment that require considerable expertise to commission and maintain in good working order), while 'disembodied' services are becoming increasingly important and hard to classify unequivocally in terms of the principal activity that is being undertaken (e.g. teams of experts that can turn their know-how to varied economic activities).

Further details on the finance and insurance industry in general, and the funds management industry in particular can be found in the Attachments – in particular Attachment B: *Input-output statistics and analysis: The finance and insurance industry*.

Inter-industry effects

The following table shows the input structure of the finance and insurance industry in terms of its purchases from other industries. The stand-out entry is the high share of inputs the finance and insurance industry buys from other firms classified to the same industry (i.e. from other finance and insurance companies – in this case some 56.9%). This represents a remarkable level of intra-industry transactions.

¹² Because of its importance, so called tourism satellite accounts representing extensions of the main national accounts have been compiled to illustrate this industry's importance to the Australian economy. Arguably, a similar approach could be taken to articulating the full import of the funds management industry, including its interactions with the rest of the world. This would draw into an extended definition of the funds management industry activities that are predominantly dependent on it, such as a lot of expert advice and other services whose principal activity currently has them classified elsewhere.

Table 4: Industry inputs into the finance and insurance industry
(Per cent)

<i>Downstream industry</i>	<i>% of total industry inputs</i>
Agriculture	0.1
Forestry & fishing	0.0
Mining	0.1
Meat & dairy products	0.1
Other food products	0.1
Beverages & tobacco products	0.2
Textiles	0.1
Clothing & footwear	0.0
Wood & wood products	0.0
Paper, printing & publishing	2.4
Petroleum & coal products	0.0
Chemicals	0.0
Rubber & plastic products	0.0
Non-metallic mineral products	0.0
Basic metals & products	0.0
Fabricated metal products	0.1
Transport equipment	0.0
Other machinery & equipment	0.5
Miscellaneous manufacturing	0.0
Electricity, gas and water	0.7
Construction	0.1
Wholesale trade	1.1
Retail trade	0.3
Repairs	2.1
Accommodation, cafes & restaurants	4.1
Transport & storage	3.0
Communication services	6.0
Finance & insurance	56.9
Ownership of dwellings	0.0
Property & business services	18.9
Government administration	0.3
Education	1.2
Health & community services	0.1
Cultural & recreational services	0.9
Personal & other services	0.3
Total intermediate inputs	100.0

Notes: Including intra-industry flows.

Source: ABS Cat. no.5209.0.

Similarly, Table 5 shows the output structure of the finance and insurance industry in terms of its sales to other industries. As with the previous table, the stand-out entry is the high share of outputs the finance and insurance industry sells to itself (i.e. to other finance and insurance companies – in this case some 31.0%).

Table 5: Finance and insurance industry sales to other industries
(Per cent)

<i>Downstream industry</i>	<i>% of total industry inputs</i>
Agriculture	2.5
Forestry & fishing	0.3
Mining	2.7
Meat & dairy products	0.4
Other food products	1.4
Beverages & tobacco products	0.4
Textiles	0.2
Clothing & footwear	0.2
Wood & wood products	0.2
Paper, printing & publishing	0.8
Petroleum & coal products	0.1
Chemicals	0.5
Rubber & plastic products	0.2
Non-metallic mineral products	0.2
Basic metals & products	0.6
Fabricated metal products	0.4
Transport equipment	0.5
Other machinery & equipment	0.5
Miscellaneous manufacturing	0.2
Electricity, gas and water	3.3
Construction	3.3
Wholesale trade	6.5
Retail trade	4.7
Repairs	0.9
Accommodation, cafes & restaurants	2.6
Transport & storage	3.5
Communication services	1.2
Finance & insurance	31.0
Ownership of dwellings	7.6
Property & business services	13.5
Government administration	4.8
Education	1.0
Health & community services	2.0
Cultural & recreational services	1.3
Personal & other services	0.8
Total intermediate inputs	100.0

Notes: Including intra-industry flows.

Source: ABS Cat. no.5209.0.

The above two tables (on inputs into and the disposition of outputs of the finance and insurance industry) summarise the direct effects a change in industry output would have in terms of dependencies on other industries comprising the Australian economy (i.e. downstream and upstream industries).

As is evident from the tables, the direct linkages with other sectors of the economy in the case of the finance and insurance industry are not strong – apart from very strong interactions within the sector itself. One reason for such high levels of intra-industry transactions is that, being a highly specialised field of economic activity, the industry tends to hire all sorts of people with specialist skills to work in the sector itself (e.g. financial analysts, lawyers, accountants, etc) – so that a lot of value-adding services are immediately available within the sector itself (and are often located just round the corner, since the financial district of many central business districts tend to be highly concentrated).

However, these direct links do not tell the full story: indirect links are also important in assessing the full repercussions of any change in the industry's output (in this case an assumed increase in the export of funds management services to the rest of the world).

Indirect and flow-on effects: multiplier analysis

Input-output multipliers of various kinds are summary measures used for quantifying the estimated overall impact on all industries in the economy of a hypothetical increase in the demand for the output of any one industry. The following table sets out the various output multipliers calculated by the ABS for the finance and insurance industry (refer to Attachment B for a fuller discussion of this kind of analysis).

Table 6: Finance and insurance industry output multipliers

<i>Multiplier</i>	<i>Value</i>
Initial effects	1.000
First round effects	0.327
Industrial support effects	0.209
Production induced effects(a)	0.536
Consumption induced effects	1.100
Simple multiplier(b)	1.536
Total multiplier	2.636

Notes: (a) Equal to First round plus industrial support effects.

(b) Equal to First round plus production induced effects.

Source: ABS Cat. no.5209.0.

The finance and insurance industry's total multiplier of 2.636 is, in fact, slightly lower than the average for all industries of 2.82 (due to the rather weak direct linkages the industry has with upstream and downstream industries). Industries with larger total multipliers include Meat and dairy products (3.312), Retail trade (3.245) and Wholesale trade (3.230), while those with smaller multipliers

include Ownership of dwellings (1.381 – another industry with relatively few direct linkages), Petroleum and coal products (2.131) and Repairs (2.269).

Likely effects of increased exports of funds management to the world

The following table reports the export orientation of the various industries that comprise the Australian economy, based on the latest input-output statistics compiled by the ABS at the 35-industry level of aggregation.

For a type of service that is rapidly becoming highly tradeable, exports of Australian financial and insurance services are very modest (at 2.9% of Australian production). Indeed, the industry ranks 27th of the 35 industries that together comprise the Australian economy in the published tables (one of which – Ownership of dwellings – is a purely domestic industry by definition).

This export performance does not begin to compare with Australia's traditional exporters (e.g. Mining which exports more than half what it produces, Base metals and products (40.2%), Meat and dairy products (31.2%), etc.), and is only just ahead of domestically oriented industries such as Property and business services (2.6%), Health and community services (1.2%), etc..

This represents a comparatively weak export record (so far), especially compared with similar industries overseas, which already export a high proportion of funds management services (e.g. Ireland, the UK). Reasons for its inward orientation, and what might be done about it, are discussed in the paper that accompanies this one.

Table 7: Export orientation of Australian industry
(Per cent of Australian production)

<i>Downstream industry</i>	<i>%</i>
Agriculture	25.4
Forestry & fishing	18.1
Mining	57.1
Meat & dairy products	31.7
Other food products	18.8
Beverages & tobacco products	16.6
Textiles	28.2
Clothing & footwear	21.2
Wood & wood products	9.9
Paper, printing & publishing	3.4
Petroleum & coal products	14.1
Chemicals	15.0
Rubber & plastic products	5.9
Non-metallic mineral products	3.8
Basic metals & products	40.2
Fabricated metal products	4.6
Transport equipment	17.1
Other machinery & equipment	20.7
Miscellaneous manufacturing	9.6
Electricity, gas and water	0.2
Construction	0.2
Wholesale trade	10.9
Retail trade	3.1
Repairs	0.2
Accommodation, cafes & restaurants	7.0
Transport & storage	16.0
Communication services	4.0
Finance & insurance	2.9
Ownership of dwellings	0.0
Property & business services	2.6
Government administration	0.4
Education	10.3
Health & community services	1.2
Cultural & recreational services	4.4
Personal & other services	0.5

Source: ABS Cat. no.5209.0.

Based on the output multipliers set out in Table 6, the likely effects of exporting, say, \$100 million worth of funds management services to the world is that there would be a fillip to the Australian economy eventually totalling some \$263.6 million.

However, such an increase would only have increased the exports share of the finance and insurance industry to just over 3 per cent (at the time the last input-output tables were compiled for the Australian economy).

To lift finance and insurance exports as a share of Australian production to 5 per cent is estimated to involve an eventual \$3.7 billion stimulus to the Australian economy in today's prices, while lifting the share to 10 per cent would translate into a \$13 billion boost.

However multiplier analysis will generally produce strong overestimates of the extent to which the expansion of an industry expands the whole economy. For it presupposes that wherever the industry needs further inputs to expand it can acquire them at existing prices from the economy – an assumption that assumes that resources are already lying idle. In fact, most resources cannot be purchased at existing prices but must be bid from productive uses from elsewhere in the economy. This will lead to rises in the price of these resources.

The increase in total economic output will be given by the value of the expansion in finance less what contraction is necessary in other industries to enable that expansion to take place. This is usually a very small fraction (often a very small one) of the size of the initial expansion.

However, since the average job in the finance sector pays much more than does the average job in the economy,¹³ after the economy fully adjusts, to the stimulus provided by increased exports of funds management services more people will be in better-paid jobs, on average, than was formerly the case.

To get a proper handle on the possible trade-off between increased real economic activity and increased prices, one would need to mobilise a general equilibrium model of the Australian economy that can model the scenario in a realistic way.

Nevertheless, what is clear is that the Australian economy would be a big winner if its funds management industry were in a better position to export its expertise to the world. And what is likely is that compared with a similar expansion of other industries, an expansion of financial services is likely to generate greater economy wide gains on account of its greater labour productivity as indicated by the average wages it pays its employees.

¹³ The last time input-output tables were compiled for the Australian economy, Finance an insurance industry compensation per employee was 82% above the economy-wide figure for all employees. Even if that gap has narrowed in the meantime finance sector employees are clearly more highly remunerated than those employed in most other economic activities.

APPENDIX A FUNDS MANAGEMENT IN AUSTRALIA: A STATISTICAL AND GRAPHICAL PROFILE

The financial system in Australia can be thought of as having three overlapping components. The first consists of financial enterprises (such as banks) and regulatory authorities (the Reserve Bank and the Australian Prudential Regulation Authority). The second consists of financial markets (e.g. the bond market) and their participants (issuers such as governments, and investors such as superannuation funds). The third is the payments system (that is, the cash, cheque and electronic means by which payments are effected) and its participants (e.g. banks). The interaction of these three components enables funds for investment or consumption to be made available from savings in other parts of the national or international economy.

Source 2007 Year Book of Australia

From a statistical perspective, 'managed funds' is used loosely in the financial community to embrace both collective investment institutions (such as financial asset investors) which buy assets on their own account; and investment or fund managers who act as agents for the collective investment institutions, as well as others with substantial funds to invest.

Investment managers themselves typically have relatively small balance sheets because most of the assets they acquire are purchased on behalf of others.

Before focusing on funds management, however, this attachment sets this activity in the wider context of the financial sector as a whole — for which statistics have been collected by the Australian Bureau of Statistics (ABS) over a long period. Accordingly, this attachment is divided into two parts: summary information on the Finance and insurance industry in general (Section A1); and detailed information on the Managed funds industry in particular (Section A2).

Section A1 covers types of financial institutions before presenting summary information on those parts of the industry of most relevance to IFSA members, including comparisons over time and at regular intervals.

Section A2 looks at managed funds by type of institution and type of asset — analyzing long times series for trend in these various elements — before concluding with a brief look at international comparisons.

A1 The Finance and insurance industry

Financial enterprises are institutions which engage in acquiring financial assets and incurring

liabilities: for example by taking deposits, borrowing and lending, providing superannuation, arranging insurance cover and leasing finance, and investing in financial assets of all kinds.

For national accounting purposes, ABS groups financial enterprises into six sectors: Depository corporations; Life insurance corporations; Pension funds; Other insurance corporations; Central borrowing authorities; and Financial intermediaries not elsewhere classified (n.e.c) (Box A1).

Under this classification of financial enterprises, Investment and Financial Services Association (IFSA) members would be concentrated among *Life insurance corporations*, *Pension funds* and *Financial intermediaries n.e.c.*

Box A1: Types of financial enterprises

Depository corporations – are those included in the Reserve Bank of Australia's broad money measure, comprising: the Reserve Bank; authorised depository institutions supervised by the Australian Prudential Regulation Authority (APRA), including banks, building societies and credit unions; non-supervised depository corporations registered under the Financial Statistics (Collection of Data) Act 2001 (Cwlth), including merchant banks, pastoral finance companies, finance companies and general financiers; and cash management trusts.

Life insurance corporations – cover the statutory and shareholders' funds of life insurance companies, and similar business undertaken by friendly societies and long-service-leave boards.

Pension funds – cover separately constituted superannuation funds.

Other insurance corporations – cover health, export and general insurance companies.

Central borrowing authorities – are corporations set up by state and territory governments to provide financial liability and asset management services for those governments.

Financial intermediaries n.e.c. – cover common funds, mortgage, fixed interest and equity unit trusts, issuers of asset-backed securities, economic development corporations and cooperative housing societies.

Source: ABS.

Table A1 shows the relative size of these groups of financial enterprises in terms of their financial assets. This table has been compiled on a 'consolidated' basis, that is, financial claims between institutions in the same grouping have been eliminated. The total is also consolidated, that is, financial claims between the groupings have been eliminated.¹

¹ For this reason, and because there are a number of less significant adjustments made for national accounting purposes, the statistics in Table A1 differ from other information published for the financial sector by the ABS.

Table A1: Assets of financial institutions, 30 June 2000 – 30 June 2005
(\$ billion)

<i>Depository corporations</i>									
<i>Reserve bank</i>	<i>Banks</i>	<i>Other</i>	<i>Life insurance corporations</i>	<i>Pension funds</i>	<i>Other insurance corporations</i>	<i>Central borrowing authorities</i>	<i>Financial intermediaries n.e.c.</i>	<i>Consolidated financial sector total</i>	
2000	51.1	728.6	187.0	185.7	423.9	72.9	91.3	214.3	1400.3
2001	55.1	805.7	228.2	188.8	451.1	78.0	91.8	220.0	1506.5
2002	54.7	875.6	245.3	190.5	470.1	78.8	93.9	237.6	1610.8
2003	56.5	991.0	244.7	183.9	492.8	88.1	103.6	246.5	1725.6
2004	64.7	1126.0	235.3	192.5	590.1	93.9	101.6	320.3	1986.3
2005	75.1	1237.0	259.9	211.1	688.1	98.2	111.2	393.8	2212.2
2006	93.5	1423.5	265.8	230.7	840.6	117.2	112.0	521.0	2616.6

Source: ABS, Year Books of Australia, Cat. no. 1301.0.

According to the figures reported in Table A1, the assets of *Life insurance corporations* grew by 24 per cent over the 6-year period, those of *Pension funds* by 98 per cent and those of *Financial intermediaries n.e.c.* by 143 per cent — while the asset of the financial sector as a whole (after eliminating double counting of assets) grew by 87 per cent.

Life insurance corporations

Life insurance corporations offer termination insurance and investment policies. Termination insurance includes the payment of a sum of money on the death of the insured or on the insured receiving a permanent disability. Investment products include annuities and superannuation plans.

The life insurance industry in Australia consists of 35 direct insurers, including six re-insurers. As with the banking industry, the life insurance industry is dominated by a few very large companies holding a majority of the industry's assets. Life insurance companies are supervised by the Australian Prudential Regulation Authority (APRA) under the *Life Insurance Act 1995* (Cwlth). APRA also regulates friendly societies which offer services similar to life insurance corporations.

Table A2 shows the financial assets and liabilities arising from both policyholder and shareholder investment in life insurance corporations, and APRA regulated friendly societies.

Table A2: Assets and liabilities of life insurance corporations, 2004-2006
(\$m)

	<i>Amounts outstanding 30 Jun 2004</i>	<i>Amounts outstanding 30 Jun 2005</i>	<i>Amounts outstanding 30 Jun 2005</i>
Financial assets			
Currency and deposits	10865	12028	13490
Bills of exchange	3404	2585	2824
One name paper	15347	15819	15035
Bonds	40046	42128	46216
Derivatives		155	
Loans and placements	3309	3596	4612
Equities	114418	128422	142314
Other accounts receivable	5142	6388	6246
Total	192531	211121	230737
Liabilities			
Bills of exchange	49	3	6
One name paper issued in Australia			
One name paper issued offshore	967		
Bond etc. issued in Australia	240		
Bonds etc. issued offshore	289	1258	1187
Derivatives	123	64	245
Loans and placements	3452	4890	5258
Listed & unlisted equity	30412	33365	42247
Net equity in reserves	50184	58810	60128
Net equity of pension funds	124689	137328	154071
Other accounts payable	6056	4214	4606
Total	216461	239932	267748

Source: ABS Cat. no. 5332.0.

Thus, over the 2004-06 period, the financial assets of life insurance corporations grew by some 19.8 per cent, while total liabilities grew by 23.7 per cent. In terms of movements over time in the assets of life insurance corporations, the largest changes were loans and placements, which grew by 39.4 per cent over the period, equities (24.2% increase) and currency and deposits (24.2% increase), while bills of exchange decreased in importance (17% decrease). On the liabilities side, the largest changes were bonds issued offshore, which grew by 310.7 per cent over the period, derivatives (99.2% increase), and loans and placements (52.3% increase), while one name paper issued offshore and bonds issued and Australia ceased to feature, and with bills of exchange also falling from favour (decreasing by 87.8%).

Pension funds

Pension (superannuation) funds have been established to provide retirement benefits for their members. Members make contributions during their employment and receive the benefits of this form of saving in retirement. There are two basic types of contribution: employer contributions under the superannuation guarantee, and voluntary contributions. In order to receive concessional taxation treatment, a pension fund must elect to be regulated under the

Superannuation Industry (Supervision) Act 1993 (Cwlth) (SIS Act). These funds are supervised by either APRA or the Australian Taxation Office (ATO). Public sector funds (i.e. funds sponsored by a government employer or government controlled business enterprise) are exempt from direct APRA supervision.

The largest number of pension funds comprise self-managed superannuation funds. From 1 July 2000, the ATO assumed responsibility for regulating self-managed superannuation funds.

Self-managed superannuation funds are superannuation funds that have less than five members and for which:

- each individual trustee of the fund is a fund member
- each member of the fund is a trustee
- no member of the fund is an employee of another member of a fund, unless they are related
- if the trustee of the fund is a body corporate each director of the body corporate is a member of the fund.

Corporate funds are funds sponsored by a single non-government employer, or group of employers. Industry funds generally have closed memberships restricted to the employees of a particular industry and are established under an agreement between the parties to an industrial award.

Public sector funds are those funds sponsored by a public sector employer. Retail funds are pooled superannuation products sold through an intermediary to the general public. Funds with less than five members, but which do not qualify as self-managed superannuation funds, are known as small APRA funds.

In addition to separately constituted funds, the SIS Act also provides for special accounts operated by financial institutions earmarked for superannuation contributions, known as *Retirement Savings Accounts*, which also qualify for concessional taxation under the supervision of APRA. The liabilities represented by these accounts are liabilities of the institutions concerned and are included with the relevant institution in this chapter (e.g. retirement savings accounts operated by banks are included in bank deposits in table 26.4).

The number of pension funds is shown in Table A3. The assets of pension funds are shown in Table A4 and include unfunded pension claims by pension funds on the Australian Government where these have been formally recognised in accounting systems. The assets in the table do not separately identify any provision for the pension liabilities of governments to public sector employees in respect of unfunded retirement benefits. At 30 June 2006, the ABS estimate for claims by households on governments for these outstanding liabilities was \$155.4 billion.

Table A3: Pension funds
(Number)

<i>Type of fund</i>	<i>2004</i>	<i>2005</i>	<i>2006</i>
Corporate	1394	963	557
Industry	115	92	84
Public sector	41	43	42
Retail	235	226	187
Small funds(a)	289132	306993	326839
Total	290917	308317	327709

Notes: (a) Small funds include small Australian Prudential Regulation Authority funds, single member approved deposit funds and self managed superannuation funds.

Source: APRA.

While the number of pension funds increased overall over the 2004-06 period (by 12.6%), this masked considerable consolidation in the pension (superannuation) funds sector, with the number of corporate funds contracting 60 per cent, industry funds by 27 per cent and retail ones by 20.4 per cent — more than offset by a 13 per cent increase in small funds (commonly so called 'do-it-yourself (DIY) super) and a modest 2.4 per cent increase in the number of public sector funds.

Table A4: Assets of pension funds
(\$m)

	<i>Amounts outstanding 30 Jun 2004</i>	<i>Amounts outstanding 30 Jun 2005</i>	<i>Amounts outstanding 30 Jun 2005</i>
Financial assets			
Currency and deposits	43282	53134	64766
Bills of exchange	15212	14712	15448
One name paper	15394	14397	16169
Bonds	54487	61178	75475
Loans and placements	18498	21707	28343
Equities	308323	375989	474010
Unfunded superannuation claims	1546	7	5
Net equity of pension funds in life office reserves	124689	137328	154071
Other accounts receivable	8666	9631	12288
Total	590097	688083	840575
Liabilities			
Loans and placements	334	405	603
Net equity in reserves	611102	716869	871291
Other accounts payable	6015	4562	4763
Total	617451	721836	876657

Source: ABS Cat. no. 5332.0.

Thus, over the 2004-06 period, the financial assets of pension funds grew by some 42.4 per cent, while total liabilities grew by 42 per cent. In terms of movements over time in the assets of pension funds, the largest changes were equities, which grew by 53.7 per cent over the period, loans and placements (53.2% increase) and currency and deposits (49.6% increase), while great inroads were made into reducing unfunded superannuation claims (99.7% decrease to a nominal amount). On the liabilities side, loans and placements grew by 80.5 per cent, net equity in reserves by 42.6 per cent, while other accounts payable decreased by 20.8 per cent.

In terms of the changing composition of the assets of pension funds as a result of these movements: equities increased by 4.1 percentage points (from accounting for 52.2% of financial assets in 2004 to 56.4% in 2006); the net equity of pension funds in life office reserves fell by 2.8 percentage points (from accounting for 21.1% of assets in 2004 to 18.3% in 2006); while on the liabilities side net equities in reserves increased by 0.4 percentage points (from accounting for 99% of financial liabilities in 2004 to 99.4% in 2006), while other accounts payable fell by 0.5 percentage points (from 1% of liabilities in 2004 to 0.5% in 2006).

Financial intermediaries not elsewhere classified (n.e.c.)

Under the ABS classification of financial enterprises, this sub-sector comprises all institutions that meet the definition of a financial enterprise and have not been included elsewhere. It includes:

Common funds — are set up by trustee companies and are governed by state Trustee Acts. They allow the trustee companies to combine depositors' funds and other funds held in trust in an investment pool. They are categorised according to the main types of assets in the pool, for example, cash funds or equity funds.

Public unit trusts — are investment funds open to the Australian public. Their operations are governed by a trust deed which is administered by a management company. Under the *Managed Investments Act 1997* (Cwlth), the management company has become the single responsible entity for both investment strategy and custodial arrangements; the latter previously had been the responsibility of a trustee. These trusts allow their unit holders to dispose of their units relatively quickly. They may sell them back to the manager if the trust is unlisted, or sell them on the Australian Stock Exchange (ASX) if the trust is listed. While public unit trusts are not subject to supervision by APRA or registered under the *Financial Statistics (Collection of Data) Act 2001* (Cwlth), they are subject to the provisions of corporations law which includes having their prospectus registered with ASIC.

Securitisers — issue short- and/or long-term debt securities which are backed by specific assets. The most common assets bought by securitisation trusts/companies are residential mortgages. These mortgages are originated by financial institutions such as banks and building societies or specialist mortgage managers. Other assets can also be used to back these securities, such as credit card receivables and financial leases. Securitisers generally pool the assets and use the income on them to pay interest to the holders of the asset-backed securities.

Cooperative housing societies — are similar to permanent building societies. In the past they were wound up after a set period, but now they too are continuing bodies. They raise money through loans from members (rather than deposits) and provide finance to members in the form of housing loans. Over recent years many cooperative housing societies have originated mortgages on behalf of securitisers.

Investment companies — are similar to equity trusts in that they invest in the shares of other companies. However, investors in investment companies hold share assets, not unit assets.

Fund managers, insurance brokers and arrangers of hedging instruments — are classified as financial auxiliaries as they engage primarily in activities closely related to financial

intermediation, but they themselves do not perform an intermediation role. Auxiliaries primarily act as agents for their clients (usually other financial entities) on a fee-for-service basis, and as such the financial asset remains on the balance sheet of the client, not the auxiliary. However, a small portion of the activities of auxiliaries is brought to account on their own balance sheet, and these amounts are included in Table A5.

Economic development corporations — are owned by governments. As their name implies, these bodies are expected to finance infrastructure developments mainly in their home state or territory.

Wholesale trusts — are investment funds that are only open to institutional investors – life insurance corporations, superannuation funds, retail trusts, corporate clients, high net worth individuals — due to high entry levels (e.g. \$500,000 or above). They may issue a prospectus, but more commonly issue an information memorandum. Only those which invest in financial assets are included in Table A5.

Table A5: Assets of financial intermediaries not elsewhere classified
(\$m)

	<i>Amounts outstanding 30 Jun 2004</i>	<i>Amounts outstanding 30 Jun 2005</i>	<i>Amounts outstanding 30 Jun 2005</i>
Public unit trusts(a)	117162	127095	165253
Equity unit trusts	92946	102196	137610
Other unit trusts	24216	24899	27643
Common funds	9687	9954	10687
Securitisers	163903	186658	217782
Other(b)	29553	70050	127293
Total	320305	393757	521015

Notes: (a) Excludes property and trading trusts. (b) Includes investment companies, economic development corporations, fund managers, insurance brokers, hedging instrument arrangers, wholesale trusts, cooperative housing societies and state government housing schemes.

Source: ABS Cat. nos. 5232.0.55.001, 5332.0 and 5655.0.

Thus, over the 2004-06 period, the financial assets of financial intermediaries grew by some 62.7 per cent. In terms of movements over time in the assets of financial intermediaries, the largest changes were in the other group (including investment companies, fund managers, wholesale trusts, etc.), which grew by 330.7 per cent over the period and equity unit trusts (48.1% increase).

In terms of the changing composition of the assets of financial intermediaries as a result of these changes, the 'other' group increased by 15.2 percentage points (from accounting for 9.2% of financial assets in 2004 to 24.4% in 2006) — so that each of the other categories decreased in relative importance (e.g. equity unit trusts fell by 2.6 percentage points (from accounting for 29% of assets in 2004 to 26.4% in 2006)).

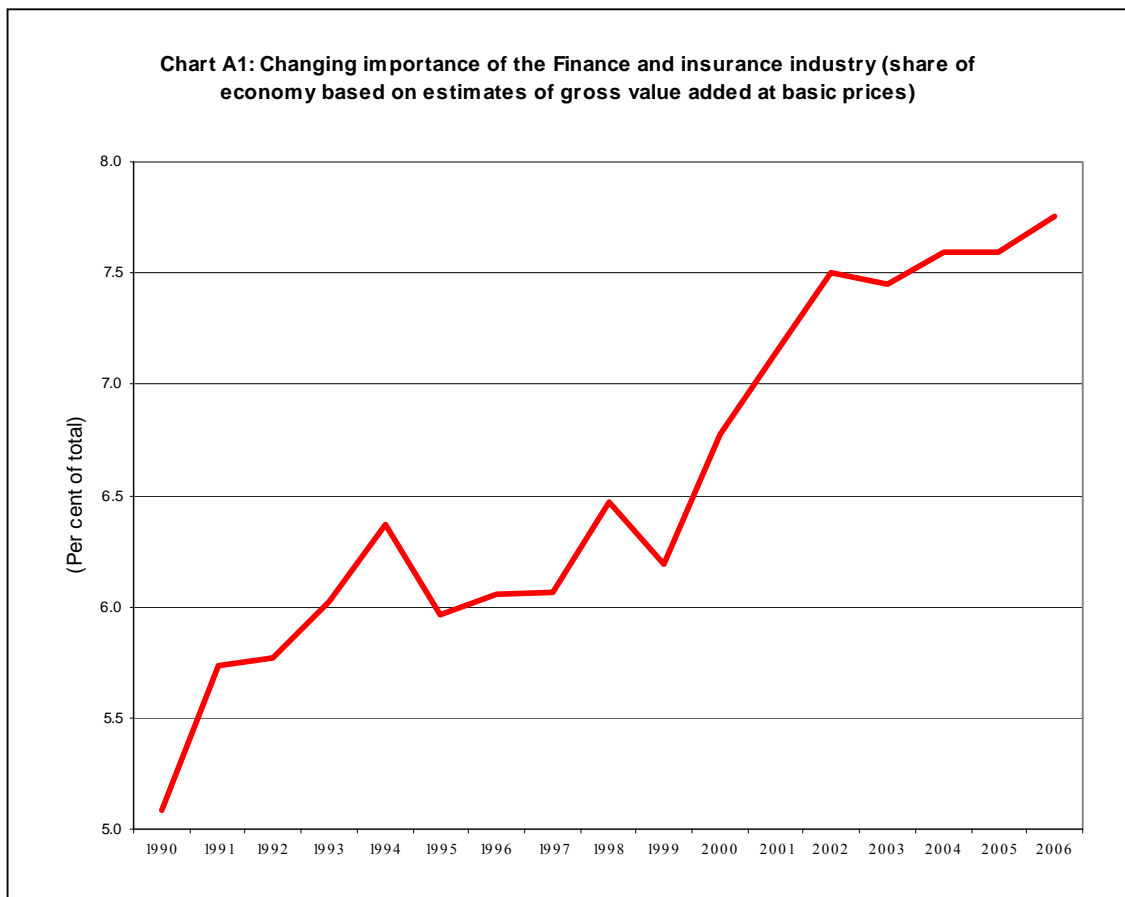
Domestic comparisons

The performance of the *Finance and insurance* industry can be compared both historically (e.g. to show how its contribution of GDP has changed over time) and with other industries (e.g. to show how its contribution to GDP compares with that made by other industries at a

given point in time).

Longitudinal comparisons

The *Finance and insurance* industry has long constituted an important sector of the Australian economy. In 1990, for example it accounted for 5.1 per cent of total industry gross value added (GVA) measured at basic prices. By 2006, this proportion had increased 52.5 per cent to 7.8 per cent (Chart A1) — which was the highest percentage increase recorded by any industry over the period (see Table A6 for a list of industries).² This meant that, by 2006, only the Property and business services (at 12.4%), Manufacturing (11%) and (the rather artificially constructed) Ownership of dwellings (8.5%) industries accounted for more economic activity than did Finance and insurance.



² The average for all industries over the period was 4.1% — so that the Finance and insurance industry grew 13 times as fast as the economy as a whole (as measured by GVA at basic prices).



Chart A2 graphs year-to-year changes in the growing contribution of the *Finance and insurance* industry to the Australian economy. As could be expected, growth moderated in the first half of the 1990s reflecting subdued economic activity during that period, before growth recovered again only to suffer a setback in 1999, followed by a strong recovery (to almost 10% growth in its share of economic activity in 2000) — since when growth in the share of finance and insurance in the overall economy has been muted.

The *Finance and insurance* industry employed an estimated 335,200 persons in 2000-01, rising to 357,900 in 2004-05 (representing a modest increase of 1.3% over the period).

Cross-sectional comparisons

Table A6 records the relative importance of individual industries (including Finance and insurance) to the overall economy as measured by their estimated contribution to industry GVA measured at basic prices. As already noted, in 2006 (and on this measurement basis), the *Finance and insurance* industry accounted for just less than one thirteenth of the domestic economy.

Table A6: Relative importance of individual industries in terms of their contribution to total gross value added at basic prices, 2006 (Per cent)

<i>Industry</i>	<i>2006</i>
Agriculture	3.1
Mining	7.5
Manufacturing	11.0
Electricity, gas & water	2.5
Construction	7.0
Wholesale trade	5.1
Retail trade	6.2
Accommodation, cafes & restaurants	2.2
Transport & storage	4.9
Communications	2.6
Finance & insurance	7.8
Property & business services	12.4
Government admin & defence	4.2
Education	4.7
Health & community services	6.7
Cultural & recreational services	1.6
Personal & other services	2.0
Ownership of dwellings	8.5
Total	100.0

Source: ABS Cat. no. 5204.0.

Combined longitudinal and cross-sectional comparisons

Table A7 records the relative importance of individual industries (including Finance and insurance) to the overall economy both at regular points in and over time. As already noted, in the period from 1990 to 2000, the *Finance and insurance* industry grew from accounting for just less than one twentieth to just less than one thirteenth of the domestic economy.

The estimates in Table A7 are graphed in Chart A3 (Changing industrial composition of the Australian economy).

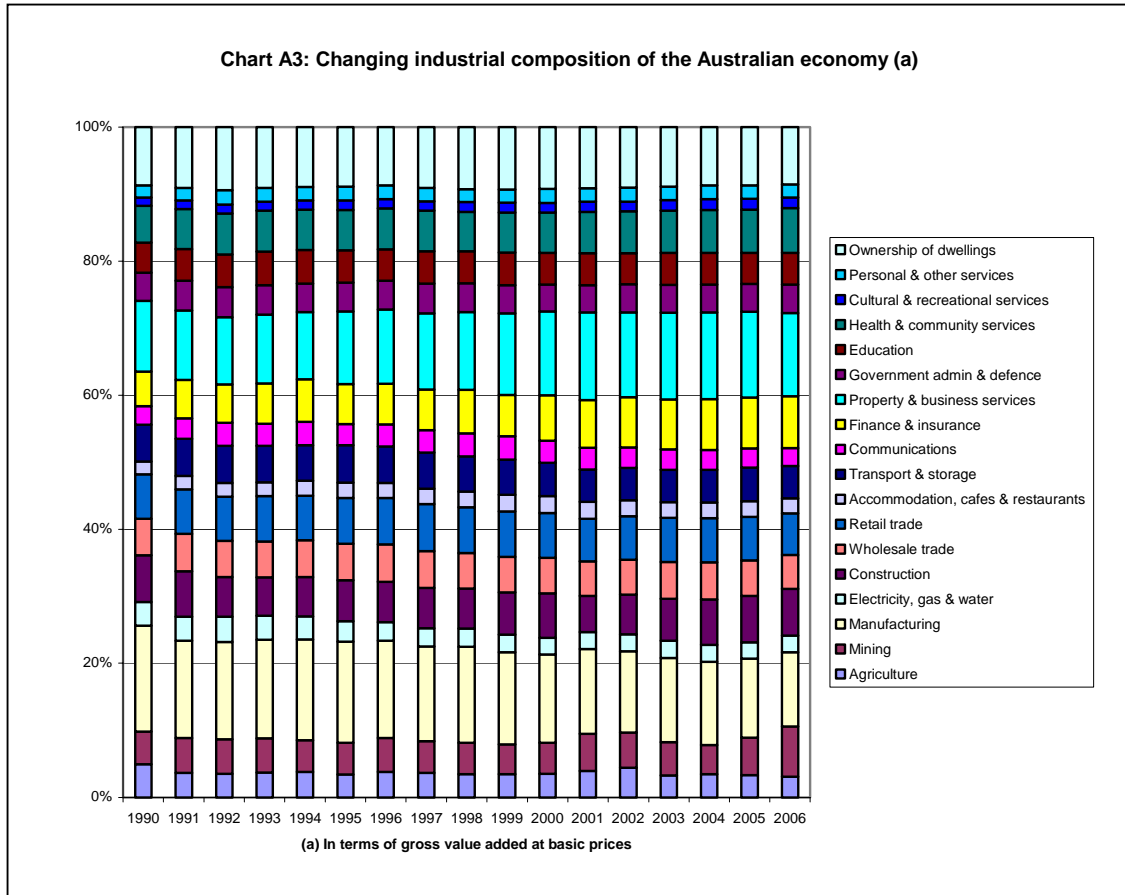
Table A7: Relative importance of individual industries in term of their contribution to total gross value added at basic prices, 1990-1997
(Per cent)

<i>Industry</i>	1990	1991	1992	1993	1994	1995	1996	1997
Agriculture	4.9	3.6	3.5	3.7	3.8	3.4	3.8	3.7
Mining	4.9	5.2	5.1	5.1	4.7	4.7	5.0	4.7
Manufacturing	15.8	14.5	14.6	14.7	15.1	15.1	14.6	14.2
Electricity, gas & water	3.5	3.6	3.8	3.6	3.4	3.0	2.8	2.7
Construction	6.9	6.8	5.9	5.7	5.8	6.1	6.0	6.0
Wholesale trade	5.4	5.6	5.4	5.4	5.5	5.5	5.6	5.5
Retail trade	6.6	6.6	6.6	6.8	6.6	6.8	6.9	7.0
Accommodation, cafes & restaurants	1.9	2.0	2.0	2.0	2.2	2.3	2.2	2.3
Transport & storage	5.6	5.6	5.6	5.5	5.3	5.6	5.5	5.4
Communications	2.8	3.0	3.4	3.3	3.5	3.1	3.3	3.4
Finance & insurance	5.1	5.7	5.8	6.0	6.4	6.0	6.1	6.1
Property & business services	10.6	10.4	10.0	10.3	10.0	10.8	11.1	11.4
Government admin & defence	4.2	4.5	4.5	4.4	4.3	4.3	4.3	4.4
Education	4.5	4.7	4.9	5.0	5.0	4.8	4.7	4.8
Health & community services	5.5	6.0	6.1	6.1	6.0	6.0	6.1	6.1
Cultural & recreational services	1.2	1.2	1.3	1.3	1.4	1.4	1.4	1.4
Personal & other services	1.8	1.9	2.1	2.1	2.0	2.0	2.0	2.0
Ownership of dwellings	8.7	9.1	9.4	9.1	8.9	8.9	8.7	9.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Table A7 cont: Relative importance of individual industries in term of their cont contribution to total gross value added at basic prices, 1997-2006
(Per cent)

<i>Industry</i>	1998	1999	2000	2001	2002	2003	2004	2005	2006
Agriculture	3.4	3.5	3.5	4.0	4.4	3.3	3.5	3.3	3.1
Mining	4.7	4.4	4.6	5.5	5.3	5.0	4.3	5.6	7.5
Manufacturing	14.3	13.8	13.2	12.7	12.1	12.5	12.4	11.7	11.0
Electricity, gas & water	2.7	2.6	2.5	2.6	2.5	2.6	2.5	2.5	2.5
Construction	6.0	6.3	6.6	5.4	5.9	6.3	6.8	6.9	7.0
Wholesale trade	5.3	5.3	5.3	5.1	5.2	5.5	5.5	5.3	5.1
Retail trade	6.8	6.8	6.7	6.3	6.5	6.6	6.6	6.4	6.2
Accommodation, cafes & restaurants	2.4	2.5	2.5	2.5	2.4	2.3	2.3	2.4	2.2
Transport & storage	5.2	5.2	4.9	4.9	4.8	4.9	4.9	5.0	4.9
Communications	3.5	3.5	3.3	3.2	3.0	3.1	3.0	2.9	2.6
Finance & insurance	6.5	6.2	6.8	7.1	7.5	7.4	7.6	7.6	7.8
Property & business services	11.6	12.2	12.5	13.1	12.6	12.9	12.9	12.8	12.4
Government admin & defence	4.3	4.2	4.1	4.1	4.2	4.2	4.2	4.2	4.2
Education	4.8	4.8	4.7	4.7	4.7	4.7	4.7	4.6	4.7
Health & community services	5.9	6.0	6.0	6.2	6.2	6.3	6.4	6.5	6.7
Cultural & recreational services	1.5	1.4	1.4	1.5	1.5	1.6	1.6	1.6	1.6
Personal & other services	1.9	2.0	2.1	2.0	2.1	2.0	2.0	2.0	2.0
Ownership of dwellings	9.2	9.3	9.2	9.1	9.0	8.9	8.7	8.6	8.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: ABS Cat. no. 5204.0.



A2 Managed funds

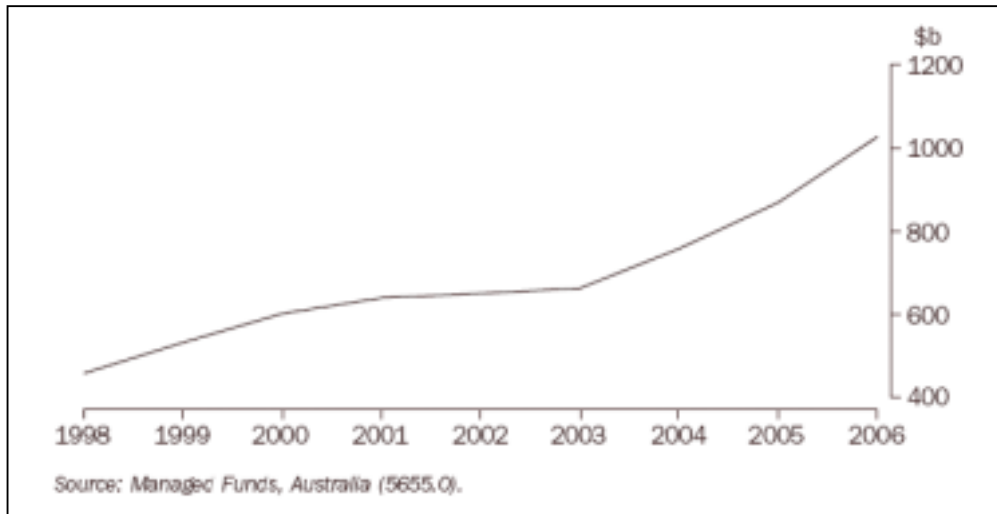
As noted at the outset, the term 'managed funds' is used loosely in the financial community to embrace two broad types of institutions:

- collective investment institutions (such as life insurance companies) which buy assets on their own account; and
- investment or fund managers which act as investment agents for the collective investment institutions as well as others with substantial funds to invest.

Investment managers have relatively small balance sheets because most of the assets they acquire are purchased on behalf of clients.

The significant growth in managed funds up to 2000 (see following graph) eased during the 2001-03 period of uncertainty on equity markets, before accelerating to be back on trend. The main influence on this growth pattern has been the price of shares on stock markets.

Consolidated assets of managed funds



The managed funds industry is a difficult one to measure because of the large amounts of financial interaction between collective investment institutions and fund managers, and among fund managers themselves. Consequently, double counting of funds which are 'churning' through the system represents a challenge to be met in order to accurately measure of the funds management industry in Australia. The approach taken by the ABS is to take the consolidated assets of collective investment institutions (as shown in the graph above), add to those estimates those funds managed on behalf of other clients such as governments, corporations, charities, overseas clients and 'net-off' funds sourced from other fund managers. Table A8 provides a snapshot of the funds management industry as estimated by the ABS at 30 June for the past several years.

Table A8: Estimated total funds under management of the managed funds industry (\$m)

	2004	2005	2006
Total consolidated assets of collective investment institutions	756632	869545	1027515
<i>plus</i> total funds under management of investment managers sourced from Australian equities other than collective investment institutions	198909	223981	242608
<i>plus</i> total funds under management of investment managers sourced from overseas	26615	30933	40537
<i>less</i> total funds under management of investment managers sourced from other investment managers	42465	39927	24780
<i>equals</i> estimated total funds under management	939691	1084532	1285880

Source: ABS Cat. no. 5655.0.

Thus, over the 2004-06 period, total funds under management grew by a healthy 36.8 per cent.

Charts A4 to A9 graph change in financial assets, by type of institution (Life insurance offices, Superannuation funds, Public unit trusts, Friendly societies, Common funds, Cash management trusts) covering the 18-year period from the June quarter of 1988 through to the September quarter of 2006, while Chart A10 graphs the total financial assets of all institution types.

Over this extended period, the financial assets of Cash management trusts grew most strongly (at around 15.4% per annum on average), followed by Public unit trusts (14.8% p.a.), superannuation funds (14.0%), Life insurance offices (7.4%) and Common funds (5.3%) — while the financial assets of Friendly societies recorded negative growth (on average) over the period (of -2.1% p.a.).

Charts A11 to A18 graph change in financial assets, by type of asset (Cash and deposits, Loans and placements, Short and Long term securities, Equities and units in trusts, Land and buildings, Assets overseas, Other assets) covering the same 18-year period from the June quarter of 1988 through to the September quarter of 2006, while Chart A19 graphs the total financial assets for all asset types (thus replicating Chart A10).

In terms of asset allocation over this extended period, Assets overseas grew most strongly (at around 19.3% per annum on average), followed by Equities and units in trusts (15.7% p.a.), Other assets (9.7%), Short term securities (9.2%), Land and buildings (8.9%), Long term securities (6.4%), and Loans and placements (6.2%).

Over this period, the consumer price index (CPI) grew by around 3.2 per cent per annum, on average — so an indication of real growth (i.e. adjusting for the effects of inflation) can be obtained by subtracting 3.2 from the annual average growth (decline) figures cited in brackets above.

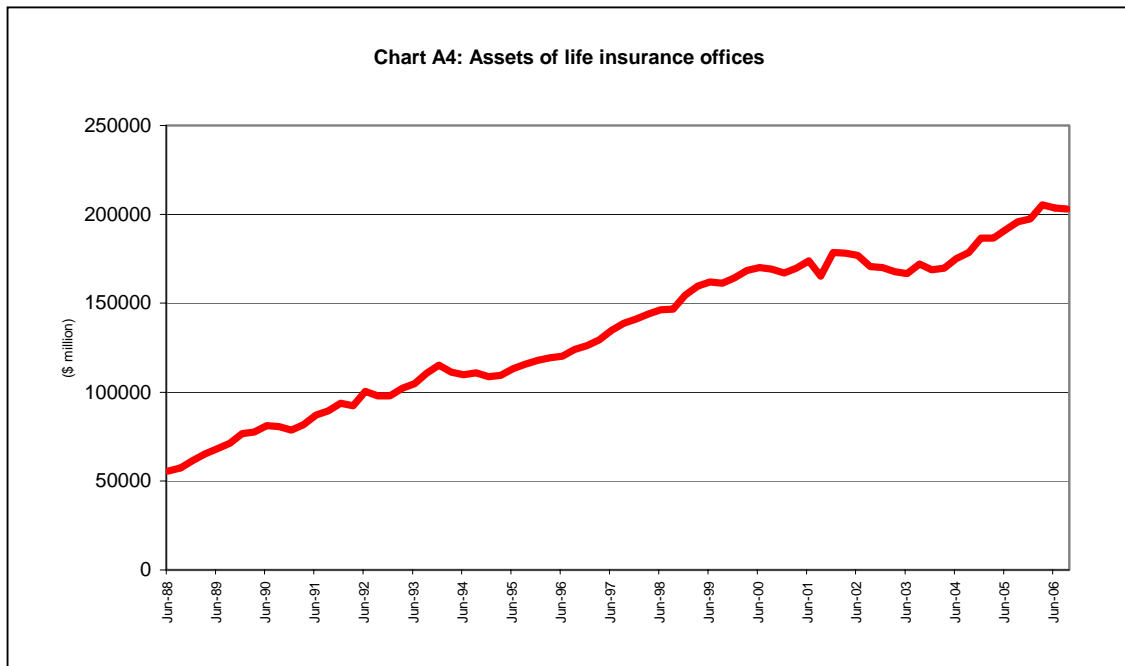


Chart A4 graphs quarterly growth (or decline) in the financial assets of life insurance offices over the period 1998-2006. Asset growth has been steady (averaging 1.8% per quarter, or some 7.4% per annum).

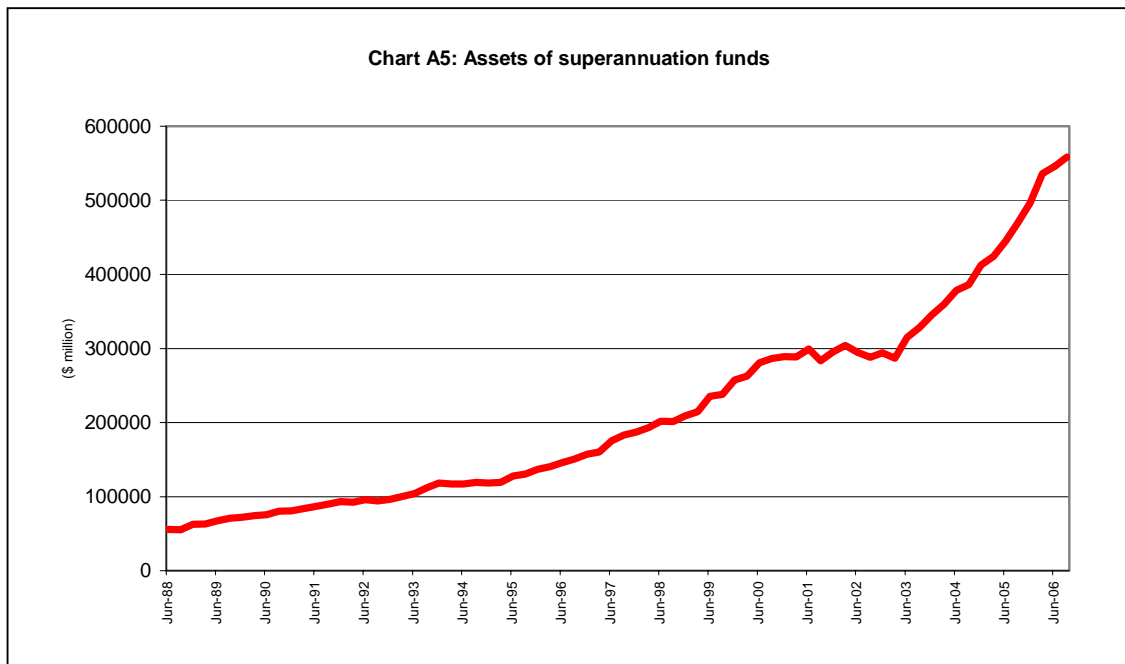


Chart A5 graphs quarterly growth (or decline) in the financial assets of superannuation funds over the period 1998-2006. Asset growth has been strong (averaging 3.3% per quarter, or some 14.0% per annum).

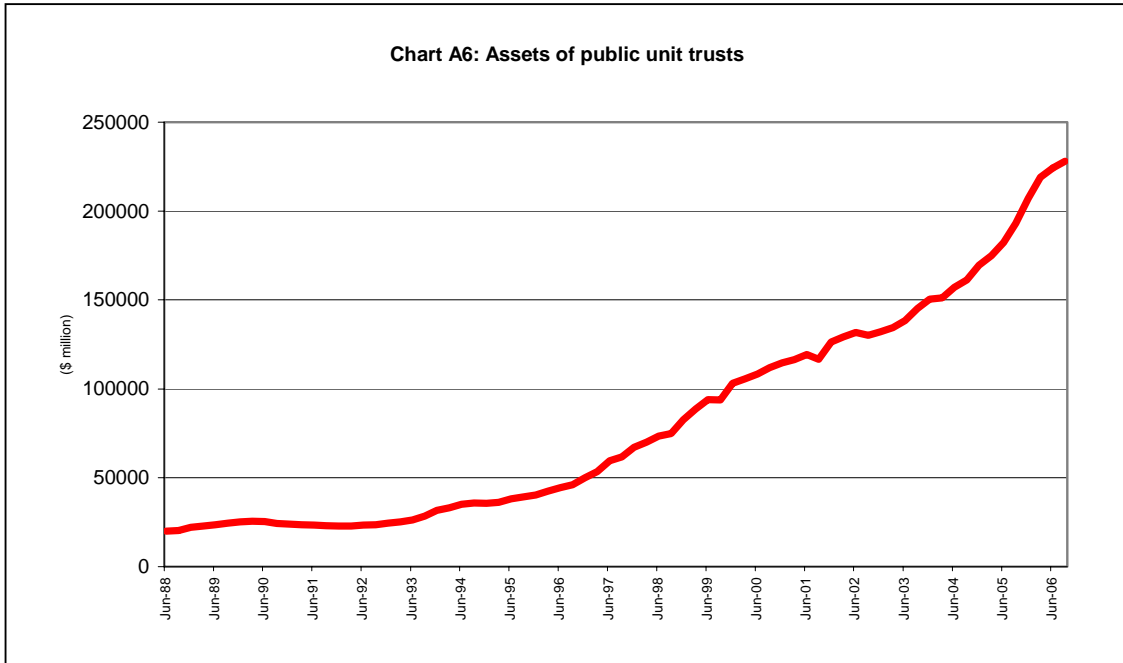


Chart A6 graphs quarterly growth (or decline) in the financial assets of public unit trusts over the period 1998-2006. Asset growth has been strong (averaging 3.4% per quarter, or some 14.8% per annum).

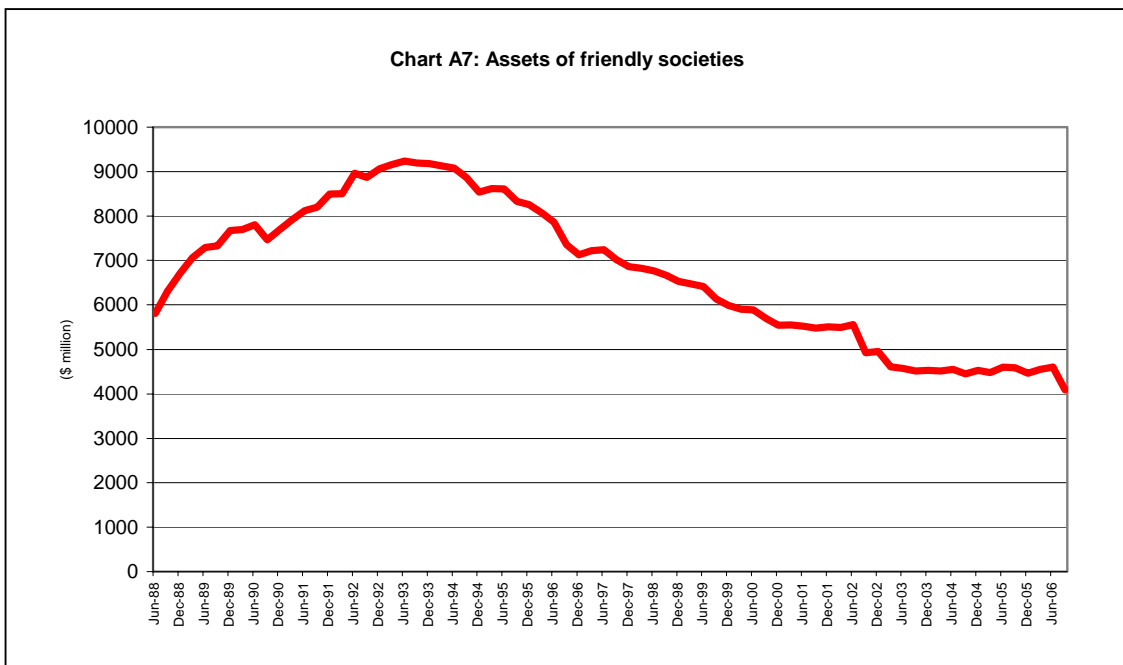


Chart A7 graphs quarterly growth (or decline) in the financial assets of friendly societies over the period 1998-2006. Asset growth has been in decline (averaging -0.4% per quarter, or -2.1% per annum).

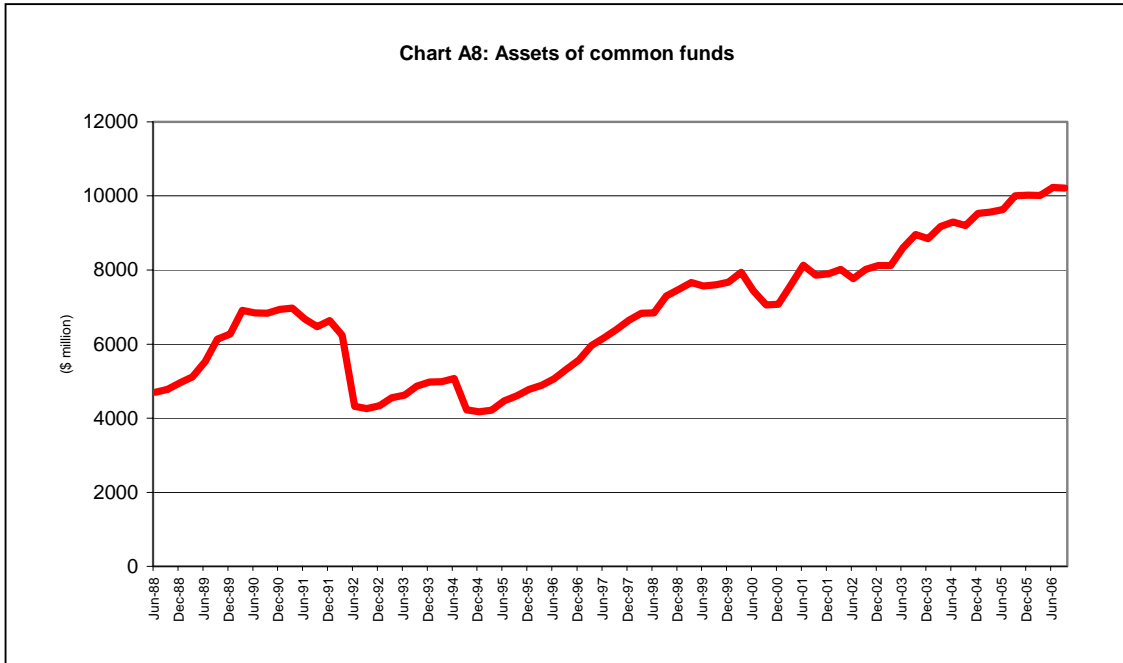


Chart A8 graphs quarterly growth (or decline) in the financial assets of common funds over the period 1998-2006. Asset growth has been hesitant (averaging 1.2% per quarter, or some 5.3% per annum).

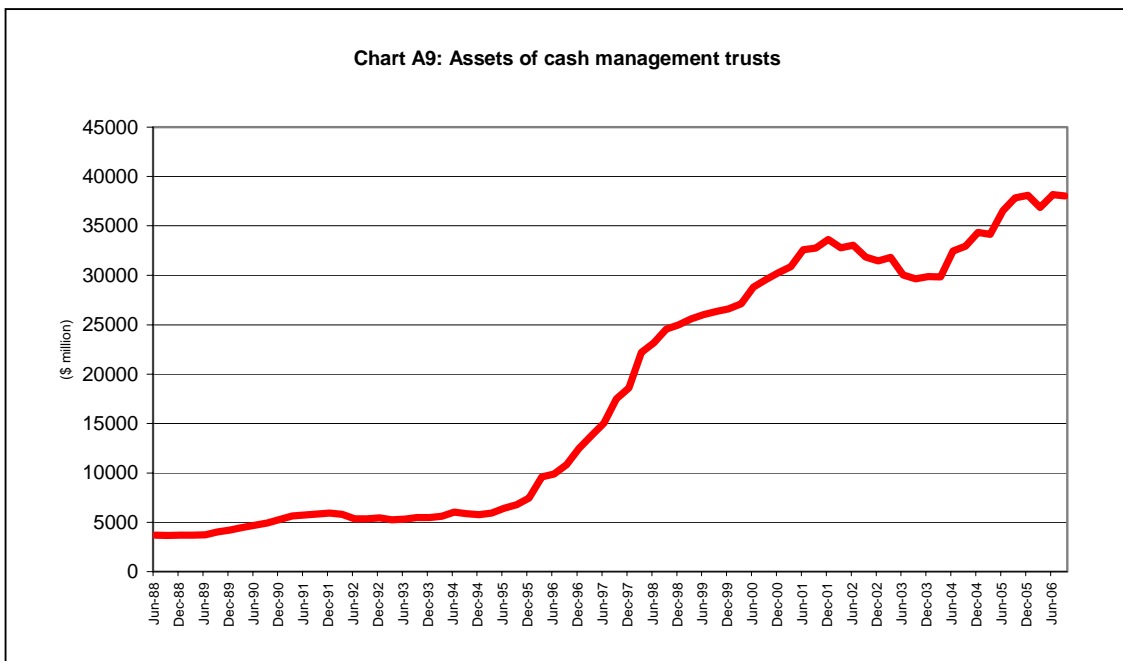


Chart A9 graphs quarterly growth (or decline) in the financial assets of cash management trusts over the period 1998-2006. Asset growth has been strong, of somewhat hesitant (averaging 3.4% per quarter, or some 15.4% per annum).

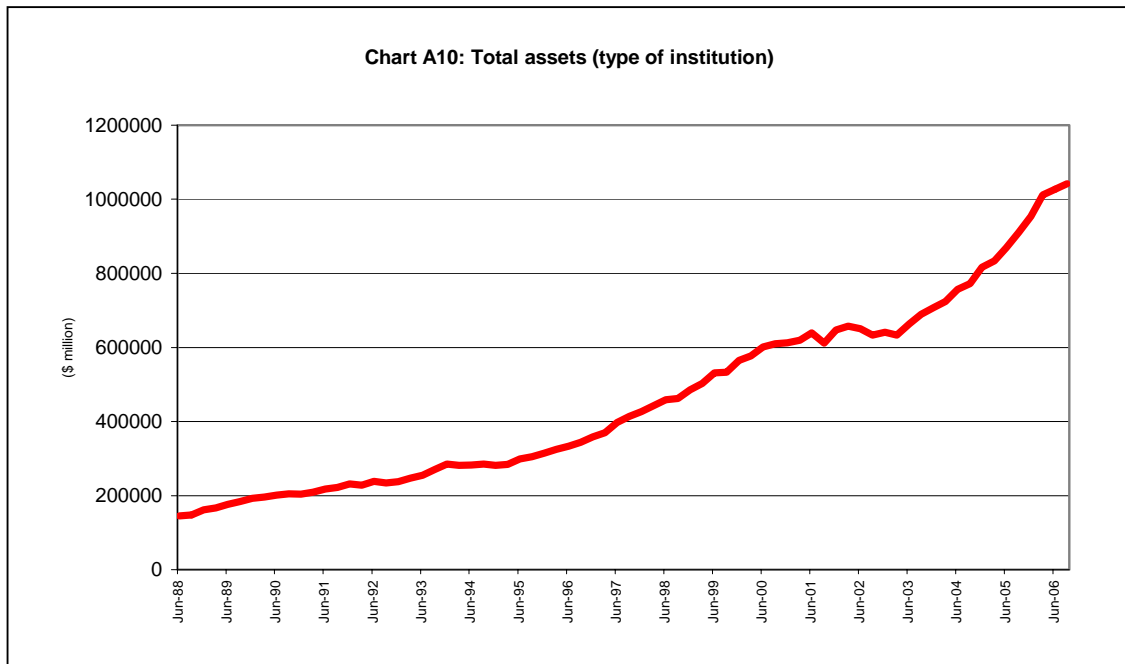


Chart A10 graphs quarterly growth (or decline) in the total financial assets of all institutional types over the period 1998-2006. Asset growth has been steady (averaging 2.8% per quarter, or some 11.6% per annum).

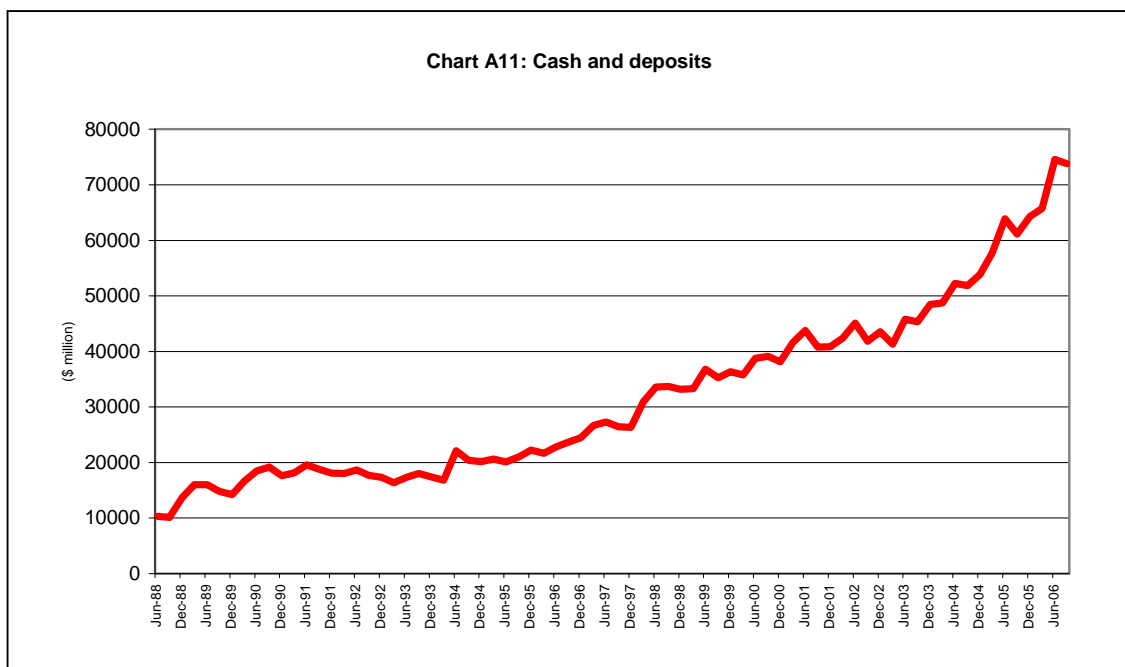


Chart A11 graphs quarterly growth (or decline) in financial assets in the form of cash and deposits over the period 1998-2006. Asset growth has been steady (averaging 3.0% per quarter, or some 12.3% per annum).

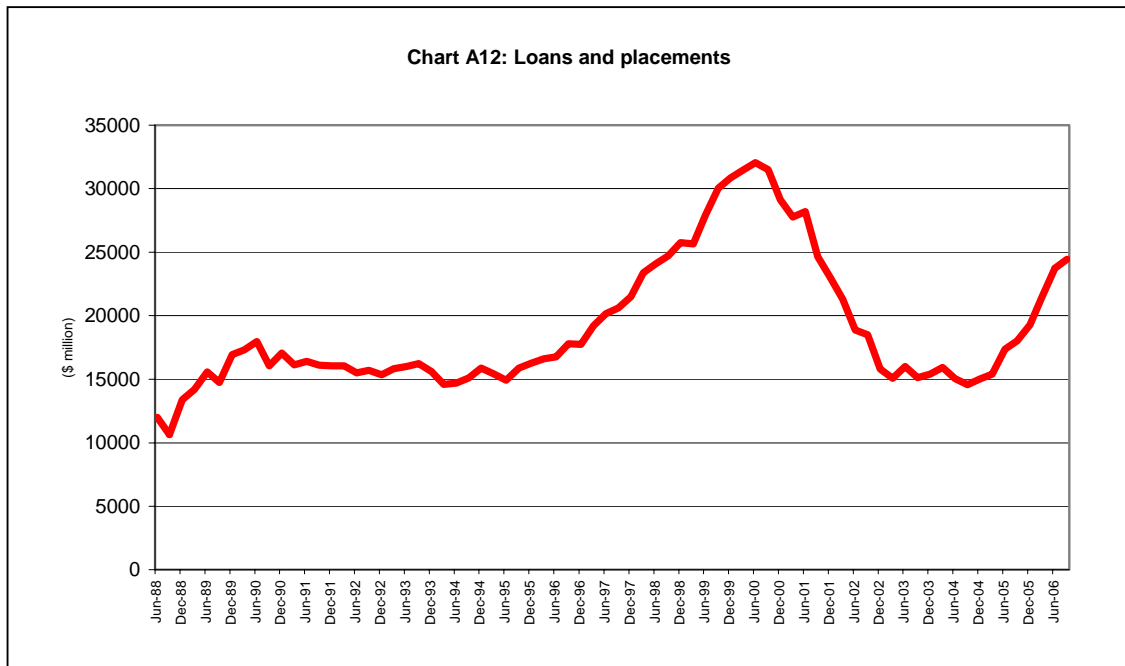


Chart A12 graphs quarterly growth (or decline) in financial assets in the form of loans and placements over the period 1998-2006. Asset growth has been cyclical (averaging 1.2% per quarter, or some 6.2% per annum).

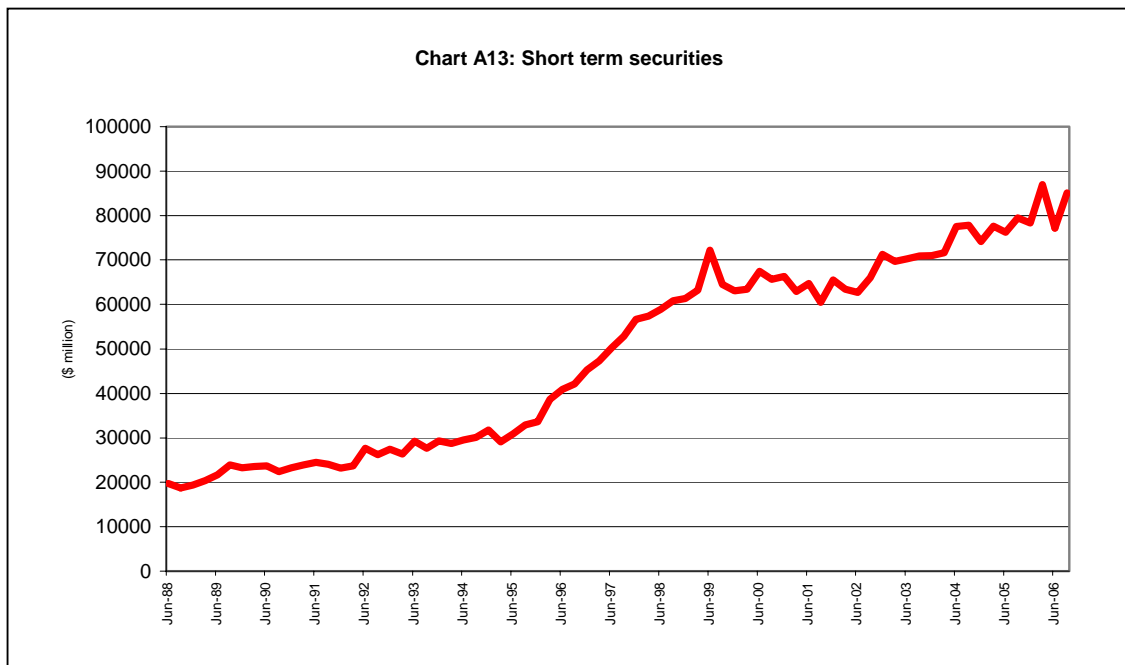


Chart A13 graphs quarterly growth (or decline) in financial assets in the form of short term deposits over the period 1998-2006. Asset growth has been steady, if somewhat bumpy (averaging 2.2% per quarter, or some 9.2% per annum).

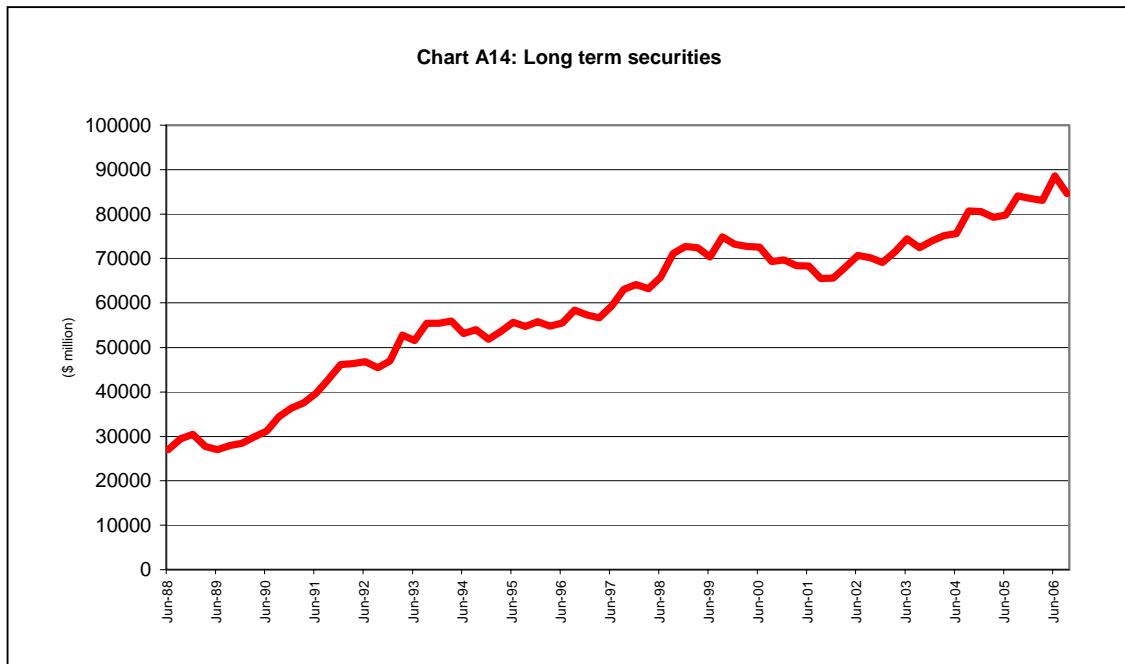


Chart A14 graphs quarterly growth (or decline) in financial assets in the form of long term equities over the period 1998-2006. Asset growth has been steady (averaging 1.7% per quarter, or some 6.4% per annum).

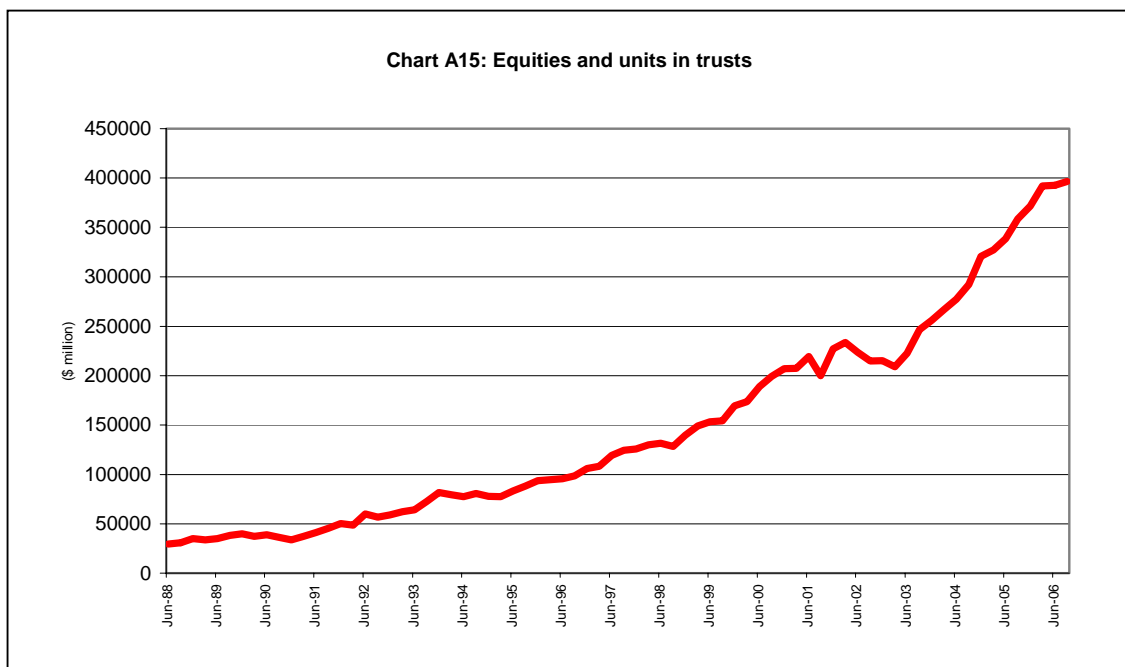


Chart A15 graphs quarterly growth (or decline) in financial assets in the form of equities and units in trusts over the period 1998-2006. Asset growth has been strong, apart from the early-2000s (averaging 3.8% per quarter, or some 15.7% per annum).

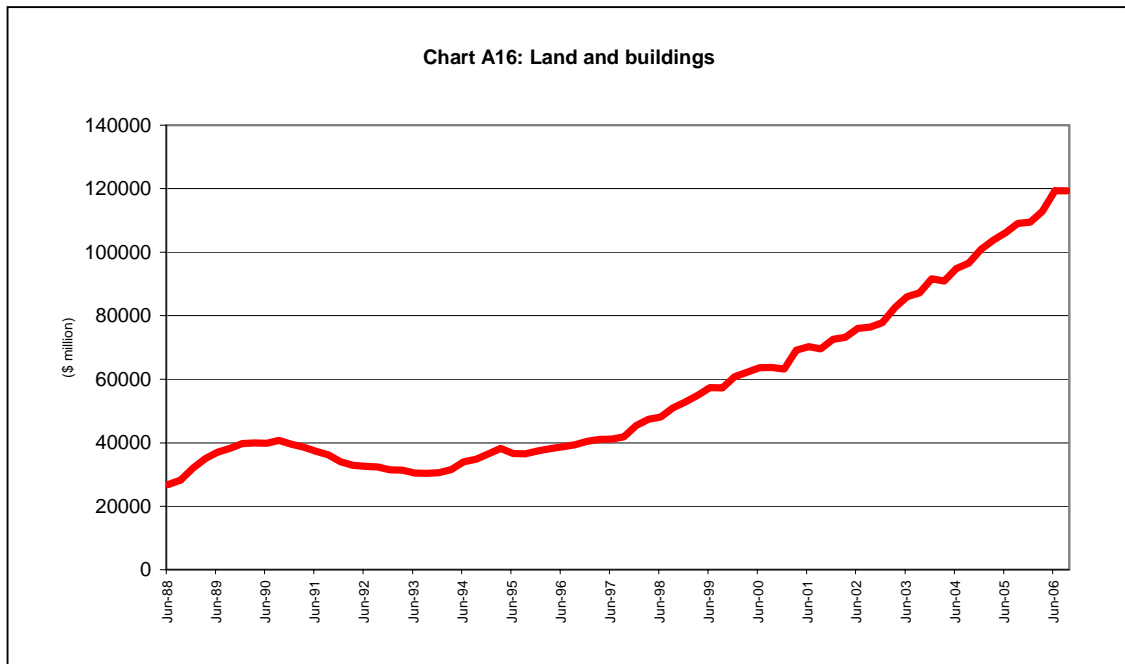


Chart A16 graphs quarterly growth (or decline) in financial assets in the form of land and buildings over the period 1998-2006. Asset growth has been steady, after being flat for most of the 1990s (averaging 2.1% per quarter, or some 8.9% per annum).

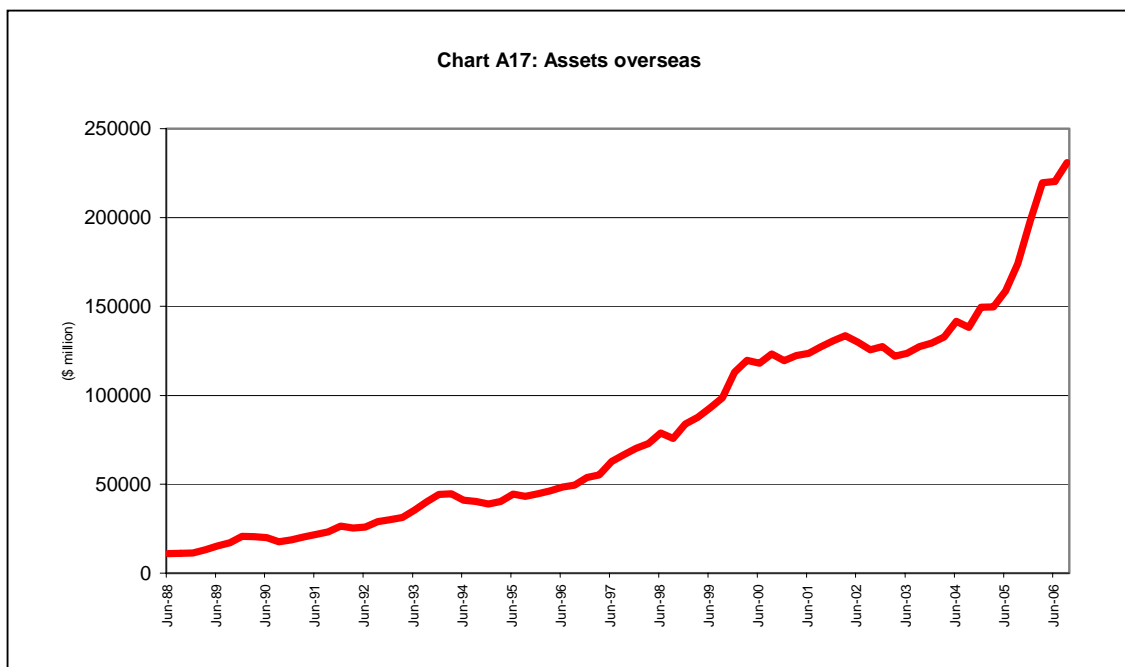


Chart A17 graphs quarterly growth (or decline) in financial assets in the form of assets overseas over the period 1998-2006. Asset growth has been strong, particularly in the last couple of years (averaging 4.4% per quarter, or some 19.3% per annum).

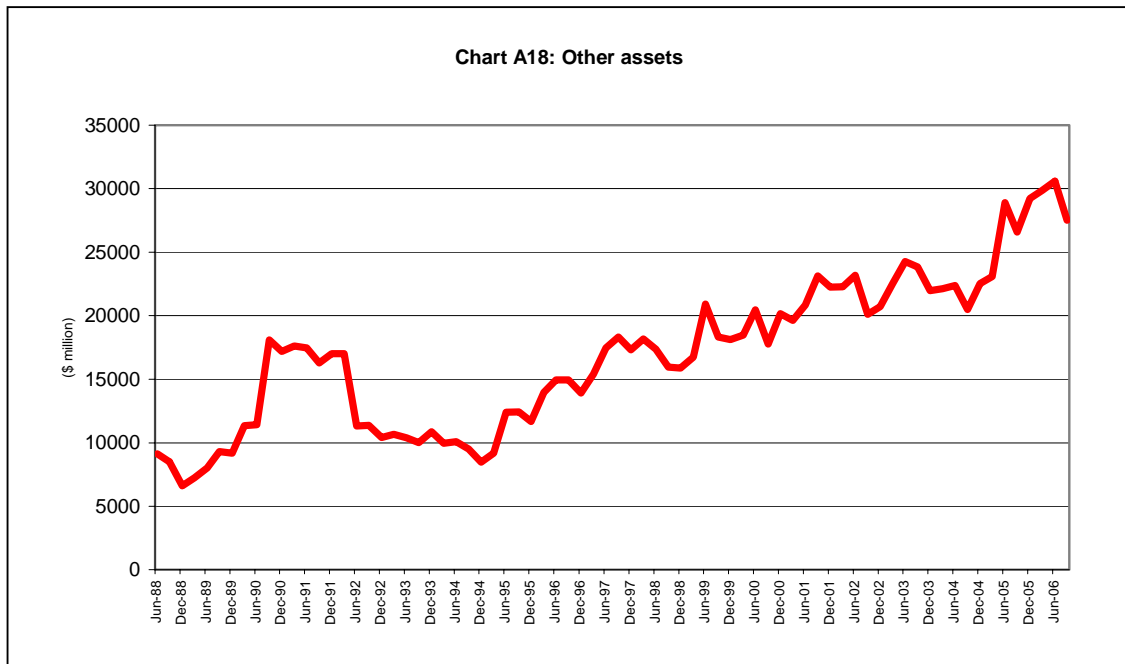


Chart A18 graphs quarterly growth (or decline) in financial assets in the form of other assets over the period 1998-2006. Asset growth has been bumpy (averaging 2.2% per quarter, or some 9.7% per annum).

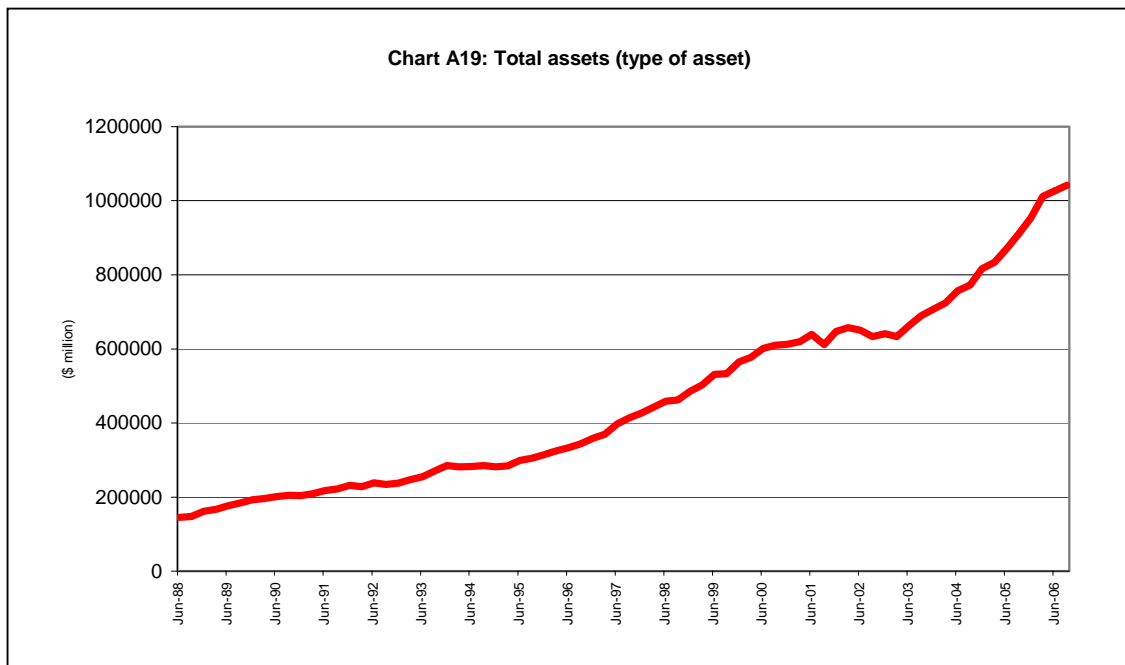
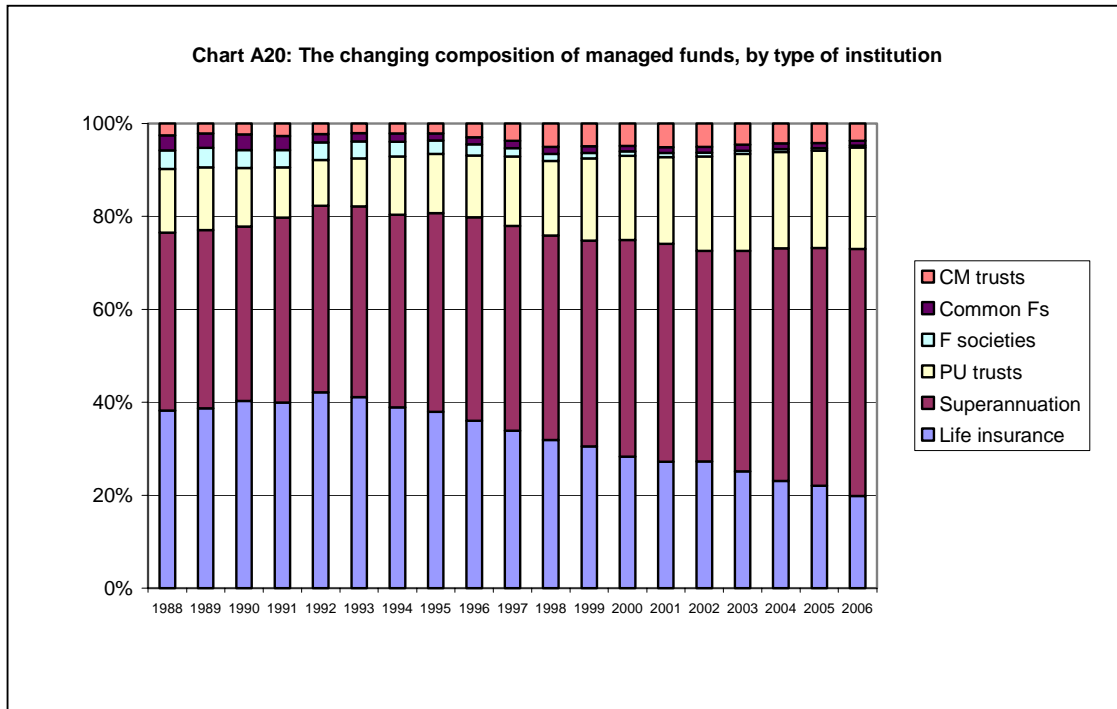


Chart A19 graphs quarterly growth (or decline) in total financial assets of all types over the period 1998-2006 (replicating Chart A10 by type of institution). Asset growth has been steady (averaging 2.8% per quarter, or some 11.6% per annum).

Chart A20 graphs the changing composition of the managed funds industry in Australia by type of institution.



Those institutions that grew in importance over the 1988-2006 period were:

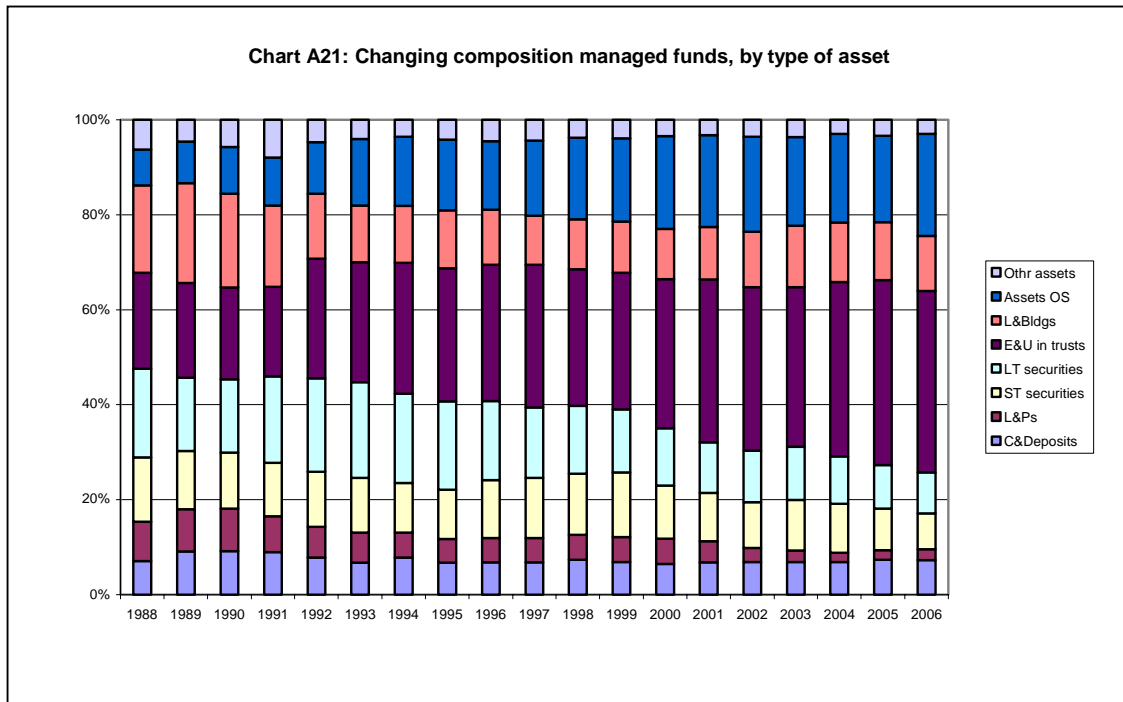
- Superannuation funds — whose share increased by 14.9 percentage points as the proportion it represented of the industry grew 39.0 per cent over period (from a share of 38.2 per cent in 1988 to 53.2 per cent by 2006);
- Public unit trusts — whose share increased by 8.1 percentage points as the proportion it represented of the industry grew 58.8 per cent over period (from a share of 13.8 per cent in 1988 to 21.8 per cent by 2006); and
- Cash management trusts — whose share increased by 1.2 percentage points as the proportion it represented of the industry grew 39.0 per cent over period (from a share of 2.5 per cent in 1988 to 3.7 per cent by 2006).

On the other hand, those institutions that declined in importance over the 1988-2006 period were:

- Life insurance offices — whose share decreased by 18.4 percentage points as the proportion it represented of the industry fell 48.1 per cent over period (from a share of 38.2 per cent in 1988 to 19.8 per cent by 2006);
- Friendly societies — whose share decreased by 13.5 percentage points as the proportion it represented of the industry fell 88.8 per cent over period (from a share of 4.0 per cent in 1988 to 0.4 per cent by 2006); and
- Common funds — whose share decreased by 2.2 percentage points as the proportion it represented of the industry fell 69.2 per cent over period (from a share of 3.2 per cent in 1988 to 1.1 per cent by 2006).

Thus, in term of growth in their share of total assets over the period the big institutional winners were Public unit trusts (+58.8%), Cash management trusts (+46.6%) and Superannuation funds (+39.0), while the big losers were Friendly societies (-88.8%), Common funds (-69.2%) and Life insurance offices (-48.1%).

Chart A21 graphs the changing composition of the managed funds industry in Australia by type of asset (i.e. it shows changes over time in asset allocation by the industry).



Those assets that grew in importance over the 1988-2006 period were:

- Cash and deposits — whose share increased by 1.1 percentage points as the proportion it represented of the industry grew 2.0 per cent over period (from a share of 7.1 per cent in 1988 to 7.3 per cent by 2006);
- Equities and units in trusts — whose share increased by 18.0 percentage points as the proportion it represented of the industry grew 89.3 per cent over period (from a share of 20.2 per cent in 1988 to 38.2 per cent by 2006); and
- Assets overseas — whose share increased by 13.9 percentage points as the proportion it represented of the industry grew 184.7 per cent over period (from a share of 7.5 per cent in 1988 to 21.4 per cent by 2006).

On the other hand, those assets that declined in importance over the 1988-2006 period were:

- Loans and placements — whose share decreased by 5.9 percentage points as the proportion it represented of the industry fell 72.0 per cent over period (from a share of 8.2 per cent in 1988 to 2.3 per cent by 2006);
- Short term securities — whose share decreased by 6.1 percentage points as the proportion it represented of the industry fell 44.7 per cent over period (from a share of 13.6 per cent in 1988 to 7.5 per cent by 2006);

- Long term securities — whose share decreased by 9.9 percentage points as the proportion it represented of the industry fell 53.6 per cent over period (from a share of 18.6 per cent in 1988 to 8.6 per cent by 2006);
- Land and buildings — whose share decreased by 6.8 percentage points as the proportion it represented of the industry fell 37.0 per cent over period (from a share of 18.4 per cent in 1988 to 11.6 per cent by 2006); and
- Other assets — whose share decreased by 3.3 percentage points as the proportion it represented of the industry fell 52.5 per cent over period (from a share of 6.3 per cent in 1988 to 3.0 per cent by 2006).

Thus, in term of growth in their share of total assets over the period the big winners were Assets overseas (+184.7%) and Equities and units in trusts (+89.3), while the big losers were Loans and placements (-72.0%), Long term securities (-53.6%) and Other assets (-52.5%).

International comparisons

Australia leads the world in funds under management. For example, under the headline '\$50,000 a head — Australia's lead in managed funds just keeps growing', the Australian Finance Group (AFG) published the following tables³ showing managed funds per person in Australia leading the world at an estimated \$48,178. This reflected 5-year growth of 114.7 per cent with one-year growth at 13.6 per cent, well ahead of the USA (\$40,046) in per capita terms, but lagging Sweden (181.8%) and Spain (115.4%) in the 5-year growth stakes, and the UK (33.2%), Sweden (22.4%), Canada (16.7%) and France (15.9%) in terms of one-year growth.

³ See AFG's Global Fund Management Index (managed funds in Australian dollars) downloadable from <http://www.afgonline.com.au>.

B INPUT-OUTPUT STATISTICS AND ANALYSIS: THE FINANCE AND INSURANCE INDUSTRY

This attachment documents the interdependencies between the *Finance and insurance* industry and other parts of the Australian economy using input-output (IO) analysis based on statistics compiled by the Australian Bureau of Statistics (ABS). Specifically, multiplier analysis is used to quantify the direct, indirect and total effects of an assumed expansion in the industry attributable to increased exports of finance and insurance services to the rest of the world.

After some scene-setting in the form of background on IO tables and analysis (Section B1) and the various components of the *Finance and insurance* industry (Section B2), Section B3 looks at interdependencies between finance and insurance and other parts of the Australian economy in the form of purchases from downstream and sales to upstream industries. The analysis then looks at the direct and total requirements of an expanded *Finance and insurance* industry in terms of its interactions with other industries (sections B4 and B5), before concluding by describing various kinds of multipliers applicable to the industry (and their limitations) in Section B6.

B1 Background and context

A distinction can be made between an *input-output table*, as a device for describing the flow of goods and services within an economy and underlying inter-industry relationships, and *input-output analysis*, which draws on some view on how the economy works (typically drawn from general equilibrium theory).

Reflecting the structure of production, an *input-output table* shows the supply and disposition of all goods and services within an economy during a reference period (typically a year). Such a table is based on the principle that the value of the output of each industry can be expressed as the sum of the values of all the inputs used by the industry plus any profits made from production plus any taxes on production paid less any subsidies received. In turn, the output of an industry can be used to satisfy:

- *intermediate demand* — that is, used in the production processes of other industries; or
- *final demand* — that is, sold to final users: either domestic (to satisfy private and public consumption and investment) or foreign (as exports).

For the production system as a whole, the sum of all outputs must equal the sum of all inputs and, for the economy as a whole, total supply must equal total use (with inventories providing the mechanism which balances supply and use when supply does not equal demand during the reference period).

Although IO tables can be organised in different ways, depending on the needs of users,

perhaps the most common are tables organised according to the different industries comprising an economy. A *row* in such an 'industry-by-industry' table shows the disposition of the output of the corresponding industry to intermediate usage (i.e. as inputs to other industries) and to the various categories of final demand; whereas a *column* shows the origins of inputs to the production processes of an industry, whether they be intermediate inputs or primary inputs — such as labour or capital (i.e. part of the industry's value added). Since the value of the output of an industry must be equal to the sum of its inputs (including an allowance for a return on capital employed), the row total for an industry must equal the corresponding column total.

The content and meaning of various published IO table depend on such things as:

- the treatment of intra-industry transactions and imports;
- how transactions are valued; and
- the treatment of taxes and subsidies.

Most ABS published tables now include intra-industry flows (i.e. inputs from and sales to other firms classified to the same IO industry).

The tables used for IO analysis in this attachment allocate competing imports directly (i.e. imports are regarded as being induced by final demand and are shown as direct inputs to the industries that use them). The resulting tables are said to have direct allocation of imports. Table transactions are valued at basic prices (i.e. the amount receivable by the producer from the purchaser for a good or a service produced as output minus any tax payable plus any subsidy receivable, on that unit as a consequence of its production or sale). Net taxes are then identified separately in the tables.

The ABS describes the use of IO tables for analysis in the following terms:

The basic tables and the industry-by-industry tables are essentially an accounting record of the flows in the economy in the reference year. Using simplifying assumptions the input-output estimates can serve many analytical purposes. For instance, it is possible to estimate the levels of output of the production sectors required by a given final demand. The effect on other industries of an additional final output of \$100 million of the motor vehicles and parts; other transport equipment industry, or of a 25 per cent change in exports of minerals, can be calculated by assuming that average and marginal utilisation rates are the same. An impact analysis of this kind may be concerned with one, several or all sectors of the economy and can be carried out with the aid of the requirements tables described below. Because relative prices are continually changing and do change substantially from one year to the next (e.g. internationally traded basic products), it is useful to regard input-output tables as representing underlying quantities and technological relationships rather than values and value relationships. Even factor payments (compensation of employees; and gross operating surplus and gross mixed income) can be viewed as representing underlying quantities, namely quantities of employee services and of entrepreneurial and capital services. Unless the analyst makes adjustments for price changes, all proportions and values are in terms of the relative and absolute prices of the reference year.

As mentioned, this attachment concludes by using multiplier analysis (see Box B1), to summarise the various direct, indirect and total effects of an assumed expansion in the *Finance and insurance* industry attributable to increased exports in the form of funds management services to the rest of the world.

Box B1: Multiplier analysis

Important tools for analysts are input-output multipliers of various kinds. These provide a way of answering common 'what if?' questions for which input-output tables can be used — for example what would be the impact on employment of a given change in output by the *Finance and insurance* industry attributable to increased exports?

Multiplier analysis depends on understanding the various kinds of input-output multipliers and their shortcomings. Using input-output tables, multipliers can be calculated to provide a simple means of working out the flow-on effects of a change in the output of one industry on variables such as the output of or employment in other affected (downstream and upstream) industries, and in total.

Multipliers can show just the 'first-round' effects, or the aggregated effects once all second and subsequent round effects have worked their way through the economy.

B2 Definition of the Finance and insurance industry

The *Finance and insurance* industry — consisting of firms mainly engaged in financial transactions involving the creation, liquidation, or change in ownership of financial assets, and/or in facilitating financial transactions (see Box B2) — plays a vital role in the Australian economy, accounting in 1996-97⁴ for:

- 6.4 per cent to total industry gross value added (GVA);⁵
- 5.9 per cent of gross domestic product (GDP); and
- 6.1 per cent of total employee compensation.

⁴ This is the latest year for which the ABS has compiled IO statistics and published the results in a 35 sector versions of the tables (used here).

⁵ Apart from the somewhat artificial industry Ownership of dwellings, only Property and business services (at 10.69% of total industry GVA) accounts for a higher proportion of economic activity at the level of individual industries than does the Finance and insurance industry. Since the 1996-97 IO tables were compiled, the Finance and insurance industry has grown to account for 7.8 per cent of GVA in 2006 (see Attachment A).

Box B2: Definition of the finance and insurance industry for statistical purposes

Financial and insurance services constitute Division K of the Australian and New Zealand Standard Industrial Classification (ANZIC) 2006, and covers firms mainly engaged in financial transactions involving the creation, liquidation, or change in ownership of financial assets, and/or in facilitating financial transactions. The range of activities include: raising funds by taking deposits and/or issuing securities and, in the process, incurring liabilities; firms investing their own funds in a range of financial assets; pooling risk by underwriting insurance and annuities; separately constituted funds engaged in the provision of retirement incomes; and specialised services facilitating or supporting financial intermediation, insurance and employee benefit programs. Also included in this division are central banking, monetary control and the regional of financial activities.

The correspondence between the 1996-97 Input-output industry classification and the 1993 edition of ANZIC is as follows:

28 Finance and insurance

7301 Banking	7310 Central bank
	7321 Banks
7302 Non-bank finance	7322 Building societies
	7323 Credit unions
	7324 Money market dealers
	7329 Deposit taking financiers nec
	7330 Other financiers
	7340 Financial asset investors
7401 Insurance	7411,2 Life insurance & superannuation funds
	7421,2 Other insurance
7501 Services to finance	7511,9 Services to finance and investment
	7520 Services to insurance

Source: ABS cat. nos. 1292.0 and 5209.0.

Valuing the output of the finance and insurance industries in the context of input-output tables is not straightforward. ABS describes the process in the following terms.

In the *finance* industries (7301 to 7303), the definition of output of banks and similar financial enterprises (other than insurance companies) differs from that of other enterprises. The activities of these enterprises are financed to a large extent, or even predominantly, by the excess of the interest they receive over the interest they pay out. If they were treated similarly to trading enterprises (i.e., if their output were taken as equal to their explicit charges for services

provided) it would not be sufficient to cover all their costs and to produce an operating surplus. Because of this characteristic of financial enterprises it is necessary to adopt a treatment different from that for non-financial enterprises. The convention adopted in Australian input-output tables from 1968-69 is that part of the interest received by financial enterprises is considered to be a service charge and, therefore, part of their output. Users of these services are deemed to be paying a service fee both on funds lent to and borrowed from these financial institutions. Since the 1977-78 tables these *financial intermediation services indirectly measured* (FISIM) charges have been allocated to final uses and intermediate uses on the basis of various sets of information mainly relating to interest flows. The tables from 1994-95 on also include estimates of imports and exports of these services. In addition to FISIM charges the output of financial enterprises includes explicit charges made to customers.

Output of those financial enterprises that provide *insurance* services (industry 7401) is also defined in a manner that is different from all other sectors. For non-life insurance enterprises (such as motor vehicle and property insurers) no explicit charge is made for their services. A service charge is therefore imputed, for national accounts purposes, as direct premiums earned plus inward reinsurance minus outward reinsurance and associated statutory charges plus premium supplements minus expected claims. Premium supplements refer to property income (e.g. interest and dividends) earned on: (a) that part of premiums paid in advance and, (b) claims incurred but not yet paid (as a consequence of delays in finalising payments from the time claims were lodged). Expected claims are imputed as centred five year moving averages of actual claims incurred. The value of the service charges (output) for life insurance and pension funds are derived as the explicit charges made by non-mutual insurance enterprises for the services they provide. In the case of mutual funds output is deemed to be equal to the sum of the administrative costs incurred by the fund (including labour costs). This approach, in respect of mutual funds, implies that no net operating surplus accrues to the insurance enterprise itself but rather the surplus is deemed to accrue to policy holders.

Information on the output of banks, non-bank financial institutions, insurance companies and superannuation funds is available from ABS collections, the Australian Prudential Regulation Authority (previously the Insurance and Superannuation Commission) and the Reserve Bank. There is very little information for some enterprises in the finance and insurance industries (7301 to 7501), and the output estimates for these are largely built up from the input side by adding together estimates of primary inputs and estimates of the use of products primary to these industries.

In 1996-97, the *Finance and insurance* industry bought some \$15,488.3 million worth of goods and services from other Australian industries, paid \$178 million in net taxes on its products, imported \$543.7 million worth of goods and services — so that total inputs (excluding items comprising GVA) were \$16,210 million. Adding in GVA of \$31,226 million (comprising \$15,673 million in compensation for employees, \$11,830 million of gross operating surplus (GOS) and \$3723 million net taxes on production), yielded total Australian production for the industry of some \$47,436 million. This total supply on the part of the *Finance and insurance* industry then went to satisfy the intermediate demands of other industries (total industry uses of \$28,382.2 million) and the various categories of final demand (final consumption expenditure of \$17,568.8 million, government consumption of \$19.9 million, gross fixed capital formation of \$131.2 million and exports of some \$1354 million).

Thus, exports represented only 2.85 per cent of Australian production of the *Finance and insurance* industry (compared for example with the following industries whose export shares exceeded 20 per cent: *Agriculture, Mining, Meat and dairy products, Textiles, Clothing and footwear, Basic metals and products, and Other machinery and equipment*).

Like other sectors of the economy, the *Finance and insurance* industry has important linkages with other industries, so that its impact on the economy extend beyond its direct contribution to aggregate output (and employment).

The next sections look at downstream linkages (in the form of inputs to the *Finance and insurance* industry from other industries), upstream linkages (where the output of the *Finance and insurance* industry form inputs to other industries), primary inputs (of wages and capital) and the disposition outputs of the industry to satisfy the various categories of final demand (consumption, investment, exports).

B3 Finance and insurance industry purchases from and sales to other industries

Table B1 shows the input structure of the *Finance and insurance* industry in terms of its purchases from other industries. The stand-out entry is the high share of inputs the *Finance and insurance* industry buys from other firms coded to the same industry (i.e. from other finance and insurance companies — in this case some 56.9%). This represents a remarkable level of intra-industry transactions (a point made in Attachment A in terms of the challenge involved in netting out transactions which otherwise risk being counted multiply). One reason for such high levels of intra-industry transactions is that, being a highly specialised field of economic activity, the industry tends to hire all sorts of people with specialist skills to work in the sector itself (e.g. financial analysts, lawyers, accountants, etc) — so that a lot of value-adding services are immediately available.

The only other (downstream) industries accounting for more than 2 per cent of the industry's purchases of intermediate inputs are: Paper, printing and publishing (2.4%); Repairs (2.1%); Accommodation, cafes and restaurants (4.1%); Transport and storage (3.0%); Communication services (6.0%); and Property and business services (18.9%). Apart from providing the buildings to house the finance and insurance sector, the latter industry is home to many of the specialised skills often found within the financial sector itself (but which in this case have wider areas of operation — such as commercial law and accountancy firms, etc.).

Table B1: Industry inputs into the Finance and insurance industry, 1996-97
(Per cent)

<i>Downstream industry</i>	<i>% of total industry inputs</i>
Agriculture	0.1
Forestry & fishing	0.0
Mining	0.1
Meat & dairy products	0.1
Other food products	0.1
Beverages & tobacco products	0.2
Textiles	0.1
Clothing & footwear	0.0
Wood & wood products	0.0
Paper, printing & publishing	2.4
Petroleum & coal products	0.0
Chemicals	0.0
Rubber & plastic products	0.0
Non-metallic mineral products	0.0
Basic metals & products	0.0
Fabricated metal products	0.1
Transport equipment	0.0
Other machinery & equipment	0.5
Miscellaneous manufacturing	0.0
Electricity, gas and water	0.7
Construction	0.1
Wholesale trade	1.1
Retail trade	0.3
Repairs	2.1
Accommodation, cafes & restaurants	4.1
Transport & storage	3.0
Communication services	6.0
Finance & insurance	56.9
Ownership of dwellings	0.0
Property & business services	18.9
Government administration	0.3
Education	1.2
Health & community services	0.1
Cultural & recreational services	0.9
Personal & other services	0.3
Total intermediate inputs	100.0

Notes: Including intra-industry flows.

Source: ABS Cat. no.5209.0.

Table B2 shows the output structure of the *Finance and insurance* industry in terms of its sales to other industries. As with Table B1, the stand-out entry is the high share of outputs the *Finance and insurance* industry sells to other firms coded to the same industry (i.e. to other finance and insurance companies — in this case some 31.0%).

In contrast to the relatively few downstream industries of any importance (Table B1), the number of significant upstream industries (accounting for at least 2% of *Finance and insurance* industry sales to other industries) is more evenly distributed, with sales to *Agriculture* at 2.5 per cent of intermediate sales, *Mining* (2.7%); *Electricity, gas and water* (3.3%); *Construction* (3.3%); *Wholesale trade* (6.5%); *Retail trade* (4.7%); *Accommodation, cafes and restaurants* (2.6%); *Transport and storage* (3.5%); *Ownership of dwellings* (7.6%); *Property and business services* (13.5%); and *Government administration* (4.8%).

Table B2: Finance and insurance industry sales to other industries, 1996-97
(Per cent)

<i>Downstream industry</i>	<i>% of total industry inputs</i>
Agriculture	2.5
Forestry & fishing	0.3
Mining	2.7
Meat & dairy products	0.4
Other food products	1.4
Beverages & tobacco products	0.4
Textiles	0.2
Clothing & footwear	0.2
Wood & wood products	0.2
Paper, printing & publishing	0.8
Petroleum & coal products	0.1
Chemicals	0.5
Rubber & plastic products	0.2
Non-metallic mineral products	0.2
Basic metals & products	0.6
Fabricated metal products	0.4
Transport equipment	0.5
Other machinery & equipment	0.5
Miscellaneous manufacturing	0.2
Electricity, gas and water	3.3
Construction	3.3
Wholesale trade	6.5
Retail trade	4.7
Repairs	0.9
Accommodation, cafes & restaurants	2.6
Transport & storage	3.5
Communication services	1.2
Finance & insurance	31.0
Ownership of dwellings	7.6
Property & business services	13.5
Government administration	4.8
Education	1.0
Health & community services	2.0
Cultural & recreational services	1.3
Personal & other services	0.8
Total intermediate inputs	100.0

Notes: Including intra-industry flows.

Source: ABS Cat. no.5209.0.

B4 Direct requirements on the part of the Finance and insurance industry

Table B3 sets out the direct requirements coefficients calculated by the ABS for the *Finance and insurance* industry.

Table B3: Direct requirements coefficients: Finance and insurance industry, 1996-97
(\$)

<i>Downstream industry</i>	<i>Coefficient</i>
Agriculture	0.021
Forestry & fishing	0.008
Mining	0.022
Meat & dairy products	0.032
Other food products	0.032
Beverages & tobacco products	0.064
Textiles	0.016
Clothing & footwear	0.005
Wood & wood products	0.001
Paper, printing & publishing	0.779
Petroleum & coal products	0.013
Chemicals	0.013
Rubber & plastic products	0.014
Non-metallic mineral products	0.012
Basic metals & products	0.002
Fabricated metal products	0.031
Transport equipment	0.011
Other machinery & equipment	0.160
Miscellaneous manufacturing	0.014
Electricity, gas and water	0.227
Construction	0.048
Wholesale trade	0.344
Retail trade	0.113
Repairs	0.697
Accommodation, cafes & restaurants	1.336
Transport & storage	0.990
Communication services	1.963
Finance & insurance	18.571
Ownership of dwellings	
Property & business services	6.180
Government administration	0.113
Education	0.408
Health & community services	0.027
Cultural & recreational services	0.299
Personal & other services	0.085
Total intermediate inputs	32.651
Compensation of employees	33.041
Gross operating surplus & mixed income	24.939
Taxes less subsidies on products	0.375
Other taxes less subsidies on production	7.848
Complementary imports	
Competing imports	1.146
Australian Production	100.000

Notes: Including intra-industry flows.

Source: ABS Cat. no.5209.0.

This represents a very simple application of the input-output table (i.e. in calculating inputs as a percentage of the output of an industry and using these percentages for estimating the input requirements for any given output of that industry).

Direct requirements coefficients have different meanings depending on the treatment of imports in the flow table from which they are derived. In this case, the flow table is characterised by a *direct allocation of competing imports* — so that the coefficients in Table B3 only refers to the requirements for inputs from domestic production.

Thus, Table B3 shows that \$100 of output of the *Finance and insurance industry* involves a direct requirement of Australian production from the *Property and business services* industry of \$6.18, \$1.96 from the *Communication services* industry, \$1.34 from *Accommodation, cafes and restaurants* etc. The requirement of finance and insurance for imports is \$1.15.

In using the direct requirements coefficients in Table B3, based as they are on the direct allocation of competing imports it is necessary to assume (proportionally) unchanged use of imports.

B5 Total requirements on the part of the Finance and insurance industry

Table B4 sets out the total requirements coefficients for the *Finance and insurance* industry, continuing the chain of calculations of output requirements beyond the direct ones set out in Table B3.

Table B4: Total requirements coefficients: Finance and insurance industry, 1996-97
(\$)

<i>Downstream industry</i>	<i>Coefficient</i>
Agriculture	0.234
Forestry & fishing	0.062
Mining	0.315
Meat & dairy products	0.160
Other food products	0.124
Beverages & tobacco products	0.161
Textiles	0.071
Clothing & footwear	0.032
Wood & wood products	0.046
Paper, printing & publishing	1.688
Petroleum & coal products	0.234
Chemicals	0.246
Rubber & plastic products	0.173
Non-metallic mineral products	0.068
Basic metals & products	0.182
Fabricated metal products	0.251
Transport equipment	0.230
Other machinery & equipment	0.477
Miscellaneous manufacturing	0.063
Electricity, gas and water	0.837
Construction	0.139
Wholesale trade	1.308
Retail trade	0.161
Repairs	1.274
Accommodation, cafes & restaurants	2.113
Transport & storage	2.488
Communication services	3.072
Finance & insurance	123.705
Ownership of dwellings	
Property & business services	12.020
Government administration	0.311
Education	0.558
Health & community services	0.051
Cultural & recreational services	0.594
Personal & other services	0.199

Notes: Including intra-industry flows.

Source: ABS Cat. no.5209.0.

For example, in order to increase *Finance and insurance* industry output, inputs are required directly from the *Property and business services* industry. To satisfy this direct requirement, the *Property and business services* industry itself requires inputs from the *Finance and insurance* industry. To produce this indirect requirement of the *Property and business services* industry, the *Finance and insurance* needs, in turn, additional output from the *Property and business services* industry, setting up a (theoretically) infinite but in practice rapidly converging series of incremental demands. Apart from industries directly dependent on one another (e.g. the *Finance and insurance* and *Property and business services* industries), industry requirements can arise even in the absence of such direct interdependencies. For example, the *Finance and insurance* industry has few direct linkages apart from itself and *Property and business services*, *Communication services* and *Accommodation, cafes and*

restaurants (see Table B3). However, its direct requirements for increased output from, say, the *Property and business services* industry cannot be satisfied without input from many industries which have only weak links with the *Finance and insurance* industry directly. Therefore there is an indirect requirement by finance and insurance for inputs from many other industries.

In terms of Table 4, \$100 of *Finance and insurance* industry output will eventually require, directly and indirectly, \$123.71 of increased output from the *Finance and insurance* industry itself, \$12.02 of increased output from the *Property and business services* industry, \$3.07 from *Communication services*, \$2.49 from *Transport and storage*, etc.

B6 Multiplier analysis

IO multipliers of various kinds are summary measures used for quantifying the estimated overall impact on all industries in the economy of an assumed change in the demand for the output of any one industry — in this case an assumed increase in exports of funds management services to the rest of the world.

Various multipliers (e.g. output and employment ones) can be calculated from the IO tables (Box B3). And if there have not been significant changes to things like technology or relative prices, multipliers based on even quite dated tables can remain relevant for considerable periods. Indeed, experience in compiling IO statistics for Australia over an extended period is that the various multipliers have remained fairly stable over time.

As mentioned, multipliers incorporate various assumptions about how the economy works. The principal assumptions underlying the derivation of IO multipliers is that fixed amounts of given inputs are required to produce a given output, and that resources will be available to produce induced increases in outputs: that is increased production will not encounter any bottlenecks (induced, for example, by skill shortages).

As explained in Box B3, over and above the direct contribution of finance and insurance activity to the economy, it has 'flow-on' impacts on the activities of other industries. The possible size of these impacts can be illustrated using multipliers based on inter-industry flows in input-output tables. For the *Finance and insurance* industry the multipliers can be characterised as follows:

- the **initial effect** — an initial (in this case export-induced) \$1m of extra output of the *Finance and insurance* industry, and related employment in the industry to produce that output;
- a production-induced effect, calculated as the combination of:
 - the **first round effect** — the amount of output and employment required from all industries that supply goods and services to the *Finance and insurance* industry in order for that industry to produce the initial \$1m of extra output (in this case \$0.327);
 - an **industrial support effect** — the induced extra output and employment from all industries to support the production of the first round effect (in the

case of the *Finance and insurance* industry, this figure is equal to \$0.209);

- a **consumption induced effect** — the subsequent inducement for extra output and employment due to increased spending by the wage and salary earners across all industries arising from the compensation received for their labour as part of the other effects above (in the case of the *Finance and insurance* industry, this figure is equal to \$1.100).

Box B3: Mechanics of multipliers

The *output multiplier* for an industry is defined as the total value of production by all industries of the economy required to satisfy one extra dollar's worth of final demand for that industry's output. The initial requirement for an extra dollar's worth of output of a given industry is called the *initial output effect*. By definition, it is equal to unity (one dollar) for all industries, since an additional dollar's worth of output from any industry will require the initial one dollar's worth of output from that industry (plus any induced extra output).

The *first round effect* is the amount of output required from all industries of the economy to produce the initial output effect. To illustrate, suppose that the output of the *Finance and insurance* industry is increased by one dollar. Then inputs from other industries, such as Property and business services, will be required, as well as inputs from the *Finance and insurance* industry itself. The demand for the extra dollar's worth of *Finance and insurance* industry output is regarded as having caused the production of these outputs. The *Finance and insurance* industry is said to have 'backwards linkages' to the industries supplying its inputs. The *first round effect* can be measured quite simply by deriving another table from the flow table to produce a table of coefficients (which measure the strength of these backwards linkages). The result is the *Direct requirements matrix*, the relevant column of which is reproduced as Table B2 above. The coefficients in a given industry's column of this table show the amount of extra output required from each industry to produce an extra dollar's worth of output from that industry. For example, to produce an extra dollar's worth of output from the *Finance and insurance* industry, the Property and business services industry must produce an extra \$0.618 worth of output, and so on. Similarly, the extra output from the Property and business services industry will induce extra output from all industries of the economy and, in turn, these will induce extra output, and so on.

The combined effects of the initial effects plus all of the production induced rounds of extra output are called the *simple multipliers*. The simple multiplier for the *Finance and insurance* industry shows that \$1.536 of extra output from the Australian economy is induced by an additional output of \$1.00 in the *Finance and insurance* industry. In other words, to produce an additional unit of output in 'Finance and insurance', aside from the industry's additional unit of output, the economy's output must increase by an additional \$0.327 in order to provide inputs to 'Finance and insurance', and in turn to increase by \$0.209 to provide inputs to the suppliers to 'Finance and insurance'.

The effects encompassed by the simple multiplier are the initial effects (\$1.00), the first round effects (\$0.327) and what are called the *industrial support effects* (\$0.209). It can be shown that this procedure is mathematically equivalent to calculating the effects of all of the rounds of induced production and adding them to the initial effects. Since the initial effects and the first round effects are known, the industrial-support effects (i.e. the effects of the second and subsequent rounds of induced production) can be calculated as follows:

industrial support effects = simple multiplier - initial effects - first round effects

The *production induced* effects can also be calculated as follows:

production induced effects = first round effects + industrial support effects

The household sector receives wages for work done in the production process and spends some or all of this wage income on goods and services. The wages are shown in the Compensation of employees row and consumption by households is shown in the Household final consumption expenditure column of the flow matrix. Household final consumption expenditure can be regarded as generating further production of goods and services by the industries of the economy. This induced production of extra goods and services is referred to as the *consumption-induced effects*. A new set of multipliers can thus be calculated taking into account the initial effects, the production induced effects and the consumption induced effects. These are called the *total multipliers*.

In calculating the simple multipliers, it is effectively assumed that the spending of households takes place outside the model and there is no feedback between the household sector and the other sectors. This is referred to as using an *open* model. However, in calculating the total multipliers, no feedback is allowed to occur, and the model is said to be *closed* with respect to households.

The *total output multiplier* for 'Finance and insurance' is estimated at \$2.636. This implies that \$2.636 in additional output is required from all industries to satisfy an increased demand of \$1.00 in the finance and insurance sector, as well as to satisfy the additional demand generated by the increased wages, salaries and supplements resulting from all increased output. This multiplier incorporates all the effects of the simple multiplier, plus the consumption effects.

Source: Based on ABS, Introduction to Input-Output Multipliers, Cat. no. 5246.0.

Table B5 sets out the various output multipliers calculated by the ABS for the *Finance and insurance* industry.

Table B5: Finance and insurance industry output multipliers, direct allocation of competing imports, 1996-97

<i>Multiplier</i>	<i>Value</i>
Initial effects	1.000
First round effects	0.327
Industrial support effects	0.209
Production induced effects(a)	0.536
Consumption induced effects	1.100
Simple multiplier(b)	1.536
Total multiplier	2.636

Notes: (a) Equal to First round plus industrial support effects. (b) Equal to First round plus production induced effects.

Source: ABS Cat. no.5209.0.

The *Finance and insurance* industry's total multiplier of 2.636 is, in fact, slightly lower than the average for all industries of 2.817 (due to the rather weak direct linkages the industry has

with downstream industries). Industries with larger total multipliers include *Meat and dairy products* (3.312), *Retail trade* (3.245) and *Wholesale trade* (3.230), while those with smaller multipliers include *Ownership of dwellings* (1.381 — another industry with relatively few direct linkages), *Petroleum and coal products* (2.131) and *Repairs* (2.269).

What the total output multiplier reported in Table B5 is telling us is that an extra \$100 million of exports from the *Finance and insurance* industry (e.g. attributable to increased supply of funds management to the world) would eventually translate into a total stimulus to the Australian economy of some \$263.6 million. However, a \$100 million boost to export would only have boosted *Finance and insurance* industry exports to just over 3 per cent. Lifting the export orientation of the industry to 5 per cent is estimated to involve a total economic stimulus of \$2.9 billion, while lifting it to 10 per cent would translate into nearly a \$10 billion stimulus. Using movements in the CPI since the 1996-97 IO tables were compiled to translate these stimuli into 2006 prices, the \$2.9 and \$10 billion figures would become \$3.7 and \$12.9 billion respectively.

One of the limitations of multiplier analysis is that it assumes that all adjustments take place on the quantity, rather than the price side. This is unrealistic for an economy enjoying near-full employment. But even if skills shortages mean that most of the accommodation to increased levels of activity associated with greatly increased exports of funds management services to the rest of the world flows into prices rather than only into quantities, the fact that the average job in the finance sector pays more than does the average job in the economy means that, after the economy fully adjusts to the stimulus provided by greatly increased exports of funds management services to the world, more people will be in better-paid jobs (on average) than was formerly the case.

Indeed, based on IO statistics, in 1996-97 employees in the *Finance and insurance* industry enjoy relatively highly paid jobs — \$65,121, on average (including part timers), compared to \$35,788 across all industry, based on information in the 1996-97 IO tables and supplementary information on employment collected via ABS' labour force surveys. In other words, the average job in the *Finance and insurance* industry pays 82 per cent more than the average job in the economy. Thus, to the extent that the financial sector expands faster than the economy generally (which has been the case in Australia for an extended period), average compensation per employee will also rise. Since it is the ambition of all governments to preside over economies characterised by increasingly high value-added economic activity, a vibrant and expanding financial sector clearly assists in realising this ambition.

Using the above employee compensation figures, an initial \$100 million posited increase in exports of finance and insurance services would create 507 additional jobs in the *Finance and insurance* industry (using the direct requirements coefficients reported in Table B3). Using the output multipliers reported in Table B5, by the time all interdependencies have worked their way through the system these initial 507 jobs could translate into 1300 jobs (and possibly quite a few more if the lower remuneration figure were used). Translating those figures into contemporary ones would imply a significant increase in financial sector employment spurred by Australia becoming a significant supplier of fund management services to the world.

Abbreviations, acronyms and definitions

Assets overseas	Assets overseas include physical assets located overseas and financial claims on non-residents.
Asset-backed security	A debt security which is backed by specific assets (such as mortgages over real estate) rather than the general credit-worthiness of the issuing entity.
Bank certificates of deposits	A certificate of deposit is similar to a promissory note except that the drawer is a bank. Most bank-issued certificates of deposit with an original term to maturity of one year or less are negotiable certificates of deposit (NCD). Transferable certificates of deposit with an original term to maturity greater than one year are included in long term assets.
Basic prices	The basic price is the amount receivable by the producer from the purchaser for a unit of a good or service produced as output minus any tax payable, and plus any subsidy receivable, on that unit as a consequence of its production or sale. It excludes any transport charges invoiced separately by the producer.
Bearer securities	Debt securities for which the issuer does not maintain a register of current holders. Settlement of transactions (trades) may be effected by delivery.
Bills of exchange	A bill of exchange is an unconditional order drawn (issued) by one party, sent to another party for acceptance and made out to, or to the order of, a third party, or to bearer. It is a negotiable instrument with an original term to maturity of 180 days or less. Although merchant banks were the promoters of the bill market in Australia, today almost all bills are bank accepted. Acceptance of a bill obliges the acceptor to pay the face value of the bill to the holder upon maturity.
Cash and deposits	Cash covers notes and coin on hand. Deposits are credit account balances with deposit-taking institutions as defined by the Reserve Bank. Bonds, debentures, notes and transferable certificates of deposit issued by deposit-taking institutions are classified as long term assets and negotiable certificates of deposit issued by banks as bank certificates of deposit.
Cash management trusts	A cash management trust is a unit trust which is governed by a trust deed, is open to the general public and which generally confines its investments (as authorised by the trust deed) to financial securities available through the short term money market. Cash management trusts issue units in the trust that are redeemable by the unit holder on demand.
Central borrowing authority	A statutory body - often called a Treasury Corporation -

	established by a State or Territory government to borrow on its behalf and on behalf of its trading enterprises, and to on-lend the funds raised to those bodies. Most borrowing authorities also manage liquid assets on behalf of government bodies.
Common funds	Common funds are operated by Trustee Companies under relevant State Trustee Companies Acts. They permit trustee companies to combine depositors' funds and other funds held in trust in an investment pool, and invest the funds in specific types of securities and/or assets. Common funds have the same investment strategy and economic functions as cash management trusts and public unit trusts. However they do not operate in the same manner, in that they do not issue units, nor do they necessarily issue prospectuses.
Consolidation	The accounting process of adding together transactions or balance sheet items after excluding those between entities in the same subsector, company group, or level of government. For example, a loan from one private non-financial corporation to another is eliminated from the consolidated total of assets and liabilities of the subsector because, in such cases, there is no asset or liability held with an entity outside the private non-financial corporations subsector.
Conventional financial instruments	These instruments consist of: Currency and deposits, Bills of exchange, One name paper, Bonds etc, Loans and placements, Equity.
Counterparting	The process of taking the asset record of a sector and using it as the liability record of the counterparty sector, or vice versa.
Counterparty	For a market transaction to occur there must be a willing buyer and a willing seller. To the buyer, the seller is the counterparty, and vice versa.
Debt security	A financial instrument that evidences the issuer's promise to repay the principal at face value on maturity. It may be issued to investors at a discount, and/or the issuer may promise to pay interest (usually at six monthly intervals) to the holders. Unlike shares, debt securities do not confer on the holders ownership rights in the issuing entity.
Derivative instrument	A special type of financial instrument whose value depends on the value of an underlying asset, an index or a reference rate. Examples are swaps, forwards, futures and options.
Discount securities	Debt securities which are issued to investors for less than the value appearing on the face of the security. Holders are not paid interest but rather receive capital gains (the difference between

	the purchase price and the face value of the security).
Economically significant prices	Prices that have a significant influence on the amounts that producers are willing to supply or on the amounts that purchasers wish to buy (sometimes called 'market prices').
Employment multiplier	Shows the number of extra persons employed for an initial expenditure of \$1 million on output from an industry.
Equities and units in trusts	This category comprises shares traded on an organised stock exchange, shares in unlisted companies, convertible notes after conversion, preference shares and units issued by both listed and unlisted unit trusts. Trust units are included in this classification because they have important characteristics of equities, such as entitlement to a share of the profits and of (on liquidation) the residual assets of the trust.
Face value	The value that appears on the face of a debt security being the amount that the issuing entity promises to pay to the holder when the security matures. Also known as the nominal or par value.
Financial asset	An asset which has a counterpart liability in the books of another accounting entity.
Financial transactions account	The account which shows transactions in financial claims between institutional sectors.
Forwards	Forwards or forward rate agreements are arrangements in which two parties, in order to protect themselves against interest rate changes, agree on an interest rate to be paid, at a specified settlement date, on a notional amount of principal that is never exchanged. The only payment that takes place is related to the difference between the agreed forward rate and the prevailing market rate at the time of settlement.
Friendly societies	Friendly societies are organisations registered as such under the appropriate State legislation.
Futures	A futures contract is an agreement to buy/sell a standard quantity of a commodity - such as gold, \$US or bank bills of exchange - on a specific future date at an agreed price determined at the time the contract is traded on the futures exchange.
Gross Domestic Product (GDP)	GDP is the total value of goods and services at market prices produced within a country in a given period after deducting the cost of goods and services used up in the production process. It also equals the sum of value added at every stage of production of all final goods and services produced within a country in a given period. Final goods satisfy various categories of final

	demand, leading to the identity that: $\text{GDP} = \text{consumption} + \text{investment} + \text{government spending} + (\text{export} - \text{imports}).$
Gross value added multiplier	Shows the relationship between the initial increase in output (in dollar terms) required from an industry and the total increase in gross value added by all industries (comprising compensation of employees plus gross operating surplus earned by businesses and excluding the values of goods and services provided by other industries that is used up in producing the output).
GST	Goods and services tax.
GVA	Gross valued added
Income multiplier	Shows the relationship between the initial increase in output (in dollar terms) required from an industry and the total compensation of employees (in dollar terms) by all industries.
Investment managers	A considerable proportion of the assets of managed funds institutions in Australia (particularly the funds of life insurance offices and superannuation funds) is invested through investment managers. Investment managers invest and manage their clients' assets and often act as administrators for smaller funds, and as agents for other financial entities, on a fee for service basis. Whilst they accept individual portfolios for management they typically manage pooled funds, providing a sophisticated level of service, including matching return and risk, on behalf of their clients. Investment managers are generally life insurance offices, subsidiaries of banks, merchant banks, or organisations related to these types of institutions. They can be either separately constituted legal entities or from a segment of a particular financial institution. The funds which investment managers invest remain the asset of their clients and are not brought to account on the balance sheet of the investment manager. The ultimate responsibility for the investment remains with the client. For example, if a superannuation fund had all or part of its assets invested through investment managers, the trustees of the superannuation fund remain responsible for the investments, not the investment manager.
Land and buildings	Land and buildings refers to land and buildings held and the value of units in unitised buildings. New acquisitions are reported at acquisition cost and existing assets are reported at the latest available market valuation
Life insurance offices	Most of the investment funds of life insurance offices are held in Statutory Funds. Statutory Funds of Life Insurance Offices

	<p>have been set up under Commonwealth Government legislation and are analogous to trust funds. The legislation requires that the assets of any statutory fund must be kept separate and distinct from the assets of other statutory funds and any other assets of the company. All income received must be paid into and become an asset of the appropriate statutory fund and these assets are only available to meet the liabilities and expenses of that fund.</p>
Loans	<p>Loans are intermediated borrowings which are not evidenced by the issue of debt securities. An example of this would be money borrowed from a life insurance office with a mortgage over property as collateral.</p>
Long term securities	<p>A long term security is a document which represents the issuers pledge to pay the holder, on a date which, at the time of issue, is more than one year in the future, the sum of money shown on the face of the document. Until that future date the issuer usually promises to pay coupon interest to the holder quarterly or half-yearly at a rate which is fixed at the time the security is issued. These securities are therefore known as fixed interest securities in the professional market. Long-term securities in these statistics include the following types of securities. Treasury Bonds and Australian Savings Bonds. These are issued to corporations and the general public by the Commonwealth Government. Various series of inscribed stock which are issued by state government owned borrowing authorities and enterprises. These are known as semi-government securities by professional traders. Debentures, transferable certificates of deposit and unsecured notes, which are collectively called corporate securities or medium term notes by brokers. Asset-backed bonds, such as mortgage backed securities. Convertible notes, prior to conversion. The first two of these are published separately by the ABS. The last three types are combined together as other long term securities.</p>
Managed funds	<p>The term managed funds is used to describe the investments undertaken by those collective investment institutions and investment managers who engage in financial transactions in the managed funds market.</p>
Managed funds institutions	<p>Managed funds institutions are those financial intermediaries which operate in the managed funds market by acquiring and incurring financial assets and liabilities respectively on their own account. Typically these institutions arrange for the ‘pooling’ of funds from a number of investors for the purpose</p>

	of investing in a particular type or mix of assets, with a view to receiving an on-going return or capital gain. However, funds of a speculative nature that do not offer redemption facilities (e.g. agriculture and film trusts) and funds not established for investment purposes (e.g. health funds and general insurance funds) are excluded. It includes statutory funds of life offices, superannuation funds, public unit trusts, friendly societies, common funds and cash management trusts.
Non-financial assets	Non-financial assets comprise all those assets which are not financial in nature: i.e. physical assets. For the purposes of these statistics they are broken down into only two categories-land and buildings, and other types of non-financial asset.
Other financial assets	This covers any other financial claims on residents that do not fit into the foregoing categories, such as trade credit, interest accruals and other derivative (but not synthetic) financial products. Synthetic financial products combine a primary financial instrument with a derivative financial instrument and are classified to the category appropriate to the primary instrument used.
Other non-financial assets	Other non-financial assets refers to all assets not classified elsewhere, except for assets overseas.
One name paper	One name paper includes promissory notes, treasury notes and certificate of deposits issued by banks.
Options	Options are contracts that give the purchaser the right, but not the obligation, to buy (a 'call' option) or to sell (a 'put' option) a particular financial instrument or commodity at a predetermined price (the 'strike' price) within a given time span (American option) or on a given date (European option).
Output multiplier	Shows the relationship between the initial increase in output (in dollar terms) required from an industry and the total increase in output (in dollar terms) by all industries.
Placements	Placements are account balances with entities not regarded as deposit-taking institutions (see cash and deposits). Examples of these are account balances of funds with State government central borrowing authorities.
Primary and secondary markets	Investors which purchase securities from the issuer (or from a member of the issuer's dealer panel) are said to buy in the primary market. If these securities are subsequently sold by those investors, the sales are said to occur in the secondary market.
Professional funds manager	An agent which invests monies on behalf of clients in return for

	<p>fees. The assets managed by a professional funds manager are not on its balance sheet.</p>
Promissory notes	<p>A promissory note-also called commercial paper or one-name paper in the professional market - is a written promise to pay a specified sum of money to the bearer at an agreed date. It is usually issued for terms ranging from 30 to 180 days and is sold to an investor at a simple discount to the face value. A promissory note is different from a bill of exchange in that it is not 'accepted' by a bank and is not endorsed by the parties which sell it in the market place.</p>
Public unit trusts	<p>A public unit trust is defined as an arrangement, governed by a trust deed between a management company and a trustee, which is open to the public for the purchase of units in the trust. Unit trusts invest the pooled funds of unit holders to yield returns in the form of income and/or capital gain. Unit holders can dispose of their units within a relatively short period of time.</p>
Purchasers' prices	<p>The purchaser's price is the amount paid by the purchaser, excluding any deductible tax, in order to take delivery of a unit of a good or service at the time and place required by the purchaser. The purchaser's price of a good includes any transport charges paid separately by the purchaser to take delivery at the required time and place.</p>
Residents of Australia	<p>Residents are those entities that have a closer association with the territory of Australia than with any other territory. Examples are: general government bodies; financial and trading enterprises and non-profit bodies producing goods or services or both within the territory of Australia; and persons whose centre of interest is considered to lie in Australia. Any entity which is not determined to be a resident of Australia is classified as a resident of the rest of the world.</p>
Short selling	<p>Short selling refers to the practice of selling securities one does not have. To settle the trade, securities need to be purchased or borrowed.</p>
Short term securities	<p>Debt securities are divided into short term and long term using original term to maturity as the classificatory criterion. Short term securities are those with an original term to maturity of one year or less. Issuers of promissory notes and bills of exchange do negotiate roll-over facilities which allow them to use these instruments as sources of floating-rate long term funds. However, in these statistics the existence of roll-over facilities does not convert what are legally short term</p>

instruments into long term ones. There are four types of short term securities shown in this publication: bills of exchange, promissory notes, Treasury notes and bank certificates of deposit. All of these are issued at a discount to face value and are traded on well-established secondary markets with bills of exchange and certificates of deposit being the most actively traded. Professional traders call these short term instruments money market securities. Treasury notes are inscribed stock in that ownership is recorded in a register maintained by the issuer and a non-transferable certificate of ownership is issued, but the owner does not physically hold the documents. The other short term securities are bearer securities, that is the owner is not registered with the issuer but physically holds the documents. Bearer securities are payable to the holder on maturity and transferable by delivery.

Stock lending	The terms securities lending or stock lending are used in securities markets to describe arrangements whereby issuers or asset-holders or both (called stock lenders) provide securities to other market participants (called stock borrowers) in return for a fee.
Superannuation funds	Superannuation funds are indefinitely continuing funds maintained for the provision of benefits for either members of the fund, or the dependants of members in the event of retirement or death of the member. The statistics include both public and private sector superannuation funds that either directly invest on their own behalf, or use fund managers on a fee for service basis, and approved deposit funds.
Swaps	Swaps are contractual arrangements between two parties who agree to exchange, according to predetermined rules, streams of payment on the same amount of indebtedness over time. The two most prevalent varieties are interest rate swaps and currency swaps. For example, an interest rate swap involves an exchange of interest payments of different character, such as fixed rates for floating rate, two different floating rates, fixed rate in one currency and floating rate in another etc.
Synthetic instrument	A tailored financial product which combines a primary financial instrument such as a parcel of bills of exchange) with a derivative instrument (such as a forward rate agreement).
Term to maturity	In these statistics, debt securities are classified into short term (equal to or less than one year) or long term (greater than one year) according to their original term to maturity (sometimes called tenor) rather than the time remaining until maturity. The original term to maturity is the time period from the issue of a

	security until the principal becomes due for repayment.
Transaction (financial)	Active dealing in a financial instrument; for example, a sale of bonds.
Treasury notes	Treasury notes are inscribed instruments issued by the Commonwealth Government with original maturity terms of five, thirteen or twenty-six weeks. Treasury notes are included in these statistics as other short term assets.
Wholesale trusts	Wholesale trusts are not open to the general public. Usually they are only open to institutional investors (e.g. life insurance companies, superannuation trusts, public unit trusts) and high net worth individuals due to high entry levels. They may issue a prospectus but more commonly issue only an information memorandum.

Note: Most of the above definitions are those adopted by the Australian Bureau of Statistics (ABS) in compiling statistics on the financial sector of the Australian economy.