THE McKell Institute

THE MCKELL INSTITUTE

INVESTING SUPERANNUATION *for the* PUBLIC GOOD

CREATING NEW MARKETS TO BENEFIT MEMBERS & FUND NECESSARY INVESTMENTS

JULY 2018

ABOUT THE MCKELL INSTITUTE

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BACKGROUND

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EXECUTIVE SUMMARY

Australian superannuation assets today stand at $2.6 trillion, 130% of the value of GDP in 2017.[1]

This report addresses the question of how superannuation trustees, whose funds dominate Australian capital markets, can ensure that they are investing their assets for the public good — in particular how to fund public infrastructure.

The trustees' fiduciary duties require them to pursue the best financial interests of beneficiaries, which include the careful management of costs and risks. There are also strong arguments that they should consider the ethical values of the beneficiaries. Over the last decade, superannuation funds have increasingly applied ethical criteria to their investments, in order to manage risk, prevent harm and in some cases, to make a positive impact while simultaneously maintaining competitive returns.

Part of this development has been increasing direct investments in infrastructure for its returns and its positive public good. Infrastructure provides long term cash flows that can directly fund income streams to retirees. Infrastructure projects can therefore be ideal investments for superannuation funds if properly structured.

This can best be achieved using indexed annuity bonds (IABs), adapted to the revenue streams of the borrowers and linked to longevity indices so as to reduce risks and costs for both borrowers and investors. For governments, issuing IABs to fund public assets could increase both sides of the balance sheet without significantly increasing sovereign risk and without privatisation.

Trustees need to take initiatives to develop a market for these bonds apart from the financial sector. In this way, the funds in superannuation are ideally poised to be used for ethical investments that serve the public good.

PART ONE:
THE STATE OF SUPERANNUATION TODAY

As of December 2017, the Australian Prudential Regulation Authority (APRA)[2] reports total superannuation assets of $2.6 trillion, one of the largest retirement savings pools in the world. The largest category of investments are shares, followed by fixed interest, property and then infrastructure.

Superannuation is a long-term investment. The first contributions are made in people's youth and the last benefits may be payable 80 years later. While a portion of retirement benefits are taken as lump sums at retirement, most are invested by retired members to provide regular cash flows to sustain them in retirement. About 30% of members make irregular ad hoc withdrawals from their account based pensions, but the majority is withdrawn in regular monthly payments.[3]

The reliance on regular payments is likely to increase given efforts by the government and industry to develop "MyRetirement products" that will encourage the use of life annuity products. Australian retirement funds currently hold almost $700 billion in assets to back about $60 billion in regular payments annually. Fund assets are projected to double by 2030, with the share of post-retirement assets growing faster as baby boomers retire.[4]

Current assets classes do not meet the needs of superannuation retirees

As shown below, the asset classes currently in superannuation portfolios are suited to younger accumulation members but not to older members and retirees who need stable cash flows.

Standard interest bearing assets

APRA statistics show a third of APRA regulated superannuation investments are in cash and relatively short term fixed income investments.[5]

Most fixed interest securities are issued by governments, and the proceeds are often used for investment in infrastructure. The problem however, is that they do not match the needs of the members.

While the standard instruments protect against the loss of capital, the rate of interest paid is volatile and entirely unsuitable to provide retirement cash flows. Real rates on deposits have varied from 8% to 1% in the past 40 years. Increases in interest rates create financial hardship for borrowers, and vice versa for investors who intend to use their interest income to fund their consumption. A portfolio of longer term fixed interest investments can be created to provide a stable cash flow for retirees, but the returns are currently at historical lows. There is therefore an argument to hold money in cash until interest rates rise, but this is a risky strategy.

Equity investments

Equity investments account for half of the assets of superannuation funds and have proved the most profitable assets over the last century and there are many reasons to believe that they will continue to do so.[6] Dividend income has been considerably more stable than interest income, but would still expose retirees to significant risks. If they are used as assets backing retirement income streams, an increasing portion of the portfolio needs to be sold as the person ages, and fluctuations in share prices will create unwanted volatility in the retirement income paid.

Home loan repayments

Australian superannuation funds invest 8% of Funds Under Management (FUM) in commercial property but almost nothing in housing, although housing investment is widespread internationally. The problems of institutional investment in mortgage backed securities in the USA are well known, but in other countries, such as Switzerland, institutions not only provide mortgages, but pension funds directly own almost 10% of rental housing.[7]

Most mortgages are for periods from 20 to 30 years, which is an ideal time horizon for superannuation funds. Fluctuating interest rates on mortgages are however unsuitable as argued above. Fixed interest rates on the other hand, lead to fluctuating capital values which pose risks when borrowers have to sell their homes.

In Australia, most rental housing is privately owned, not least because of the tax advantages offered by negative gearing, and is therefore unlikely to be a suitable investment for superannuation funds.

Public rental housing, by contrast, shares similar long-term investment characteristics to infrastructure and provides social benefits, particularly relevant when high house prices push rents to unaffordable levels for many.

Super funds not banks should fund long term investments

The current structure of the financial industry has created mismatches — between the term and nature of assets and liabilities.

Banks see some of their function as “maturity transformation”. Their liabilities are mainly short term deposits and accounts that can be withdrawn at any time. Their assets however are long term: loans that the borrowers cannot repay in the short term but are often repayable in total, at arbitrary future times by bullet payments.

On the other hand, superannuation funds have longer term liabilities but have difficulty finding assets of a suitably long term. The assets they own pay fluctuating interest or dividends and then need to be sold at volatile prices when the money is required.

There is a clear need to develop the institutional structures to link the longer term liabilities of super funds with the longer term assets. Superannuation funds have the potential to do this, and the timing is propitious.

The new Basel III requirements entail banks to significantly increase their capital and increase their holdings of unencumbered high quality liquid assets. The capital is to reduce their risk of insolvency while the liquid assets can be converted into cash to meet their liquidity needs. This translates to banks being required to hold much greater capital against the risks they face, and to hold more liquid assets to protect against liquidity risk; i.e. banks having insufficient funds to meet bank runs.[8]

Superannuation fund members do not have the need for immediate liquidity. They effectively cannot access their money before retirement and should not do so for more than a small proportion afterwards. While the ability to change investment choice or fund can create liquidity risks, the risks can be managed by appropriate benefit design.

Direct investment of long term superannuation funds in long term assets reduces risk at both the fund and system levels because it greatly reduces liquidity risk. The lower risk means less costly capital is required and fewer liquid assets — with their lower returns — are required. These savings can be passed back to super fund members.[9]

Demand for infrastructure is large and growing

The arguments that superannuation funds should be invested in infrastructure and other public assets to promote economic growth while earning acceptable returns, have been made by many.[10] Super fund members need investments to be providing a return for the rest of their lives, which includes thirty years of retirement for most. In retirement, there is a need for smooth cash flows to pay for regular consumption. Trustees therefore need to look for these cash flows, which can ideally be provided by infrastructure. State and local governments should therefore be looking to superannuation funds to fund these long-term investments.

Infrastructure is used in this report to mean physical assets that are public goods, in that they require government ownership or regulation to prevent free riding.

Large Australian funds already invest some $77 billion or 5% of their assets in infrastructure.[11] Much of this is through IFM, an Australian based fund manager with offices in six other countries. IFM reports $40 billion is invested in various infrastructure projects on behalf of 260 institutional clients.[12]

Investment returns are not reported publicly but seem to have been acceptable over the past 20 years.[13] The growth in superannuation fund assets is likely to drive demand for further investment. On the supply side, Infrastructure Partnerships Australia (IPA) suggests that financing needs are as much as $70 billion annually.[14]

Total government investment in 2016 was only $48 billion, of which $30 billion was effectively funded by depreciation,[15] so the IPA number may be on the high side. Depreciation does not itself provide a cash flow, but long term investments provide real benefits that directly lead to additional cash flows in the form of taxes or user charges. These cash flows should be used to repay those who have made the investments.

Superannuation funds cannot provide all the capital but could contribute significantly, and the depreciation cash flows could go a long way towards funding the income streams that they are paying.

Privatising public assets is not the solution for super fund investment

Investment in public assets does not require the privatisation of public assets. Superannuation funds currently invest in public infrastructure directly through listed and unlisted privatised vehicles or indirectly by buying government bonds or providing loans to the government. While privatisation has been argued to be justified on purely economic grounds, and investors in privatised assets have made excellent returns, more recent evidence is that even this can be questioned when the infrastructure is significantly funded by debt.[16] It is also clear that privatisation is controversial.

In 2014, the government established the Asset Recycling Initiative to facilitate private investment in infrastructure, with enthusiastic support from the financial services industry and some others.[17] Submissions to the Parliamentary committee established to evaluate the program were however mostly skeptical.[18] The main risks would seem to be pressures to make hasty decisions that are exerted by private economic rent seeking. Economic rents are the super financial profits extracted by monopolists and others over and above fair returns for risk and effort. Unless the issue is addressed directly, there is a distinct possibility that a significant proportion of the return will be earned by financial intermediaries rather than the end investors. Opposition to privatisation can also be based on the possibility that social benefits provided by a public enterprise may be lost in the pursuit of profit.

Given the controversies associated with non-financial ethical issues, trustees would be advised to consider the views of their membership before investing — or refusing to invest — in privatised assets.

Pensions need cashflows, which can come largely from depreciation

The consumption of retirees is currently approximately 7% of GDP but is likely to double by the middle of the century. The main cash flows within the GDP generally arise from depreciation (roughly 16%), dividends (7%) and home loan instalments and rent (10%).[19]

Depreciation is a relatively arbitrary accounting concept, but it represents real cash flows that can be hypothecated to investors. Depreciation can therefore be packaged in a way that makes it the natural investment for superannuation funds, especially for their post-retirement assets. There are sufficient cash flows within the economy to provide for retirees, but their share is in the process of rising from 20% to 40% of these cash flows over the next 40 years. Superannuation funds are therefore likely to play an increasing role in capital markets but need new ways of contributing to their efficiency and stability.

PART TWO: THE GROWTH OF ETHICAL INVESTMENTS

There is a growing interest in ethical investing — an investment approach that intentionally seeks to create both financial returns and positive social or environmental impact, which is then actively measured.[20]

Responsible investment includes a wide range of activities that include socially responsible investment, ethical investment, sustainable investment and impact investment. The defining characteristic is that a non-financial risk factor is incorporated into the investment analysis and decision making process.[21]

Responsible Investment by superannuation trustees is particularly relevant in Australia, because of their dominance of financial markets given that their funds account for over 50% of Australian owned financial assets. This dominance is the second highest percentage in the OECD — after the Netherlands.[22]

Formal commitments to Responsible Investment are now mainstream

Since its inception in 2005, the membership of the UN sponsored Principles for Responsible Investment (PRI) initiative has grown to over a thousand signatories. The PRI claims that this covers 85% of institutional investment worldwide, but this may involve some double counting.

The PRI principles are focused on environmental, social and corporate governance (ESG) issues.[23]

THEY ARE:

- **PRINCIPLE 1:**
  We will incorporate ESG issues into investment analysis and decision-making processes.
- **PRINCIPLE 2:**
  We will be active owners and incorporate ESG issues into our ownership policies and practices.
- **PRINCIPLE 3:**
  We will seek appropriate disclosure on ESG issues by the entities in which we invest.
- **PRINCIPLE 4:**
  We will promote acceptance and implementation of the Principles within the investment industry.
- **PRINCIPLE 5:**
  We will work together to enhance our effectiveness in implementing the Principles.
- **PRINCIPLE 6:**
  We will each report on our activities and progress towards implementing the Principles.

The principles are helpful for trustees seeking to fulfil their roles. The first, third and fifth pillars require that trustees ensure that their own fund's governance is itself beyond reproach. In particular, trustees should ensure that conflicts of interest are avoided. These conflicts may be embedded in the wording of trust deeds and other contracts, but it should be recognised that they fall short of the higher ethical standards of trust law. The Superannuation Industry Supervision (SIS) Act requires that conflicts of interest are managed appropriately, but trustees aiming to be ethical should aim at a higher standard.[24]

Conflicts of interest are relatively common in investment markets where advisers are remunerated by commissions and vertically integrated financial institutions encourage the use of services from within the group. The conflicts faced by rating agencies are well known, but less often appreciated is that virtually all those who participate in investment markets, particularly speculators, have an interest in increased trading on the markets — as it justifies their remuneration.

The second pillar can play an important role in helping trustees to free themselves from such conflicts. One example of industry collaboration is the Australian Council of Superannuation Investors, that has a membership of 38 funds who collaborate on research and engagement with company boards and government.[25]

ESG factors may be incorporated in the investment process for purely financial reasons. Climate change, poor employment practices or weak governance arrangements pose risks to financial returns. Few investment managers today would object to this argument even if they have not made an explicit commitment to PRI.

Non-financial ESG factors may include ethical objections to certain investments, which leads to screening, or "impact investment" which "intentionally seeks to create both financial returns and positive social or environmental impact that is actively measured."[26]

In 2011, a Parliamentary Committee suggested that superannuation funds should be more active in investing and offering options to members to invest part of their superannuation fund in non-profit organisations.[27]

All these forms of responsible investing are now clearly part of the mainstream.

Ethical investments by super funds in Australia

Investors do not have to compromise on returns to do what's right. There are many super funds that invest ethically and still manage to provide competitive financial returns to their members. Industry research has found that the average responsible fund investing in Australian shares returned 13% per annum over the previous five years, in comparison to the broader S&P/ASX300 accumulation index return of 11.6% per annum.[28]

The table below illustrates the different return on investments of the various Australian Share Funds.

TABLE 1
AUSTRALIAN SHARE FUNDS RETURN ON INVESTMENTS COMPARED TO S&P/ASX300 INDEX

Australian Share Funds	1 Year	3 Years	5 Years	10 Years
Average Responsible Investment fund	7.0%	7.0%	13.0%	6.3%
Large-cap Australian share fund average	8.8%	5.4%	10.8%	3.8%
S&P/ASX300 accumulation index	11.8%	6.6%	11.6%	4.4%

Many Australian super funds are investing ethically while still returning competitive financial benefits to their members. Two such examples are:

HESTA

The HESTA super fund serves members in health and community services. It has over $40 billion assets and 830,000 members. Its socially responsible investment (SRI) option 'Eco Pool' screens out fossil investments and is claimed to be the top performing balanced SRI over 1, 5 and 10-year frames.[29] HESTA also runs a $30 million Social Impact Investment Trust, Australia's largest.

All HESTA's investments are subject to their Responsible Investment, Active Ownership and Climate Change Policies, the implementation of which includes the employment of external specialist engagement providers, and an internal responsible investment team.

AustralianSuper

AustralianSuper is the largest industry super fund in Australia. It has a socially aware option that screens on fossil fuels, munitions, human rights and ESG controversies. All its investments form part of the fund's 'Active Owner Program'. This is aimed at improving investment decisions by incorporating ESG considerations and by greater engagement with the companies in which the fund invests directly.[30] The fund is particularly concerned with climate change and stranded asset risk — the risk that fossil fuel reserves will be devalued in the transition to renewable energies.

Both HESTA and Australian Super are members of the Australian Council of Superannuation Investors.

Superannuation trustees are responsible for returns and ethics

Trustees have a fiduciary duty "to pursue to the utmost with appropriate diligence and prudence the interests of the beneficiaries," and to "do the best they can for the benefit of their beneficiaries and not merely avoid harming them."[31] In the first instance, they must ensure that members invest in appropriate assets yielding a fair return and avoid harm in doing so. To the extent that superannuation funds are increasingly dominating Australian capital markets, it becomes more important that they play a role in making investment markets effective in the allocation of capital to economically and socially productive projects. They otherwise run the risk of investing in underperforming assets or fail in their social function of allocating capital productively. Secondly, they need to ensure that they monitor their service providers, or they risk being exploited by other market participants; either way members will get poorer returns.

In the past, there has been some debate, in Australia and internationally, as to whether trustees can consider any criteria beyond the pure financial return to members.

A well-known trust law case specifically made the point that: "Accordingly, trustees of a pension fund could not refuse for social or political reasons to make a particular investment if to make that investment would be more beneficial to the beneficiaries of the fund."[32]

As discussed above, consideration of ESG factors can be justified on purely financial grounds and so does not contradict this requirement.

This does not prevent trustees using other criteria as well as best financial interests in making investment decisions. A UK Law Commission report has specifically investigated how much farther trustees can legitimately go:[33]

We found that, although financial return should be trustees' predominant concern, the law is sufficiently flexible to allow other, subordinate, concerns to be taken into account in some circumstances. The law permits pension trustees to make investment decisions that are based on non-financial factors (such as environmental and social concerns), provided that:

(1) they have good reason to think that scheme members share the concern; and

(2) there is no risk of significant financial detriment to the fund.

There will be no detriment to members if the investment returns are fair. Capital should therefore be allocated to where it obtains a fair market return, which is the highest risk adjusted yield. This optimises the use for society and for the members of funds. Even so, the introduction of non-financial criteria may lead at times for returns to deviate from broader market returns, so trustees should take care not to use criteria for investment that members may find controversial. Such controversies might include participation in privatisation.

For this reason, the UK Law Commission recommended that members be asked "periodically for their views on social investment and non-financial factors." This would recognise the findings that many members are interested in social impacts, and have the advantage of providing guidance to trustees and possibly increasing members' engagement with their savings.

The Sole Purpose Test does not prohibit ethical investment

There has also been some debate in the past as to whether the sole purpose test[34] prevents the introduction of ethical criteria to the choice of investment. The name of the test[35] is potentially confusing in that it provides that regulated funds should be "maintained solely" for the purposes of providing benefits to members on death, disability or retirement. The test does not address investment principles nor should it change the responsibilities of trustees to invest in the best interests of their beneficiaries. It prohibits making investments that would give members a direct benefit before death, disability or retirement but has nothing to say about normal institutional investment.

This report recommends that trustees' legal and ethical obligations should encourage rather than inhibit them in considering all issues relevant to obtaining fair investment returns as well as addressing members' ethical concerns.

PART THREE: INVESTMENT INSTRUMENTS AND MARKETS

This section addresses the question of how the financial sector can provide the investment instruments that are required to fund smooth post retirement consumption. These instruments should match the long term liabilities of the superannuation funds with the long term cash flows of borrowers who invest in infrastructure and other long term assets. These should also meet the needs of investors and borrowers, and not those of the financial sector intermediaries.

Indexed Annuity Bonds are a way to invest in public goods

This report recommends investment in Indexed Annuity Bonds (IABs) as a way to fund post retirement consumption and aid governments in providing public goods. IABs can be used to invest in any asset that generates long term cash flows and matches the long term liabilities of superannuation funds like government funded public housing, as discussed earlier. As their value lies in the generation of cash flow and not in their market value, there would be a case for treating them as a separate asset class.

At their simplest, ignoring inflation, annuity bonds are term annuities. The investors lend an amount sufficient to finance the investment, and borrowers repay a fixed amount — including interest and capital — for a fixed period. The investor would preferably be given security over the underlying investment.

There are several adaptations that could however, make them much more attractive to both borrowers and investors. The first is to link all repayments to inflation to create “Indexed Annuity Bonds”, of which a few have been issued in Australia. Investors are better off because they are protected against changes in the cost of living. Borrowers are also better off as their initial repayments are lower and will remain lower if inflation remains low. If there is inflation, it can be expected that their revenues will increase to allow them to afford the extra payments.

There are few IABs in Australia

Most fixed interest bonds are issued with a bullet payment at maturity, with interest payments half-yearly. If linked to inflation, they are called Capital Indexed Bonds (CIBs) in Australia. Annuity bonds have been more popular at various times in the past, records going back 4000 years.[36] However, there were apparently only a dozen annuity bonds outstanding in Australia in 2016, all indexed and issued for government funded infrastructure.[37]

None of the IABs appear to have been inititally deferred — i.e. borrowings made to fund construction and payments only beginning once operations commence. Deferment would however very often match the borrowers' cash flows, while being a suitable investment for members approaching retirement, who would only want cash flows after retirement.

There are two further adaptations that can be made to the standard IABs to enable them to reduce risks for both superannuation investors and borrowers.

Alternative inflation linkages

The first is to link the inflation linkage to the revenue of the borrowers that are generated by their long term assets. An example would be a link to electricity prices where the borrower was a wind farm. Links to revenue are more stable and less subject to manipulation than links to profit, but they are also much less risky to the borrower than fixed payments that become burdensome if prices fall. The published CPI is a weighted average of different prices and does not accurately match the living costs of many families, nor the revenue and cost increases of businesses and governments. It does not therefore have to be meticulously followed: in the longer term all prices will reflect changes in the value of money. This provides an opportunity to reduce the risks faced by borrowers. Instead of linking the annuity payments in an IAB to changes in the CPI, they can be linked to changes in the price of the members' main product or service.

It has been found that the subjective wellbeing satisfaction of retirees is enhanced if their incomes can keep pace not just with inflation but also with other people in their community.[38] Ideally, therefore their incomes should be adjusted by a measure of inflation that measures prices and wages.

Governments could reduce their risk by linking repayments to their main sources of revenue. For Australian states, such links could be to GST revenues as they would link retirees' income to community living standards.

Other linkages could be to increases in electricity prices, the costs of transport or rents, all of which would form part of the regular expenditure of annuitants.

Where the inflation linkages are to specific items rather than the published CPI basket, one would expect the returns to be higher. This is because the superannuation investors would be taking risk from the issuers of the IABs and require compensation — even if the actual increase in risk to the investors is likely to be minimal.

Linking to longevity

The second adaptation to reduce risk is the potential inclusion of longevity risk in the repayments. Longevity bonds have been identified as a missing element in the Australian financial industry if it is to make lifetime annuities more widely available.[39] Instead of a fixed term for the cash flows, the repayments would be linked to an index of longevity so that they would be repaid for longer if the population underlying the index lived longer than expected. In the previous section, it was suggested that the superannuation investors could accept some of the risks faced by borrowers. In this case, it would be borrowers accepting superannuation risks that are largely uncorrelated with other risks faced by the borrowers. Given that many infrastructural assets are likely to outlast the terms of any IABs, the borrowers might therefore be prepared to accept such a risk in return for a lower cost of borrowing.

There are also opportunities beyond infrastructure

IABs can also be developed as corporate bonds to finance long term assets held by the private sector: property and some machinery particularly. The Financial Systems Inquiry suggested that Australian companies borrowed in foreign markets, which: "often provide funding for Australian corporates at a lower cost, for longer terms, in larger sizes and to lower-rated issuers than the domestic market." It suggested various potential impediments to the development of an Australian bond market, none of which is convincing. A likely explanation, not considered by the Inquiry, is that the financial intermediaries that provide investment and borrowing advice and make a significant return on trading, particularly off foreign exchange, are not capable of developing an inexpensive and effective market. Superannuation trustees are going to have to take the initiative. Certainly, there appears to be a demand from businesses to develop a local source for the financing of long term infrastructure type projects.[40]

It would also be possible to issue housing finance instruments linked to the homeowner's income. As an example the new home buyer could agree to repay 20% of their wages for 20 years in return for a loan equal to four years of their current annual wage (20% of 20 = 4), The return on the loan would be equal to the rate of wage growth. Home loan repayments make up 10% of GDP, so they offer a significant opportunity to access cash flows.[41]

A new secondary market may be required

The financial sector does not promote IABs because of its vested interests

IABs are not profitable to service providers in the financial sector as they are "bottom drawer" investments. Once purchased, there is little need for further trading by the investors and less refinancing by the borrowers. The payments are passed through to the retirees who need not worry about investment market fluctuations.

Service providers include all those involved in trading investment instruments, including stock brokers and those trading foreign exchange, the ASX and investment managers. Those involved in refinancing include the commercial and merchant banks.

Given that they are not profitable, such service providers will not be enthusiastic developers of IABs and may well deprecate them. Joseph Stiglitz,[42] Economics Nobel Prize winner, found this opposition in explaining why Treasury Inflation Protected Securities (TIPS) took so long to introduce in the USA — given that they have the same advantages of CIBs. He found that "getting the Clinton administration to accept indexed bonds was a long and difficult process." One reason was:

> "Treasury turned to bond traders — their natural clientele — for advice. The experience in England from the perspective of bond traders was that these bonds were a failure; that is, people bought them for their retirement and did not trade them. Without trades, where were their commissions? Of course, from the perspective of someone trying to create an instrument to enhance retirement security, this was ideal: we did not want a gambling instrument. The bond traders raised anxiety levels: Would Treasury throw a party to which no one would come?"

Furthermore, institutional investors, investment managers and governments can be reluctant to invest in infrastructure for fear of short term underperformance and can therefore herd together.[43] There is hence a need for some collective action to address this problem.

There is a need for trading of IABs

While there is much less need to trade IABs, a functioning secondary market would be necessary to manage the potential for unexpected cash outflows from funds. These may arise from changes in mortality, or in unexpected withdrawals from account based pensions. It may also be desirable when the creditworthiness of some assets is downgraded, and the trustees believe they should be replaced with lower risk cash flows. New investors may continually be on the lookout for opportunities. The current market for IABs is limited to over the counter transactions.[44]

The question then arises as to whether current market structures can meet the need of superannuation funds and infrastructure developers. It is suggested that the ultimate aim should be to create a new market for infrastructure instruments outside of current market structures that serve the interest of the superannuation funds rather than that of the service providers in the market. A good market should include all investors and provide transparency with regards to the current supply and demand and the price of recent trades. Financial advice would be provided by analysts and rating agencies paid by investors and owing allegiance to them, rather than to borrowers.

If such a market was set up by a collection of superannuation funds, there would be no obstacle to SMSF investors also participating.

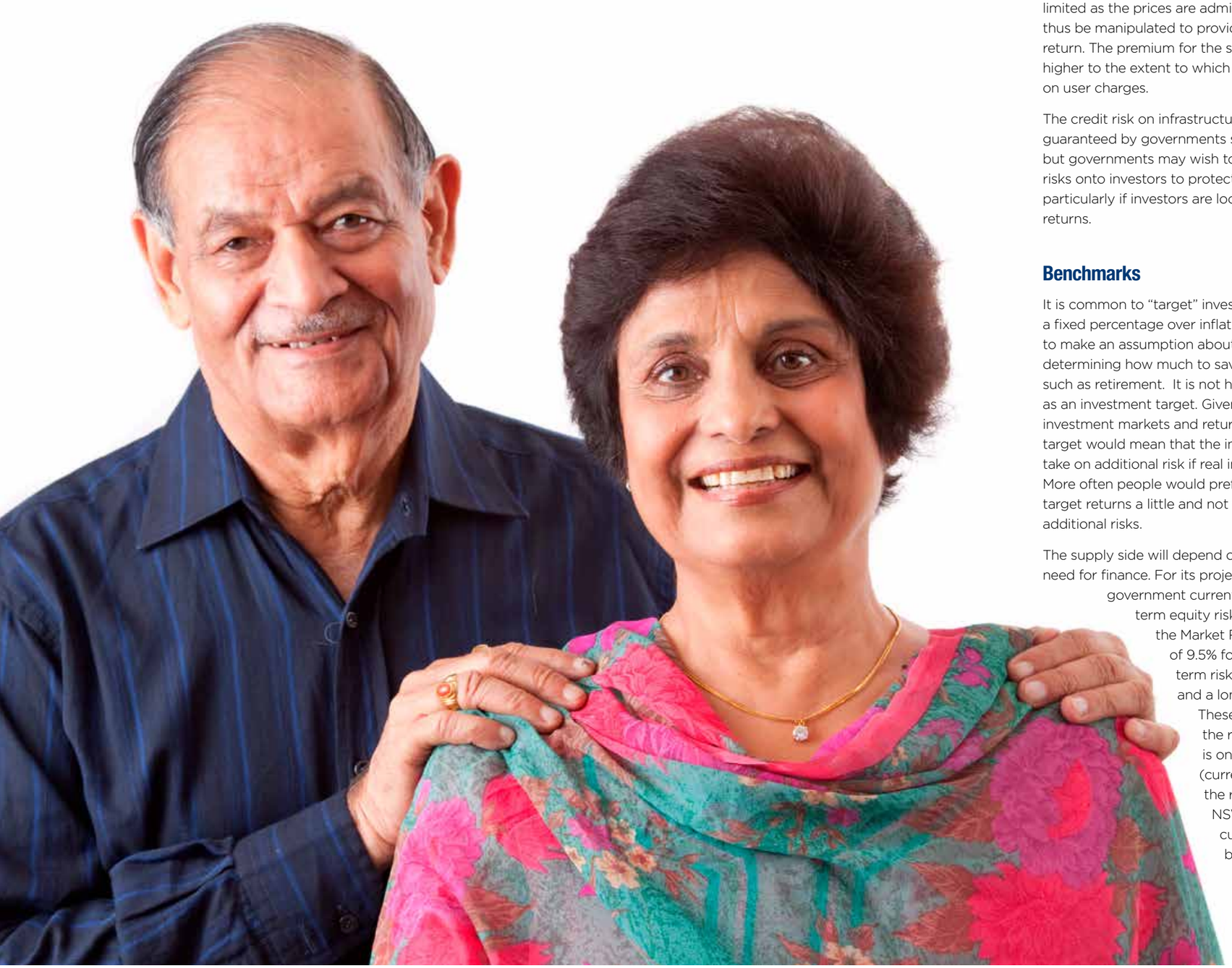
IABs would need to be allocated to individuals

There is also a need to ensure that the cash flows go directly to pay income streams and are not used for new and risky investments. Matching asset and liability cash flows would be done by the life insurer for life annuities. For account based pensions, it would probably be best to set up closed (i.e. no new investments) pools of various durations. Once set up, all cash flows should be paid to the investors as they are received. To the extent that the cash received is not an exact match, there will be a need to reinvest (in another asset) or sell some of the assets.

A fair return on investment

As discussed, investment in infrastructure and other public goods fulfils the trustees' obligations legally and ethically if it yields a fair return. The return obtained from IABs will depend ultimately on supply and demand. They in turn, depend on the risks faced by borrowers and investors.

- Longer term loans are less risky to borrowers and therefore get higher returns. Borrowers should be prepared to pay more for loans with interest rates (or other conditions) that are fixed for longer terms because they are thereby protected against the risk of these changing. Investors who are prepared to wait for their returns should get higher returns. This is the liquidity premium. If investors demand liquidity, they should get lower returns. Liquidity risk arises when banks lend long and borrow short — capturing the liquidity premium for themselves at a cost to society, of periodic financial crises.
- Credit risk premiums arise to compensate investors for the risk that they will lose some or all their money. For fixed interest investments, it comes in the form of a higher interest rate to compensate for credit risks: the risk that the borrower will default. For equities, it comes in the form of the equity risk premium, which is the extra return expected from shares in the long run. It compensates for risk that the company will underperform or even go bankrupt. Government borrowing is generally regarded as free of credit risks.



For the risk premium, one needs to distinguish between infrastructure funded from general taxation, and that which is paid for by user charges. The risk premium for the first should be limited as the prices are administered and can thus be manipulated to provide for an agreed return. The premium for the second would be higher to the extent to which returns depended on user charges.

The credit risk on infrastructure investments guaranteed by governments should be minimal, but governments may wish to shift some of the risks onto investors to protect their credit rating, particularly if investors are looking for higher returns.

Benchmarks

It is common to "target" investment returns of a fixed percentage over inflation. It is necessary to make an assumption about returns in determining how much to save for objectives such as retirement. It is not however appropriate as an investment target. Given fluctuations in investment markets and returns, a fixed return target would mean that the investors will need to take on additional risk if real interest rates decline. More often people would prefer to reduce their target returns a little and not take on the full additional risks.

The supply side will depend on the government's need for finance. For its projects, the NSW government currently uses a short term equity risk premium (they call the Market Risk Premium, MRP) of 9.5% for the higher short term risks of development, and a long term rate of 6%.[45] These rates are added to the risk free rate, which is only a little below (currently less than 0.2%) the rate at which the NSW government is currently issuing its bonds.

As far as demand for IABs is concerned, they will need to compete with alternative superannuation investments. The real returns on government bonds are currently under 1%. In general, a risk premium of between 3% and 6% plus per annum plus CPI, is expected for equities.[46] The real return on riskier superannuation assets can therefore be expected to be between 4% and 7%. IABs fall between the two so could perhaps be expected to yield between 3% and 5% pa above inflation.

IABs issued to fund infrastructure projects would therefore seem to be attractive investments — but this depends on the balance of supply and demand relative to competing investments at the time.

Trustees must start taking active steps to invest in public goods

The recommendation of this report is that trustees should begin to take active steps to:

- Develop internal or independent expertise in evaluating infrastructure and other public good projects that is paid by, and responsible to, the trustees.
- Encourage the use of Indexed Annuity Bonds by governments that better match their needs and those of retirees.
- Develop an investment market where these instruments can be traded by long term investors and that is free from incentives to increase turnover and costs.
- Develop retirement products that enable retirees to gain access to these cash flows.

Active steps are not just prudent, they are an obligation on trustees to ensure that assets are created in the best interests of members. Trustees should not assume that investment markets are always efficient. As buyers of services on behalf of members, trustees have an obligation to appoint appropriately resourced investment managers who actively seek to invest at fair returns and to monitor them.

CONCLUSION

Over the past few decades, there has been a significant shift in attitudes towards investments and superannuation. Ethical investing has become part of the mainstream and increasingly, members of super funds are determined to make sure that their super funds are invested in ethical, social and responsible companies and funds. Trustees have increasingly made more explicit commitments to monitoring the risks posed by ESG issues and making positive impacts in their choice of investments. These fulfil their fiduciary obligations to seek the best financial interests of their beneficiaries and are by no means restricted by the Sole Purpose Test.

Infrastructure is already beginning to take its place as a separate asset class, and trustees can use their significant assets more intentionally, in assisting governments fund public infrastructure.

This report suggests that Indexed Annuity Bonds can be adapted to provide lower risk inflation linkages for borrowers and longevity protection for investors. As such, they would be ideal investments for superannuation funds and borrowing vehicles for local and state governments to fund public assets without controversial privatisation.

The call is for trustees and governments to collaborate to develop a market in these instruments that benefits superannuation members and encourages the development of appropriate infrastructure.

Global capital is a dominant force in the world today and the capital invested and held by super funds can be used for the good of the nation. Through proper stewardship of the assets and government collaboration, super funds can be managed to create sustainable and long term value for their members and the broader community.

REFERENCES

1. APRA, 2018, 'Quarterly Superannuation Performance, March 2018 (released 29 May 2018), Accessed online: https://www.apra.gov.au/sites/default/files/1805-QSP-1803.pdf.

2. APRA, 2018, 'Quarterly Superannuation Performance, March 2018 (released 29 May 2018), Accessed online: https://www.apra.gov.au/sites/default/files/1805-QSP-1803.pdf.

3. Balnozan, I (2018) "Drawdown Behaviours in Phased Withdrawal Retirement Income Products' Working paper.

4. Rice Warner Superannuation Market Projections Report 2016, pp. 24 and 29-31.

5. APRA Statistics 'Annual Superannuation Bulletin, June 2016, Table 6b.

6. Credit Suisse, 2016, Accessed online: https://www.credit-suisse.com/corporate/en/articles/media-releases/credit-suisse-global-investment-returns-yearbook-2016-201602.html.

7. Bourassa, S Hoesli, M and Scognamiglio, D, 2010, International Articles: Housing Finance, Prices, and Tenure in Switzerland. *Journal of Real Estate Literature*, 18(2), pp.261-282.

8. The Bank for International Settlements, 'Summary description of the LCR', Accessed online: https://www.bis.org/press/p130106a.pdf.

9. OECD, 2013, 'G20/OECD HIGH-LEVEL Principles of Long-Term Investment Financing by Institutional Investors', Accessed online: https://www.oecd.org/finance/private-pensions/G20-OECD-Principles-LTI-Financing.pdf.

10. Investment Magazine, 2016, Accessed online: https://investmentmagazine.com.au/2016/05/the-purpose-of-a-pension-fund/.

11. APRA Statistics 'Annual Superannuation Bulletin, June 2016, Table 6b.

12. IFM, Accessed online: https://www.ifminvestors.com/about-us.

13. *Australian Financial Review*, 2017, 'Another stunning year for IFM investors and its board management', Accessed online: http://www.afr.com/brand/chanticleer/another-stunning-year-for-ifm-investors-and-its-board-management-20171211-h02khs.

14. Australia, Infrastructure Partnerships, 2010, 'The Role of Superannuation in Building Australia's Future', Accessed online: http://infrastructure.org.au/wp-content/uploads/2017/06/The-Role-of-Superannuation-FINAL.pdf.

15. ABS 5512.0 - Government Finance Statistics, Australia, 2015-16 Accessed online: http://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/5512.02015-16?OpenDocument.

16. Guernsey, S.B. and Megginson, W.L., 2017. "Who's winning the big match? Surveying state versus private ownerships effect on corporate value and policy." Chapter 6 in ed B E Gup, *The Most Important Concepts in Finance*, p.93.

17. The budget, 2014, Accessed online: http://www.budget.gov.au/2014-15/content/glossy/infrastructure/html/infrastructure_04.htm.

18. The Australian Parliament, 2015, 'Privatisation of state and territory assets and new infrastructure', Accessed online: https://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Economics/Privatisation_2014/-/media/Committees/economics_ctte/Privatisation_2014/report.pdf.

19. Authors' calculations from ABS 5204, tables 8, 17,25,49, 56.

20. Responsible Investment Association Australia, 'Impact Investing Australia 2016 Investor Report', Accessed online: https://responsibleinvestment.org/wp-content/uploads/2016/03/Impact-Investing-Australia-2016-Investor-Report.pdf.

21. Contango Asset Management Limited, 'Fair Capital Discussion Paper'.

22. https://data.oecd.org/hha/household-financial-assets.htm, {Pension fund assets}.

23. Accessed online: https://www.unpri.org/pri.

24. *The Hon Ronald Sackville* (2012) "Duties of Superannuation Trustees: From Equity to Statute" in "The Evolving Role of Trust in Superannuation", ed M Scott Donald and Lisa Butler Beatty, The Federation Press, 2017.

25. https://www.acsi.org.au/section-heading/about-us.html.

26. Krzysztof Dembek, Daniel Madhavan, Fabienne Michaux and Brad Potter (2016) 'Impact Investing Australia 2016 Investor Report', Accessed online: https://responsibleinvestment.org/wp-content/uploads/2016/03/Impact-Investing-Australia-2016-Investor-Report.pdf.

27. The Parliament of Australia, 'Supply of Capital to the social economy', Accessed online: https://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Economics/Completed_inquiries/2010-13/capitalmarket2011/report/c04.

28. The Australian, December 2017, 'The Royal Commission: a super opportunity to put ethical investing first', Accessed online: https://www.theaustralian.com.au/business/opinion/the-royal-commission-a-super-opportunity-to-put-ethical-investing-first/news-story/af3316e800843cf8ceb04fbc92fde0e1?login=1.

29. HESTA, 2017, 'Annual Report', Accessed online: https://www.hesta.com.au/content/dam/hesta/Documents/media/Annual-report-2016-2017.pdf.

30. AustralianSuper, 2016, 'Annual report 2015-16', Accessed online: https://portal.australiansuper.com/-/media/Files/AnnualReport/2016AnnualReport.ashx.

31. Invensys Australia Superannuation Fund Pty Ltd v Austrac Investments Ltd [2006] VSC 112, https://www.austlii.edu.au/cgi-bin/viewdoc/au/cases/vic/VSC/2006/112.html.

32. Megarry VC in Cowan v Scargill [1984] IRLR 260 (ChD).

33. http://www.lawcom.gov.uk/project/pension-funds-and-social-investment/.

34. SIS Act S62.

35. Section 62 of the governing Superannuation Industry (Supervision) Act 1993

36. Edwin W. Kopf (1926) "The Early History of the Annuity," *Proceedings of the Casualty Actuarial Society* 13:225-266.

37. http://thewire.fiig.com.au/article/commentary/trade%20opportunities/2015/05/05/comparing-the-relative-value-of-indexed-annuity-bonds.

38. Preston, Nicholas, *Keeping up with the Joneses. The impact of reference groups on the subjective financial well-being of Australian retirees*. (Honours Thesis, Australian National University, 2011). http://apra.gov.au/aboutapra/workingatapra/documents/nicholas-preston-thesis.pdf.

39. John Evans and Michael Sherris, 2011, 'The development of a life annuity market in Australia: An analysis of supplier risks and their mitigation', JASSA 2: 11.

40. Recently demonstrated by http://www.afr.com/personal-finance/superannuation-and-smsfs/super-funds-need-to-unlock-billions-for-corporate-sector-20171122-gzr5wo.

41. Asher A, 2011, 'Salary Linked Home Finance: Reducing interest rate, inflation and idiosyncratic salary risks', *Australian Actuarial Journal* 17.1: 117-148.

42. Stiglitz, J. 1998. 'The Private Uses of Public Interests: Incentives and Institutions' *Journal of Economic Perspectives* 12.2, pp. 3-22.

43. Nicely explained and illustrated by: http://www.fullertreacymoney.com/system/data/images/archive/2012-04-26/JeremyGranthamGMOApril182012.pdf.

44. Accessed online: http://thewire.blob.core.windows.net/web/docs/default-source/fiig-rate-sheet/fiigratesheet.pdf?sfvrsn=1186.

45. Accessed online: https://www.ipart.nsw.gov.au/files/sharedassets/website/shared-files/investigation-tribunal-water-bulk-water-review-of-prices-for-waternsws-rural-bulk-water-services-from-1-july-2017-formerly-state-water-corporation/fact-sheet-mrp-estimates-at-end-of-april-2017-25-may-2017.pdf.

46. Asher A et al 2010, 'A discussion of equity premium issues for actuaries', prepared by the LIWMPC Equity Premium Research Group and presented to the Institute of Actuaries of Australia 2010 Financial Services Forum, 13-14 May 2010, Sydney. https://www.actuaries.asn.au/Library/events/FSF/2010/2010_FS_forum_paper_v3.pdf. and https://www.actuaries.digital/2016/05/26/equity-risk-premium-survey-2015/.

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