

Highlights from 10 years of superannuation data – 1996-2006

The main points from the statistics presented in this special edition of *Insight* are highlighted in this article.

In common with most developed nations, Australia relies upon three funding sources to ensure that retirees maintain a decent standard of living. These are first, the taxpayer-funded aged pension; second, mandatory savings through tax-advantaged superannuation savings; and third, additional voluntary savings by Australians who have the income and inclination to do so.

From the 1980s it became clear that Australia's demographic trends could not forever sustain a retirement income system reliant upon the taxpayer-funded pension, and that Australians would need to save more for their own retirement. The previous article outlines the recent history of Australia's move towards a more robust and self-funded retirement income system.

Overall, Australia's superannuation system has been remarkably successful in the past decade. Table 1 demonstrates that Australia's superannuation savings have grown strongly. In the ten years from June 1996 through June 2006, superannuation assets nearly quadrupled from \$245 billion to \$912 billion. Strong earnings and contributions have continued this growth, with the most recent APRA statistics for March 2007 showing that the industry's assets now exceed \$1 trillion.

As Figure 1.1 shows, this asset growth has increased superannuation assets as a proportion of the national income – or Gross Domestic Product (GDP) – from under 40 per cent to nearly 100 per cent. It is expected this ratio will continue to grow strongly on average, albeit with inevitable fluctuations through good and bad investment cycles.

It may seem on first glance a little unusual to compare a stock figure such as superannuation assets with a flow figure such as GDP. To give a sense for how much more important superannuation is becoming to Australia, one can estimate as a rule of thumb that long-term investment portfolios could support a spending rate of about 5 per cent per annum, and still maintain their purchasing power. On this admittedly simple rule, in 1996 only 38 per cent times 5 per cent, or 1.9 per cent of national income, was supportable by superannuation. Today that number is around 5 per cent, and in another generation will probably exceed 10 per cent of national income. In other words, Australians are transforming superannuation earnings from a minor to an important proportion of the national income mix, and this will prove very useful as Australia deals with an ageing population over the next few decades.

Figure 1.2 shows the share of superannuation assets by functional classification. Retail, industry and small (mostly self-managed) funds have all increased their market share strongly over the ten-year period, while there has been a slight decrease in public sector funds. Corporate funds have lost the greatest market share. Eligible rollover funds' (ERFs) share has been relatively consistent over the ten-year period.

Rapid growth has been accompanied by large changes in the superannuation industry's composition. Table 2 outlines the growth in superannuation in the different functional classifications, which comprise corporate, industry, public sector, retail, ERFs and small funds (which comprise small APRA funds, single-member approved deposit funds and self-managed superannuation funds).

In June 1996, corporate and public sector funds together accounted for approximately 40 per cent of superannuation assets, while industry and small funds together accounted for about 20 per cent. By June 2006 these positions have reversed, with corporate and public sector funds holding around 20 per cent of assets while industry and small funds held 40 per cent. Retail funds more or less held their share at a third of overall superannuation assets.

Fund numbers changed even more strikingly. Figure 2.1 demonstrates larger APRA-regulated funds fell in numbers from just under 5,000 to just under 1,000 funds, which are in turn overseen by just over 300 APRA-licensed trustees. In contrast, Figure 2.2 shows that small funds grew very strongly over the decade, from around 100,000 funds to over 320,000 funds.

The vast majority of members and assets in small funds are in the self-managed superannuation fund (SMSF) sector, which is not regulated by APRA. The Australian Taxation Office has collected and provided SMSF statistical information to APRA over the past decade.

The combination of much smaller regulated fund numbers on a much larger industry asset base means that in the past ten years the average APRA-regulated entity size has increased from around \$40 million to around \$800 million. As shown in Figure 2.5, the typical public sector, retail or industry fund now manages a multi-billion dollar asset base.

This extraordinary growth in average asset size, combined with strengthened supervision and licensing requirements from 2004, means that in a decade the superannuation industry has transformed from a largely volunteer managed industry, to a largely professionally managed industry. Although the industry still relies upon and benefits from many unpaid or nominally paid trustee directors, these trustees are today deploying far more sophisticated risk management and investment management expertise than was the case, on average, in 1996. This is not to say that APRA never expects a superannuation fund to get in trouble, but it does believe the infrastructure to identify and address potential prudential problems has been materially strengthened in recent years.

Table 2 and its associated figures demonstrate two important facts about member balances. One fact is the large number of superannuation accounts, now at about 30 million when there are about 10 million employed persons in Australia. This is not an exact comparison; many retirees have superannuation accounts, and some employed persons on low earnings do not have a superannuation account. It seems that the "too many accounts" problem has worsened by about 50 per cent in the past ten years (anecdotal evidence about changing work patterns, including increased casual and part-time work, is consistent with this development). As discussed later in this article, high average account balances are associated with higher returns. If Australians could somehow consolidate their millions of 'spare' and lost accounts in the industry, collective superannuation earnings would benefit.

The second key fact about members is considerably more positive: average account balances are growing strongly (see Figure 2.6). Higher average member balances translate into more ability for retirees to rely upon their own savings rather than solely upon a taxpayer-funded pension. In the future, APRA will consider expanding its statistical collections to better estimate the spread of average account balances within superannuation funds.

Table 3 gives a cash flow statement over the decade for the superannuation industry as a whole. The industry's average rate of asset growth was 14 per cent, which in a period of low inflation represents very strong real growth. This growth came from two sources: improved contributions and increased investment earnings. During the 1990s increases in the superannuation guarantee

had a positive effect on overall contributions. This trend has continued since the growth in the superannuation guarantee rate ended in 2002/03, and this has combined with continued strong growth in Australian incomes. It can be inferred, but not confirmed from the statistics, that voluntary contributions have also increased strongly, as superannuation fund members perceive the tax and compounding benefits of this form of long-term investment.

Contributions from both employers and members have grown strongly over time, but as shown in Figure 3.1, the proportions have fluctuated substantially. In Figure 3.2, by contrast, the ratio of benefit payments to contributions has dropped with reasonable consistency over the decade. Contributions grew on average by 12 per cent over the decade, and benefits grew by only 8 per cent. This favourable trend means that net contributions tripled over the decade, from \$17 billion to \$52 billion.

Finally, on average the superannuation industry's growth was accelerated by retained investment earnings, but this was a decidedly uneven stream. This will be discussed in more detail later in this article.

Table 4 concentrates on entities with at least \$100 million in assets. These superannuation funds hold well over 90 per cent of the assets among APRA-regulated funds (excluding small APRA funds). As APRA does not regulate or collect statistics from SMSFs, they have been excluded from this part of the analysis. Table 4 demonstrates that the assets in industry, public sector and retail funds are nearly entirely invested in funds holding over \$100 million, and for the corporate funds and ERFs this figure is over 90 per cent.

Tables 5a through 6b illustrate how the manner of investment of funds has changed over the decade. The highlights of the related Figures include:

- (a) the proportion of assets invested directly versus indirectly through investment vehicles started small and has become smaller, falling from around 15 per cent to 10 per cent of assets;
- (b) within the indirect asset pool, individually managed mandates have fallen in favour of wholesale trusts. This is an interesting result: even with vastly larger superannuation funds on average, the superannuation industry has found it economic to pool its assets more than has been the case in the past. APRA has no

preference for or against this strategy; there appear to be economies of scale associated with superannuation investment;

- (c) industry funds rely most heavily upon directly invested assets, with over one-quarter of their collective asset base held in this way. Retail funds and ERFs hold very few assets directly. This latter finding should be read in light of the common practice of retail funds associated with life insurance companies placing all assets with the life company. The life company in turn may invest either directly or indirectly; and
- (d) defined benefit funds re-profiled their investments over the decade, moving from a relatively high to a relatively low proportion of directly invested assets.

Tables 7 through 10 address several different aspects of investment returns. Small differences in investment returns add up to large differences in assets over time, and for many people superannuation is a 60-year investment proposition. In these tables, APRA has sought to shed light upon not only the outcome but some of the drivers associated with return on assets.

Table 7 gives the basic annual summary of return by functional classification. During this period there was a substantial drop in the number of larger corporate funds, but only nominal reductions in the number of industry, public sector and retail funds. In this Table and in Figure 7.1, the results show the well-known cycle of investment returns over the past decade. The years ending June 1997 through June 2000 generated good returns; 2001 through 2003 generated a cumulative negative outcome; and 2004 through 2006 (and from more recent data, 2007) generated very high returns.

Nobody knows what the future will bring for superannuation returns. If the future is anything at all like the past, however, then the past ten years may be reasonably instructive. That is, a few consecutive years of good performance may be interspersed with one or more years of low or negative returns and a few exceptional years. Over time the average return has been good.

Figure 7.2 demonstrates that, on average, all functional classifications have been similarly affected by the investment cycle. The exception is in the smallest regulated sector shown, i.e. ERFs. Many ERFs invest in a low volatility fixed-income portfolio, and the benefits of

this approach for small balance members are shown in this Figure.

Figure 7.3 shows that there were systematic differences in return by functional classification during the 1996 through 2006 decade. Corporate funds performed a little better, and retail funds and ERFs much worse, than public sector and industry funds. This performance is calculated after expenses and taxes. Over the decade, \$1,000 invested in the average public sector fund rose to \$2,109, compared to \$2,087 for a corporate fund, \$1,888 for an industry fund, \$1,687 for an ERF and \$1,650 for a retail fund.

Table 8 and Figure 8.1 give a sense of the risk-adjusted returns associated with each functional classification. Again there is a clear order for long-term return. ERFs experienced considerably lower volatility than did the other functional classifications. Retail funds on average experienced a slightly lower volatility of average return.

Table 9 investigates the potential for the size of entities to affect return levels and volatility. As depicted in Figure 9.1, there is some evidence of a positive size effect on fund returns. More statistical analysis would need to be undertaken to form a definitive view on this size effect.

Figure 9.2 shows APRA's findings on the relationship between volatility of return and size of entity, which can be summarised as 'none'. This is at first glance surprising, but may simply reveal that portfolios as small as \$100 million can achieve through collective investment nearly all the portfolio diversification available to larger funds.

Table 10 considers another approach to the relationship between size and return: can a fund's performance be predicted from the average size of member balances? It seems intuitively plausible that larger average account balances will allow a fund to run at lower cost, as a percentage of assets.

Figure 10.1 summarises the statistical evidence in support of the proposition that larger average account balances predict higher fund returns. The effect seems most pronounced with retail funds. Since funds report net returns to APRA and gross returns and fees cannot be extracted, it is unlikely that APRA can be more definitive than this. The gross (of fees and expenses) investment return for a fund should be largely independent of average account balance, and this effect tends to mask any cost advantage or disadvantage associated with average account balance.

Figure 10.2 suggests that volatility may increase with average account balance. This is an unexpected result which would require additional analysis to determine any economic cause.

Table 11 presents additional statistical information on superannuation fund returns. Figures 11.1 through 11.3 depict the median, first quartile and third quartile investment returns for the industry and the various functional classifications. These Figures indicate that the spread between trustees in a given year is relatively narrow. This is an unsurprising result, as in APRA's experience nearly all large superannuation funds invest in a well-diversified portfolio, which will in aggregate respond similarly to moves in financial asset prices.

Table 12 breaks down the return results for 1996 through 2006 into two five-year components, as well as the average for the ten years. The major evident difference is that corporate funds and public sector funds performed well in the first five years, and relatively less well in the second five years. Put another way, industry fund returns were relatively low compared to corporate and public sector funds in the first five-year period, but in the last five years have grown to roughly match these funds. This is despite the fact that average account balances for industry funds are much lower than for other functional classifications. Retail funds underperformed in both five-year periods.

Figures 12.1 through 12.4 depict investment returns by functional classification. Figure 12.1 shows a pictorial representation of the return and volatility achieved by the various functional classifications over the ten years. As would be evident from the previous Tables, corporate, public sector and industry funds generally generated better risk-return propositions than did retail funds. Figure 12.2 gives a probability distribution of returns over the ten-year period, and confirms the ranking of corporate and public sector funds first, industry funds second and retail funds generating the lowest returns.

Figure 12.3 gives another view of the distribution of returns within functional classifications. This Figure shows the 10th, 25th, 50th, 75th and 90th percentile of return for each functional type. Figure 12.4 replicates Figure 12.3, on a dollar-weighted rather than equal-weighted fund basis. These Figures expand upon the finding that average or median returns vary by functional classification, to demonstrate that the range of returns also varies. As shown in Figure 12.4, for example, the

median public sector return is better than the median retail fund return and the 10th percentile public sector dollar invested earned more than the 90th percentile retail fund dollar invested. As another example, the median corporate fund earned more than the median industry fund, but the best performing industry funds were about even with the best performing corporate funds, on a dollar-weighted basis.

Table 13 moves to a new area, balance sheet composition. This series commenced with the June 2004 statistical collection. Table 13 confirms that, by weight of money, the great majority of members of large superannuation funds have investment choice. There is a large disparity between the number of choices on offer from corporate, industry and public sector funds, which average less than 10, and the number on offer from retail funds, which average over 100.

This Table also discloses the proportion of assets in the default investment strategy. For the great majority of funds, the default strategy is a balanced growth option with on the order of 60 to 75 per cent of the assets in high volatility, high expected return asset classes.

The proportion of assets invested in the default strategy is lowest for retail funds, and the proportion invested in the default option is falling. By contrast, industry fund members are most likely to pick the default option, and this proportion is increasing slightly.

Table 14 gives the three-year history of asset allocations in default investment strategies. The typical default strategy across functional classifications is similar, except that retail trustees invest somewhat less in listed equities, and somewhat more in cash and “other”.

Conclusion

From APRA's perspective, there is a great deal to admire about the Australian superannuation industry. The industry has undeniably succeeded, backed by the superannuation guarantee and tax incentives, in driving up retirement savings. The increase in savings is likely to accelerate in the foreseeable future, as are average account balances.

The large increase in the average size of entities, combined with more robust prudential arrangements, means that in the past decade superannuation trustees have transformed the professionalism and risk controls under which their funds operate.

Over the ten-year period of this study, investment returns were on average quite good, though poor in some years. Further work is needed, however, to understand the differences in returns between different types of superannuation funds. APRA is currently undertaking a research project in this area.

Finally, it is worth emphasising that despite significant efforts by many trustees and the ATO, there are still many millions of lost or small dormant superannuation accounts. Australians could help themselves create a better retirement income picture by ensuring that they are not among the millions with lost or sub-economic accounts scattered about in different funds.