CENTRE FOR MARKET DESIGN

Competitive mechanisms for allocating employees to default superannuation funds

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Executive Summary

There would be substantial public benefits from the introduction of a mechanism to increase competition in the market for the matching of employees to default superannuation funds, and in reducing the cost of switching between funds.

We set out a four step mechanism that would substantially increase competitive pressure on fees and on after fee returns.

1. Every five years the Government runs a reverse auction in which funds bid for the right to be nominated as a default fund. Funds bid the fees that they would charge over the next five years, and the lowest bidding firms are selected. This step selects a group of efficient, low cost funds that can commit to low fees.
2. Every year, the Government runs a performance tournament amongst the authorised default funds. The metric is a risk-adjusted after-fee rate of return, averaged over the portfolios offered by the fund. Funds are ranked on relative performance, from first best to last. This step puts ongoing competitive pressure on firms to reduce costs, diversify efficiently, and to maximise after fee returns.
3. New employees are encouraged to exercise choice of fund. Government uses results from the performance tournament to channel new employees who have not exercised this choice into default funds. The funds that perform best in the performance tournament are rewarded by being allocated a greater share of new employees.
4. Government publishes performance tables in a clear, standardised way. It puts in place a simple low cost mechanism, backed up by investment in financial literacy, for all employees to be able to switch funds once per year. This step provides protection to employees who might be locked into funds which might choose, down the track, to opt out of the mechanism and extract rents from existing members rather than competing for new members by setting low fees.

It is recommended that Government retain management of the scheme in order to preserve the integrity of the process.

Background

Under the Government's Superannuation Guarantee framework, employers are required to make compulsory contributions to superannuation on behalf of most of their employees. Recent policy has seen the creation of MySuper products that will by 2017 replace existing default products into which such contributions must be paid.

The superannuation guarantee policy is administered by the ATO and regulated by APRA. While there are more than 300 large super funds currently receiving Superannuation Guarantee contributions, there are only 118 MySuper products currently authorised by APRA. The final number of MySuper products is expected to be fewer than 150. (SuperGuide.com.au, 2014).

> *MySuper is a new, simple and cost effective superannuation product that will replace existing default products. MySuper products will have a simple set of product features, irrespective of who provides them. This will enable members, employers and market analysts to compare funds more easily based on a few key differences. It will also ensure members do not pay for any unnecessary 'bells and whistles' they do not need or use. All existing superannuation funds will be able to apply to offer a MySuper product. Members wishing to make other choices with their superannuation will still be able to opt for an alternative product, or manage their own superannuation affairs through a self-managed superannuation fund. MySuper will lower the costs for employers in selecting a default fund, as they will have better information to assist with their choice, and the confidence that any MySuper product will meet minimum standards and offer a cost effective superannuation plan for their employees.* (Australian Government 2011, Stronger Super Information Pack).

In principle, employees have the capacity to choose the fund, but in practice there are substantial informational barriers and non-monetary costs (switching costs) to exercising this choice between funds.

> *Most people can choose the fund for their employer's super contributions. However, some people who are covered by industrial agreements and members of defined benefit funds don't have this choice. ... If you do have a choice, your employer will give you a 'standard choice form' when you start work. The form sets out your options for choosing a super fund. You can select your own or go with your employer's fund.* (ASIC 2014)

To exercise this choice one must fill out an approved standard choice form requiring, amongst other things, filling in the Fund's ABN, the Funds 14 digit Unique Superannuation Identifier, and attaching a letter from the Fund stating that they are a complying fund. The literature on consumer choice and switching costs emphasises the anti-competitive nature of these costs. Firms have strong incentives to impede product comparison, capture market share, and then set high and non-transparent fees to harvest profits by exploiting their current locked in customers (Klemperer 1995). It is not surprising that fees are high and after-fee returns are low in Australia.

> *There is little evidence of strong fee-based competition in the superannuation sector, and operating costs and fees appear high by international standards.* (FSI Interim Report 2014).

Operating costs of Australia's superannuation funds are among the highest in the OECD. The Grattan Institute estimates that fees have consumed more than a quarter of returns since 2004. The Super System Review found that reducing fees by around 40 per cent — or 38 basis points — for the average member would increase their superannuation balance at retirement by approximately $40,000 or 7 per cent. (FSI Interim Report 2014).

In 2008, Chile introduced auctions for default superannuation fund management on the basis of fees. Superannuation contributions of all new members are placed in the same (winning) default fund, creating strong competition between funds for default fund status. Since these arrangements started, the fees charged by successful bidders in Chile have fallen by 65 per cent, although fees on other funds have not fallen to the same degree. (Berstein, Castaneda, Fajnzylber and Reyes2010, Hastings**,** Hortaçsu, and Syverson 2013). New Zealand has recently introduced a tender process to select default providers, based on a range of criteria including investment capability, corporate strength, administrative capability, track record, stability and, more recently, investor education for default members. The NZ Government has

selected nine KiwiSaver default providers for a seven year term starting 1 July 2014. Eligible workers are automatically enrolled in a default KiwiSaver scheme when they start a new job unless they're already in a KiwiSaver scheme or their employer has chosen another scheme. (NZ Inland Revenue, 2014).

Given this background, and evidence that costs are high and after fee returns low in Australia, the question has arisen as to whether mechanisms can be designed to increase competitive pressure and improve performance in the superannuation industry, specifically with regard to default funds. In considering this question the CMD has approached it from a general perspective, including the possibility of other mechanisms as well as auctions.

High switching costs and low mobility between funds

There is evidence presented in the FSI preliminary report that in Australia switching costs are high and mobility low between funds, as well as evidence that decisions about superannuation are not salient to young employees, even though these decisions may have important implications later in their lives. As a consequence, one would expect that costs and fees are high, and after fee returns low, and there is evidence that this is so as well. High fees may be reflected in high rents, though these rents may be dissipated by inefficiency and excessive entry.

It is obviously of first importance, and a primary objective of policy, to make the benefits of switching more salient, and to reduce switching costs – both monetary and non-monetary. One should note that switching imposes costs on the industry, and some level of switching friction may be optimal. However the cost to industry can easily be exaggerated. Since superannuation choices are long term, and there is no theory to suggest that high frequency switching is desirable, there is no reason why policy should demand high levels of liquidity or extremely rapid responses to switching requests. It may be the case that switching costs are high because of inefficiency in the industry; this should not be an obstacle to policy change that will induce efficiency improving innovation. It remains the case, however, that improving competition by reducing switching costs is likely to be very difficult, and that this cannot be relied on as the primary instrument to increase competitive pressure on the industry. There is evidence to support this view from two directions. One is from the literature on consumer choice, and the importance of defaults in financial markets (Benartzi and Thaler 2007, Beshears et al 2009, 2014, Choi, Laibson, Madrian, and Metrick2009, Hastings**,** Hortaçsu, and Syverson 2013). The other is from experience in related industries, such as retail electricity (Giulietti, Waddams Price, and Waterson 2005, Klemperer 1995).

How might one reduce switching costs and increase competition? One measure is to create credible, meaningful, and salient metrics, and to present information to consumers in ways that make the decision meaningful and relevant to them. The work on shadow billing in retail electricity markets is very relevant here. A second measure is to reduce the red tape and non-monetary costs, which are substantial. (One should recognise that firms have every incentive to impede rational choice in this manner.) A third measure is to create clear reference points, against which comparison may be made using credible independent metrics. Well managed default funds may be valuable to the system as a whole if they perform this function.

Desirable though it might be to improve competition by reducing switching costs, one should probably accept that most employees will be placed passively in a fund and remain with it unless perhaps they change jobs. There are two implications arising from these facts. The first is that it is important that these default funds are chosen well and that they perform well over the investor's life cycle. The second is that it is very valuable to firms to capture customers who are virtually locked in for life and not very sensitive to fees or performance. Since being authorised as a default fund is valuable to firms, one would expect that they will be willing to pay for this privilege by committing to improved performance or by acting in ways that increase their chances of being selected for default status in the future. This gives Government a policy lever to improve performance.

Default funds

It is worthwhile reflecting on what one is looking for in a default fund. A default fund should provide a good baseline option for passive investors who will not actively exercise choice. The objective should be to maximise the real, after fee retirement return to investors, sensibly adjusted for risk when held to maturity

(that is to say, short term volatility should be of little concern to young employees, of more concern to older employees).

It should accommodate individual preferences, for example, in adjusting risk preferences along the risk-return trade-off, but should recognise that many will not exercise this choice.

It should be simple, and easy to understand. It should provide transparent and relevant performance indicators. It should provide unbiased information and advice to members, for example on transition to retirement issues.It should be low cost, both for employees (switching strategies, or switching between funds), and for firms.

Incentives should be structured to reward fundamental performance aligned with the overall long term objective. Claims that excess returns can reliably be generated by active trading, timing the market, picking winners and so on should be treated with scepticism, and should not be allowed to distort incentives away from evidence based measures of fundamental performance.

It should be recognised that there can be a significant conflict of interest between employees and superannuation firms. This is seen most clearly with regard to fees: firms have a clear incentive to extract rents by charging above marginal cost, in various transparent or non-transparent ways, to exploit their captive client base. It can also arise from distortions in investment decisions (for industry associated funds, or government run funds with, say, infrastructure development objectives). It can arise through excessive fee based trading. It can arise through harvesting of members' data and on-selling other products. It can arise because firms are motivated to increase switching costs and to make inter-fund comparisons difficult. To some extent, these conflicts can be handled by regulation, but they can also be managed through incentives. Incentives that reward fundamental performance implicitly punish rent extraction, excessive trading, and so on.

The incentive to obstruct competition by creating barriers to switching is particularly important and less easy to manage by regulation. For this reason, there is a strong case to take the management of default fund choice and of mechanisms for comparing and switching between funds out of the hands of an industry that has a clear incentive to obstruct competition. There is a strong case that these functions should be managed by Government.

Auctions and tournaments

In considering the range of competitive mechanisms to be considered, it is important to take note of two fundamental types of problem that arise in asymmetric information environments. The first of these comprises problems arising from hidden knowledge, or hidden type (these are called adverse selection problems). The second comprises problems arising from hidden action, often in the form of hidden effort (these are called 'moral hazard' problems[1]). In some cases both types of problem can arise simultaneously.

Adverse selection problems arise when firms have some intrinsic type, for example a technology, access to a proprietary dataset, or some innate ability that is impossible to change, at least in the short term. A good example would be computer systems and back office capabilities that lower operating costs. The problem that one is trying to solve here is to select the best, that is to say least cost, firms. These firms would prefer not to reveal their type, but rather to set fees as if their costs were high and hence to extract a higher profit, or rent. Adverse selection problems lead naturally to auctions: competition forces the low cost firm to reveal its hand, or at least partially to do so, by bidding and committing to a lower fee than it would choose to set in the absence of competition. The Chilean scheme, and to a lesser extent the New Zealand scheme, appears to be of this type.

An auction has both a backward looking and a forward looking aspect. It is backward looking, in so far as the firm's type may well have been determined by previous decisions; but it is essentially fixed when we run the auction. It has a forward looking aspect, at least in fee setting auction, in so far as the winning firm or firms bind themselves to set a low fee in the future. In considering the strengths and weaknesses of auctions, one must note that only the behaviour of the winning firm or firms is affected, and that the action that is locked down in the auction (for example fees) must be verifiable, non-manipulable, and one to

[1] The origin of this curious terminology lies in the insurance literature, where such problems were first studied.

which the firm can make a commitment; in the background is an understanding that if the commitment is not met then there are severe penalties and that these will be enforced. It is a problem, for example, if fees can be manipulated; this might be a concern if the retail firm is an aggregator of wholesale products and the upstream firms are not wholly at arm's length and they engage in transfer pricing. It would also be a problem, for the firm, if it attempted to commit to, say, a net rate of return, since market fluctuations are outside its control. These features somewhat limit the potential role of auctions in improving performance of default funds.

It should be noted that if an auction is repeated over time then what in a single auction is a fixed type that cannot be changed may be malleable over the longer timescale. Repeated, or delayed, auctions have aspects that are similar in some respects to tournaments, and can address moral hazard problems as well.

Hidden action, or moral hazard, problems, arise when the issue is not so much selecting the right firm as influencing its behaviour. In a simple rate of return tournament, for example, all participating firms compete to produce the best rate of return. Firms are ranked on relative performance: best, second best, and so on, and are rewarded accordingly. There are two elements to consider in designing a tournament. The first is the nature of the prize, and the way that prizes are allocated across winners. The prize need not be monetary; in the current case the prize will be some form of improved access to new employees entering the superannuation system. There is also a design choice about how prizes are allocated, for example winner take all, or more gradually declining rewards for first, second, third place, and so on. There is a significant body of theory around how to design such tournaments. The second element is the metric used to rank winners, which need not be linked to the prize. One could, for example – this is just to illustrate a point – rank funds by their performance in meeting the needs of older employees, and incentivise them through better access to young employees. The metric should be chosen to align incentives of firms with the Government's performance objectives for the scheme.

When considering the advantages and disadvantages of tournaments, several features should be noted. Firstly, the behaviour of all participating firms is affected, not just the winner. Secondly, a wider range of performance metrics may be used, including ones that are not feasible for auctions. Consider, for example, rate of return. It would be difficult to use this as a metric to bid in an auction, or indeed to write an incentive contract, because individual performance is swamped by market fluctuations which mask the signal that we are interested in. In a tournament, everybody is affected by common market shocks so these are cancelled out. The rank is determined, or at least strongly influenced by individual actions and decisions. A tournament can create strong performance incentives for behaviour variables that difficult to observe directly or that indeed are completely hidden from the mechanism designer.

There are thus a range of issues to consider in designing a competitive mechanism. The first, and fundamental question, is whether the issue is choosing the right firms (adverse selection), or whether it is influencing behaviour (moral hazard). Clearly both are relevant, but from the discussion above on the conflicts of interest between firms and investors it would seem that influencing behaviour is the major concern, especially over the longer term. A second question that must be addressed is what metrics are available. Are they suitable for use in an auction? Are they manipulable? Are they subject to noise? How well do they align with the underlying fundamental objectives?

Metrics

There are some common features that are desirable for any metric that is used to induce competition, whether through an auction mechanism or a tournament mechanism. They should be clear, simple, difficult to dispute, difficult to manipulate, and closely related to the behaviours or types that we want to influence or select.

For an auction, two metrics appear to be in use already, in Chile and in New Zealand (though the details of these schemes is not completely clear). One is fees charged; the other is a scoring auction including fees and a range of other desirable features (for example, level of reporting or advice to investors). Given the basic principles that auctions are optimal for managing adverse selection problems, and that the bidding metric is an absolute (not a relative) performance measure, it is desirable to give some thought to exactly what is achieved by bidding fees. It may be, for example, that by making fees prominent and announcing

the auction well in advance, this provides a focal point for investment in cost reducing capacity, or amalgamations and structural change. It may be that reducing costs and lowering fees can be achieved through these kinds of changes, whereas reducing operational costs on the fly in response to more dynamic incentives requires different skills. These are the reasons that one might want to use an auction as part of the mechanism. With regard to scoring auctions, where multiple attributes are included, some scepticism as to what these additional attributes are achieving may be warranted. For example, attributes that are basically binary compliance indicators – yes or no – might be handled in a more straight forward way simply by regulation.

Turning to tournaments, the problem is that there are many potential performance measures but these need to be aggregated into a one dimensional score (the same basic point applies to auctions). The most important issue arises with regard to reducing the two (or more) dimensional risk/return characteristics of performance to a one dimensional metric. An attractive approach is to use a standard finance model (for example the Capital Asset Pricing Model – CAPM) to calculate a common risk adjusted rate of return. It may not matter too much what model is used, and simple, standard and transparent is desirable. A risk adjusted measure will put pressure on costs (the distance from the efficient frontier) no matter what the risk/return characteristics of the portfolio. A second, related issue is that funds will be expected to offer several pre-mixed portfolios with different risk-return characteristics – for example, for young, middle aged and older employees, and the question arises of how to aggregate performance across these. The natural approach would be to form a weighted average performance measure. Once again, the precise way in which this is done might not matter a lot.

A proposed scheme

The following scheme is put forward as an example of what a competitive mechanism to manage the matching of employees to default funds might look like. This is a preliminary scoping exercise only, and serious work would be needed to flesh this out in detail. It is our view that there would be substantial public benefits from the introduction of a mechanism to increase competition in the market for the matching of employees to default superannuation funds, and in reducing the cost of switching between funds.

As discussed above, there are two types of competitive mechanism that are suitable for consideration: auctions and performance tournaments. These address different aspects of the problem, and have different strengths and weaknesses. Auctions are suitable for selecting the best firms, using characteristics as they stand at the date of the auction. The feasible measures of what are the 'best firms' – the auction metric – are somewhat limited (for example fees charged) and are not forward looking (for example, one cannot target future after fee returns), and there is always concern about manipulability of metrics that are only proxies for the real policy variables. Auctions, however, create strong and salient competitive pressure on the characteristics that they target. Performance tournaments, on the other hand, provide incentives for future performance, and they can be based on a wider range of metrics. In the indicative scheme outlined below we use both mechanisms working in tandem, taking advantage of both.

In managing a competitive mechanism it is important to note that there is an inherent incentive for industry, over the longer term, to maintain or increase both monetary and non-monetary switching costs and to resist providing transparent comparative performance information, in order to reduce competition, to increase profit, and to avoid the necessity of reducing costs. It is also the case that credibility and impartiality of information is of importance to investors in creating effective competition. For these reasons, it is important that Government play a visible role in maintaining the integrity of the scheme, and that this function not be delegated to industry. For this reason, we envisage the competitive mechanism to be managed by Government.

An indicative scheme might look as follows. Precise details, for example, on auction and performance metrics, the frequency of auctions, and so on, would naturally require further work.

1. Every five years the Government runs a reverse auction in which funds bid for the right to be nominated as a default fund. Funds bid the fees that they would charge, and the lowest bidding firms are selected. Standard requirements for what a fund needs to look like are included in auction pre-

qualification. For example, it might be a requirement that there be pre-mixed options for young, middle aged and older employees, and sensible progression mechanisms. This would be a pay your bid auction: you are committed to the fee that you nominate. Government would nominate either the number of winners, or a reserve performance standard.

Clearly, we would want this reserve to bind – not every bidder should succeed. The exact number of authorised firms is an important decision. It seems that this number should, over the medium term, be less than the hundred or so default funds at present. However, since the auction variable – fees – is an imperfect proxy for fundamental performance, and we want a reasonable level of competition in the second stage of the mechanism, it should not be just one or perhaps two firms as in Chile. Perhaps the right number of winning firms would be of the order of ten or twenty. Without some bound on the number of winners there is no pressure to bid low in the auction and to reduce fees.

We know that Government will find it very difficult to set an appropriate reserve. For this reason, and because it targets the variable of interest, we need the second round of competition through a performance tournament.

2. Every year, the Government runs a performance tournament amongst the authorised default funds. The metric is a risk adjusted rate of return, averaged over the portfolios offered by the fund. Funds are ranked on relative performance, from first best to last. Since common shocks to the market affect everybody, the relative rank is unaffected by these common shocks. Relative performance depends, to a much greater degree, on factors under the control of the fund manager, in particular the level of costs and the efficiency of the investment portfolio. Rewarding this relative performance puts competitive pressure on these choices, even though they may not be fully visible to outsiders.

   Clearly the performance metric needs to be a risk adjusted rate of return, and thought needs to be given as to how this is calculated. In practice, the exact metric may not matter a lot. It is also important whether ranks are smoothed into bands or smoothed over time, and so on. The objective is to provide informative and responsive information, but not to present spurious accuracy or create unnecessary instability. Care also needs to be taken about incentives to maximise short term rather than long term games, or to otherwise 'game' the system. These are technical design questions which are amenable to detailed design work.

3. Government uses results from the performance tournament to channel new employees into default funds. The funds that perform best are rewarded by being allocated more new employees. This provides an incentive to reduce costs, invest and diversify optimally, and maximise net returns. How steeply the winners are rewarded relative to less highly ranked funds is a design question that requires more detailed investigation. For example, fifty percent of new employees might be allocated to the top performing ten percent of funds; detailed study would be required to determine this design parameter.

4. Government should also publish the rankings and provide to employees once per year the option to switch between default funds. Transaction costs, particularly the red tape and non-monetary obstacles to decision making, should be minimal. The way that information is presented should maximise its saliency and facilitate decision making, and should draw on the latest research in decision theory, including insights from experimental economics and behavioural economics. Funds should be allowed reasonable time to effect transfers and to reduce costs. Employees who switch more than once might be required to pay a realistic estimate of the actual transaction costs.

Government management of the scheme is essential to preserve the integrity of the processes, given the pervasive incentives of industry to reduce competition and increase switching costs. There are good arguments for the process to be managed by the ATO. It is also important that Government intervention be light handed and not impeded innovation in the way that business is done.

Implementation

It is recommended that an evidence based approach be taken to evaluation and implementation of any proposed mechanism to increase competition in the allocation of employees to default funds, including the proposal outlined above. This would include:

- an actuarial cost-benefit study to quantify the costs and benefits of the proposal. This study should also quantify the costs of deviations from the principles of the proposal.
- a systematic study of the incentives embedded in the scheme, including if appropriate laboratory experiments, to evaluate the robustness of the scheme to gaming and collusion.
- a systematic study, including if appropriate field experiments, of mechanisms to improve communication with and financial decision making by consumers, including shadow billing.
- if feasible, a pilot study and evaluation should be undertaken before implementation.

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