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Designing a default structure: submission to the Inquiry into Superannuation: assessing efficiency and competitiveness

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Designing a default structure
Submission to the
Inquiry into Superannuation: Assessing Efficiency and Competitiveness

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Designing a default structure

Submission to the

Inquiry into Superannuation: Assessing Efficiency and Competitiveness¹

Nicholas Barr² and Peter Diamond³

Summary of recommendations

This submission starts from three propositions:

- The primary purpose of pensions is old-age economic security.
- People who wish to make choices about pensions and retirement should generally have room to do so. But, as the Cooper Review and Murray Inquiry and widespread international evidence make clear, some people will not make choices, choice can be costly, and some people may make bad choices. Thus:
- The pension system should work well also for people who make no choice – and making no choice should be an acceptable option.

To those ends, section 2 sets out recommendations and justifications for the accumulation phase:

1. *A single default.*

- There should be a single default design, the same life-cycle structure for everyone in the default.
- That default should be provided by an independent government agency.

2. *A simple choice architecture within the default.*

- The agency providing the default should also provide some portfolio choices, allowing limited choice within the structure. While no choice is an option, people might respond to simply-stated options within the default structure.
- A worker who has previously chosen a provider should have the option of switching to the default.
- A worker should have the option to save more than the minimum in the mandatory system, given its advantages of scale and design.

3. *One account per person.* To avoid ‘lost accounts’ and reduce administrative costs, each worker should have a single account. That account could be the default or could be with a provider chosen by the worker, with the worker retaining the power to move his/her account to a different provider.

4. *A single clearing house.* To prevent multiple accounts and reduce administrative costs, a government-run clearing house should collect contributions and distribute them to providers. This is the process in Sweden for the Premium Pension.

¹ We are grateful to the UK National Employment Savings Trust for assistance on factual matters.

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5. *A single record keeper.* In addition to collection and distribution, the government agency should be the record keeper for all accounts. This is the process in Sweden for the Premium Pension.
6. *A level playing field for competition between the government-run default and related portfolios and the private providers.* The clearing house should have a uniform set of charges for collection and record keeping, which apply equally to private providers and the government-run default. This is the process in Sweden for the Premium Pension.

Section 2.2 provides some less tightly-specified alternatives, drawing on work by the UK National Employment Savings Trust.

Section 3 sets out recommendations and justifications for the drawdown phase for both the default and private providers. The focus is to simplify and improve the choice architecture.

1. *Presentation of the roles of drawdown options and likely patterns, given market conditions.* The three elements below draw on current work by the UK National Employment Savings Trust.
 - *Curated drawdown.* Each member is advised on what drawdown trajectory, given market conditions, is most likely to give a sustainable income indexed to price inflation, though the member retains the flexibility to withdraw more or less.
 - *A liquid cash component,* to allow for unexpected expenditures without jeopardising a member's long-run income stream.
 - *An annuity component.* Purchase of an immediate or a deferred annuity beginning at a certain age, e.g. 80. Deferred annuities are useful both to allow drawdown over a known period (i.e. until the start date of the deferred annuity) and to protect against old-age poverty.
2. *Information on annuities.* As further assistance to choice, providers of annuities should be required to provide directly comparable price and design details through a government-run information website, as in Chile.
3. *Default portfolio.* After retirement age, workers not choosing a provider or portfolio for assets will be in the default life-cycle portfolio held by the government agency for default.
4. *Survivors' pensions.* Decumulation, whether from a lump-sum or as an annuity, should take account of family circumstances. Information should be provided about potential family circumstances. The main argument for joint-life annuitisation of at least a part of a worker's accumulation is to prevent poverty for the surviving spouse, most often the wife. A worker's accumulation could be used to buy a joint-life annuity. In a two-earner couple this could be done by both partners.

Section 4 concludes; and the Appendix discusses the literature on the uses and limitations of individual choice and competition.

1. This submission is primarily directed at the Inquiry's terms of reference concerning (a) costs, fees and net returns and (b) the design of default arrangements. It is intended as a framework rather than a fully worked out explicit proposal, for which we don't have sufficient detailed background knowledge.

2. Section 1 briefly outlines the problems identified by the Cooper Review and Murray Inquiry in Australia, reinforced by considerable international evidence. Section 2 sets out our recommendations for default arrangements during accumulation with discussion of relevant international experience; section 3 does the same for drawdown. An Appendix gives the theoretical and international empirical evidence that underpin our recommendations, drawing on the manuscript of a book in progress and earlier writing (Barr and Diamond (2008; 2010), Barr (2012, Ch. 7)).

1 The backdrop

1.1 Findings in Australia and other countries

3. The Murray Inquiry found that,

‘[T]he current framework is not sufficient. The [Global Financial Crisis] brought to light significant numbers of Australian consumers holding financial products that did not suit their needs and circumstances — in some cases resulting in severe financial loss. The most significant problems related to shortcomings in disclosure and financial advice, and over-reliance on financial literacy’ (Australia Financial System Inquiry (the Murray Inquiry), 2014, p. 27).

4. Those conclusions echo those of the Cooper Review:

‘There are three sources of market failure in superannuation: member inertia and disengagement; product complexity and low consumer financial literacy; and conflicted remuneration structures within the financial planning industry’ (Australia Industry Super Network, 2010, p. 1).

5. Both sets of conclusions are in line with what happens in other OECD countries with pension systems that include choice from multiple private providers. The findings relate to both the supply of financial products and consumer behaviour.

6. THE SUPPLY SIDE OF THE MARKET. Three sets of issues stand out.

- *Charges*: charges during accumulation are high and vary widely across providers; and higher charges are not generally correlated with better performance (see also Minifie 2014).
- *Financial advice*:
 - Problems arise even where providers generally try to do a good job. For example, it is not clear how to choose a good financial adviser.
 - Limited competence: complexity means that some advisers may not do a good job on some issues.
 - Biased advice: advisers may suggest the wrong product or the wrong price.
 - Deception: lack of consumer information and missing or ineffective regulation creates a risk of misleading advertising and misselling.

- *Drawdown*; the previous problems apply also when workers draw down their pension saving or choose an annuity provider. The problem is compounded by annuity markets that are frequently thin and often offer poor value. Selection issues associated with varying life expectancies complicate both normative and regulatory considerations.

7. CONSUMER BEHAVIOUR. The Murray Inquiry also looked at the demand side of the market, and in particular the extent to which consumers generally do not behave in ways that the simple model of rational behaviour predicts. Instead there is a lack of consumer engagement, with sluggish responses and poor choices, including making no choice. The design of the default needs to respond to the expectation that widespread absence of choice of a provider is inevitable and that a well-designed default institution can help with some decision making.

8. Given its remit, the Inquiry looked mainly at the supply side. This submission takes those findings as read, and includes an appendix on consumer behaviour, which is the key to understanding why (a) the findings of the Inquiry are no accident, (b) what they imply for organising pensions, and in particular (c) why default arrangements are necessary and how they should be designed.

1.2 Preliminary implications

9. The recommendations in sections 2 and 3 are based on two sets of implications we draw from Australian and international research and experience:

- Financial choices are made in a complex environment. The usefulness of choice should not be overstated, as choices are often avoided and often poorly made. Financial education and delegated choice are no more than partial solutions.
- The quality of outcomes from more reliance on competition in the market is frequently overstated; the simple model of choice and competition does not work well.

10. Significant absence of choice is inevitable, so a well-designed default helps many workers who are not in a good position to evaluate alternatives. That line of argument does not (and should not) rule out the room for some degree of choice for all workers.

2 Designing a default structure: Accumulation

2.1 Recommendations

11. Our main argument is that there should be a single, government-organised default life-cycle structure. Both the default and the pension system as a whole would benefit from a single contribution collector and record-keeper. The default structure has the following elements.

12. **1. A SINGLE DEFAULT.** There should be a single default structure provided by an independent government agency for workers who make no choice; The default should have a lifecycle formation.

13. *The inevitable need for a default.* The observed fact is that many people do not make choices. They do not do so for a variety of reasons, discussed in the Appendix:

- Some are aware of limitations in their capacity to make complex choices, and view the default as a safe answer.
- For others, procrastination and simple avoidance of consideration of choice occur. This is a situation where the benefits (higher returns, lower charges) in any particular month are small, while the transactions costs in terms of time can be significant.

For both sets of reasons, a default arrangement is necessary for people who do not choose.

14. *Why a single default provider?* Australia has multiple funds each with a default. In New Zealand, the government has designated nine default providers on the basis of competitive bidding. A worker who makes no choice is allocated to a fund in what is sometimes referred to as the ‘cab rank’ principle. A major problem with multiple default accounts, however organised, is that diversity of default accounts will result in diversity in realized rates of return between workers of the same age, which is likely to generate dissatisfaction and possible political hostility. Having multiple default plans is like a Post Office with 10 windows and 10 queues, so that queuing time is a random luck of the draw; a single queue for all 10 windows is widely regarded as fairer.

15. Having a single default:

- Avoids the problem of diverse returns.
- Provides a simpler picture for a worker of the consequences of not making a choice.
- Reduces costs by avoiding complexity in policing multiple defaults and, in a system of industry plans each with a default, the repeated need to relocate assets for workers using a default who move across industries.

16. **2. A SIMPLE CHOICE ARCHITECTURE WITHIN THE DEFAULT.** A person who is reluctant to make a complex choice might, nevertheless, be willing and able to make some simple choices if framed appropriately. To that end, the agency providing the default should also provide some limited degree of choice. As outlined in section 2.2, the default for NEST pensions in the UK is a fund with a target date set at the state pension age, but offering workers the option to choose an earlier or later target date and/or a fund with a higher- or lower-risk portfolio mix than the default. The same is true of the default arrangements in Sweden, also discussed in section 2.2. Fewer choices can increase participation (Box 1), and Keim and Mitchell (2015) find that streamlining options in defined-contribution plans significantly reduced turnover and expense ratios.

17. A worker who previously chose a provider should be allowed to switch to the default provider. Initially in Sweden workers who chose a fund were not thereafter allowed to move to the default. As a result of popular pressure, they are now allowed to do so.⁴

18. The default could manage a complex portfolio, as is done in Sweden, or could use a simple portfolio of mutual funds with competitive bidding for the funds in the simple portfolio, as is done in the USA for federal civil servants by the Thrift Savings Plan.

19. It is also beneficial, as in Australia, that workers can save more than the minimum in the mandatory system, given its advantages of scale and design. In a defined-contribution plan there are good reasons for limiting tax advantages but no reason to limit contributions.⁵

⁴ For more detailed discussion of the system in Sweden, see Barr (2013).

20. **3. ONE ACCOUNT PER PERSON.** In a system with multiple providers of individual accounts, a worker who changes jobs could transfer his/her accumulation from old to new employer. In practice, many workers do not do so and, as a result, have multiple pension accounts. The resulting problems are twofold: ‘lost accounts’ and administrative costs. The latter arises because the cost of managing an account has a large fixed cost component – record keeping for and communications about a large account does not cost much more than for a small one. Thus the burden of charges is greater for multiple accounts than for a single account of equal total size.

21. For both reasons, it is highly desirable that each person has one and only one account. That account can be with a provider chosen by the worker; and the worker can choose to move the account to a different provider; or a worker can make no choice and be in the default.

22. We recommend that new entrants to the workforce should be required to have only one account. It would be desirable to consolidate the accounts of current workers with multiple accounts via mandate, subsidy or nudge. How to do so requires additional study.

23. **4. A SINGLE CLEARING HOUSE.** A government agency should collect contributions and distribute them to providers. This is the arrangement in Sweden for the Premium Pension, outlined in section 2.2.

24. **5. A SINGLE RECORD KEEPER.** In addition to collection and distribution, the agency should be the record keeper for all accounts. This is the process in Sweden for the Premium Pension.

25. Centralising record keeping and the collection and distribution of contributions to each worker’s chosen fund or to the default has advantages. The approach:

- Exploits administrative economies of scale.
- Provides an effective and cheap way of enforcing the single-account rule.
- Incorporates a rational division of labour between account administration (i.e. record keeping) and fund management. There are clear arguments for centralising the former, with competition over the latter.

26. **6. A LEVEL PLAYING FIELD FOR COMPETITION BETWEEN THE GOVERNMENT-RUN DEFAULT AND PRIVATE PROVIDERS.** The clearing house should have a uniform set of charges for collection and record keeping, which apply equally to private providers and the government-run default.

27. **CHOICE AND COMPETITION.** The Productivity Commission’s draft response (Australia Productivity Commission 2017) rightly makes the distinction between competition *in* the market and competition *for* the market, and suggests the usefulness of the latter approach. The analysis in the Appendix supports that argument. In the arrangements we suggest above, an individual can choose:

⁵ A system in which a worker’s contributions are tax-advantaged up to a limit faces a complication where a worker contributes more than the limit. That complication does not arise where contributions are not tax advantaged, as in Australia.

- To do nothing and thus be in the default fund. Doing nothing should be seen as an entirely appropriate option, either because workers feel that they do not know enough to do better, or because they do not engage. To our personal knowledge, a number of leading Swedish pension experts are in the default fund because they consider it the best option; or
- To choose a fund from the limited menu of choices offered by the default agency; or
- To choose funds from a single provider chosen from the market for providers.

28. IN SUM.

- Nobody is denied choice if he/she wishes to exercise it but, equally, nobody is forced to make choices.
- Mobile workers who do nothing avoid membership in one of multiple employer-organised defaults, but belong to the single default.
- Financial markets do what they are meant to – to channel savings into productive investment – in a market that is better-informed on both sides.

2.2 International experience

29. The experiences of curated accumulation in the default arrangements for the auto-enrolment plan in the UK and the mandatory system in Sweden are directly relevant.

30. CURATED ACCUMULATION IN THE UK NATIONAL EMPLOYMENT SAVINGS TRUST (NEST pensions; UK National Employment Savings Trust 2015, 2017a, b). The basic NEST accumulation is a target-date fund with a foundation phase, a growth phase and a consolidation phase.⁶

- The foundation phase – a novelty in pension design – operates for about the first five years of an accumulation with the primary aim of developing the saving habit. Research has shown that losses in the early years are profoundly discouraging, so the investment strategy during this phase seeks to keep pace with inflation and avoid investment shocks that would reduce the value of the nascent accumulation. Such an arrangement is regarded as helpful in an auto-enrolment plan but may be less relevant in a mandatory system.
- The growth phase, once the pot is established, can adopt a less conservative approach. NEST's aim is to produce a long-run average annual real return of 3 per cent net of all charges. Since its launch in 2012, the 2040 target date fund has produced an average annual real return of about 6 per cent.
- The consolidation phase (about the last ten years before the worker's target retirement date) starts to crystallise the gains.

31. NEST decides in-house on overall exposure to building block funds and asset classes, outsourcing fund management to the private sector and publishing quarterly updates on strategic allocation and fund returns.⁷

⁶ NEST Retirement Date Funds, <https://www.nestpensions.org.uk/schemeweb/nest/aboutnest/investment-approach/nest-retirement-date-funds.html>

⁷ Investment Implementation Document, <https://www.nestpensions.org.uk/schemeweb/nest/aboutnest/investment-approach/other-fund-choices/fund->

32. The total charge to the worker, including record keeping and investment costs, is 1.8% of each year's contributions plus a 0.3% annual management charge on a worker's total accumulation, equivalent to an annual management charge for the average member of about 0.5%.

33. Alongside target date funds are additional options for workers, including a Higher Risk (i.e. potentially higher growth) Fund, an Ethical Fund, a Sharia Fund, and a Lower Growth (i.e. lower risk) Fund.

34. CURATED ACCUMULATION: THE SWEDISH DEFAULT (AP7 SÅFA). 45 per cent of pension savers in the Premium Pension in Sweden are in the default fund, which manages 30 percent of capital in the Premium Pension system. The main building blocks are the AP7 Equity Fund and Fixed Income Funds. The lifecycle portfolio is an age-dependent mix of these two funds.

35. The Equity Fund investment strategy⁸ is to

- Invest globally in equities with a diverse spread;
- Increase returns through leverage; and
- Further raise returns through active management in selected markets.

36. The mix of the two funds reflects the fact that the Premium Pension is a small part of the overall mandatory pension system in Sweden. It gets 2.5 per cent of earnings out of the 18.5 per cent that are collected. There is also widespread industry coverage. The savings of workers under age 55 are invested 100% in the AP7 Equity Fund. Thereafter the balance between that fund and a fixed income fund tips over time. From age 75 onwards the mix is two-thirds fixed-income fund, one third equity fund.

37. The most recent *Orange Report* (Sweden Pensions Agency 2016, p. 45) states that, 'Those who ... had their moneys invested in the AP7 [Equity Fund], ... had by December 31, 2016 obtained a return on moneys invested in December, 2000, greater by 59 percentage points than that of the average fund saver (premium pension index, which includes AP7 SÅfa).'

38. The UK and Sweden show two examples of the investment procedure in the underlying funds that are combined for the lifecycle portfolio. What would be best for Australia is beyond our knowledge base to discuss.

39. THE CENTRAL CLEARING HOUSE IN SWEDEN. Government-run agencies in Sweden have two functions, as contribution collector and as record keeper. On the first, the tax authority collects income tax and each worker's 18.5 per cent pension contribution. The tax authority passes on contributions to the Swedish Pensions Agency, which channels 16 per cent to the Swedish NDC system and 2½ per cent to the Premium Pension, which goes to the worker's chosen (or default) pension funds. Workers can choose up to five funds from 844 such funds from 109 different providers (figures for 31 December 2016), with a government-run default for those who make no choice or actively choose the default.

[factsheets.html](#) and Quarterly Investment Report, <https://www.nestpensions.org.uk/schemeweb/nest/aboutnest/investment-approach/other-fund-choices/fund-factsheets.html>

⁸ For further detail, see *Our Approach*, <https://www.ap7.se/english/about-us/our-approach/>

40. To keep administrative costs low, the clearing house is also a central record keeper, with net payments to and from mutual funds on an aggregated basis.

41. Since the Premium Pension has important similarities with arrangements in Australia, its administrative costs are of particular interest. In 2016, the average capital being managed in the Premium Pension system was SEK 854 billion and total administrative costs SEK 3.07 billion, i.e. 0.36% of funds under management (Sweden Pensions Agency (2016, pp. 38 and 40)).⁹

3 Designing a default structure: Drawdown

3.1 Recommendations

42. At present, Australia has no restrictions on how a person draws down his/her accumulation after pension age. In contrast, Sweden requires purchase of an annuity from the government, and Chile limits withdrawals to limit later reliance on a government-provided minimum benefit.

43. Generally, the pensions literature has studied drawdown less fully than accumulation, and further complication comes from the significant presence of selection issues for annuities. Moreover, concern with consumption over a lifetime of unknown length is more complicated than accumulating wealth up to retirement. Thus we limit our recommendations to the provision of information and general guidance, both of which are relevant for those with the default and those without. As illustrations, we draw on the way the system in Chile gives advice and provides price information on annuity options, and on work by NEST pensions in the UK. The latter presents information related to maintaining consumption through an uncertain lifetime, including the roles for a liquid component and a deferred annuity.

44. **1. PRESENTATION OF THE ROLES OF DRAWDOWN OPTIONS AND LIKELY PATTERNS, GIVEN MARKET CONDITIONS.**

45. *Curated drawdown.* The approach in NEST is to try to help retirees avoid drawing down too fast or too slowly by advising on what drawdown trajectory, given market conditions, is most likely to give them a sustainably steady income indexed to price inflation. A member can choose to follow that guidance, with the drawdown fund generating a certain level of income, but retains the flexibility to withdraw a higher (or lower) income – although drawing more reduces the size of the fund and by extension his/her future income prospects.

46. *A liquid cash component.* This element, the design of which remains a work in progress under NEST, is intended to explain the allowance for unexpected expenditures without jeopardising a member's long-run income stream.

‘If market conditions are good in the drawdown fund then this pot can be topped up with additional lump sums. This would be a fund from which members could move money in ad hoc lump sums into their bank account to use as they like’.¹⁰

⁹ For exemplary detail on administrative costs, see Sweden Pensions Agency (2016, p. 41).

¹⁰ <https://www.nestpensions.org.uk/schemeweb/NestWeb/includes/public/news/NEST-launches-its-retirement-blueprint-in-response-to-pension-freedoms.html>

47. *A deferred annuity.* While an immediate annuity purchased with part of the accumulation is a good option, NEST pays particular attention to deferred annuities. In this element – again a work in progress – money is set aside to buy a deferred annuity at a certain age,

‘This would remain refundable up to a certain age, at which point that money is locked in to ensure a secure income is available for the remainder of a member’s life to protect against the risk of running out of money before they die.’¹¹

48. **2. INFORMATION ABOUT ANNUITIES.** Providers of annuities should be required to provide directly comparable price and design details through a government-run information website. This should apply throughout the pension system, and not only for the default. The arrangement in Chile is discussed in section 3.2.

49. **3. DEFAULT PORTFOLIO.** After retirement age, workers not choosing a provider or portfolio for assets will be in the default life-cycle portfolio held by the government agency for default.

50. **4. SURVIVORS’ PENSIONS.** Decumulation, whether from a lump-sum or as an annuity, should take account of family circumstances. The main argument for joint-life annuitisation of at least of a part of a worker’s accumulation is to prevent poverty for the surviving spouse, most often the wife. The root of such poverty is twofold.

- There are economies of scale in household formation. A single survivor of a couple typically needs about 65-70 per cent of the couple’s income to maintain a broadly constant standard of living. Thus, if spouses are the same age and have identical earnings histories and identical pension benefits, the death of one may lower the living standard of the other. This is part of the reason why poverty is more frequent among widows than among married elderly women.
- In addition, older women on average have had lower earnings and/or lower contribution densities than men as well as having longer expected lives.

51. For both reasons, survivor pensions are important for preserving the living standards of the elderly. A worker’s accumulation could be used to buy a joint-life annuity with a suitable fraction (e.g. 50 per cent) for the survivor, based on the actuarial conversion of a single-life annuity into the relevant joint-life annuity. In a two-earner couple this could be done by both partners. Providing information on methods of family protection would be useful.

3.2 International experience

52. **MANDATORY INFORMATION IN CHILE.** As with the accumulation phase, Chile experimented with different ways of organizing the purchase of annuities. One element in reform has been an attempt to reduce costs by strengthening competition in the annuities market. To that end, reform in 2004 introduced SCOMP (the Pension Amounts Queries and Offers System), which provides clear, complete and comparable information about the pension benefits offered by different providers. A person who wants to start benefits is obliged to consult SCOMP, though not obliged to buy an annuity.

¹¹ *Ibid.*

53. OUTCOMES WITHOUT AN INFORMATION MANDATE: THE UK.

‘In 2012, 60% of annuities were purchased through the customer’s existing pension provider or a third party with which their provider has an arrangement’ (UK Financial Conduct Authority 2014, p. 12).

‘We estimate that overall 80% of those purchasing an annuity from their existing pension provider would benefit from shopping around and switching. For standard annuities we estimate 79% could get a better deal on the open market, and for enhanced annuities the proportion is 91%. (*ibid.* p. 14).

4 Concluding remarks

54. Our recommendations start from the fact that many people do not choose, and widespread evidence that those who do choose frequently do not choose well. Thus a default is necessary and, if well-designed, potentially beneficial in both cases. In the present system in Australia, workers who make no choice end up in the default designed by a provider chosen by the employer. As explained earlier, this is an unsatisfactory aspect of the superannuation system.

55. We have addressed some key elements in improving outcomes for those not making choices. The central element is a single life-cycle based default run by a single government agency. Our model for this design is the successful experience in Sweden and NEST pensions in the UK. In addition, we draw on the Swedish experience to propose further aspects of the use of an agency handling the default.

56. For drawdown, where needs are more variable and the subject less well analysed, we have focused only on the provision of better information to those entering the drawdown phase with the default provider of the accumulation phase. Better provision of information is likely to be beneficial throughout the system, and not just for those in the default fund.

57. Inevitably the response of some analysts to a proposed increase in the role of government is to call for encouraging more competition. As experience in Chile since 1981 has made clear, free competition is a weak force in the pension accumulation process, and even highly regulated competition is considerably limited. In the Appendix, we review some of the reasons why this is the case.

Appendix: Supporting evidence and arguments

58. A potentially complementary approach to default design is an effort to increase active choice and hence decrease the need for defaults. This appendix reviews some of analysis behind our recommendations and, in doing so, reinforces the findings of the Cooper Review and Murray Inquiry.

59. Our central argument about pensions is twofold:

- Widespread absence of choice is inevitable, as is some degree of poor choices.
- Increasing competition in the market is an inadequate response, and can be counterproductive.

Thus, adapting to widespread default is a better approach than trying to force considerably more choice. A well-designed default is not a regrettable necessity but an essential and beneficial element in a pension system.

60. Section A.1 summarises the considerable evidence about what people do, and section A.2 explores why. Section A.3 is about what firms do. Pulling the threads together, section A.4 sets out a central implication: that the conventional model of rational choice and free competition is not a good fit for pensions for many people. Section A.5 briefly addresses some counter-arguments to our proposals.

A.1 What people do

During accumulation

61. Mistakes are common and come in many varieties.

62. **MULTIPLE ACCOUNTS.** In a system with multiple providers workers can end up with multiple pension accounts, leading to lost accounts and avoidable administrative charges.

63. **DELAYED CHOICE OR NO CHOICE.** Experience in Sweden is illuminating. The Premium Pension asks workers to choose a portfolio of up to five funds from nearly 850 private mutual funds. Despite a major effort at public education at the time the system was introduced, initially one-third of workers went into the default fund. In the initial design, once a person had chosen a fund he/she was not allowed to move to the default fund. As a result of public pressure, since 2010 workers have been allowed to choose the default explicitly and to move to the default from another fund. By 2011 over 98 per cent of first-time choosers ended up in the default fund. Notwithstanding that some new entrants make a choice later, in 2016, 45 per cent of all participants were in the default fund.

64. A further illustration that many people find choice difficult are the findings outlined in Box 1, that having more options can impede choice.

Box 1 The provision of more options can hamper choice

Sethi-Iyengar *et al.* (2004) studied choices in 401(k) pension plans.

‘While the promise of a greater variety of plans seems beneficial, is there such a thing as too much choice? ... Most 401(k) plans offer employees a myriad of investment opportunities from mutual funds, insurance companies, and/or banks. Indeed, some providers even allow employees to invest in individual stocks, and on global capital exchanges allowing for

maximum portfolio diversification. But, does bigger necessarily mean better? ... [D]o these options actually enhance employee welfare? (pp. 83-4)

‘In one compelling field demonstration, a tasting booth for exotic jams was arranged As customers passed the tasting booth, they encountered a display with either 6 or 24 different flavored jams... [A]lthough extensive choice proved initially more enticing ... limited choice was ultimately more motivating... 30 percent of the customers who encountered the limited selection actually purchased a jam, while only 3 percent of those offered the extensive selection made a purchase’ (p. 84).

In the case of 401(k) plans, the study found that,

‘... if a plan offered more funds, this depressed probability of employee 401(k) participation. Other things equal, every ten funds added was associated with 1.5 percent to 2 percent drop in participation rate.... [P]lans offering (fewer than 10 plans) had significantly higher employee participation rates’ (pp. 88-91).

65. MAKING AN UNSUITABLE CHOICE. Examples are legion.

- Some people will choose actively-managed funds when cheaper index funds might be more appropriate. Some will choose a high-fee index fund when a similarly indexed fund is available at a lower fee.
- Many investors do not understand how much administrative charges eat into their accumulation, for example that a 1 per cent annual management charge over a full career reduces a person’s accumulation by about 20 per cent compared with what it would be without the charge.¹²
- Some will hold an inadequately-diversified portfolio, most egregiously where someone invests heavily in the stock of his/her employer.
- Some may inappropriately choose and then stay with a pension provider on the basis of current inducements, for example a rebate in the first year, without action to move after the rebate lapses.

66. TRADING TOO LITTLE, OR TOO MUCH, OR AT THE WRONG TIME. Some people rarely change their portfolio. Others trade a lot, taking insufficient account of transactions costs. Others trade at the wrong time, selling because the stock market has fallen and buying when the stock market is rising.

67. Box 2, based on US experience offers a convenient summary.

Box 2 What individual investors do

Barber and Odean (2013) survey the behaviour of individual investors.

‘The bulk of research in modern economics has been built on the notion that human beings are rational agents who attempt to maximize wealth while minimizing risk. These agents carefully assess the risk and return of all possible investment options to arrive at an investment portfolio that suits their level of risk aversion. ...

¹² Barr and Diamond (2010, Box 7.2). See also Choi et al. (2010) and ‘9 in 10 Americans underestimate their hidden 401(k) fees’, <http://www.nerdwallet.com/blog/investing/2013/hidden-401k-fees-plan-retirement-account-study/> and, more fully, US Federal Research Division (2011).

‘A large body of empirical research indicates that real individual investors behave differently from investors in these models. Many individual investors hold under-diversified portfolios. Many apparently uninformed investors trade actively, speculatively, and to their detriment. And, as a group, individual investors make systematic, not random, buying and selling decisions.

‘Transaction costs are an unambiguous drag on the returns earned by individual investors. More surprisingly, many studies document that individual investors earn poor returns even before costs. Put another way, many individual investors seem to have a desire to trade actively coupled with perverse security selection ability!

‘Unlike those in models, real investors tend to sell winning investments while holding on to their losing investments—a behavior dubbed the “disposition effect”. The disposition effect is among the most widely replicated observations regarding the behavior of individual investors. While taxes clearly affect the trading of individual investors, the disposition effect tends to maximize, rather than minimize, an investor’s tax bill, since in many markets selling winners generates a tax liability that might be deferred simply by selling a losing, rather than winning, investment.

‘Real investors are influenced by where they live and work. They tend to hold stocks of companies close to where they live and invest heavily in the stock of their employer. These behaviors lead to an investment portfolio far from the market portfolio proscribed by the CAPM and arguably expose investors to unnecessarily high levels of idiosyncratic risk.

‘Real investors are influenced by the media. They tend to buy, rather than sell, stocks when those stocks are in the news. This attention-based buying can lead investors to trade too speculatively and has the potential to influence the pricing of stocks’ (pp. 1533-4).

During drawdown

68. Choices by individuals at the time they retire and in subsequent years face parallel problems.

69. ANNUITISING TOO LITTLE. Annuitisation insures the individual against longevity risk. Relying fully on drawdown forgoes the welfare gains of this insurance. Behavioural economics gives insights into why in a voluntary system people do not annuitise, or do not annuitise enough – known as the annuity puzzle.

70. Annuitising too little does not mean that mandatory full annuitisation is optimal. Uncertainty about future expenditures as well as bequest motives imply that not all wealth should be annuitised. Some countries have required annuitisation of at least part of pension saving, but with choice over the disposition of rest of the person’s accumulation.

71. MAKING A BAD CHOICE OF ANNUITY PROVIDER. The issues are the same as the choice of fund manager during accumulation. The UK example was noted in section 3.2

72. DRAWING DOWN TOO FAST OR TOO SLOWLY. The problem can arise in multiple ways.

- The pensioner may spend too much too soon, particularly if he or she lives longer than planned for.
- Choices by an individual may take insufficient account of other family members.
- Or the pensioner may spend too little, being more cautious than mortality rates suggest.

73. These findings conform with international experience. A UK study found that,

‘... around 12% of the population analysed ... will be at “high-risk” of making poor decisions when they reach [State Pension Age] if they are not offered support through either guidance and advice or suitable defaults. These are groups with ... little or no additional [defined-benefit] pension to fall back on. A further 29% ... will be at “medium risk” of making poor decisions.... This means that around 4 in 10 retirees will need significant support over the next ten to fifteen years because they will be dependent to a significant degree on the income from their [defined-contribution] savings in retirement ..., have little other savings and assets to fall back on, have low levels of financial skill and engagement, and are less likely to already use a financial adviser or be actively targeted by financial advisers in the current market given the size of their pension pots (UK Pensions Policy Institute, 2014a, p. 15).

74. For such reasons, the Murray Inquiry argued that,
‘Greater use of risk pooling could significantly increase retirement incomes generated from accumulated balances An enduring income stream would give retirees the confidence to spend in retirement, which would help to sustain economic growth as the population ages and reduce the extent to which longevity risk falls on the taxpayer.’ (p. 91).

A.2 Why does that happen

75. The behaviours described above lead to two results – bad choice, or no choice – which require separate explanation.

Why bad choices?

76. People may not choose well because of limited capacity to make complex choices and limited information. The evidence on each is compelling.

77. **DIFFICULTY IN MAKING COMPLEX DECISIONS.** The behaviour of financial assets over time is complex, and understanding is limited by the variation over time in the stochastic properties of asset returns. It is not easy to tell which investment managers are good and which were lucky. The determinants of the risk-return frontier are not simple to understand. Compounding the problem, decision-making requires repeated adjustments, i.e. is not an event but a process. What is involved is not like buying a car, where a person can do some research and make a decision. Some people understand the basic concepts, others have had limited opportunity to learn.

78. **LIMITED INFORMATION.** The text in Box 3 is from a speech by Arthur Levitt, at the time Chairman of the US Securities and Exchange Commission (SEC), hence based on considerable awareness of the actual functioning of markets, and thus illuminating to quote extensively.

Box 3 What individual investors know: A practitioner view

‘Today, I want to talk to you about the SEC perspective on investing Social Security in the stock market. ...

‘The SEC’s mission is to protect investors. And the potential for investing Social Security in equities raises important issues that go to the very heart of investor protection. ...

Increased risk, through greater choice, holds the potential for greater returns. But uninformed investors often won’t be in a position to capture that potential. They risk making poor investment

decisions – perhaps even because they fell prey to fraudulent advice or misleading sales practices...

‘As far as I'm concerned, our nation faces few higher economic priorities than maintaining the integrity of our markets. Without it, that fragile cornerstone of our markets – investor confidence – crumbles under the weight of uncertainty and doubt.

But a great influx of new investors can sometimes test that integrity by providing more opportunities for fraud. That's something we must consider in the context of the Social Security debate.

‘Some proposals here in the U.S. would have the government administer individual Social Security accounts with limited investment choices. Others would have accounts held with private firms – providing an individual a much broader range of options. But it is likely that giving people the ability to select investment options will provide the unscrupulous with new opportunities to deceive and distort.

‘If we are to have self-directed individual accounts, we must be ready to undertake an unprecedented level of broad-scale policing of the equity markets. Without such policies, fraud and sales practice abuses may be perpetrated against an army of novice investors. And many of those novice investors are our society's most vulnerable citizens.

‘One need only look at England's experience with Social Security reform. In 1988, the U.K. allowed individuals to opt out of their national public pension system and into private accounts. In what has become known as the "mis-selling" controversy, high-pressure sales tactics were used to persuade people to switch into unsuitable personal pension schemes.

‘Sales agents often sought too little information from potential clients – many of whom were teachers, miners and nurses – to be able to give them proper guidance. In too many instances, they gave investors wrong and biased advice. These abusive sales practices, coupled with inadequate regulation, led to billions of dollars in losses for investors....

‘There is an unacceptably wide gap between financial knowledge and financial responsibilities. Closing this "knowledge gap" is among the most important problems we face today. It becomes even more of an imperative if Social Security is privatized.

‘I believe there is one word that every person in America has to understand: and that is risk. Risk is an indispensable part of our capital markets. ...

‘There is another word every investor in America needs to understand: cost. Investing in our markets costs money. Executing transactions, sending account statements, even switching investment managers entail expenses that are paid by the investor. And, fees matter to an investor's bottom line. A one percent annual fee will reduce an ending account balance by 17 percent after 20 years. ...

‘Our research shows that only eight percent of investors say they completely understand the expenses that their funds charge. ...

‘Unfortunately, over half of all Americans do not know the difference between a stock and a bond ... and only 16 percent say they have a clear understanding of what the Individual Retirement Account is....

‘The sad fact is that most Americans have no idea how much money they need to save for retirement. Fifty-five percent have never even tried to figure it out....’

Source: Levitt (1998).

79. Box 4 summarises the state of play in the USA in more detail.

Box 4 Financial literacy in the USA

A survey by the US Library of Congress (2011) considers financial literacy in the US.

General knowledge: the study reports (p. 1) that:

- ‘According to the Financial Industry Regulatory Authority (FINRA) Investor Education Foundation’s 2009 National Financial Capability Study, which consisted of a national sample of 1,488 respondents, Americans lack basic financial literacy... Although a significant majority of respondents indicated that they were knowledgeable about finance and highly competent in handling day-to-day financial matters, they performed poorly on basic financial literacy questions requiring an understanding of inflation, bond prices, interest rates, mortgages, and risk. A series of later surveys confirmed this finding.
- ‘In general, financial literacy increases with age. For example, in a 2008 survey for the American Savings Education Council (ASEC) and the AARP, Mathew Greenwald and Associates surveyed young Americans from the demographic groups known as Generation X (born between 1968 and 1979) and Generation Y (born between 1980 and 1988)... Comparing the results from both surveys, the researchers found that young people tested in 2008 did not perform as well as the adult investors in the earlier survey. [O]ther studies showed a drop-off in performance among the elderly. For example, in FINRA’s 2009 National Financial Capability Study, adults from 45 to 49 years old performed the best of all age-groups, including respondents ages 50 and older, while young adults performed the worst.’

On fraud (p. 2):

- ‘In 2006 the NASD Investor Education Foundation ... conducted a study that focused on consumer fraud directed at older Americans. The NASD Investor Fraud Study distinguished between victims and nonvictims of financial fraud. Contrary to expectations, the study found that fraud victims actually scored higher than nonvictims on a financial literacy quiz, indicating that even knowledgeable investors are susceptible to fraud.
- ‘The elderly are especially susceptible to fraud because, according to a 2007 study by the Investor Protection Trust, almost half of them erroneously believe that securities registered with the Securities and Exchange Commission (SEC) are safe.
- ‘According to the 2009 National Financial Capability Study, only 15 percent of respondents indicated that they had “checked an advisor’s background or credentials with a state or federal regulator.”’

On fees (pp. 2-3):

- ‘According to [a survey]... conducted for the SEC in 2008, only 25 percent of respondents knew that classes of mutual funds vary by the levels of fees they charge.
- ‘Among older Americans (at least 55 years old) questioned in the 2008 Health and Retirement Survey, two-thirds understood the significant impact of mutual-fund fees on long-term returns. Slightly fewer than 40 percent considered it easy to find mutual funds charging annual fees of less than 1 percent of assets, suggesting that a large number of respondents may have been unaware of the existence of index funds.

On risks (p. 3):

- ‘In FINRA’s 2009 Study, a slight majority (52 percent) of respondents understood that mutual funds provide a safer return than a single company stock. This is a fundamental tenet of diversification theory.’
-

80. Barber and Odean's (2013) survey concludes that the behaviour of individual investors is very different from the predictions of the idealized model.

'The investors who inhabit the real world and those who populate academic models are distant cousins. In theory, investors hold well diversified portfolios and trade infrequently so as to minimize taxes and other investment costs. In practice, investors behave differently. They trade frequently and have perverse stock selection ability, incurring unnecessary investment costs and return losses. They tend to sell their winners and hold their losers, generating unnecessary tax liabilities. Many hold poorly diversified portfolios, resulting in unnecessarily high levels of diversifiable risk, and many are unduly influenced by media and past experience. Individual investors who ignore the prescriptive advice to buy and hold low-fee, well-diversified portfolios, generally do so to their detriment' (2013, p. 1565)

Why no choice?

81. There are two sets of explanations of why many people make no choice.

82. RECOGNISING LIMITED CAPACITY TO MAKE GOOD CHOICES. As surveys make clear, financial literacy is shockingly limited.¹³ Some people, nevertheless, make choices, and those choices may turn out to be bad ones. Others are aware of their limitations in the face of complex and sometimes conflicting information, and therefore may make a decision – implicit or explicit – to be in the default, regarding that as a safer answer. In our view this is a good reason to make no choice when there is a good default.

83. PROCRASTINATION IS WIDESPREAD IN MANY CONTEXTS. Even where a person is financially knowledgeable, an individual account is an ongoing relationship, so that the benefits (higher returns, lower charges) in any particular month are small, while the transactions costs in terms of time are significant. Thus a worker, particularly a low earner for whom the gain in any month is smallest, has little incentive to stay on top of the changing array of alternative investments and alternative charges. Inattention can be part of the process.

84. Illustrating the point, Aegon (2015, p. 8) reports that over half of people in the UK admit to having never checked their pension savings. The *Financial Times*, citing Scottish Widows (2015), reports that,

'... the affluent are not immune to a lack of interest: among those earning above £50,000 a year, people with more opportunity than most to save for the future, almost four in 10 are still not saving enough for a comfortable retirement ...'.¹⁴

A.3 What firms do

85. Since the supply of financial products was covered in detail in the Murray Inquiry, discussion here is brief.

86. A competent and well-motivated firm can give individuals advice that suits their circumstances *ex ante* and may or may not turn out well *ex post*. However, the financial crisis was a firm reminder that biased advice is a continuing problem, and so is fraud.

¹³ See, for example, Lusardi and Mitchell 2014.

¹⁴ 'Retirement savings: how much is enough', *Financial Times*, 19 August 2015
<http://www.ft.com/cms/s/2/b3ba77a2-18cd-11e5-a130-2e7db721f996.html#axzz3khNqJ5nd>.

87. THE WRONG PRICE. A seller may charge an inflated price either by selling an unsuitable high-cost product, for example, an actively-managed portfolio for a small individual account, or by abusing market power to charge a price higher than would emerge in a competitive market.

88. Advising someone about what to do when the advice affects the income of the person providing advice creates an obvious incentive.

‘That any sane nation, having observed that you could provide for the supply of bread by giving bakers a pecuniary interest in baking for you, should go on to give a surgeon a pecuniary interest in cutting off your leg, is enough to make one despair of political humanity’ (George Bernard Shaw, *The Doctor’s Dilemma*, 1911).

More recently,

‘The sting operation had the trappings of a Wall Street thriller, except that it was run by a team of Harvard and MIT economists. In an audacious experiment, the professors dispatched a squad of undercover operatives across Cambridge and Boston to pose as middle-class investors and ask retail brokers for investment advice.

‘Nearly half the brokers ... steered clients toward actively managed mutual funds. Those funds — which sometimes beat the market but most often don’t — carry higher fees that enrich brokers and fund managers but, critics say, stunt the growth of middle-class nest egg’¹⁵.

89. An indirect indication of the extent to which such practices occur is the strength of the US financial industry’s resistance to stronger regulation, for example a rule proposed by the Department of Labor to impose a fiduciary responsibility on retirement plan advisers.¹⁶

90. THE WRONG PRODUCT. Misselling is an extreme case of biased advice, an example being the UK in the years after 1988 when workers were given the freedom to move from the state scheme or an occupational plan to an individual account. As a result of a major sales drive, many people, often women and poorly paid, were persuaded by deceptive advertising and face-to-face selling to move out of occupational pensions or the state scheme into personal plans.

91. Over time it became clear that many people were worse-off as a result, and over 500,000 such pensions were investigated for misselling. A decade later, the Director of the Office of Fair Trading could still write:

‘Many personal pension plans are ... simply poor value. Their benefits are consumed in the high levels of expenses needed to support the marketing effort and the active management of the funds. These expenses are often loaded on the early years of the plan, so that they bear disproportionately on plans where the contributions are discontinued because of changes in personal circumstances. In comparison with most

¹⁵ ‘Financial firms lobby hard against stricter protections’ *Boston Globe*, November 16, 2014, <http://www.bostonglobe.com/news/politics/2014/11/16/rules-protect-middle-class-investors-face-tough-fight-obama-final-two-years/kEzo0lm4qvt4wNIMIQMdVJ/story.html>). See also Pool *et al.* (2015).

¹⁶ See, for example, ‘Battle over DOL’s Fiduciary rule gets dirty’, *Huffington Post*, 23 June 2015, http://www.huffingtonpost.com/dan-solin/the-battle-over-the-dols_b_7611170.html?utm_hp_ref=fifty&ir=Fifty, and ‘Here is what’s at stake with the conflict of interest (“fiduciary”) rule’, Economic Policy Institute, 30 May 2017, <http://www.epi.org/publication/here-is-whats-at-stake-with-the-conflict-of-interest-fiduciary-rule/>

occupational schemes, the level of employers' contributions may be inadequate or non-existent' (UK Office of Fair Trading, 1997, p. 8).

In response, the Financial Services Authority imposed on the pensions industry a requirement to offer compensation, the total cost of which exceeded £10 billion.

A.4 A central implication: The simple model of choice and competition does not work well

92. The image of competition has many firms supplying commodities and demanders purchasing suitable products at the lowest price available. The approach works well enough in a wide range of areas such as cars, restaurants, supermarkets, holidays. But it works well for a reason – those are areas in which consumers are reasonably well-informed and learn readily from repeated experience and from each other. They work less well where consumers are not well-informed, which is particularly the case for complex products, and there is limited or late feedback on the results of such choices. Simple theory argues that not everyone needs to be well-informed because the presence of enough well-informed consumers improves what is available to badly-informed consumers (search externalities). However there may not be enough well-informed consumers or, as discussed by Armstrong (2014), badly-informed consumers may fund generous deals for well-informed consumers (Armstrong refers to the latter effect as 'ripoff externalities').

93. As has been learned repeatedly since Chile initiated the mandate of funds from private suppliers, competition often takes place through advertising rather than by offering lower prices. The results include (a) higher prices than the simplest model-based conclusion of marginal cost pricing, and (b) diverse pricing of uniform (or nearly uniform) products. Moreover, this process does not deliver enough important information about the choices. In particular, markets with significant frictions have incentives for suppliers to obscure some aspects of the full product (Gabaix and Laibson 2006). Indeed, with complex products, descriptions are likely to mislead and may be designed to obfuscate (Célérier and Vallée 2014).

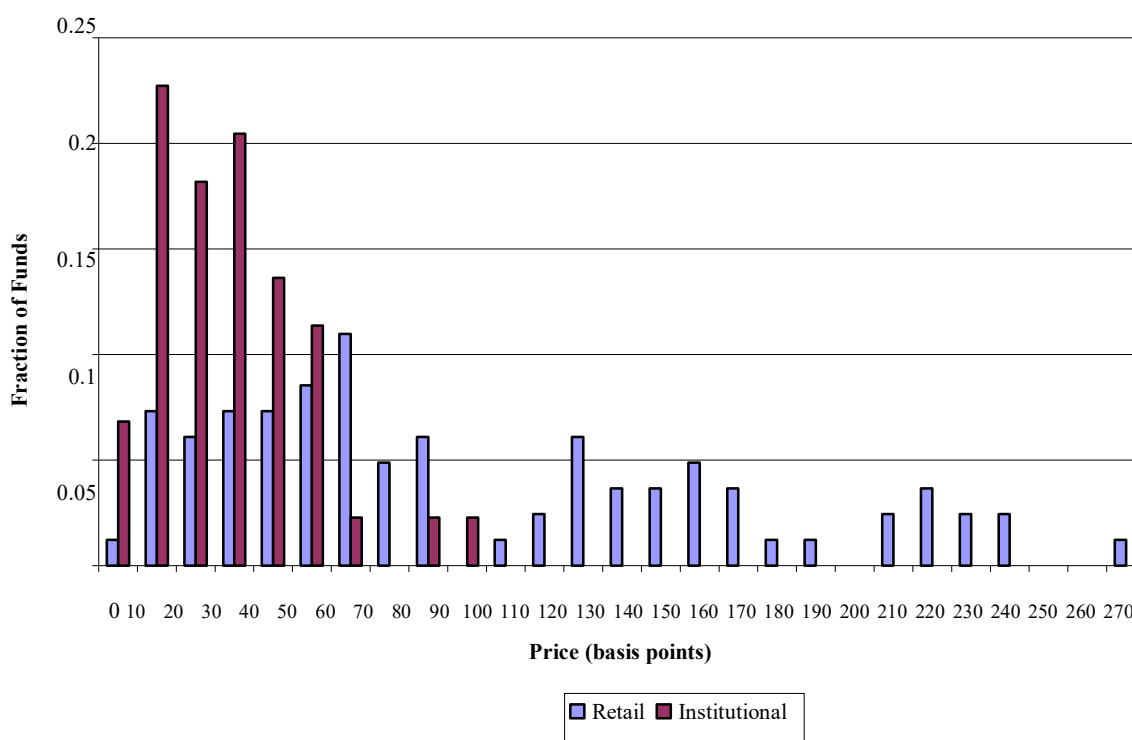
94. Successive governments in Chile have grappled with administrative costs since the start of their reforms in the early 1980s, repeatedly changing the process of switching providers. An auction mechanism for new entrants is a significant recent advance but not a complete solution. A plausible interpretation is that the Chile experience shows how far one can get with a design that locates competition *in* the market, but also the limitations of that approach.

95. US experience is equally illuminating. Consider the fees for S&P 500 index funds in the US, which are diverse despite the identical goal. The data in Figure 1 are striking. Workers who end up in a default because they make no choice are not likely to pressure prices across diverse offers of a default, even if the funds are required to have identical goals. Diversity of portfolios results in wide diversity in fees, as Table 2 shows. In Sweden,

'AP7 [the default fund] charges a fund management fee of 0.05-0.12 percent, compared to an average of 0.3-0.4 percent after discounts for all premium pension funds.'¹⁷

¹⁷ Fund management fees, <http://ap7cms9.episerverhosting.com/en/About-AP7/Your-pension/How-to-choose-a-premium-pension-fund/Fund-management-fees/>

Figure 1 Retail and Institutional S&P 500 Funds, Price Histograms, 2000



Source: Hortacsu and Syverson (2003, Figure 5).

Table 2 Diversity of charges

Investment objective	10 th percentile	Median	90 th percentile	Asset-weighted average	Simple average
World equity mutual funds	0.83%	1.33%	2.15%	0.78%	1.41%
World bond mutual funds	0.62%	1.01%	1.84%	0.65%	1.11%

Source: Collins and Duval (2017, Figure 3).

A.5 Addressing possible counter-arguments

96. A number of arguments are commonly made about pension design:

- Choice is beneficial because it allows consumers to express their preferences;
- Competition is necessary for financial markets to do their job;
- Poor choices can largely be resolved by better financial education;
- Poor choices can largely be resolved by delegating choice.

97. The arguments and empirical evidence in this Appendix should make it clear why we disagree with those arguments in their simple form, so discussion here is brief.

- *Choice.* Choice is generally beneficial where consumers are well-informed but not necessarily where choices are technical and complex. Australians understand why they cannot go into a pharmacy and buy any pharmaceutical drugs they like over the

counter. Choosing a pension fund is more like choosing pharmaceutical drugs than choosing automobiles. Our recommendations have choice for those who wish to exercise it but, equally, remove pressure to make choice from people who do not.

- *Competition*. Financial markets have the essential task of allocating people's savings into productive investment, and competition between financial firms is a core part of that process. What is needed is an architecture that locates competition in the correct places. The proposals in sections 2 and 3 seek explicitly to do that.
- *Financial education*. It is highly desirable to improve financial education, but the complexity of the issues makes it unrealistic to expect the education approach to turn a typical individual into a well-informed actor in financial markets.
- *Delegating choice*. It is, of course, possible to buy advice. But evaluating providers is difficult: it is often not clear whether a past record of success is luck or judgement; in addition, the past is no guide to the future; and, as discussed in section A3, not all advisers optimise from the client's point of view.

98. The main message in this Appendix is that the Productivity Commission *Draft Report* got it right in its central conclusion that for the design of the default, competition *for* the market is a better fit to the policy objectives and empirical reality than competition *in* the market.

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