



Response to Submissions

Fund level disclosure from the APRA superannuation statistics collection

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Preamble

In 2007, APRA published a major statistical overview of Australia's superannuation industry, *Celebrating 10 years of superannuation data collections 1996-2006*. This publication provided the industry with a wide range of superannuation statistics, generally at a highly aggregated industry level. This led to industry-wide discussion as to the possibility of APRA producing a wider range of statistics with a greater level of disaggregation. APRA began a process in mid-2008, with public discussion, examining the needs of superannuation statistics users.

APRA also received a request from the Government to consider making public, fund level performance results.

APRA released a discussion paper, *Fund level disclosure from the APRA superannuation statistics collection*, on 20 November 2008. The discussion paper outlined issues and questions to be considered in creating a superannuation fund-level publication and sought comments and suggestions on the data items to be included (i.e. a reference table and compilation tables).

APRA received 11 submissions from a range of respondents including industry bodies, superannuation funds, consulting firms and an academic. The majority of submissions were supportive of the principle of publishing disaggregated data. However, many submissions questioned the purpose of a fund-level publication and highlighted concerns regarding the use of whole-of-fund data.

This paper summarises submissions to the discussion paper and APRA's response. In particular, the paper details APRA's objectives in publishing whole-of-fund data including performance data (Chapter 2), and how these data can be used (Chapter 3).

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Chapter 1 – Review of Submissions

In its discussion paper, *Fund level disclosure from the APRA superannuation statistics collection*, APRA sought comment on the following questions:

Question 1: Which data items and calculations should be included in the comprehensive reference publication? How should these items be presented?

Question 2: Should APRA publish compilation tables, in addition to the reference table?

Question 3: If APRA publishes compilation tables, what should be included in the compilation(s)?

1.1 Response to question 1

Coverage and frequency

APRA's discussion paper proposed that the fund-level publication include every APRA-registered fund that exists at the time of publication, with the exception of small APRA funds (SAFs) and single-member approved deposit funds (SMADFs). APRA also suggested basing the fund-level publication on the annual returns as much of this collection is audited.

Some submissions raised concerns with the timeliness of the data. Although these submissions generally agreed that the data should be based on audited annual figures, they also suggested that the considerable delay in auditing and submitting data and therefore producing the fund-level publication may limit its usefulness to members making investment decisions.

After considering the submissions, APRA will include all APRA-regulated funds in existence at the end of their reporting period over each of the past five years (excluding SAFs, SMADFs and pooled superannuation trusts) within an Excel version of the fund-level publication. A PDF version of the fund-level publication contains tables of sub-groups of the APRA-regulated funds (i.e. the 200 largest superannuation funds by asset size and Eligible Rollover Funds.) Some funds have reporting periods ending on dates other than 30 June and these funds will be clearly identified within the fund-level publication.

After consultation, APRA has determined most of APRA's superannuation annual returns (SRF 200 annual reporting series) as non-confidential. The data to be published for each superannuation fund are also subject to privacy considerations and APRA does not intend to publish financial data where individual members' details can be determined. For example, where a fund has less than 20 members only basic data such as fund name and fund type will be published.

The fund-level publication will be primarily based on audited annual data. As intended, the publication will provide useful information to examine the long-term performance of trustees. It is not intended to be used to assess short-term returns or the performance of individual investment options over time.

Classifications

APRA's discussion paper proposed that APRA continue using its classifications of funds as corporate, public sector, industry and retail. The paper sought views as to any sub-groups that could be reported separately.

Some submissions supported the classification of Eligible Rollover Funds (ERFs) in addition to the existing classifications. There was also a suggestion that there should be differentiation between the different benefit structures such as accumulation and defined benefit funds.

There were few comments on the use of existing classifications. There was some support for classifying funds by the current categories but there was also a view that superannuation members may also wish to compare superannuation funds across classifications.

APRA intends to retain the current functional and regulatory classifications, and will separately identify ERF data in a table. Each superannuation fund's benefit structure (defined benefit, accumulation or hybrid) will also be published. Please refer to Chapter 4 for more information.

Reference publication

In order to publish information that would enable the construction of whole-of-fund level returns, APRA sought comments on a number of proposed data items, calculations and risk measures to be included in the reference table. APRA also invited comment on the treatment of 'outlier' funds that may have a particular characteristic, such as unusual asset allocations.

There was considerable comment on the purpose and use of a performance measure calculated at the whole-of-fund level, as opposed to investment option data. Chapters 2 and 3 outline APRA's reasons for publishing whole-of-fund performance information and the usefulness of these data. Further detail on the whole-of-fund calculation to be used in APRA's superannuation publications is provided in Appendix B.

Some submissions highlighted that there are a number of factors that may affect whole-of-fund returns: asset allocations (at whole-of-fund, default option and individual option level), fee data, membership profile, products, trustee structure and investment options. As a result, there was a range of data suggested for consideration that was either broader than originally suggested or not currently collected by APRA.

Submissions also supported the publication of asset allocation data and/or the classification of assets into a growth/defensive asset split. However, it was acknowledged that there are no universally accepted asset class definitions, which makes the classification of such assets subjective.

Submissions varied between supporting and opposing the inclusion of outlier funds. While some submissions saw merit in including commentary on outlier funds, it was generally seen as problematic to clearly define what constitutes an outlier.

After considering the submissions, APRA will publish a range of additional data items, including the asset allocation provided in the APRA annual returns (SRF 250.0 item 6.10). This will allow observers more information regarding the particular aspects of each fund.

Mean calculation

The discussion paper proposed two alternative methods for calculating average returns: geometric and arithmetic.

The submissions were generally in favour of using a geometric mean calculation instead of an arithmetic mean. APRA's fund-level publication will use a geometric mean calculation. APRA also intends to update its definition of return for superannuation funds; see Appendix B for more details.

Risk measures

The discussion paper proposed that the minimum return on assets (ROA) over the five years be included as a measure of risk. APRA also sought comment on other possible indicators such as volatility of return and Sharpe Ratio.

Although a number of submissions supported the inclusion of a risk measure, there was no general agreement as to which measure should be included and there was also concern over the usefulness of any measure given the limited number of observations available.

APRA will not initially publish a risk measure because there is currently insufficient data available to produce a robust statistical measure. APRA will consider including an appropriate risk measure in the fund-level publication as more data become available.

1.2 Responses to questions 2 and 3

APRA's discussion paper sought comment on any compilation tables that could be produced by extracting a subset of the data contained in the fund-level publication. Where a compilation table was to be return-focussed, APRA sought opinion on ways of presenting rankings.

Many submissions did not comment on whether APRA should produce compilation tables. Those that supported compilations generally favoured a threshold for inclusion in such a table, such as the 100 largest funds or funds with at least a certain amount of assets.

Some submissions opposed straight ordinal rankings although there was some support for ranking broader groups (e.g. deciles or quartiles).

APRA will produce two compilation tables: a compilation of the 200 largest funds (based on assets) and an ERF compilation table, as outlined in Chapter 4. These tables will allow easy access to key data on the funds that comprise the substantial majority of superannuation members and assets. APRA will order these tables alphabetically, in line with other APRA statistical publications.

Chapter 2 – Purpose of whole-of-fund data and performance

Although much of the superannuation data that APRA collects are available through fund annual reports and financial statements, they are not easily accessible. APRA is able to make its audited and authoritative data widely available. In doing so, APRA's objective is to promote transparency and accountability. Industry observers will be able to conduct more informed analysis on superannuation funds and superannuation trustees will have greater motivation to both report and perform to higher standards. APRA already publishes entity-level information on insurance and banking entities.

The responses to the discussion paper highlighted a misunderstanding of the objectives of publishing whole-of-fund level performance data and its uses. The submissions offered different opinions on the best measures of performance: whole-of-fund, default option, a subset of investment options, every investment option, or at a member level.

Why use whole-of-fund level performance data?

In the *Response to Review of APRA's Investment Performance Statistics of the Australian Superannuation Industry*¹, APRA outlined the benefits of fund-level data. The following points expand upon this view.

There are four sections of the *Superannuation Industry (Supervision) Act 1993* (SIS Act) that relate to APRA's decision to publish fund-level performance data:

1. Under section 62 of the SIS Act trustees must ensure that their funds meet the sole purpose test which requires that a key purpose of superannuation is to provide retirement benefits to members. As a simple arithmetic matter, retirement income is driven by the pattern of contributions to the fund and the returns earned on investments in the fund. Trustees generally have little control over contribution patterns, particularly in accumulation funds, but they have a great deal of influence over the long-term returns.
2. Section 52 of the SIS Act outlines the minimum covenants which trustees must follow. Subsections 52(2)(b) and (c) state that trustees must '*exercise, in relation to all matters affecting the entity, the same degree of care, skill and diligence as an ordinary prudent person would exercise in dealing with property of another for whom the person felt morally bound to provide*' and '*ensure that the trustee's duties and powers are performed and exercised in the best interests of the beneficiaries*'.

The key difference between the requirements generally applicable to trustees of managed funds and the requirements applicable to superannuation trustees is that superannuation trustees must act in the best interests of members for the purpose of providing retirement benefits. A superannuation trustee's ability to generate long-term returns is critical to member retirement benefits and therefore relative long-term superannuation fund returns are a good way to judge relative trustee performance.
3. Subsection 52(2)(f) of the SIS Act states that superannuation trustees must '*formulate and give effect to an investment strategy that has regard to the whole of the circumstances of the entity...*'. Providing whole-of-fund return information is an appropriate way to assess a trustee's performance in maximising member retirement benefits over time. This allows members and other interested observers to infer, though not definitively, the relative performance of superannuation trustees at the essential task of implementing an appropriate investment strategy.

¹ <http://www.apra.gov.au/Statistics/Superannuation-Institutions-Statistics.cfm>

4. Subsection 52(4) of the SIS Act states that, as a general rule, trustees are prohibited from taking directions from other parties, but their beneficiaries (or members) can give directions that *'relate to the strategy to be followed by the trustee in relation to the investment of a particular asset or assets of the entity'*. Many retail trustees use a business strategy that relies on subsection 52 (4) to create menus of investment choices that are available to members, often mediated by a financial planner. However, a trustee cannot abrogate responsibility for investment strategies by requiring members to seek their own financial advice². The fact that offering large numbers of investment options is an allowable strategy does not relieve trustees of the responsibility for the fund's investment strategy and the requirement to provide retirement benefits in the members' interest.

There may be limited circumstances where constrained whole-of-fund performance may be expected from a trustee due to the peculiar circumstances of the fund. For example, where a superannuation fund is winding up and expects sustained net outflows of funds and members, the trustee may implement an investment strategy with a higher weighting to more stable and liquid assets which will generally earn a lower rate of return.

One sensible way for a trustee, or any other observer, to test the success of the trustee's member-directed investment strategy is to consider the relative return of the fund compared to all other funds. If the whole-of-fund return was well behind other whole-of-fund returns generated by other trustees, under section 52 the trustee directors would be expected to ask themselves: *'are we following the right fund investment strategy?'*

The usefulness of whole-of-fund returns has been challenged as not being representative of individual member returns or the investment returns of individual investment options. APRA does not accept the assertion that whole-of-fund returns are not meaningful for the following reasons:

- APRA is seeking to shed light on trustees' performance at meeting their obligations under the sole purpose test and section 52 of the SIS Act. Fundamentally, if a trustee is unable to generate competitive long-term returns across the fund, then the trustee directors need to reconsider their whole-of-fund investment strategy. Furthermore, members and other observers have a valid interest in assessing a trustee's ability to deliver for members under the SIS Act, and relative fund level returns are a valid measure for this purpose; and
- as a matter of simple arithmetic, whole-of-fund returns are the dollar-weighted average of returns of all members, whether those members exercised investment choice or not. A trustee cannot argue that a low whole-of-fund return does not make any difference because some members achieved good returns. If some members earned better than average returns in a superannuation fund that performed worse than average at the whole-of-fund level, then other members in that superannuation fund have suffered even worse returns in a relative sense. Not only is the superannuation fund a relatively poor earner, it may be imposing high intra-fund variance of return as a result of the trustee's whole-of-fund investment strategy.

² Superannuation Circular No. II.D.1 Managing Investments and Investment Choice page 15

Accordingly, APRA considers that whole-of-fund returns are a useful measure to assess the relative ability of trustees to deliver returns for members. Whole-of-fund returns are, however, not the sole point of comparison among funds. APRA intends to expand its collections and publications over time to include items such as performance relative to asset benchmarks, and representative investor performance at the investment option level. APRA has recently commenced a public consultation process on an expansion of its superannuation statistical collection.

APRA's fund-level publication will assist superannuation trustees and other interested parties to assess the relative merits of the long-term strategies adopted by each trustee for their funds. Over time, the availability of the whole-of-fund data can be expected to improve public understanding of the superannuation industry and encourage trustees to compete to demonstrate that they can provide superannuation benefits over the long term.

Chapter 3 – Use of APRA performance data

Comparative return tables, such as those able to be constructed from the comprehensive reference table, are indicative but not definitive. They make past performance available, which may or may not help interested observers in assessing likely future performance. The Australian Securities and Investment Commission (ASIC) notes that, when looking at performance, 'past performance is no guarantee of future returns. Today's top-performing funds tend to fall back to the average over time. However, consistently poor performance can prove hard to turn around'.³

There is a considerable body of academic and applied literature on the key question of whether past relative performance history for a collective investment vehicle provides a guide on how that vehicle is likely to perform in the future⁴.

APRA's research provides evidence consistent with persistent performance levels among Australian superannuation fund trustees. Coleman, Esho and Wong (2003) found that returns between 1996 and 2002 were highest for corporate funds and lowest for retail funds⁵. In particular, they found that retail funds consistently dominated the low return/low volatility segment while corporate funds consistently dominated the high return/high volatility segment. A more surprising finding of Coleman, Esho and Wong is that retail funds continued to report among the lowest returns during the market downturn in 2001 and 2002. During 2008, retail funds also underperformed relative to corporate funds. Given that retail funds have dominated the low return/low volatility segment, it would have been expected that they would perform relatively more favourably during a downturn in the equity market.

In a study of the investment performance of Australian superannuation funds between July 2001 and June 2006, Ellis, Tobin and Tracey (2008) find that retail trustees using balanced or growth investment strategies for default investment options on average generated significantly lower net returns than returns generated by not-for-profit trustees using balanced/growth investment strategies⁶. Their results based on comparable asset allocations indicate that the significant difference in net returns across fund types is a factor of expenses and taxes, rather than the risk and return characteristics of alternative investment options. Most retail fund underperformance flows from the higher costs retail trustees impose on their members, via several fee types. These higher costs lead to consistently lower net returns, on average, than the returns earned by not-for-profit funds.

This is not to suggest that any individual superannuation fund's past performance is a definitive indicator of that fund's future performance. APRA's fund-level publication provides individual superannuation fund returns for each of the five years to 2008 and a five-year and most recent three-year average. The relative performance of the individual funds varies according to the time period chosen.

3 Judging a fund's investment performance. <http://www.fido.gov.au/fido/fido.nsf/byHeadline/Superannuation%3A%20Judging%20your%20fund's%20performance>

4 A study by Brown and Goetzmann (1995) finds clear evidence of performance persistence among equity mutual funds in the United States. Their analysis suggests that the market fails to fully discipline underperformers and their presence contributes to the pattern of relative persistence in investment returns from year to year. Carhart (1997) demonstrates that common factors in stock returns (such as the market value and momentum of stocks held in the fund) and investment expenses (expense ratios, transaction costs and load fees) almost completely explain the persistence in equity mutual funds' mean and risk-adjusted returns. These findings are reported in articles by Brown, S.J. and Goetzmann, W.N. (1995), 'Performance persistence', *Journal of Finance*, 50 (2), 679-98; and Carhart, M.M. (1997), 'On persistence in mutual fund performance', *Journal of Finance*, 52 (1), 57-82.

5 Coleman, A.D.F., Esho, N. and Wong, M. (2003), 'The investment performance of Australian superannuation funds', Australian Prudential Regulation Authority Working Paper 2003-01.

6 Ellis, K., Tobin, A. and Tracey, B. (2008), 'Investment performance, asset allocation, and expenses of large superannuation funds', Australian Prudential Regulation Authority Working Paper.

Australian experience in predictable superannuation returns

The analysis in Appendix A gives the result that Australian superannuation fund returns by type of fund are non-random, and therefore somewhat predictable. Corporate, industry and public sector funds (also referred to as not-for-profit) consistently outperform retail funds (Coleman, Esho and Wong, 2003). Within each fund type there is also some predictability. Depending upon the fund type, about one-third to one-half of the variability in the whole-of-fund return rankings in the years 2004 to 2008 are statistically predicted by the corresponding whole-of-fund return rankings in the five years to 2003.

Chapter 4 – Publication details

APRA will publish the fund-level data in two superannuation publications:

Superannuation Fund-Level Profiles and Financial Performance

Superannuation Fund-Level Profiles and Financial Performance is available on APRA's website in Excel format only and contains detailed data for each year from 2004 to 2008. The detailed data allows observers to analyse APRA-regulated superannuation funds across a range of measures including assets, expenses, income and membership breakdown.

The data do not include SAFs, SMADFs, exempt public sector superannuation schemes (EPSSSs) or pooled superannuation trusts (PSTs). Inclusion of each superannuation fund's data is also subject to privacy considerations and APRA does not intend to publish financial data where individual members' details can be determined. For example, where a superannuation fund has less than 20 members, only basic data such as fund name and fund type will be published.

Superannuation Fund-Level Rates of Return

Superannuation Fund-Level Rates of Return is published in both PDF and Excel format. *Superannuation Fund-Level Rates of Return* contains two tables:

- the latest five-year and three-year rates of return for the 200 largest funds – this is the same table as in the Excel document. It displays the 200 largest funds with at least 20 members by asset size ordered alphabetically by fund name. The table displays trustee name, fund type, benefit structure, total assets, proportion of total assets in the default option, number of investment options, and total members; and
- the latest five-year and three-year rates of return for ERFs – this table displays ERF data on whole-of-fund returns, name, trustee, inward rollovers, outward rollovers, total assets and total members ordered alphabetically by fund name.

The 200 largest funds cover over 95 per cent of the members and over 98 per cent of the assets of APRA-regulated superannuation funds as at 30 June 2008 (excluding SAFs, SMADFs, EPSSSs and PSTs) and will provide a simple way to access the data for the majority of observers. *Superannuation Fund-Level Rates of Return* also contains explanatory notes explaining the data and superannuation fund structures.

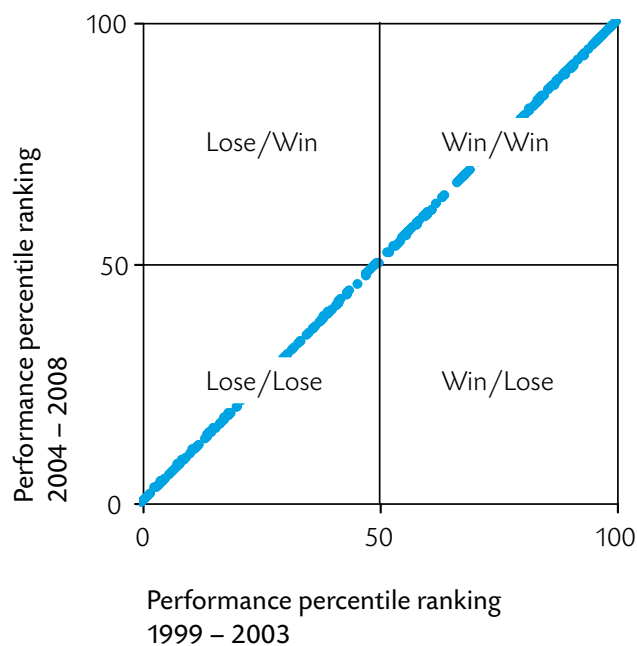
Appendix A

Australian experience in predictable superannuation returns

APRA has extracted whole-of-fund performance information for the past ten years and compared this performance over two five-year periods: 1999 to 2003, and 2004 to 2008.

Hypothetically, if future performance could be perfectly predicted from past performance, the performance ranking of a fund in one five-year period will predict the performance ranking in the next five years. Funds that are above median performers ('winners') will stay winners and funds with below median performance ('losers') will stay losers. Thus, a plot of the first vs. the second five-year performance periods would follow a diagonal line like this:

Figure 1
All hypothetical funds



In the other extreme case where past performance provides no guidance about future performance, the plot of first vs. second five-year performance periods would have a random pattern, looking something like this:

Figure 2
All hypothetical funds



In this case, funds that were above median in the first period (winners) are equally likely to be either winners or losers in the second period.

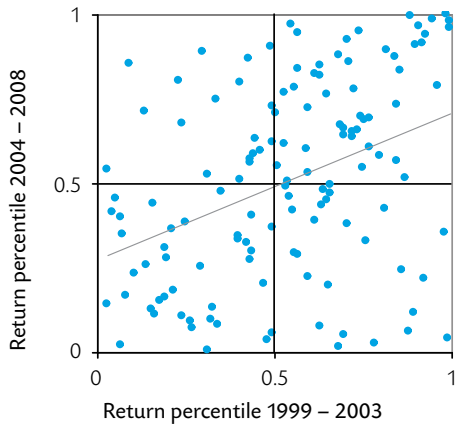
Figure 3 illustrates the level of actual performance persistence among various types of superannuation funds across the two periods 1999 to 2003 and 2004 to 2008. For corporate, industry, public sector and retail funds, performance is measured by ranking funds based on whole-of-fund returns relative to other funds of the same type that existed for that period. Note there are superannuation funds that existed for the first five-year period and not the second, and vice-versa. Only superannuation funds existing through the entire 10 years are shown. For all superannuation fund types (shown at the bottom of figure 3), performance is measured by ranking funds relative to all other superannuation funds.

Figure 3

Performance persistence by Australian superannuation funds by type

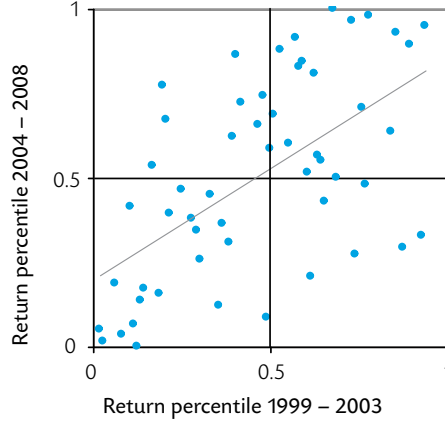
Corporate

(Excludes 12 entrants and 1,035 exits)



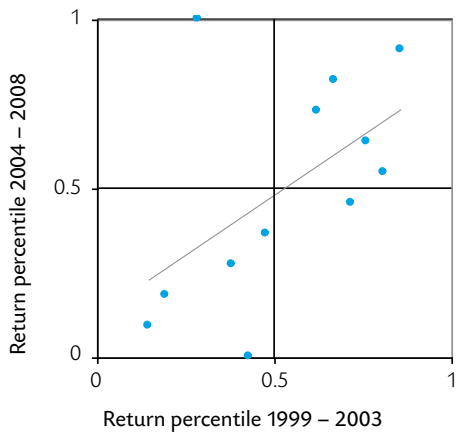
Industry

(Excludes 5 entrants and 43 exits)



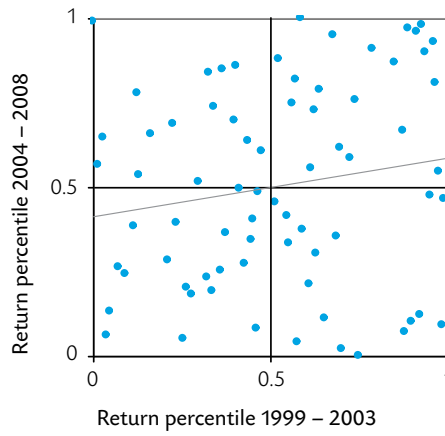
Public Sector

(Excludes 10 exits)



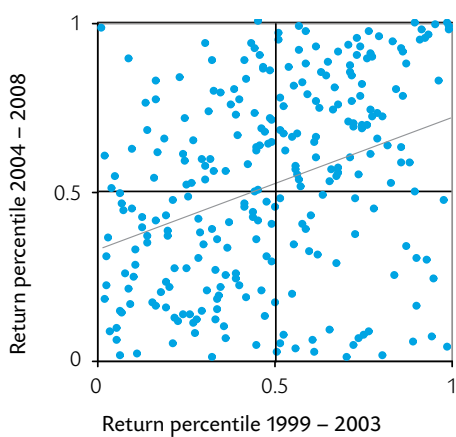
Retail

(Excludes 27 entrants and 56 exits)



All funds

(Excludes 44 entrants and 1,144 exits)



Visually, there are more observations in the Win/Win and Lose/Lose quadrants, which suggests some performance persistence. Statistical tests can be used to determine the strength of the apparent performance persistence.

There are two simple tests of period-to-period predictability that can be applied: correlation and quadrant density. If one period's performance perfectly predicts the next period, the correlation is 1.00. If performance in one period is perfectly reversed in the next period, the correlation is minus 1.00. Correlations around zero indicate no statistical relationship from one period to the next.

Correlations between the return rankings in the two periods are provided in Table 1.

Table 1
Performance persistence by Australian superannuation funds by type

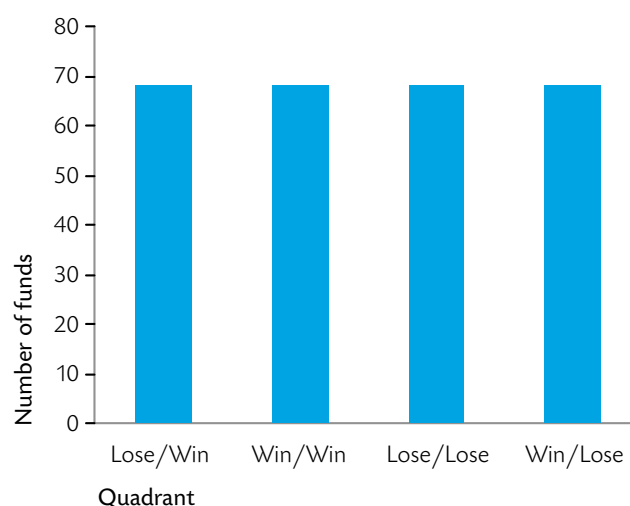
Type	Number of observations	Correlation	p-value
Corporate	132	0.3944	<.01
Industry	54	0.5856	<.01
Public sector	12	0.5321	0.07
Retail	73	0.1643	0.16
All	271	0.3488	<.01

Correlation is the correlation coefficient between the return percentile in the period 1999 to 2003 and the return percentile in the period 2004 to 2008. The p-value is the chance of observing the data if there were no correlation. For corporate, industry, public sector and retail funds, return percentiles in each five year period are calculated by ranking funds relative to other funds of the same type. For all funds, return percentiles are calculated by ranking funds relative to all other funds.

The overall correlation between the return rankings in the consecutive periods is 0.3488, indicating that approximately one-third of the variability in the ranking of returns among the superannuation funds in the years 2004 to 2008 can be explained by the corresponding return rankings during the preceding five-year period (see table 1). The correlation coefficients indicate a positive relationship for all four superannuation fund types (corporate, industry, public sector and retail). The correlation between the return percentiles in consecutive periods is statistically significant for all superannuation funds together and for corporate and industry funds. The correlation is highest for industry funds (0.5856) and lowest for retail funds (0.1643).

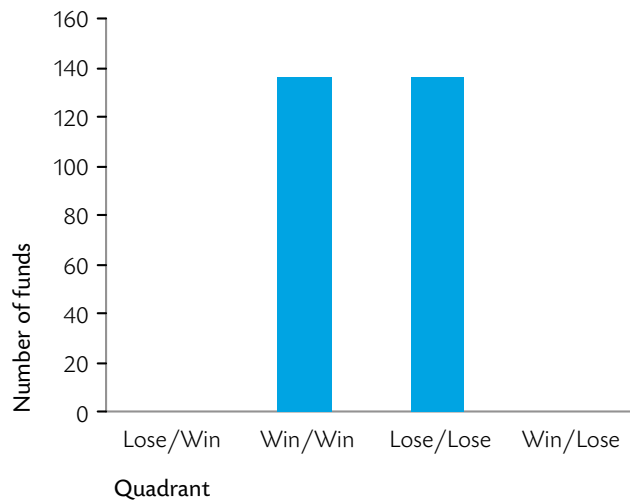
Quadrant density is a simple test. If there is not a lot of predictability from period to period, then the number of superannuation funds in the Lose/Win and Win/Lose quadrants (reversing outcomes in the two periods) will be about the same as the Win/Win and Lose/Lose quadrants (consistent outcomes from period to period). Accordingly, a simple count of the number of superannuation funds in each quadrant would look like this:

Figure 4
Quadrant density with no predictability



On the other hand, if future performance can be perfectly predicted from past performance then all funds that outperform in the first period will outperform again in the second period (placing them in the Win/Win category). Equally, all funds that under-perform in the first period will do so again in the second period (leaving them in the lose/lose category). Under this scenario, there would be no funds placed in the Lose/Win and Win/Lose quadrants:

Figure 5
Quadrant density with perfect predictability



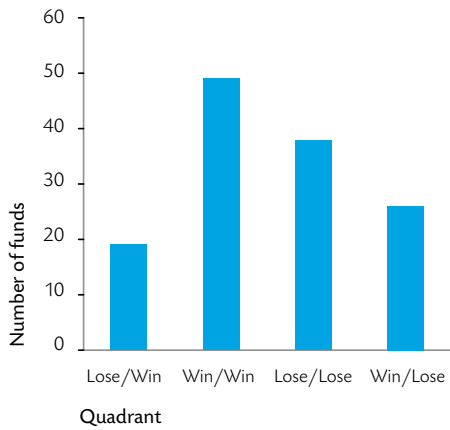
The quadrant densities for the superannuation data are in Figure 6 and significance tests of the quadrant densities are provided in Table 2.

Figure 6

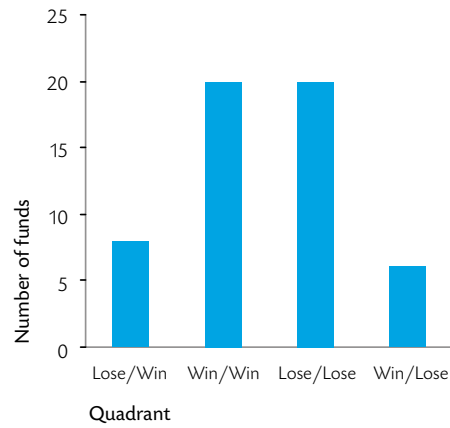
Quadrant densities of Australian superannuation funds by type

(based on return percentiles in the periods 1999 to 2003 and 2004 to 2008)

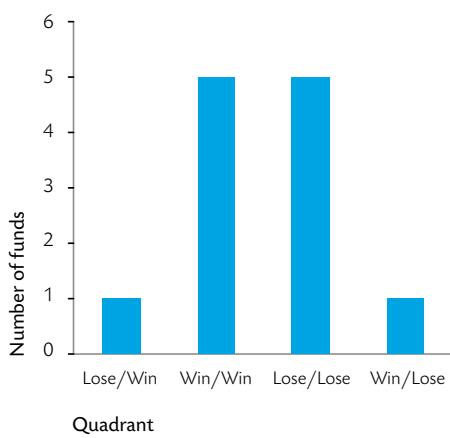
Corporate



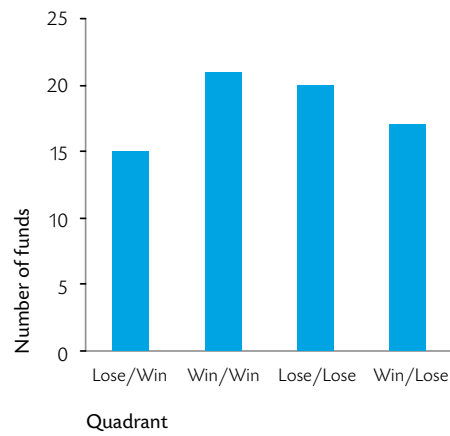
Industry



Public Sector



Retail



All funds

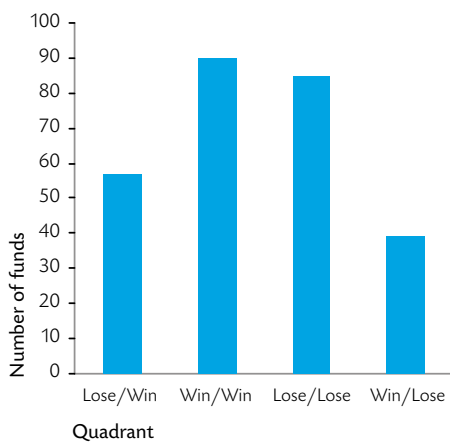


Table 2**Statistical tests of significance for performance persistence**

Type	Number of observations				Chi-square statistic	p-value
	Lose/Win	Win/Win	Lose/Lose	Win/Lose		
Corporate	19	49	38	26	13.28	<0.01
Industry	8	20	20	6	12.62	<0.01
Public sector	1	5	5	1	5.33	0.02
Retail	15	21	20	17	1.12	0.29
All	57	90	85	39	23.90	<0.01

Lose/Win observations are funds that achieved below median returns in the period 1999 to 2003 and above median returns in the period 2004 to 2008 relative to other funds of the same type. Win/Win observations are funds that achieved above median returns in both periods. Lose/Lose observations are funds that achieved below median returns in both periods. Win/Lose observations are funds that achieved above median returns in the first period and below median returns in the second period. The chi-square statistic tests whether there is an association between the return performances in the two consecutive periods. The p-value is the chance of observing the data if there were no association.

There are more funds in quadrants Win/Win and Lose/Lose (representing consistent outcomes from period to period) than in quadrants Lose/Win and Win/Lose (representing reversals in performance from below median to above median performance or vice-versa). This finding applies across all superannuation fund types. The association between the return performances in consecutive periods is statistically significant for all funds taken together and for corporate and industry funds at the one per cent level (see the chi-square statistics in table 2). The statistical evidence is weaker for retail funds (of which several reversed their performances from the earlier period) and public sector funds (due to their small sample size).

The above analysis is based on superannuation funds that produced investment returns across all of the ten years included in the sample. It excludes 1,144 funds that left the market before the completion of the second five-year period (as noted in figure 3). It also excludes 44 funds that entered the market after 1999.

Appendix B

Return on assets and rate of return

APRA has previously used a return on assets (ROA) measure when calculating fund returns but will refine this measure to Rate of Return (ROR) for future superannuation statistical publications.

ROA is an accounting measure for how efficiently companies are employing their assets to generate earnings. The main benefits of ROA are that it is simple to calculate, easy to understand and a good way to compare the relative earnings performance of superannuation funds.

$$ROA = \frac{\text{Net earnings after tax}}{\text{Average total assets}}$$

Average Total Assets is the average of beginning and ending total assets for the period.

However, where ROA is used to project returns it may consistently underestimate earnings, although the differences are not significant when returns are small. The differences are more significant when returns are large and positive or large and negative, as they are at present. The relative position of superannuation fund returns will not change if ordered by ROR or ROA. APRA's previous research and statistical findings remain valid under both return calculation methods.

A more precise investment performance measure for superannuation funds is the ROR.

$$ROR = \frac{\text{Net earnings after tax}}{(\text{Beginning net assets} + \frac{1}{2} \text{Net flows})}$$

Net flows are net contribution flows less contributions tax and surcharge plus net insurance proceeds. Net contributions flows is net contributions and net rollovers less total benefit payments. Net insurance proceeds is the net flow of funds from death and disability insurance.

This ROR measure focuses on the return on net assets to pay members' benefits in the superannuation fund by using net assets. It anticipates that observers are primarily interested in the return on the members' stake in the fund net of liabilities.

ROR is a closer approximation to the *Global Investment Performance Standards (GIPS) total return*, as published by the Chartered Financial Analyst Institute (CFA Institute, 2005). *GIPS total return* and ROR are both time-weighted rates of return which take into account the impact of external cash flows, as required by GIPS. GIPS also requires revaluations monthly and when there are significant external cash flows. ROR is calculated from the annual or quarterly data and will therefore only be an approximation to the *GIPS total return*. ROR also differs from the *GIPS total return* by netting non-investment expenses and taxes.



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