

Are scale efficiencies being realised in a consolidating superannuation environment?

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Why are we interested in scale efficiencies?

Consolidation has been occurring within the super industry for many years and will continue, with a consequence being the increased size of super funds. There has been a lot of discussion about the potential for this increased size to deliver lower costs to members; that is, economies of scale.

Much of the analysis and commentary on scale has focused on what could (or even should) happen as the industry further consolidates and funds get bigger. We wanted to find out whether scale had delivered lower costs to members. While we all know that past performance is not necessarily an indicator of the future, we can learn from what has already occurred and can integrate this thinking into our strategy and planning.

Are scale efficiencies being realised in a consolidating superannuation industry?

Yes, scale matters and more specifically it is membership that gives a significant scale benefit in terms of trustee office costs... however demographics also matter – the cost of serving members with high average account balances can offset the benefits of scale in terms of trustee office costs.

We found that average operating cost per member decreased when the number of members increased, when the FUM groupings (funds with similar size FUM) and fund type (industry, public sector, corporate, retail) were held constant. For instance, for funds with FUM between \$5bn and \$10bn the model predicts 2011 operating costs decrease from \$422 per member, if there are 10,000 to 50,000 members, to \$78 per member, if there are 100,000 to 500,000 members. This relationship in part reflects the fact that trustee fee structures include a fixed dollar account fee per member. If funds continue to adopt a fixed fee per member approach to pricing, then it does reinforce the need for funds to focus on membership numbers, not just FUM, when considering mergers.

We also found that operating cost per member increased with an increase of FUM, as fund type and number of members remained constant – in other words, funds are spending more money on members when there are higher average account balances. For instance, for funds with number of members between 50,000 to 100,000 the model predicts 2011 operating costs increase from \$86 per member, if there are \$1-2 billion FUM, to \$346 per member, if there are \$5-10 billion FUM.

The same patterns were observed for every year from 2006 to 2011.

Analytical approach

It is difficult for us to explain the statistical analysis without using statistical terms and, in doing so, confusing some readers. The main findings from the analysis are explained in lay language on the first two pages of this document. If you are comfortable with statistics, we have provided a more detailed explanation from page five. In more general terms, the analytical approach was as follows:

- We worked with the University of Melbourne's Statistical Consulting Centre to analyse APRA's *Superannuation Fund-level Profiles and Financial Performance* data.
- The operating cost performance of up to 377 funds was analysed over the period 2006 to 2011.
- For analysis purposes, funds were grouped by number of members and by dollar funds under management (FUM).
- We developed a model to predict the operating costs for fund groups.
- We recognise the inherent limitations of a modelling exercise
 - Some model assumptions were not satisfied and caution is necessary when interpreting the results.
 - There were some very large unexplained variations for funds that did not follow the fitted model. These could be due to undisclosed data and/or other characteristics that we did not measure; of course, we did not have all of the information necessary to assess this.

What does this mean for fund trustees?

Trustees could increase their focus on growing membership numbers to achieve economies of scale and reduce per-member operating costs

In our experience, discussions about mergers and industry consolidation frequently focus on scale in terms of funds under management.

Based on the data analysed, the operating cost per member does decrease as a fund increases its membership base. For instance, for funds with FUM between \$5bn and \$10bn the model predicts 2011 operating costs decrease from \$422 per member, if there are 10,000 to 50,000 members, to \$78 per member, if there are 100,000 to 500,000 members (see Figure 1). The evidence shows a scale benefit exists for trustee office costs. This relationship is not surprising in situations where the fund charges members a fixed dollar account fee per member rather than a fee based on a percentage of account balance. If funds continue to adopt a fixed fee per member approach to pricing, then it does reinforce the need for funds to focus on membership numbers, not just FUM, when considering mergers.

Of course, fewer members mean a smaller cost base over which to spread operating costs. Funds are well aware of this when considering the impact of the federal government's *Stronger Super* 'auto-consolidation' initiative to reduce the number of accounts per member.

Trustees may need to consider that as the average account balance of their members grows, there may be additional pressure on operating costs.

In a recent report by APRA, it was found that larger funds deliver benefits of scale to members through lower operational costs. However, APRA calculated operational costs as a percentage of funds under management, and so this finding is not unexpected; if no product or service enhancements are offered to members as their account balance grows, it is not likely that the cost of maintaining a member's account will increase at a greater rate than the account over the long-term.

Our analysis has shown that an increase in FUM does not necessarily translate into lower operating costs per member. Within nearly all groupings of member numbers in the modelling, the average operating costs per member increased as FUM increased. In other words, funds are spending more money on members when there are higher average account balances. For instance, for funds with number of members between 50,000 to 100,000 the model predicts 2011 operating costs increase from \$86 per member, if there are \$1-2 billion FUM, to \$346 per member, if there are \$5-10 billion FUM (see Figure 2).

We have not conducted any further analysis into why this occurs; however, based on our experience, we would suggest it is a combination of:

- smaller funds maintaining tighter cost controls, such as offering limited or simpler products and services or employing fewer and/or lower salaried staff
- larger funds offering expanded products and services; that is, reinvesting economies of scale into member benefits.

Figure 1

2011: Operating cost per member versus number of members and funds under management (fund type held constant, n = 223)

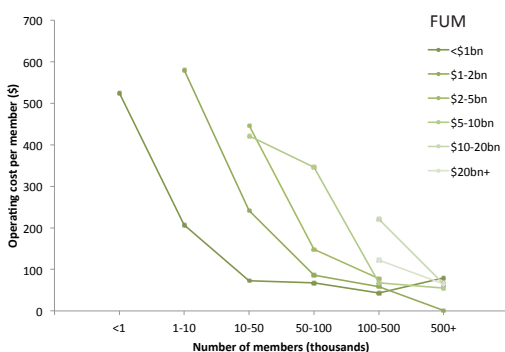
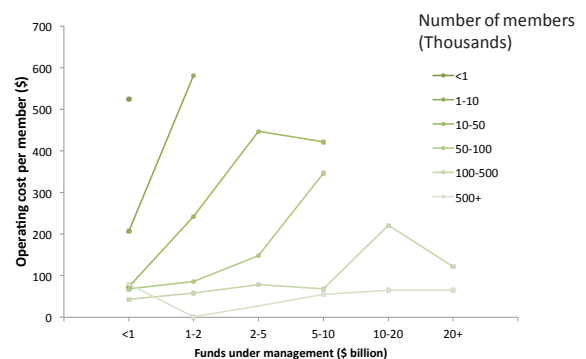


Figure 2

2011: Operating cost per member versus funds under management and number of members (fund type held constant, n = 223)



More food for thought ...

In an industry where contribution revenue is guaranteed through legislation, and set to increase with the rise in the superannuation guarantee (SG) rate, it is likely that profit-for-members' funds will be expected by their members to be more transparent about the costs of running the fund. This may include greater clarity in the way members are being charged — that is, by a set dollar (per week) fee, or as a percentage of their account balance — or when these charges are applied.

The introduction of *MySuper* will also require funds to consider issues of cross-subsidy between member groups, as will the potential impacts of 'auto consolidation'.

With the super industry not only consolidating but also converging — where the gap is closing between the profit-for-members fund with expanded products and services and the retail fund at lower cost — profit-for-members' funds will also be looking for ways to maintain their cost advantage. Of primary focus will be to realise the benefits of scale that mergers are expected to deliver. This will include looking for efficiencies on a transactional basis and spreading any fixed costs over a greater number of members or FUM, depending on the fund's fee structure.

Of course, much of this discussion has been about operational costs. But what of investment costs? Has your fund sent a clear message to your investment department and managers that, while investment performance net of fees and taxes is paramount, a focus on fees and taxes is still expected?

A more detailed explanation of the analyses and results

Most recent periods – 2010 and 2011

We used a technique called multiple linear regression to predict operating costs per member from the explanatory variables – fund type (industry, public sector, corporate or retail), number of members (grouped for analysis purposes) and dollar funds under management (grouped for analysis purposes) – in the most recent data periods, years ending 30 June 2010 and 30 June 2011. As a number of combinations (e.g. funds with a small number of members and large funds under management) were not observed in the data, we combined number of members and fund type into a single categorical variable.

Operating cost per member was transformed to a log scale because the data were asymmetrically distributed. Variations in results after transformation were still not ideal, most likely due to the small number of observations for the larger funds. Therefore, the model should be interpreted with caution.

The model we present is a *main effects* model, which predicts the outcome from an additive combination of the explanatory variables.

A more complex *interaction* model adds information about combined levels of the explanatory variables. We examined the interaction model but the added complexity did not substantially improve our understanding of the outcomes.

One way of evaluating a model is to consider its p-values. p-values measure the probability of observing a relationship like the one we observe in our sample, if there is no real relationship in general. Low p-values indicate that it is highly unlikely that we would have obtained results such as the ones observed if there was no relationship in the data. High p-values suggest that the relationship observed is consistent with no true underlying relationship. In the interaction model, the p-values for the two-way interactions were relatively large (> 0.3); the data are consistent with no two-way interactions.

By contrast, the p-values for the main effects were very small ($p < 0.001$). The results suggest that increasing numbers of members reduced the operating costs per member (when fund type and FUM constant) and when FUM increased the operating costs per member also increased (when fund type and number of members are constant). This is depicted in the plots on pages 6 and 7.

The adjusted means are the statistical averages derived from the model. The model predicts the log of operating

costs so the adjusted means will not be the same as the averages that would be calculated directly from APRA's *Superannuation Fund-level Profiles and Financial Performance* tables. We back-transform the adjusted means to the original scale to provide a way of making a comparison on the original scale; the back-transformed means are shown in the plots and in the tables on pages 6 and 7 for the 2010 and 2011 data.

Note that the data in the tables will not correspond to the raw means as they have been adjusted for fund type. Also, there are some missing values as we did not have data for all combinations of number of members and funds under management.

Earliest comparable year – 2006

The analysis used for the 2010 data was repeated for data from 2006 to confirm whether the same patterns arose in earlier years. Although the earliest available data was from 2004, we considered it inappropriate to compare either 2004 or 2005 with 2010 due to a large proportion of data being missing.

Once again, we modelled operating cost per member on the log scale and with explanatory variables fund type, and number of members (grouped) combined with dollar funds under management (grouped). As before, the p-values for the main effects were very small ($p < 0.001$) and for the two-way interactions were relatively large p-values ($p > 0.3$). Again, a *main effects* model is preferred.

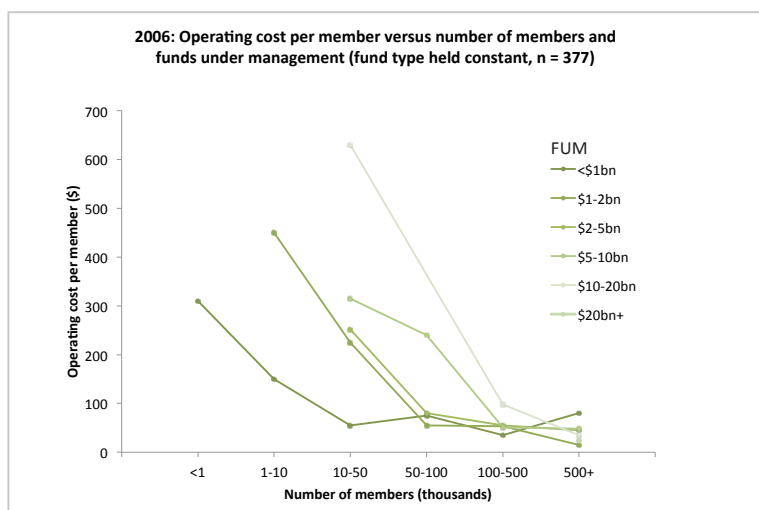
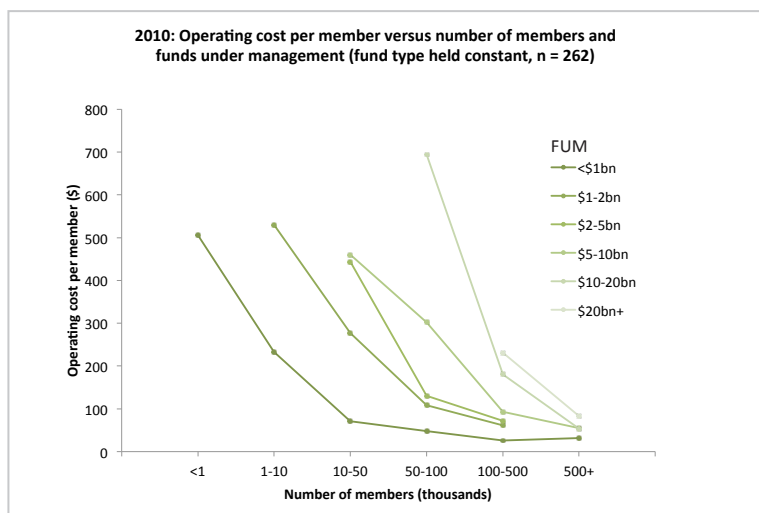
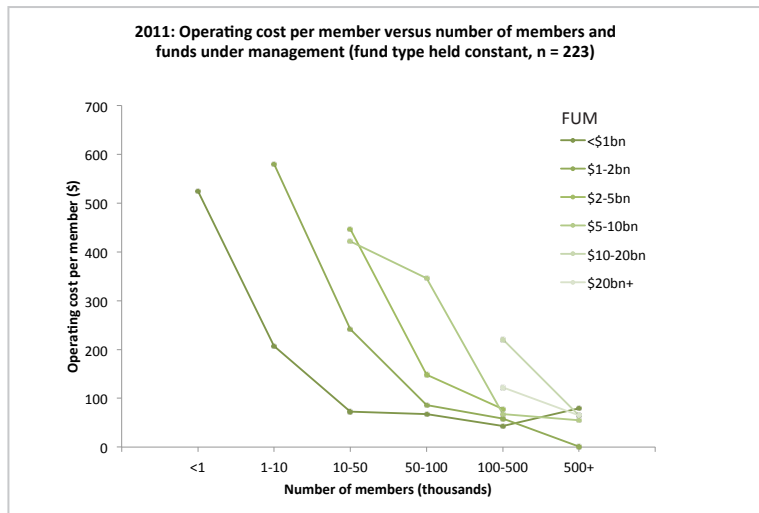
Comparing results

In 2006, 2010 and 2011 the patterns are similar; in most but not all cases the operating cost per member decreases when the number of members increases as the FUM group and fund type stays constant. Conversely, and more consistently in 2010, the operating cost per member increases with an increase of FUM (as fund type and number of members remain constant).

Due to a small number of funds in the larger FUM groups (\$10–20bn and \$20bn+), and a large amount variability in the operating costs per member, there is a lot of uncertainty around the estimated mean. This uncertainty is represented on the plots by the 95% confidence interval shown on page 8.

The same patterns were also observed in the interim periods 2007–2009.

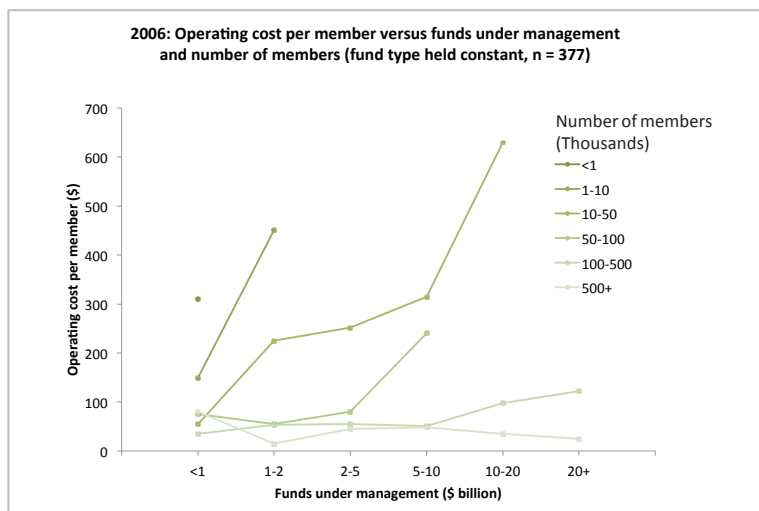
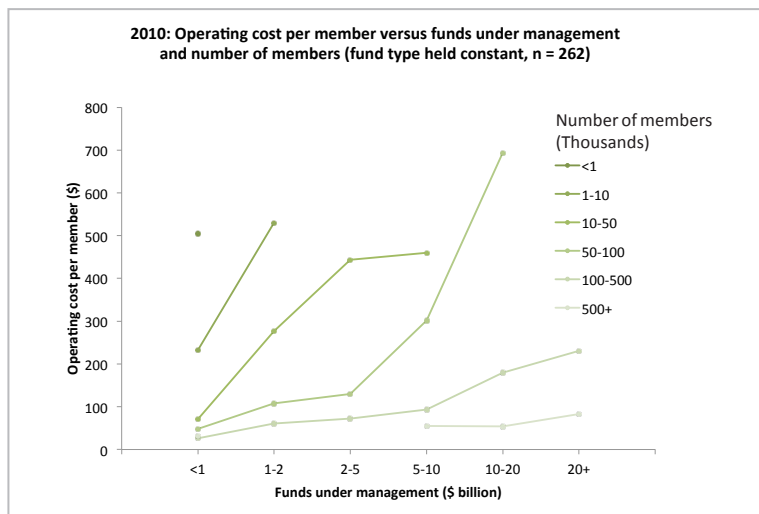
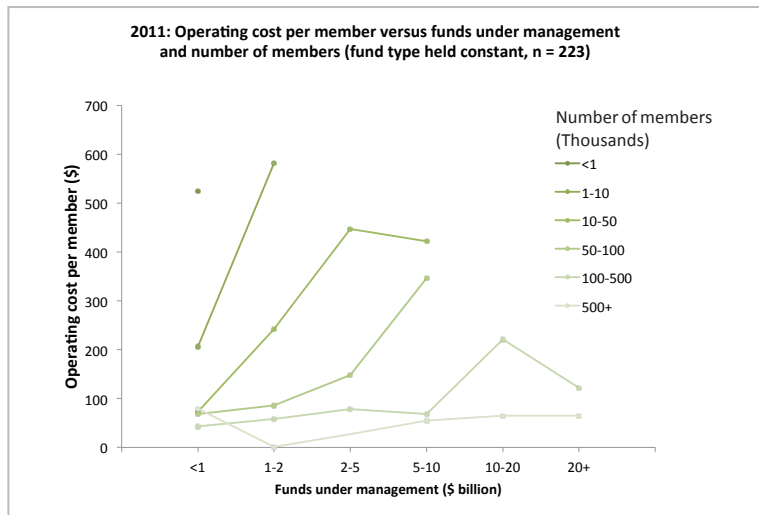
Estimated means of operating costs per member versus number of members (2011, 2010, 2006)



Insight:
Membership gives a scale benefit

- Operating cost per member decreases as the number of members increases for each category of fund size by FUM — each curve is downward sloping
- The pattern is similar for all years modelled

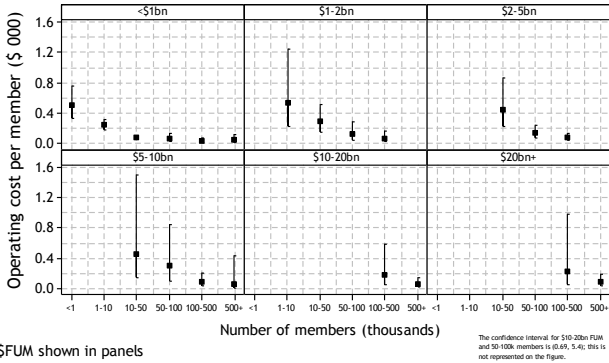
Estimated means of operating costs per member versus funds under management (2011, 2010, 2006)



Insight:
Average account balances put pressure on operating costs

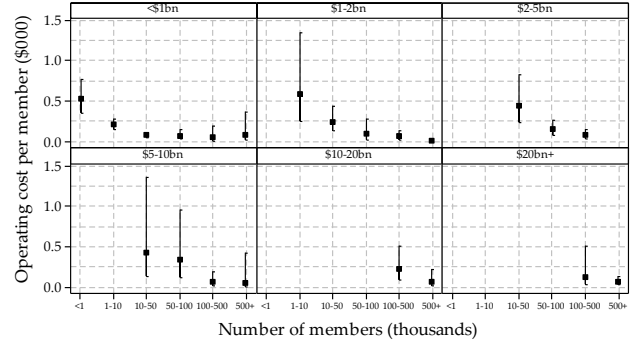
- Funds spend more on their membership as the average account balance grows — each curve slopes upwards
- This is also evidenced by the curves being higher for larger fund categories the previous slides (operating costs per member versus number of members)
- This pattern is observed in all years modelled, although more consistently in 2010

2010: Operating cost per member versus \$FUM and number of members (with 95% confidence intervals)



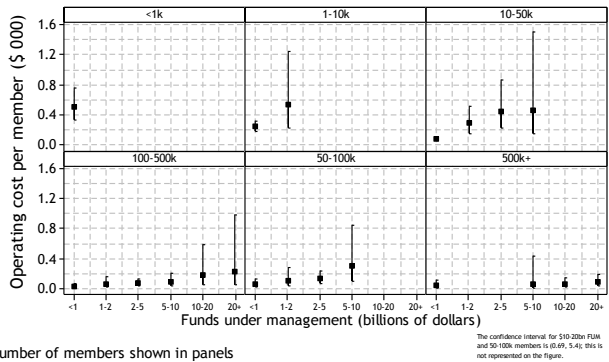
\$FUM shown in panels

2011: Operating cost per member versus \$FUM and number of members (with 95% confidence intervals)



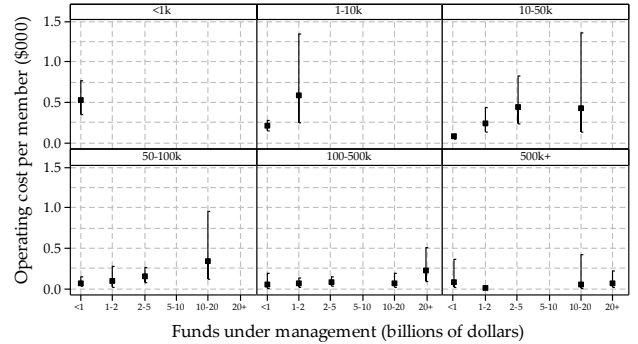
\$FUM shown in panels

2010: Operating cost per member versus \$FUM and number of members (with 95% confidence intervals)



Number of members shown in panels

2011: Operating cost per member versus \$FUM and number of members (with 95% confidence intervals)



Number of members shown in panels

About Right Lane

Right Lane is an Australian management consulting firm that specialises in moderating executive team and board workshops and facilitating strategy and planning processes for mid-sized organisations.

Right Lane was established in 1997 to help private, not-for-profit and public sector clients to clarify and accelerate their future plans. Over the past 15 years, we have helped the executive teams and boards of more than 60 organisations to define and adapt their direction and strategy, identify and clarify their priorities, align their efforts with their aspirations, get their major projects started and finished, and measure and improve their performance.

In 2011, Right Lane became, to our knowledge, Australia's first 'for benefit' management consulting firm. This means that we have capped our return on shareholder funds at reasonable levels, rather than seeking to maximise financial returns, which allows us to concentrate on our mission of contributing to society by helping organisations that do good do better.

Our areas of focus

- Developing and managing strategy and planning processes for clients
- Implementing strategy through aligning and engaging the organisation, and measuring and monitoring performance
- Leading strategic projects, such as pre-merger analysis, pricing, new product feasibility and growth options evaluation
- Facilitating clients' board and executive team workshops

For more information

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