Deloitte Access Economics

Financial performance of Australia's superannuation products

Financial Services Council

October 2014

Deloitte.

Contents

Charts

Tables

Figures

Executive Summary

The FSC requires a high-level literature review with cross-country comparisons of the financial performance of pension products in similar systems or economies.

Pension systems of varying forms have developed as a means of ensuring that older people are able to maintain an appropriate standard of living. However, these systems achieve this objective using different means and structures.

This report focuses on assessing the financial performance of one specific part of the system – mandatory employment-based retirement income savings. It is challenging to make definitive assessments and appropriate comparisons on account of differences among the systems operating in the countries surveyed and the diffuse nature of the data available.

Further, returns and fees are affected by a range of factors which vary significantly across jurisdictions, including:

- product proliferation and the level of choice;
- competition impeding economies of scale;
- flexibility and the regulatory environment;
- investment strategy;
- bundling;
- tax; and
- the economic cycle.

Australia's superannuation system is characterised by a relatively high reliance on active mandates including an emphasis on investments in equities, and the ability to support individualised services. Both features add benefits and costs to the system.

Overall, based on our survey of the literature, Australia's private superannuation system:

- delivered high gross returns, and high risk-adjusted returns, over an extended period before the GFC;
- has provided below-average returns since then, probably reflecting macroeconomic factors, such as a relatively modest recovery of the local share market and the impact of a high Australian dollar on returns from overseas investments; and
- appears to have relatively high costs.

The apparently high costs are likely to be influenced by the different regulatory requirements and product features in the Australian system. A fuller analysis is needed to estimate the impact of regulation and product features on costs.

Overall, based on our survey of the literature and available data, Australia's system appears to be "middle of the pack". Of the twelve jurisdictions included in this review, and taking a broad perspective across a longer timeframe, Australia has the third highest returns of those countries surveyed.

These observations will be affected in future by the introduction of low-fee MySuper default products that are significantly cheaper than choice products. MySuper products attract the third lowest fees of comparable products considered (noting that this excludes flat fees and is based on a representative member).[1]

MySuper is new and still settling down. For MySuper, the precise level of costs, and the returns and other benefits to consumers, will continue to evolve. For example, only one year of actual returns and costs of MySuper products can be observed through official statistics.

A full cost-benefit analysis of the Australian system requires complete data on returns, fees and other features, such as active mandates, emphasis on equities and how well the system copes with individual demands, circumstances and requirements.

Deloitte Access Economics

[1] MySuper products are allowed to charge flat fees as well as percentage based fees. APRA reports flat fees separately.

1 Background

The Financial System Inquiry is currently underway. It will lay out a blueprint for Australia's financial system over the next decade. The FSC seeks to assess the financial performance of Australia's superannuation system relative to comparable jurisdictions with similar pension systems. This study is a stocktake, to allow a high-level assessment of the value Australians receive through basic superannuation products, specifically with reference to rates of return and fees.

The project reviews available literature that summarises return, operating expenses and fees across countries. Some explanation is given of potential causes of differences among systems, e.g. the prevalence of defined benefit vs defined contribution schemes, varying levels of member servicing and differing allocations. This approach helps to position the overall performance of different systems in specific jurisdictions. For added context, the report concludes with some comparisons of major pension funds across the world.

1.1 Characteristics of pension schemes

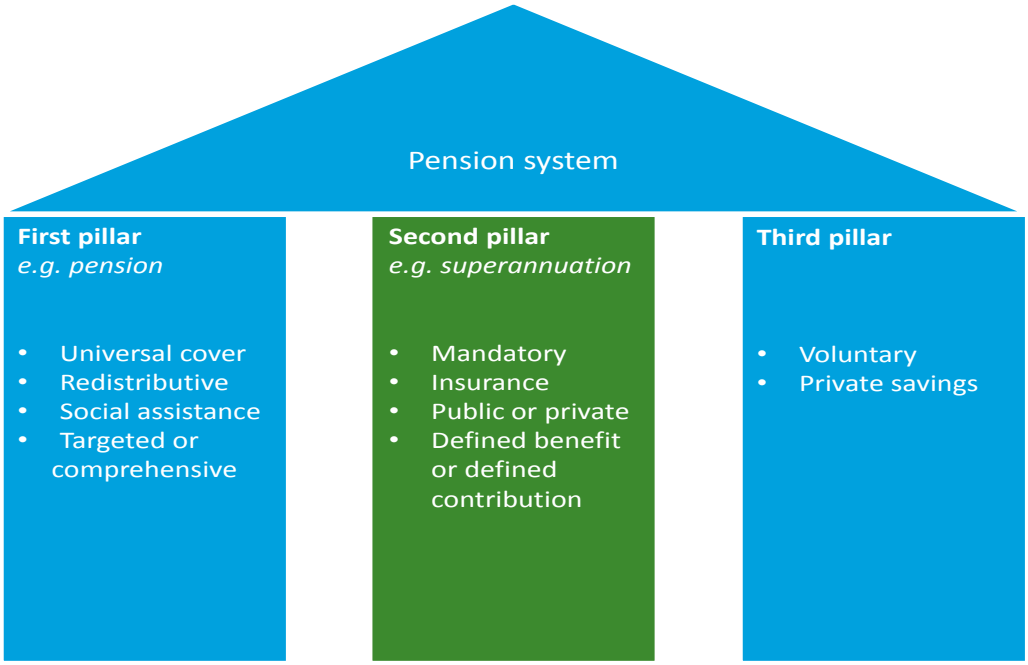
Developed countries in recent years have been faced with a fundamental demographic shift. Ageing populations have led to increased government focus on providing for individuals in retirement. At the same time, individuals are being asked to manage more of their retirement risks. This has resulted in 'hybrid' systems combining a range of features. Some of the features which can characterise pension systems are summarised in Table 1.1.

Table 1.1: Selected characteristics of pension schemes

Feature	Description	Example
Universal	A system which covers the entire population, regardless of income or previous working history.	New Zealand
Defined benefit	Pensioners are guaranteed payment/s of a certain value on their retirement. Income is determined by years of contribution and individual earnings.	United States[2]
Defined contribution	Pension benefits and payments are determined by how much an individual has contributed to their own pension and/or movements in the market	Australian superannuation US 401(k)
Mandatory	All citizens are required to contribute towards funding their pension	Chile
Private	Pension assets are managed by private companies or bodies	Hong Kong
Sovereign	Pension assets are managed by the government or a government body	Singapore

The OECD defines pension systems as having three main components or 'pillars'. Effectively, these are a social safety net, a mandatory retirement savings system for income earners, and voluntary savings. This is illustrated in Figure 1.1.

Figure 1.1: Pension system taxonomy



[2] The US also has voluntary retirement savings schemes, such as 401(k); a defined contribution voluntary individual fund which is employer-provided and privately managed.

In assessing the effectiveness of any given system, it is appropriate to consider, amongst other things:

- sustainability – the ability of the system to support itself financially and structurally in perpetuity;
- adequacy – the system's effectiveness in providing sufficient retirement income to pensioners for the length of their life; and
- equity – the extent to which the system ensures that all citizens, regardless of background, are able to fund their retirement.

Given the level of interaction and interdependency between pillars, any holistic assessment of a nation's system should consider all three pillars. This is a complex exercise; however, there is an existing body of literature which seeks to assess and rank pension systems globally, including the Mercer Global Pension Report series and publications from the World Bank and OECD.

It is important to note that Australia's pension system, including the contribution by the superannuation industry, has seen Australia being considered a world leader in pension system design.

This report focuses on the adequacy of the second pillar retirement income system; the effects of other pillars are outside the scope of the report. Along with contribution rates, adequacy is determined by the financial performance of the system. The rate of income replacement in retirement will ultimately be determined by the returns on funds invested, and by the fees which accrue.

1.2 Factors affecting returns

Returns are one of the core metrics on which retirement income systems are judged. Returns themselves are judged by the magnitude of returns, in the form of gross real rates of return, and by the volatility of those returns.

Muslaem and Pasquini (2012) outline a variety of factors that drive differences in both gross returns and in the volatility of returns between retirement income systems in different countries.

1. Larger retirement income systems, when measured by the ratio of assets to GDP, tend to earn higher gross real rates of return. This accords with the common assumption that investment management tends to have added returns to scale.
2. More mature retirement income systems, as measured by the time the system has been in existence, are associated with a lower volatility of returns.
3. Retirement income systems with greater competition, as measured through the number of funds and the market share of the largest funds, also tend to experience lower volatility of returns.
4. Higher returns are associated with occupational (as opposed to personal) retirement income systems, close (rather than open) systems and retirement income systems with multiple funds.

5. Lower volatility of returns is associated with voluntary (as opposed to mandatory) retirement income systems, systems with minimum guarantees and systems that allow lower levels of foreign investment.

Based on the features in this list, Australia might be expected to have relatively higher returns and lower volatility than the average. Australia has a relatively, large, mature system; based on the ratio of assets to GDP, Australia ranked fifth in the OECD in 2012 (OECD 2013; and superannuation was extended to most employees in 1992. Also, Australia has a large number of funds, although the FSI's Interim Report does raise the question as to whether the effective competition could be heightened by, for example, more empowered consumers. The impact on returns and volatility of returns of the other features on the list is ambiguous.

While returns can have a substantive impact on adequacy, they should be considered alongside fees and the ability of the system to tailor income support to an individual's circumstances in any assessment of the retirement income system.

1.3 Fee drivers

It is important to note that fees can be driven by a number of factors, and may not be directly comparable across jurisdictions. However, using international experiences as a benchmark, it appears that there may be scope for lower fees in the Australian system.

1.3.1 Investment management

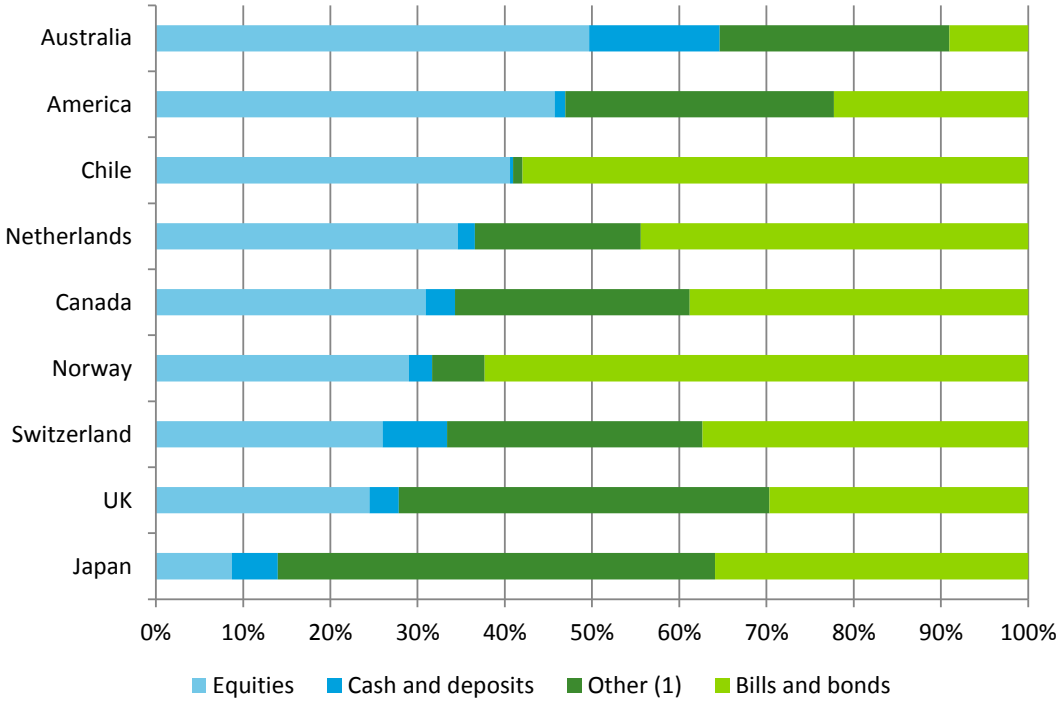
A factor that can influence fees is how **actively** investments are managed. Passive investment incurs lower investment costs, because less time and resources are expended on choosing assets and disposing of them.

Australia's superannuation system overall focuses on actively managed assets.

This is partially attributable to a relatively higher weighting on equities, as shown in Chart 1.1, which tend to be a more active class. Other surveys of asset allocation, such as Mercer (2014) suggest other countries hold relatively higher equity shares than suggested by the OECD survey.

In either case, Australia still stands out for the relatively low allocation to fixed income by domestic pension funds. Fixed income incurs lower investment management fees; e.g. the Mercer (2010) survey found that investment fees for equity products were around 70% higher than for fixed income products.

Chart 1.1: Asset allocations



Source: OECD, 2011

That said, the costs of actively managing assets in Australia are low relative to other advanced countries. For example, Mercer (2010) shows that Australians have the second lowest investment management fees in the world.

1.3.2 Other factors

Part of this difference can be attributed to the structure and design of the Australian superannuation system. It is defined contribution, privately managed, and allows competition and choice. Overall, the system is highly regarded world-wide for these characteristics. They have ensured the overall sustainability of the system. However, some of these characteristics can also drive higher fees.

This structure has led to a **proliferation of products** in the market. However, evidence suggests that few Australians are willing or able to make active and informed decisions over which products to use. In a recent survey, less than one third of Australians had made an active choice of fund (Super System Review, 2010).

The Grattan Institute (2014) suggests that there is a lack of competition between default superannuation funds. The Grattan Institute argues that the proliferation of choices is driving higher costs in the Australian system for the following reasons:

- many account holders are disengaged and do not focus on fees;
- many employers are disengaged and do not focus on fees;
- pressure from fee-sensitive customers has not cut fees much for others; and
- inattention to fees has permitted costs to grow largely unchecked.

This choice architecture and other regulation can also impact on the ability of funds to attain **economies of scale** to a similar level as other funds studied overseas. Economies of scale can arise in pension funds because larger funds are able to split fixed costs across more members, as well as being able to negotiate lower rates with brokers and external investors.

According to Towers Watson (2012), the largest active Australian (industry) superannuation fund, AustralianSuper, ranks 68th globally by assets under management. In contrast, Japan's Government Pension Investment Fund – with the lowest fees of those surveyed – ranks first, with over 30 times more assets. This difference in scale could have a significant impact on fees in Australia. Considering Australian data, Cummings (2012) notes that "larger funds … have significantly lower operational expense ratios to net assets". Further, Cummings finds that "the greatest benefits accrue when not-for-profit funds grow to a multibillion dollar size and are not exhausted at the largest Australian fund size".

Whilst the superannuation industry in Australia has progressively consolidated since its inception, this has been a relatively slow process. APRA reports that the number of public offer superannuation funds has fallen from 296 in 2004 to 161 in 2013.3 As recognised by the Financial System Inquiry's interim report, however, "the selection of default funds in awards largely reflects precedent and is not subject to a competitive process."

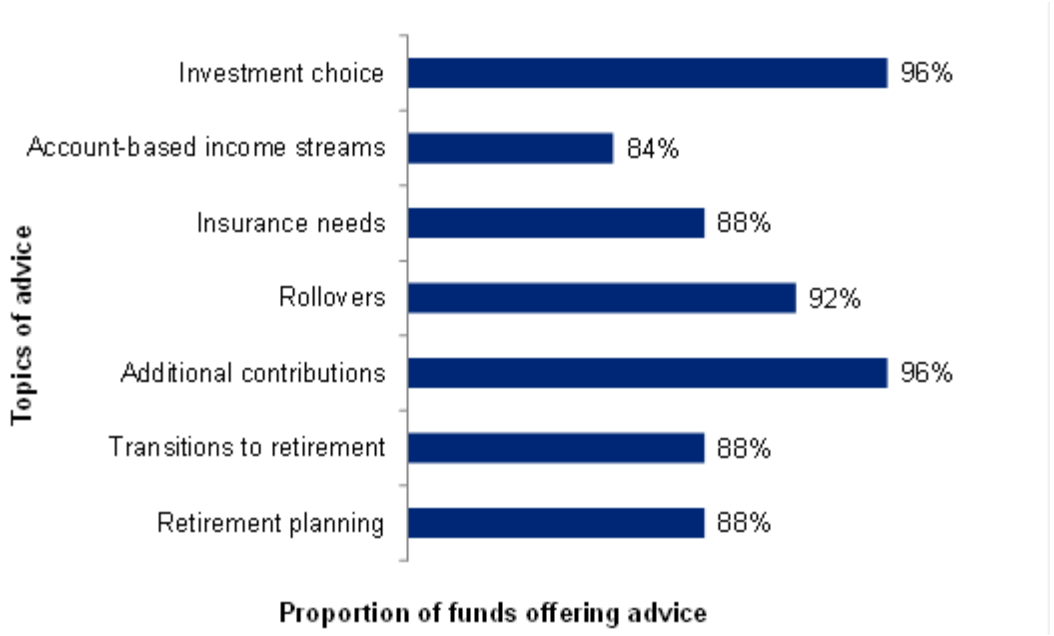
Greater **flexibility** in products, member choice rules as well as individual choice over the stream and timing of payouts, can also lead to higher fees. To facilitate and encourage individual choice, the Australian government introduced portability rules which require that any consumer request to have their savings transferred to another fund must be actioned 'as soon as practicable' and within 90 days. Complying with this legislation can mean that funds incur additional administrative costs associated with rollovers. Further, Australian pensioners are able to choose when and in what form to take their pension. A lack of certainty around the precise flow of payments required at any given point could also mean that additional administrative and investment costs are incurred.

Another driver of costs and fees is the extent, number and nature of services **bundled** in with the pension product. Some of the funds studied also provide funding for other purposes. For example, some funds also fund healthcare costs. Further, they offer different levels of service. For example, funds in some jurisdictions offer financial and investment advice as part of membership.

Australian funds do tend to provide bundled services as opposed to "vanilla" pension products. For example, even the new MySuper products are automatically bundled with life insurance and total permanent disability insurance (Treasury, n.d.) and approximately 75% of funds offer some form of (intra-fund) financial advice (ASFA, 2014). These can be on a range of issues, as pictured in Chart 1.2.

[3] http://www.apra.gov.au/Super/Publications/Pages/annual-superannuation-publication.aspx

Chart 1.2 : Financial advice in Australian superannuation products



Source: ASFA, 2014

RiceWarner estimates that this (intra-fund) financial advice can contribute 0.26% to fees (ASFA, 2014). However, this bundled service is not generally considered when evaluating fees.

In conclusion, when assessing the fee performance of Australia's superannuation system, it is important to note that:

- Australian funds are generally more actively invested than others;
- Australian funds are generally more heavily invested in equities in comparison to other pension funds;
- Australia has a proliferation of funds, which could affect funds' ability to achieve economies of scale; and
- Australian funds bear compliance costs related to regulations governing features that benefit customers, including choice and liquidity.

2 Cross-country comparisons

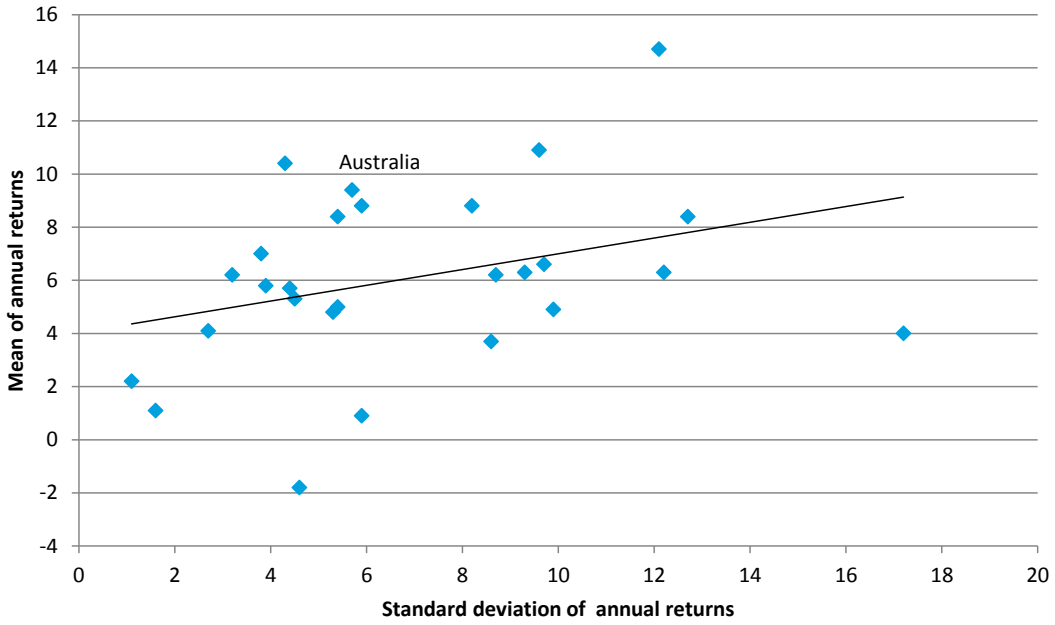
This section presents comparisons of returns and fees across selected jurisdictions using existing literature. Different sources can use varying definitions, methodologies and time periods, amongst others. As such, in some cases, measures of the same indicator vary significantly between different sources.

It also shows some other characteristics of the second pillar system in a given country, including the proportion of accounts which are defined contribution (as opposed to defined benefit) and whether funds are managed by a government body or the private sector/not-for-profits.

2.1 Returns across countries

Australia's superannuation system delivered high gross returns, and high risk-adjusted returns over an extended period before the GFC. Figure 2.1 compares private pension systems around the world between 1990 and 2005. Australia recorded annual returns approaching 10% and relatively low volatility (a standard deviation of returns of around 6).

Figure 2.1: Mean of real returns against standard deviation of returns (all years)



Source: Musalem et al (2012)

Measured investment returns can vary significantly from year to year. This is illustrated in Table 1.1 below where geometric mean returns over two separate 5-year periods are used to compare performance before and after the GFC. More information on returns is contained in Appendix Table A.2.

Table 1.1: Cross-country return comparisons from cross-sectional sources

Country	% DC	Sovereign /Private	Real returns	
			2000-2005 [1]	2008-2012 [2]
Australia	90%	Private	4.90%	-2.56%
Canada	3%	Private	3.30%	1.06%
Chile	100%	Private	6.10%	0.06%
Hong Kong	100%	Private	-	-
Japan	2%	-	4.80%	-0.67%
Netherlands	6%	Private	1.70%	3.51%
New Zealand	79%	Private	-	-0.07%
Norway	0%	-	-	0.88%
Singapore	100%	Sovereign	-	-
Switzerland	0%	-	-	1.04%
UK	26%	-	1.90%	-1.53%
USA	38%	Private	0.70%	-

[1] 5 year geometric mean average real returns (nominal returns in local currency less price inflation). From Tapia, W. (2008), "Comparing Aggregate Investment Returns in Privately Managed Pension Funds: An Initial Assessment", OECD Working Papers on Insurance and Private Pensions, No. 21.

[2] 5 year geometric average annual real returns, from OECD (2013). Pension Markets in Focus No. 10. Table 1.

Several factors may help to explain the relatively poor performance of Australian funds in the period 2008-2012:

- The Australian stock market has underperformed since the global financial crisis, when compared to stock markets in other developed economies;
- The returns in Table 2.1 are measured in local currencies. As a result, the relative appreciation of the Australian dollar since the global financial crisis has had a damping effect on returns to international investments made by Australian funds.

The Australian system's higher allocation to growth assets suggests that over the long term investment returns would be expected be higher than in other systems that invest more heavily in fixed interest securities.

2.2 Fees across countries

Table 1.2 suggests that, overall, management fees in Australia for "no frills" products (such as MySuper) are have above average fees, but this is likely to include a range of costs that may not be included in fee estimates for similar products overseas .

Fees tend to be more stable than returns, as they are often charged as a fixed percentage or alternatively a flat fee. Where data allows, it is preferable to compare fees by type (i.e. administrative, management/investment or other). This allows a more direct comparison across different types of investment. For example, it is expected that a passive fund that is primarily invested in bonds or equities would experience much lower management and investment fees than an actively managed fund. The cost drivers were detailed in Section 1.3.

Table 1.2: Cross-country fee/expense comparisons from cross-sectional sources

Country	% DC	Sovereign /Private	Fees as share of assets 2008-2012 [3]
Australia	90%	Private	0.28%[4]
Canada	3%	Private	0.33%
Chile	100%	Private	1.07%
Hong Kong	100%	Private	0.50%[2]
Japan	2%	-	0.35%[1]
Netherlands	6%	Private	0.15%
New Zealand	79%	Private	0.52%
Norway	0%	-	0.29%
Singapore	100%	Sovereign	0.50%[2]
Switzerland	0%	-	0.28%
UK	26%	-	0.80%
USA	38%	Private	1.02%[1]

[1] Total fees as a percentage of total assets in 2009. From Deloitte (2009). IFSA 2009: International superannuation & pension fund fees
[2] Fees in 2009. Operational expenses only as a percentage of total assets. From OECD (2011) Pensions at a Glance: Retirement Systems in OECD and G20 Countries
[3] 5 year arithmetic average operational expenses only as a percentage of total assets. From OECD (2014). Stat Extract – Global Pension Statistics.
[4] 1 year average percentage-based fees only (including investment fees and administration fees) for signle investment strategy products. From APRA (2014) MySuper Quarterly Statistics. MySuper products are allowed to charge flat fees as well as percentage based fees. APRA reports flat fees separately.

The figures used to inform this comparison can be found in Appendix Table A.2.

2.3 Individual funds

As noted above, it is challenging to interpret cross-country comparisons because of variations in system design, product offerings and economic circumstances. To illustrate this, Table 1.1 below shows the performance of selected pension funds in the same jurisdictions as above.

Specifically, the Table details the name of the fund and the country it operates in; whether the pension plans it manages are defined benefit or defined contribution; whether it is run by a government body or the private/not-for-profit sector; average annual gross returns (where possible over a 5 year period); and fees as a proportion of assets.

In some cases, fee data is not available, because the system is run by the sovereign or defined benefit, and does not charge explicit fees. In these cases, fees are inferred by using public data to determine the ratio of relevant costs to assets.

The funds below vary in a number of ways, including:

- size (i.e. funds under management);
- investment strategies;
- management arrangements (i.e. managed by the private sector or a government body);
- regulatory environment;
- bundled services; and
- benefit type (i.e. defined benefit or defined contribution).

Early estimates of fees for MySuper were 0.9% of assets, primarily administration or operating fees of 0.28% and investment management fees of 0.61%. However, more recent data published by Rice Warner shows that the average fee in 2013 was 0.73%, driven by substantial reductions in fees by new entrants to the default market, due to downward pressure on investment management fees.

Australian MySuper products include member servicing features and obligations required through legislation. Member services costs attributed to administration fees may include, for example, some or all of insurance and insurance-related charges (e.g. underwriting); provision of advice (either scaled or general) and liquidity charges, including exit fees. The level of member services provided, and the attribution of the costs – e.g. to administration fees or deducted from revenue – differs across countries.

These differences can significantly influence the financial performance of a given fund. For example:

- Japan's Government Pension Investment Fund is the largest in the world, which may play a partial role in explaining its relatively low fees. That said, the estimated cost of running the fund (0.02%) looks unrealistically low;
- The Government Pension Fund of Norway is driven by government contributions from 'excess profits' earned by Norway's nationally owned petroleum industry, and has a strict Responsible Investment strategy;
- The New Zealand KiwiSaver is a voluntary, government run initiative involving KiwiSaver providers, employers and several government agencies. Members choose from a wide range of schemes offered by: banks, insurance companies and investment managers.
- Under the Chilean defined contribution system, one provider is chosen by the government through a competitive tender process to manage all default contributions over a two year period, a process which has led to lower fees;
- CalPERS, a large occupational fund in California, provides for health insurance and expenses as well as retirement income.

The low costs reported for the Netherlands and Norway stand out.

- The Netherlands has a Collective Defined Contribution funds/ Collective Pension Scheme. Instead of having individuals put money into an individual account, groups of individuals (for e.g. industries) pool their savings into a single fund. The money is managed through this single account. Benefits are paid out for the rest of the life of each beneficiary in the form of monthly sums, and lump sum withdrawals are not allowed. (This appears to fuse annuities with pension payments.) Actuaries set the payout amounts, and in the event of a shortfall in investment returns or an unexpected

increase life expectancy, payout amounts can be lowered. A side effect of this is that the Dutch funds have massive economies of scale.

- Norway has a large public pension fund Norwegian Government Pension Fund Global ("GPFG"). The fund is managed by the Norges Bank, the Central Bank of Norway, through its asset management unit, Norges Bank Investment Management.

Table 1.1 shows that, of the funds selected for comparison, MySuper products can be considered in the middle of the pack.

Table 1.1: Individual fund performance

Fund name	Country	DB/ DC	Sovereign /Private	Period	Return	Costs			
						Admin fees	Management/ investment fees	Other fees	Total
CalPERS	America	DB	Sovereign	2008-13	3.50%	0.25%	0.52%	-	0.77%
MySuper	Australia	DC	Private	2013-14	3.20%	0.10%	0.18%	-	0.28%
Canada Pension Plan	Canada	DB	Sovereign		5.00%	0.10%	0.82%	-	0.92%
Mandatory Provident Fund	Hong Kong	DC	Private	2000-13	4.10%	-	1%	-	1.30%
Government Pension Investment Fund	Japan	DB	Sovereign	2005-12	1.46%				0.02%
National Civil Pension Fund	Netherlands	DB	Sovereign	1993-13	7.30%	0.01%	0.67%	0.05%	0.73%
KiwiSaver	New Zealand	DC	Private	2007-13	6.70%				0.52%
Government Pension Fund of Norway	Norway	DB	Sovereign	2007-12	3.14%		0.06%		0.74%
Central Provident Fund	Singapore	DC	Sovereign	1987-11	1.42%				-
Publica	Switzerland	DC	Private	2000-13	3.03%				0.22%
Universities Superannuation Scheme	UK	DB	Private	2007-12	1.90%		0.38%		1.34%

Source: Fund websites.

Note: This table shows costs and returns disclosed by individual funds. There may be differences in how these are collected and defined. These have not been taken into account. Some funds do not disclose disaggregated fees. Fees may not add to total due where different sources are used.

Australia's superannuation system is characterised by a relatively high reliance on active mandates, including an emphasis on investments in equities and the ability to support individualised services. Both features add benefits and costs to the system.

Overall, the cost of Australian superannuation funds is above average; costs for MySuper products are comparable to those offered overseas.

However, a full cost-benefit analysis would compare returns, fees and other features, such as active mandates, emphasis on equities and how well the system copes with individual demands, circumstances and requirements.

Appendix A

Table A.1: Country Pension System Returns (Local Currencies)

		Source (Real returns as %)				
Country	**Period**	**1**	**3**	**4**	**8**	**15**
Australia	(2008 – 2012)	-2.6				
	(2013)		15.1			
	(2012)		11.5			
	(2004 – 2013)			6.0		
	(2000 – 2005)				4.9	
	(1990 – 2005)				8.9	
Canada	(2008 – 2012)	1.1				
	(2000 – 2005)				3.3	
	(1990 – 2005)				6.1	
Chile	(2008 – 2012)	0.1				
	(2000 – 2005)				6.1	
	(1982 – 2005)				9.5	
	(1982 – 1997)					11.4
Hong Kong	(2000 – 2005)				2.1	
Japan (2)	(2008 – 2012)	-0.7				
	(2000 – 2005)				4.8	
	(1990 – 2005)				3.4	
Netherlands	(2008 – 2012)	3.5				
	(2000 – 2005)				1.7	
	(1986 – 2005)				6.0	
New Zealand	(2008 – 2012)	-0.1				
Norway	(2008 – 2012)	0.9				
Singapore						
Switzerland	(2008 – 2012)	1.0				
United Kingdom	(2008 – 2012)	-1.5				
	(2000 – 2005)				1.9	
	(1982 – 2005)				8.7	
United States (Defined Benefit)	(2000 – 2005)				1.5	
	(1988 – 2005)				7.1	
United States (Defined Contribution)	(2000 – 2005)				0.7	
	(1988 – 2005)				6.1	

Sources: 1 – OECD (2013), 3 – APRA (2014), 4 – APRA (2013), 8 – Tapia (2008), 15 – Mittelstaedt , & Olsen (2003)

Table A.2: Country Pension System Costs (% of assets)

		Source (costs as % of assets)						
Country	**Period**	**1**	**2**	**3**	**5**	**9**	**12**	**16**
Australia	(2009)		0.4					
	(2013)			0.5				
	(2012)			0.5				
	(2013)				1.5			
	(2012)				1.4			
	(2011)				1.5			
	(2010)				1.5			
	(2009)				1.5			
	(2002)							1.4
	(2013)							1.2
Canada	(2009)		0.3					
Chile	(2012)	0.7						
	(2009)		1.2					
	(2009)		0.5					
Hong Kong								
Japan (2)								
Netherlands	(2006)					0.4		
	(2004)						0.2	
New Zealand	(2009)		0.8					
Norway	(2009)		0.5					
Singapore	(2009)		0.5					
Switzerland	(2009)		0.3					
United Kingdom								
United States (DB)	(2008)					0.8		
United States (DC)	(2008)					1.0		

Sources: 1 – OECD (2013), 2 – OECD (2011), 3 – APRA (2014), 5 – Superratings (2014), 9 – Deloitte (2009), 12 – Bikker & De Dreu (2009), Grattan Institute (2014)

Citations for references:

- OECD (2013) Pension Markets in Focus no. 10
- OECD (2011) Pensions at a Glance: Retirement Systems in OECD and G20 Countries
- APRA (2014) Quarterly MySuper Statistics
- APRA (2014) Quarterly Statistics
- APRA (2013) Fund Level Statistics
- Superratings (2014) Media Release Feb 5
- Siu, A. (2002). Hong Kong's mandatory provident fund. Cato J., 22, 317.
- Doyle, S., Mitchell, O. S., & Piggott, J. (2004). Annuity values in defined contribution retirement systems: Australia and Singapore compared. Australian Economic Review, 37(4), 402-416.

- Tapia, W. (2008), "Comparing Aggregate Investment Returns in Privately Managed Pension Funds: An Initial Assessment", OECD Working Papers on Insurance and Private Pensions, No. 21, OECD publishing, © OECD.
- Deloitte (2009). IFSA 2009: International superannuation & pension fund fees
- Centre for International Finance and Regulation (2014). MySuper: A New Landscape for Default Superannuation Funds.
- Towers Watson (2013) Global Pension Assets Study
- Bikker, J. A., & De Dreu, J. (2009). Operating costs of pension funds: the impact of scale, governance, and plan design. Journal of Pension Economics & Finance, 8(1), 63.
- Asher, M. G., (2013). Singapore's CPF: A Sustainable and Fair Solution to the Country's Pension Challenge? Accessed online via http://www.imf.org/external/np/seminars/eng/2013/oapfad/pdf/asher.pdf
- Tuesta, D. (2014). Factors behind the administrative fees of private pension systems: an international analysis. Journal of Pension Economics and Finance, 13, pp 88-111
- Mittelstaedt, H. F., & Olsen, J. C. (2003). An empirical analysis of the investment performance of the Chilean pension system. Journal of Pension Economics and Finance, 2(1), 7-24.
- Grattan Institute (2014) Super sting - how to stop Australians paying too much for superannuation
- Musalem and Pasquini (2012) Private Pension Systems: Cross-Country Investment Performance
- Rice-Warner (2014) *Superannuation fees report 2013*, Financial Services Council

Limitation of our work

General use restriction

This report is prepared at the request of the Financial Services Council. This report is not intended to and should not be relied upon by anyone else and we accept no duty of care to any other person or entity. The report has been prepared for the purpose of informing the Financial Services Council's submission to the Financial Services Inquiry. If you are accessing this report, then before making any decision or taking any action that may affect your finances or your business, you should consult a qualified professional adviser. Deloitte Touche Tohmatsu Limited, its member firms, or their related entities shall not be responsible for any loss whatsoever sustained by any person who relies on this report.

Contact us

Deloitte Access Economics
ACN: 149 633 116

Level7
225 George St
Sydney NSW 2000

Tel: +61 2 9322 7000
Fax: +61 2 9322 7001

www.deloitteaccesseconomics.com.au

Deloitte Access Economics is Australia's pre-eminent economics advisory practice and a member of Deloitte's global economics group. The Directors and staff of Access Economics joined Deloitte in early 2011.

About Deloitte

Deloitte refers to one or more of Deloitte Touche Tohmatsu Limited, a UK private company limited by guarantee, and its network of member firms, each of which is a legally separate and independent entity. Please see www.deloitte.com/au/about for a detailed description of the legal structure of Deloitte Touche Tohmatsu Limited and its member firms.

Deloitte provides audit, tax, consulting, and financial advisory services to public and private clients spanning multiple industries. With a globally connected network of member firms in more than 150 countries, Deloitte brings world-class capabilities and deep local expertise to help clients succeed wherever they operate. Deloitte's approximately 200,000 professionals are committed to becoming the standard of excellence.

About Deloitte Australia

In Australia, the member firm is the Australian partnership of Deloitte Touche Tohmatsu. As one of Australia's leading professional services firms. Deloitte Touche Tohmatsu and its affiliates provide audit, tax, consulting, and financial advisory services through approximately 6,000 people across the country. Focused on the creation of value and growth, and known as an employer of choice for innovative human resources programs, we are dedicated to helping our clients and our people excel. For more information, please visit our web site at www.deloitte.com.au.