

Linking superannuation to funding and the broader economy

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1. Executive Summary

1.1 About this report

This report considers the role of fixed interest investments in a superannuation portfolio. It explains why Australia has a relatively low allocation to fixed income and considers whether there are barriers to changing this situation.

Section 2 (Background) describes the different sectors of the superannuation industry, the liabilities of the funds and the needs of members in each sector.

Section 3 (Asset Allocation) describes the current investment profile and liabilities of these members and the current barriers preventing funds from increasing their allocation to fixed income (and alternative longer term) investments.

Section 4 (Other jurisdictions) provides a high-level comparison to other jurisdictions including the United Kingdom and United States of America. It covers retirement products and investment strategies, but also draws out reasons why comparisons may not be appropriate due to differences in legislation, taxation and social welfare benefits.

Section 5 (Fixed income investments) provides a consideration of the role and benefits of fixed income investments to superannuation investors, funds and the economy.

1.2 Different Superannuation Segments

There are three distinct homogenous segments to the Australian superannuation market and each has a different profile for asset allocation.

Table 1 shows how the market is divided.

Table 1. Major superannuation segments as at 30 June 2013

Segment	Segment Size (\$bn)	Share of market (%)
Not-for-Profit Funds	643.1	37.6
Commercial Funds	466.9	32.6
SMSF	507.2	29.8
Total	1,617.2	100.0

A further breakdown of these segments is shown in Section 2 (Background).

1.3 Current use of fixed interest investments

Australian superannuation funds hold a significant amount of defensive investments. The amounts vary by segment based on the demographic profile of the members and the structure of each segment.

Generally, fund managers and superannuation funds build portfolios of 'Australian Fixed Interest' through a mix of medium to long-term Australian bonds together with some high-yield corporate loans.

However, most defensive investments are held in cash and term deposits, particularly in the Self-Managed Superannuation Fund Segment (SMSF) segment. The amounts of corporate and government bonds held are low by international standards, being only 11.5% of all assets (the sum of the Australian and International fixed interest columns in Table 2).

The levels of defensive assets as at 30 June 2013 are set out in Table 2. They represent \$463 billion of the \$1,617 billion assets of superannuation funds.

Table 2. Defensive investments by segment as at 30 June 2013

Segment	Australian Fixed Interest	International Fixed Interest	Cash and Term Deposits	All Defensive investments	Defensive Assets
	(\$million)				(%)
Not-for-Profit Funds	48,404	34,609	51,377	134,390	21
Commercial Funds	67,918	29,085	69,818	166,822	36
SMSF	7,101	0	154,696	161,797	32
Total	123,423	63,694	275,892	463,009	
Percentage (%) of all assets	7.6%	3.9%	17.1%	28.6%	

1.4 Barriers

It is clear that Australia lacks a large market for corporate and government bonds. There are no structural impediments to investing in these markets but there are factors that inhibit growth, including:

- The absence of a lifetime annuity market, which would of necessity match liabilities with long-term bonds.
- The gross returns paid on Term Deposits which satisfy the needs of SMSF retirees and have government guarantees.
- The relatively low level of borrowing and short-term duration of Australian government bonds (only recently increased to 15 years).
- The attraction of overseas borrowing for corporations.
- The absence of an efficient secondary bond market which SMSF investors could access. We note that the ASX now does provide a service for trading government bonds. This and the new *mFund* service will improve access to these products and reduce this barrier.

1.5 Conclusions and Recommendations

The lack of a significant fixed interest market reflects the asset allocation of each segment of the superannuation industry:

- The not-for-profit segment has 75% or more of its default investments in growth assets. This high percentage is needed to meet the objectives which are to generate returns of CPI + 3% (or more) over rolling ten year periods. The strong cash flows of most funds reduce their liquidity needs so they can, for instance, invest in a long term property portfolio, which although classified as a growth asset, provides much less capital value volatility than equities as well as a regular and attractive rental return.

- The commercial segment has many products sold by financial advisers. They tailor investments to meet their clients' needs. While they do utilise managed funds with pools of fixed interest, these are a low portion in current portfolios due to low interest rates and the desire to provide returns equivalent to those from the not-for-profit segment.
- The SMSF segment uses Term Deposits for its fixed interest investments. As these are easily accessed and provide an acceptable gross return, there has been limited demand for corporate or government bonds from this segment despite the expanding availability via ASX.

There are several opportunities to develop a dynamic fixed interest market. The key ones are:

- Development of a lifetime annuity market.
- Development of a debt market for superannuation funds wanting to purchase infrastructure.
- Listing of managed fund portfolios of fixed interest securities which an SMSF could access through the ASX.

Whilst not an opportunity, changes in the price (yield) differential between term deposits and bonds would lead to more yield seeking investors being attracted to bonds.

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9 May 2014

2. Background

2.1 Scope of paper

The Australian Bankers' Association (ABA) has engaged Rice Warner to undertake research to support a submission to the Federal Government's Financial System Inquiry.

Australian superannuation funds have a relatively low level of fixed interest products (11.5% of Funds under Management (FUM) if cash and term deposits are excluded).

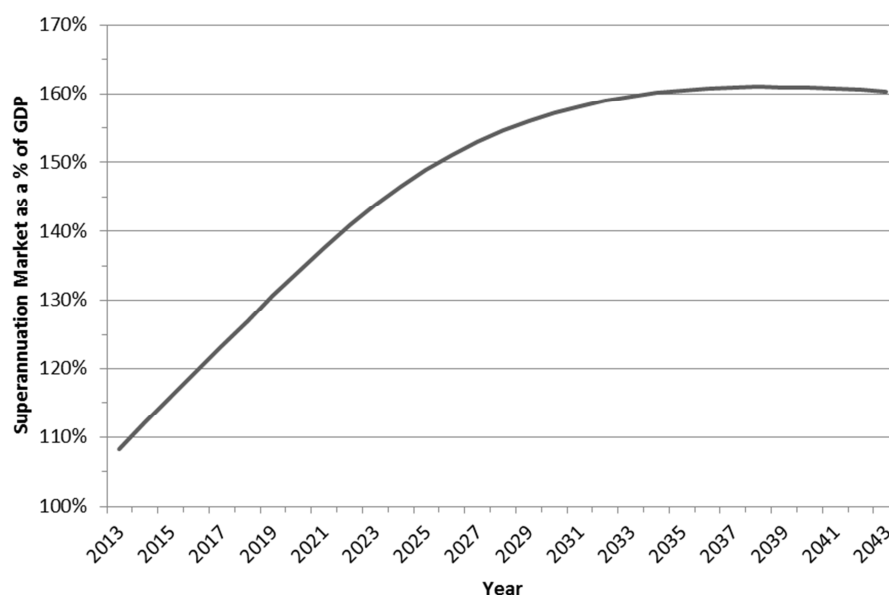
This paper includes consideration of:

- Barriers to diversification (into fixed interest assets) and how to overcome them.
- The extent of or demand for funding within superannuation funds to match liabilities.
- Benefits of fixed income investment to superannuation funds.
- Benefits of increased fixed income investment to the wider economy including to banks.
- Other investment options for superannuation funds, such as infrastructure and social benefit bonds.

2.2 Size of superannuation industry

The superannuation industry is growing strongly, largely due to the mandatory employer contributions – now 9.25% of salary and increasing to 12% over the next seven years. The assets held by the industry already exceed GDP and will peak at over 160% of GDP in 25 years.

Graph 1. 30 year projected superannuation assets as a percentage of GDP (2013 dollars)*



* Projected GDP has been estimated using smoothed growth rates from *Treasury's 2010 Intergenerational Report* and applying these to GDP as at 30 June 2013 as published by the ABS.

2.3 Sectors of the superannuation industry

There are four homogenous groups which together comprise the superannuation industry. The different characteristics of these groups mean that each has a different attitude to asset allocation.

The groups are:

- defined benefit funds
- not for profit employer-sponsored funds
- commercial funds
- self-managed superannuation funds.

The defined benefit funds are not a separate segment but are included within the Not for Profit and Commercial fund segments.

The current and projected size of the three generic segments is set in Table 3, including the major product types within each. Assets include defined benefit and defined contribution benefits. Rice Warner estimates the market will grow at a compound annual growth rate of 8.1% over the next 15 years.

Table 3. Summary of projections results (2013 dollars)

Market segment	Today 30 June 2013		In five years 30 June 2018		In 15 years 30 June 2028	
	(\$m)	(%)	(\$m)	(%)	(\$m)	(%)
Not-for-Profit Funds						
Corporate Funds	67,804	4.2	47,292	2.2	0	0.0
Industry Funds	329,678	20.4	478,622	22.6	830,713	24.8
Public Sector Funds	245,576	15.2	312,731	14.7	429,842	12.8
Not-for-Profit Funds	643,058	39.8	838,645	39.5	1,260,555	37.6
Commercial Funds						
Employer Master Trusts	116,771	7.2	178,809	8.4	284,037	8.5
Personal Superannuation	182,731	11.3	242,668	11.4	459,036	13.7
Commercial Retirement Products*	158,632	9.8	199,215	9.4	349,373	10.4
Retirement Savings Accounts	1,900	0.1	579	0.0	0	0.0
Eligible Rollover Funds	5,468	0.3	0	0.0	0	0.0
Unallocated Reserves**	1,407	0.1	0	0.0	0	0.0
Commercial Funds	466,910	28.9	621,271	29.3	1,092,446	32.6
Self-Managed Super Funds						
Self-Managed Super Funds	507,200	31.4	660,729	31.2	1,000,177	29.8
Total superannuation market	1,617,169[#]		2,120,645		3,353,178	

* Most of these assets represent account-based pensions but the figure also includes term certain and lifetime annuities.

** This amount is held within the Statutory Funds of life insurance companies to back annuities and capital guaranteed business.

2.4 Defined benefit funds

Whilst they are not a separate segment of the market, defined benefit funds represent a significant legacy within the market, especially in relation to Corporate and Public Sector funds. Virtually all are now managed alongside defined contribution funds generally for older members. They do, however, represent a significant pool of assets and have different investment requirements from accumulation funds. Their characteristics are therefore important in understanding their asset allocations.

Defined benefit funds provide a retirement benefit based on a formula, usually linked to salary in the last three to five years of work. These funds can provide a lump sum at retirement or a pension. Both types exist in Australia and some funds offer a choice between a lump sum and a pension.

These funds exist in the Not-for-Profit and Commercial segments, but not in the SMSF segment. Usually they are managed by governments or large corporations.

Most companies and all governments have closed their defined benefits to new members. Only a few remain open, including the Military Fund (for defence personnel) which is sponsored by the Federal government and ESSS, the fund for emergency services workers in Victoria.

All the State governments and several large companies (such as Australia Post) have closed defined benefit funds. Most of these will experience negative cash flow now or in the next few years.

As the guarantees are borne by the employer, the members are not concerned about the assets matching the liabilities.

2.5 Corporate funds

Corporate funds were once the main channel for superannuation in Australia. However, the growth of mandatory employer superannuation contributions and the shift from defined benefits has led to most employers closing their corporate funds.

According to APRA, there were 108 corporate funds as at 30 June 2013, a reduction from the 1,862 that existed a decade earlier. Rice Warner expects all remaining corporate funds to be wound up over the next 15 years.

As corporate funds close, members and assets have been transferred to funds which cater for multiple employers, such as industry funds (in the Not-for-Profit segment) or master trusts (in the Commercial segment). Sunsuper is an industry fund that caters for corporate sub-plans. Plum and Mercer are the two best examples of corporate master funds. Further, many large companies (typically with fund assets exceeding \$20 million) became a quarantined sub-plan often with their own investment and insurance arrangements, but without any trustee representation.

The recent legislation requiring all funds to hold a MySuper licence also led to many corporations closing down their fund. In addition, many of the corporate sub-plans have converted their arrangements to a standard MySuper offer where the trustees manage the default investments.

There are only about 30 tailored MySuper products where the companies decided to maintain their existing structure (as a sub-plan) and still control the investment strategy. These funds all have assets exceeding \$100 million.

Corporate funds are characterised by high average balances and a higher percentage of members approaching retirement. Some employers pay more than the required mandatory contribution rate.

The consequences of these structural features are that:

- Corporate funds represent a small and a declining share of the market.
- The defined benefit component of this segment represents a declining share of the segment.
- We anticipate all standalone corporate funds will close within 15 years.
- Most have high average benefits and an older membership profile. Those with defined benefit pensions generally retain these older members as they move into retirement, but those with lump sum benefits generally lose the members and the assets causing negative cash flows.
- Those with negative cash flows need to invest more conservatively with an emphasis on liquidity and a matching of assets to cash flow. These funds generally have high allocations to fixed interest and cash.

2.6 Public sector funds

The Federal and State governments (and their agencies) all have defined contribution funds. Some funds pay high contribution rates. For example, the Queensland government pays 13% of salaries and the Federal Government pays 15.4%

As a result of high contribution rates and long periods of employment, these funds tend to have higher than average balances. While all governments used to have defined benefit funds, all the major funds (apart from the Military) have been closed to new members. The results are similar to those described for Corporate funds. The defined benefit sections of many of these funds are not growing and some are declining as older members leave. This decline, and the desire to match assets with liabilities, however, forces the funds to invest for liquidity.

2.7 Industry funds

Most industry funds were created after a 1985 centralised wage decision to grant employees a 3% superannuation contribution. At that time, 60% of the population had no superannuation so many workers started with nothing. As a result, this segment has the lowest average balances.

These funds receive mandatory employer contributions under industrial awards. This provides a guaranteed strong cash flow which allows the funds to invest in illiquid assets and have a long-term investment perspective.

2.8 Commercial funds

These products are offered by organisations which manage superannuation as a business. AMP and the four wealth management subsidiaries of the large banks hold a significant share of the assets in this segment.

As well as employer-sponsored superannuation, this segment manages money for individuals (including self-employed persons). It also provides separate pension products for individuals whereas pensions tend to be held in the same fund in other segments.

2.9 Shift to pensions

As members move into retirement, many tend to change the investment profile of their superannuation assets. Many people with small balances take lump sums, but those with more than

about \$100,000 tend to take some or all of their benefit as a pension, usually an account based pension. They will often seek more capital security rather than remain heavily invested in growth-oriented assets. Pension accounts therefore tend to have higher allocations to fixed interest than the accumulation accounts do. They will still, however, have meaningful allocations to growth assets.

The \$1,617 billion of assets set out in Table 3 comprises \$1,123 billion of pre-retirement assets and \$492 billion of retirement assets. The retirement assets are shown in Table 4 together with our projections for the next five and fifteen years.

Table 4. Current and projected retirement assets (2013 dollars)

Market segment	Today		In five years		In 15 years	
	30 June 2013		30 June 2018		30 June 2028	
	(\$m)	(%)	(\$m)	(%)	(\$m)	(%)
Not-for-Profit Funds						
Corporate Funds	3,661	0.7	5,491	0.8	0	0.0
Industry Funds	27,034	5.5	81,061	11.7	232,923	17.8
Public Sector Funds	54,272	11.0	76,584	11.0	139,104	10.6
Total Not-for-Profit Funds	84,967	17.3	163,135	23.5	372,027	28.5
Total Commercial Retirement Products	158,632	32.2	199,215	28.7	349,373	26.7
Total Self-Managed Super Funds	248,528	50.5	330,846	47.7	586,168	44.8
Total retirement market	492,128		693,196		1,307,567	
Retirement assets as percentage of all superannuation assets		30.4		32.7		39.0

Table 4 shows that pension assets will increase by a compound annual growth rate of 9.9%, which is greater than the whole market, due to the bulge of baby-boomers approaching retirement. Consequently, the assets in pension phase will grow from 30% of the total market to 39% in the next 15 years.

As retirees are more conservative, this is likely to lead to a shift in asset allocations within superannuation funds given a growing demand for investments that will preserve the retiree's capital or assist in managing longevity risks, i.e. there will be a growing demand for annuity type products and fixed income investments.

3. Asset Allocation

Asset allocation varies by segment due to the different demographic profiles. The industry funds tend to have strong growth portfolios as they have a younger average membership. Because they have strong cash flows, they also hold large amounts of illiquid assets such as property, infrastructure and private equity and low allocations to fixed income products. These funds are likely to be in this phase for the medium term and will take many years to reach a stable age profile.

The commercial funds have a much higher number of members who select their own investment portfolios (often with the assistance of an adviser). They also have more members approaching retirement or in the pension phase. Therefore, they hold higher levels of fixed interest investments.

SMSFs have traditionally concentrated their asset allocations in two areas, Australian Equities, Cash and Term Deposits. The ATO Statistical report for June 2013 shows 35.3% allocated to Australian listed assets, 30.5% allocated to Cash and TDs, 15% allocated to real property and only 1.4% allocated to debt and loans (see 0).

Traditionally, superannuation funds have separated their portfolios into 'growth' and 'defensive' assets. The former comprises all equity investments including shares and property. The latter comprises all debt investments (mainly government and corporate bonds) and, cash and term deposits. Although these categories have become blurred with hybrid investments and the use of derivatives, they provide a broad guide to overall asset allocation.

Generally, fund managers and superannuation funds build portfolios of 'Australian Fixed Interest' through a mix of medium to long-term Australian bonds together with some high-yield corporate loans. These portfolios can include short-term debt such as Treasury Bills.

However, most of the defensive investments held within the Australian superannuation industry, particularly in the SMSF segment, are cash and term deposits (typically of up to three years in duration). The high allocation to cash and term deposits is unusual compared to other countries, but it reflects gross interest rates which have prevailed on these assets for most of the last thirty years.

The amounts of corporate and government bonds held are low by international standards being only 11.5% of all assets.

The levels as at 30 June 2013 are set out in Table 5.

Table 5. Defensive investments by segment as at 30 June 2013

Segment	Australian Fixed Interest	International Fixed Interest	Cash and Term Deposits	All Defensive investments	Defensive (%)
	(\$million)				(%)
Not-for-Profit Funds	48,404	34,609	51,377	134,390	21
Commercial Funds	67,918	29,085	69,818	166,822	36
SMSF	7,101	0	154,696	161,797	32
Total	123,423	63,694	275,892	463,009	
Percentage (%) of all assets	7.6%	3.9%	17.1%	28.6%	

All defensive investments together are about 29% of all assets – and most of these are held in Australia. The foreign fixed interest assets are mainly sovereign bonds. These are about \$64 billion or 14% of all defensive investments.

The detailed table for all products is set out in Table 6.

Table 6. Asset allocation by sector as at 30 June 2013

Sector	Aust Equities	International Equities	Listed Property	Direct Property	Australian Fixed Interest	International Fixed Interest	Cash and Term deposits	Other
(%)								
Not-for-Profit								
Corporate Funds	31	27	2	7	12	5	8	8
Industry Funds	30	22	1	10	7	5	5	19
Public Sector Funds	24	24	3	7	7	6	12	17
Total Not for Profit	27.8	23.3	1.9	8.5	7.5	5.4	8.0	17.1
Commercial								
Employer Master Trusts	27	22	4	3	14	6	14	10
Personal Superannuation	27	22	4	3	14	6	14	10
Commercial Retirement Products	24.1	19.6	3.6	2.7	15.9	6.8	15.9	11.4
Retirement Savings Accounts	0	0	0	0	0	0	100	0
Eligible Rollover Funds	27	22	4	3	14	6	14	10
Total Commercial	25.9	21.1	3.8	2.9	14.6	6.2	15.0	10.4
Self-Managed Super Funds								
Total Self-Managed Super Funds	49.1	0.8	7.6	7.6	1.4	0	30.5	3.1
Total	33.9	15.6	4.2	6.6	7.6	3.9	17.1	10.8

3.1 Defined benefit funds

The negative cash flow of the closed defined benefit funds influences asset allocation. As a guide, these funds will want liquid assets (so they tend to move away from property and infrastructure investments). They also need more certainty, so they tend to match assets to liabilities. This leads to a shift away from equities towards bonds.

In Table 7, we set out the asset allocation from the actuarial report as at 30 June 2012 of State Super NSW, one of the largest closed defined benefit funds. This fund now has a negative cash flow, but it still has a large amount of growth assets. It needs them to match the liabilities which are related to the salaries of members.

Table 7. Asset allocation of State Super as at 30 June 2012

Category	Sector	%	\$million
Liquid growth	Australian Equities	27.3	9,513
	International Equities	22.9	7,992
Sub total		50.2	17,505
Alternatives	Property	8.7	3,045
	Alternative assets	13.1	4,566
Sub total		21.8	7,610
Liquid defensive	Australian fixed interest	5.1	1,767
	International fixed interest	2.4	840
	Cash	20.4	7,107
Sub total		27.9	9,714
Total		100	34,829

Source: Report on the Actuarial Investigation of the State Authorities Superannuation Scheme as at 30 June 2012.

As the assets gradually decline, they will be matched to the remaining liabilities and the fund will hold a higher percentage of fixed interest assets. However, the change has not yet started at State Super.

Once cash flow is permanently negative, funds will hold much higher levels of cash, as in this example. However, in time, there will be a shift out of unlisted assets (which are less liquid) and a move towards assets which provide more stable returns.

If there were a corporate bond market of any size, this would suite investments for a defined benefit fund. They would provide a real interest rate and the term of the bonds could be matched to the term of the liabilities.

3.2 Not-for-Profit funds

This segment comprises corporate, industry and public sector funds. The default investment strategy (MySuper) for these funds has a target return¹. This is usually expressed as CPI + 3% to 4% after fees and taxes. Thus, funds might have a gross earnings target of about 8% a year over the medium term. The target is based on historical returns for funds investing with 70% or more in growth assets.

Due to the target and investment horizons of their generally younger membership, the investment profile of not-for-profit funds typically follows a 'balanced' 75/25 allocation to growth and defensive assets respectively. This usually results in high allocations to equities and property and relatively lower allocations to fixed interest and cash investments. Larger industry funds have strong positive net cash flow and invest a greater proportion of assets in alternative asset classes such as private equity and infrastructure.

Corporate and Public Sector funds tend to have a relatively higher number of members in the retirement phase drawing down pensions which results in higher allocations to fixed interest relative to

¹ Under prudential standards all funds must have an investment management framework. As part of this, they must define the risk return profile of each portfolio. CPI + 3 to 4% is what can be achieved from the risk profiles adopted. It is also what is needed to provide decent retirement benefits.

Industry funds. Consequently, average allocations to defensive assets tend to be 20-25% of fund assets for Not-for-Profit funds. Corporate funds are close to the upper limit and industry funds at or below the lower limit.

Most assets are held in a default investment strategy. Although funds offer a number of alternative investment options, collectively these represent less than 10% of all assets. The concentration within the default fund provides certainty for the fund and it can invest long-term against the known cash flows.

Table 8 shows the strategic asset allocation for the default (MySuper) option of the largest industry fund, AustralianSuper as published in the product disclosure statement dated January 2014.

Table 8. AustralianSuper Strategic Asset Allocation – Balanced Option (default) as at January 2014

Asset class	Strategic asset allocation	Range
	(%)	
Australian shares	29	20-45
International shares	31	10-40
Direct property	12	0-30
Infrastructure	14	0-30
Private equity	4	0-10
Fixed interest	7	0-25
Cash	3	0-15
Absolute return strategies		0-10

As can be seen, the fund has an aggressive asset allocation reflecting its high target of CPI + 4% over rolling ten year periods. While the allocation to fixed interest is lower than normal, this reflects the fund's view that Bonds will be low-yielding for some time and there will be a drag on the required performance of the fund.

In this case, the barrier to investing in fixed interest is the high return targets set for members and the current low interest environment where bonds are likely to give low yields.

3.3 Commercial funds

The typical default asset allocation for Commercial funds follows the 70%/30% split to growth and defensive asset similar to the not-for-profit sector. Despite this, Commercial funds typically have higher allocations to fixed interest investments than the typical not-for-profit fund due to:

- A greater variation in the asset allocation of default options between different funds and there are more funds with older age profiles needing more conservative investments.
- A larger number of alternative options that a member may select under investment choice with many of the older members selecting significantly more conservative profiles and these funds not usually offering direct investment in TDs.
- Many commercial funds having changed their default options to lifecycle investments resulting in a more defensive asset allocation for older members.
- Members of Commercial funds being more likely to receive advice and invest in an option that better meets their personal risk and return expectations.

Commercial funds also tend to have a more liquid investment profile than funds in the Not-for-Profit sector and consequently have lower allocations to alternative asset classes such as infrastructure, private equity and unlisted property. This structure is largely driven by the need to set daily unit pricing of all investment options and to have the liquidity to meet withdrawals as required. It is also driven by the diverse needs of investors and the different views of their financial advisers.

Table 9 shows the benchmark asset allocation for the AMP MySuper Balanced investment option (default) within the Flexible Super product range as an example of the flagship product from the largest provider.

Table 9. AMP Benchmark Asset Allocation – MySuper Balanced (Flexible Super) – 1 January 2014

Asset class	Benchmark (%)	Range
Australian shares	27	12-32
International shares	30	15-48
High yield credit	5	0-10
Listed infrastructure	5	0-10
Listed property	5	0-10
International fixed interest	13	0-30
Australian fixed interest	10	0-30
Cash	5	2-40

This fund has a lower portion of growth assets than an industry fund and a higher amount of fixed interest investments. Once again, the overall portion of Australian fixed interest investments is low (15% including high yield credit) largely due to current concerns about yields.

The broad range for each asset class would allow for a much higher allocation to fixed interest investments, but it is unlikely that funds would move to the top of the range (60%) unless interest rates were much higher.

The allocation between International FI and Australian FI are the usual investment reasons of yield, risk and correlation subject to currency risk.

3.4 Self-Managed Superannuation Funds

The current investment profile of the superannuation funds within the SMSF segment reflects the unique features of these plans. Table 10 shows the dominance of Australian investments, particularly listed equities and Term Deposits amongst the \$507 billion of assets.

Table 10. SMSF Asset Allocation – 30 June 2013

Asset Class	%
Australian Listed Assets	35.3
Cash & TDs	30.5
Real Property	15.1
Managed Assets	13.2
Debt & Loans	1.4
Overseas (All)	0.9
Collectibles	0.1
Unlisted Shares & Other	3.5
Total assets (\$million)	100.0

Investors in the accumulation phase have a strong preference for listed Australian equities, with a sizable minority interested in unlisted properties.

Members in the pension phase hold more than half the assets in the SMSF segment. Their preference is also for listed Australian equities, though many shift into term deposits as they seek to preserve their capital and generate income.

These preferences are supported by the ease of investment through online share broking services and access to bank term deposits. Investing elsewhere requires more effort and adds to reporting. Consequently, there are very few bonds held in this segment.

The implementation of the ASX mFund service may well offer an opportunity for the development of specialist bond portfolios. The online broking services will provide a convenient portal for investors and an attractive distribution channel for product providers.

3.5 Retirement

The circumstances of retirees are different to members accumulating funds. The key differences are:

- Contributions cease so the assets peak at the time of retirement and then decline over time.
- Retirees withdraw funds for consumption. So they need some certainty about capital (otherwise they could draw payments when asset prices are low).
- Retirees have a long-term horizon due to improved longevity. Most retirees have a life expectancy of 15 to 25 years at the time of retirement.

Retirees tend to use their superannuation proceeds efficiently in line with Table 11.

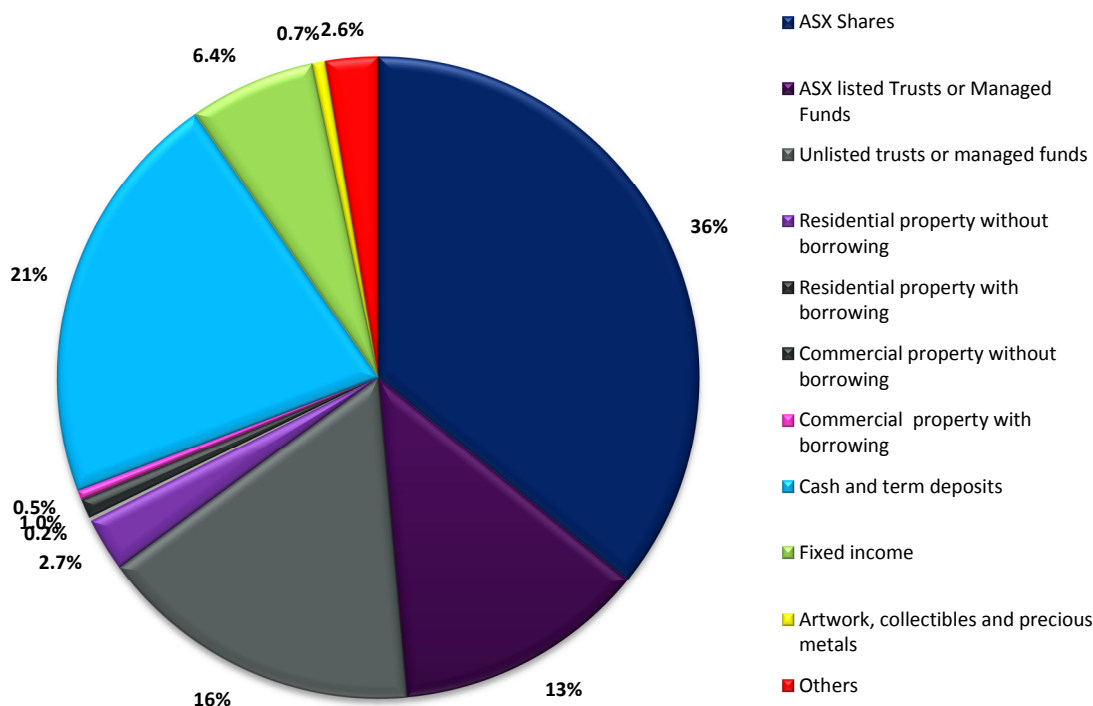
Table 11. Utilisation of retirement benefits

Account balance	Lump sum	Liquidity	Nest egg	Growth
<100,000	ALL	-	-	-
100,000 to 200,000	75,000	25,000	50,000	-
200,000 to 400,000	75,000	45,000	50,000	130,000
400,000 to 600,000	75,000	75,000	50,000	300,000
600,000 to 1 million	100,000	120,000	80,000	500,000
1 million to 2 million	150,000	150,000	100,000	1,100,000
>2 million	250,000	150,000	100,000	1,500,000

As can be seen, those with small balances simply transfer money into their bank account. Those with larger balances transfer some funds, but hold most of the remainder in an account-based pension. Even in retirement, the balanced funds (used by most members) still have a high portion of growth assets (60% to 75%).

A recent survey of SMSF retirees gave the following allocation of investments. Even though it is normally expected that retirees are conservative in their investments, this group has a high tolerance for growth assets. Fixed interest investments make up a small part of their portfolios.

Graph 2. Average asset allocation as at October 2013



Those retirees who want capital protection do not buy lifetime annuities. Instead, they buy term deposits in their SMSF or one of the funds that offer this facility.

Some buy short-term 'term certain annuities' which have the same characteristics of a term deposit but are issued by life companies. Only Challenger and CommInsure are still active with these products.

Several organisations, including the Actuaries Institute, have promoted lifetime annuities as a means of pooling longevity risks. These products tend to have a high proportion of fixed interest investments to match liabilities (and to more easily meet APRA's capital requirements). Should there be a shift towards these products, the amount of fixed interest investments would grow strongly.

4. Other jurisdictions

4.1 Australia's unique characteristics

Australia's retirement income system has a number of unique features that influence asset allocation choices. It is therefore not possible to make simple like-for-like comparisons with markets like the United States of America and the United Kingdom as to the proportionate allocation to fixed interest and similar assets. There are good reasons why they should be different and why Australian investors will have lower allocations to fixed interest assets.

All employed Australians receive a mandatory employer contribution (Superannuation Guarantee payments) of 9.25% of income plus any extra personal contributions invested to accumulate a retirement lump sum. Only a minority of superannuation funds are Defined Benefit and most of those pay their benefits in the form of a lump sum as opposed to the higher proportion of defined benefit funds overseas paying pensions and requiring fixed interest assets to match pension liabilities.

4.1.1 Age Pension

Underpinning the system is the Age Pension which is available from age 65 with this age increasing gradually to 67 by 2023. The pension is means tested (on both assets and income), but the exclusion of the family home from the asset test, plus other allowances means that around 50% of new retirees receive a partial or full pension with this rising to more than 80% by age 85.

The Age Pension provides an income which, through indexation, is now equivalent to the ASFA Modest benchmark of income for retiree couples. As the pension is indexed to wages and ASFA's indices relate to prices (CPI), the pension will keep growing in real terms.

Therefore, the Age Pension provides a longevity guarantee via a solid long term income. It permits retirees to take a more aggressive investment stance in relation to their other assets. Many retirees with assets in the range \$200,000 to \$750,000 will invest in equities knowing that any fall in value will be offset by an increase in their part Age Pension. The tapering on assets is \$0.50 in the dollar.

4.1.2 Tax

During the accumulation phase, income is taxed at 15%. Dividend income derived from the Australian tax paid profits of Australian companies enjoys a franking credit at the corporate tax rate of 30%. When members retire and switch their accounts to the pension phase, the tax rate falls to zero, but the franking credit remains at 30% for dividends derived from Australian shares. This tax treatment makes Australian equities an attractive investment for superannuation investors and drives the current allocation to Australian equities seen today.

After age 60, the benefits can be withdrawn without any restrictions tax-free. There is no limit on withdrawals, but there is a required minimum annual drawdown being 4% of the account balance at age 65 and increasing slowly with age. This minimum withdrawal requirement encourages funds to ensure that there is cash to meet the payment so that it need not be met from depressed assets if there is a market correction.

4.1.3 Investment horizons

Retirees at age 65 still have long investment horizons. They need to allocate a good proportion of their assets to long term growth in order to maintain their income against inflation while also providing an allocation to capital protected assets to meet short term expenditure requirements. The need to provide for income growth has seen retirees resist annuities.

The combination of these three factors favours investment in Australian shares. They provide very attractive after-tax rates of return on income while maintaining the opportunity for capital growth. It is also the case that these franked dividend flows have been remarkably stable, even if the capital value of the assets have fluctuated. This has meant that for that portion of an asset portfolio that does not need to be realised in the near future, Australian shares may well be more attractive than fixed interest assets.

4.2 United Kingdom

The United Kingdom (UK) provides a Base Pension linked to National Insurance contributions paid by employers and employees. As it is not means-tested, all UK employees therefore receive this benefit up to the limit imposed by the National Insurance scheme.

Britons may also contribute to occupational or private pension plans. Many of the occupational plans are still defined benefit plans that provide benefits in the form of pensions rather than lump sums at retirement. Increasing numbers have been converted to defined contribution, or accumulation, to reduce employer liabilities. Private pension plans are also accumulation funds.

The difference from Australia is that up until 2011 all balances in accumulation funds had to be converted to annuities by age 75. From 2011, accumulated benefits can be moved into a structure equivalent to the Australian account based pension and funds can be drawn down from the account. Unlike Australia there are restrictions on the amount that can be drawn down. For most retirees, the amount that can be drawn down must not exceed the amount they would receive at their then age should they choose to purchase an annuity.

Retirees with guaranteed incomes from pensions and other sources of at least £20,000 per year have no restrictions on their drawdown amounts.

The result of the history of the UK pension system is that the bulk of the pensions in payment are guaranteed pensions (annuities) which require asset/liability matching and a strong demand for bonds and gilts. The large base of defined benefit pension schemes which also require careful asset/liability matching will also mean a strong demand for bonds and gilts. As the UK has a large national debt, it has a deep liquid government bond market (gilts) and funds and annuity providers are able to match their liabilities relatively easily.

The growing pool of accumulation funds and the ability to invest and drawdown instead of purchasing an annuity will see a growth in asset pools with investment outlooks similar to those in Australia and a possible move to a lower weighting to fixed interest assets. However this will take time, both because the assets need to accumulate and because the financial advice industry needs to develop to service retired investors instead of just helping them buy an annuity.

4.3 United States of America

In the United States of America (USA), retirement income provision is by means of defined benefit pension plans or 401k accumulation plans. The pension plans generally pay incomes for life. The 401k plans provide for the drawdown of assets from age 60 on a tax preferred (but not tax free) basis. There are no restrictions on these drawdowns.

Defined benefit pension plans have the same requirements of asset/liability matching as they do elsewhere and a commensurate higher allocation to fixed interest securities.

In many ways, 401k plans present similar opportunities and challenges as accumulation plans do in Australia. The differences in their asset allocations are driven by the operation of US shares and their tax treatment. US companies generally pay much lower dividends than those on Australian shares and the dividends do not qualify for franking credits. Some companies do not pay dividends or do so infrequently (e.g. Apple). They therefore provide much lower incomes and higher volatility risk. They do not provide the income stability that Australian Blue Chip shares do.

Those needing income and income stability must therefore invest in corporate and government bonds and the allocations to these asset classes must therefore be higher than in Australia.

4.4 Other regions

There is no comparable region to Australia in terms of tax systems, access to social security pensions and the rules around private accumulation of pensions are all different. Some countries, for example Austria, mandate asset allocation (particularly in government bonds) so their asset allocation is a function of their regulations.

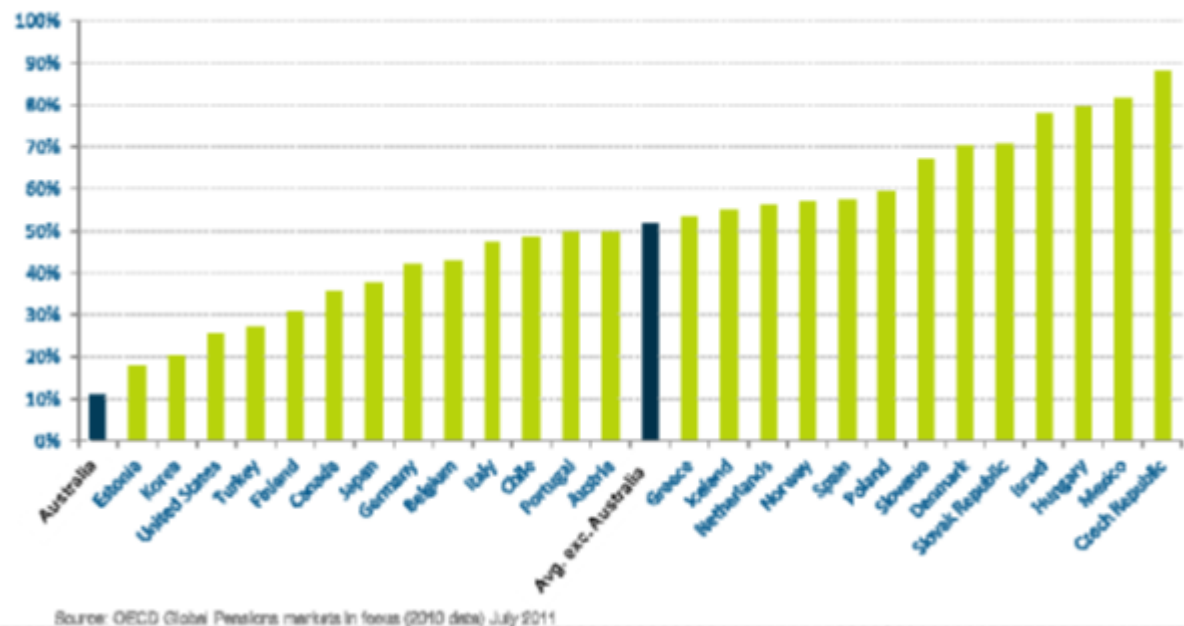
Note Australia once had a prescribed minimum investment in government bonds. Until abolition in 1985, superannuation funds had to invest 30% of their assets in Australian government bonds including a minimum of 20% of all assets in Commonwealth securities.

Graph 3 shows the allocation of pension assets to fixed interest securities for selected OECD countries. As can be seen, Australia has the lowest allocation.

We will not analyse all the countries presented in Graph 3, but can make some general comments:

- Canada also has a system with a heavy emphasis on defined benefit pension plans.
- Many countries limit exposure to volatile assets and some prohibit them.

Graph 3. Allocations to fixed interest securities



5. Fixed income investments

As discussed in previous sections, asset allocations to fixed interest instruments via Australian superannuation funds are low by world standards. This is frequently presented as a problem that needs to be fixed, but there are in fact sound reasons for the higher allocations to growth assets, especially Australian equities, in Australia.

It is likely that this weighting to growth assets will continue for some time and that growth of a fixed interest market will depend on changes to both the supply and demand side.

5.1 Bank funding

The ABA report *Bank Funding* published July 2013 quotes results from the Reserve Bank of Australia and the Australian Bureau of Statistics. These show that deposits made up some 53% to 61% of bank funding. This was up from some 40% to 45% in 2007. Bendigo and Adelaide Bank has recently publicised that it now raises some 75% of its funding from customer deposits.

The growth has been driven partly by the security of bank deposits because of the government guarantee introduced after the GFC and because banks have been aggressively seeking deposits in order to gather more funding from lower risk weighted liabilities. The result has been attractive cash and term deposit rates offered to retail investors directly and via their superannuation funds.

The Rice Warner report *Personal Investments Market Projections* shows that these products have attracted some 29% of the personal superannuation market that includes the strongly growing SMSF sector, see Table 12.

Table 12. Personal superannuation at 30 June 2013 – look through basis

	Cash	Term Deposits	Australian Equities	International Equities	Fixed interest and Loans	Investment Property	Others	Total
	(\$million)							
Superannuation master trusts *								
Superannuation Wraps	18,557	8,968	30,509	12,231	8,176	3,663	2,787	84,892
Superannuation master trusts (excl. Superannuation Wraps)	35,562	14,133	75,113	38,402	40,580	13,122	6,534	223,445
Sub-total superannuation master trusts	54,119	23,101	105,622	50,633	48,757	16,785	9,320	308,337
SMSFs								
Wrap platforms held by SMSFs	5,684	6,720	15,008	1,779	1,705	6,383	1,909	39,189
Directly held by SMSFs	67,634	79,950	178,558	21,176	20,384	75,939	22,712	466,353
Sub-total SMSFs	73,318	86,670	193,566	22,955	22,088	82,322	24,622	505,542
Total Personal Superannuation*	127,438	109,772	299,188	73,587	70,845	99,107	33,942	813,879

5.2 Ageing population

The population structure is clearly ageing and there is a large group of Baby Boomers now moving inexorably into retirement. This will, over time, see a growing demand for defensive assets, but there are a number of factors that will affect this demand.

The current group of retirees still have significant life expectancies and half can expect to live beyond these life expectancies. They therefore still have long investment horizons and the need to dedicate a material proportion of their assets to growth assets in order to ensure that their income is maintained against inflation.

Unlike superannuation members in the accumulation phase, they also have a need to provide income and capital certainty over the short to medium term. This need, particularly in the SMSF segment, has generally been met via cash and term deposits. The rates on offer are good and for TD's have generally been above inflation and they have a government guarantee.

Fixed interest and hybrid securities are seen as riskier than TDs because their value is market linked and dependent on ruling interest rates and they do not have the government guarantee. Interest rate differentials have not been seen as sufficient to cover this additional risk. This may change with the reduction in TD rates which has taken place over the last two years, but the early trend has been for investors to re-enter the share market rather than reinvest maturing TD's.

The allocation of funds to cash, tiered tranches of TDs and growth assets has therefore been seen as optimal.

There are some signs amongst self-directed retirees and advisers to this segment to include fixed interest securities as part of a more balanced portfolio approach to long allocations, but this is unlikely to drive any big movements in the short term. Over time, especially as the average age of the retired population increases, this trend is likely to increase, but it is unclear as to the long term impact if deposit rates remain as attractive as they have been.

5.3 Bond market

5.3.1 *Why the market is small?*

The corporate and government bond markets in Australia are very shallow. This appears to be both a demand and supply problem.

Australian governments have had little demand for borrowing so there is limited government paper, although it seems that this will change over the next period because of ongoing projected deficits.

Australian companies have a ready market in which to raise debt, but have generally chosen in the recent past to go to overseas markets which they have found both cheaper and deeper. They have therefore obtained better prices at lower risk.

The investors, as already discussed, have found the prices offered generally unattractive when compared to bank deposits.

In summary, there is a fully functional market available, but both borrowers and investors have found rates not to be commensurate with risks. As the Baby Boomers retire, there will be an increased demand for fixed interest securities, but the growth will be moderate.

5.3.2 *Would Australia benefit from a larger fixed interest market?*

Australian businesses would benefit from a larger demand for fixed interest securities. This would provide an alternate source of debt funding for their business growth. However, there do not appear to be any barriers for issuing these facilities at present so we suspect the market is small as a result of alternate facilities. If global interest rates increase, it is likely that there will be an increasing demand for domestic funding and the market might grow at that time.

The ASX has recently launched a facility to issue simple managed funds to complement other services such as equities and ETF's. It is possible that a fund manager will develop a bond portfolio and promote this to SMSF members. However, the take-up is likely to be small.

5.4 Annuities

Australian retirees to date have avidly avoided lifetime annuities although short-term annuities have been used as they provide both guaranteed capital and income returns. The term annuities are competitors for tranches of TDs and their use will depend on the interest rates being offered on the respective products from time-to-time.

It is likely that, in time, lifetime annuities will also gain more traction. The reason is that they do not just offer a fixed interest return, but also provide an insurance element. Those dying early, effectively subsidise those who live longer, so the payments from these products exceed what can be obtained via pure investment products.

This insurance element is only attractive for older retirees. Younger ones consider the potential for 'losing' their investment on early death too high a price to pay for the long term certainty of income. The difference between the annuity payment and the returns from a TD or fixed interest instrument is not perceived to be high enough to compensate for the loss of capital on early death.

This differential, however, becomes much more attractive at older ages, over 80. The insurance element becomes a larger part of the annuity payment. We are therefore likely to see older retirees allocating at least a portion of their assets to annuities and some will incrementally allocate all their assets to these products and as their numbers increase, the market will grow. When this occurs, there will be an increased demand for fixed interest investments from the life companies supplying lifetime annuities.

Annuity products require fixed interest assets to back them. Insurers need to build carefully constructed fixed interest portfolios to match the annuity liabilities. Growth of the annuity market will therefore increase demand for fixed interest securities.

5.5 Project financing

The banking sector has participated strongly in the increasing demand for infrastructure and direct property investments through the larger superannuation funds. These assets are 'chunky' and investors have generally sought to gear their participation with material proportions of debt. There is a continuing appetite for these investments and the associated debt.

The unanswered question is whether this debt will continue to be sourced via banks or whether it too will increasingly be sourced from superannuation funds or tradeable markets.

5.6 Future developments

The fixed interest market is likely to grow as the retired population ages and their average investment horizons shorten, but this will take some time. The attractiveness of the fixed income market will also depend on the rates issuers are prepared to pay in comparison to overseas raisings and investors are prepared to take in comparison to bank deposits.

The continuing demand for infrastructure and other large direct investments may also generate both a primary and secondary market for associated debt instruments.

Lifetime annuities will become more attractive in time as current retirees, especially the Baby Boomers, reach their 80's with a commensurate increase in demand for fixed interest securities.

Australia has a large pool of required infrastructure developments. It is clear that superannuation funds will be a major source of funding for these national developments over the next decade. A typical infrastructure purchase requires a combination of equity and debt. While funds will seek equity, the debt could be provided by domestic banks, superannuation funds or foreign providers of capital.

We consider that the Australian fixed interest market will grow quickly as infrastructure debt is developed.