



# Submission to the Financial System Inquiry

30 March 2014

# Contents

Executive Summary.....	3
1. Demographic change .....	7
2. Regulation: stability, competition and efficiency .....	10
3. Financial sector data collection.....	15
4. Demographics: the challenges .....	17
5. The Actuarial Profession .....	21
Attachment – <i>Australia’s Longevity Tsunami What Should We Do?</i> .....	22



## Executive Summary

### Major Recommendations

1. To prepare the financial system to deal with the challenges of significant demographic change, the Government should adopt a **comprehensive framework for policy formulation** to manage all issues relating to sustainable financing of our ageing population.
2. The Government should establish a **Financial System Policy Commission (FSPC)** whose role is to put forward comprehensive policy options on how to manage the financial system over the longer term to ensure it delivers optimal outcomes for the consumer and the nation.
3. Create an **open data regime** to allow increased access to and analysis of important government held data and modelling information to better manage macro risks to the financial system.

The Australian Financial System has demonstrated advances in efficiency, resilience, innovation and security since the completion of the Wallis Committee Inquiry in 1997. Over the intervening 17 years we have seen continued convergence within the financial system, in particular the advance of financial service conglomerates and the significant growth of superannuation funds. Enhanced licensing and education standards for advisers have been introduced, but the general level of financial literacy within the community remains problematic.

The pace of change has been frenetic and non-traditional players such as telcos, retailers, and technology companies have emerged as potential competitors to established financial institutions. System shocks and corporate failures both domestic and international have also occurred. Nevertheless, the financial system has generally withstood the impacts of the global financial crisis and served the interests of the broader Australian economy and consumers well.

However, major global trends - economic, demographic, technological and societal - continue to bear upon the financial system and the environment is anticipated to become even more dynamic with the introduction of new products, new distribution channels and new payment systems. This change in the landscape also creates new risks (cyber risks, intellectual property issues, innovations in the payments systems and internet purchasing) and quite different expectations and societal behaviours. The continued globalisation of world trade means Australia must maintain its international competitiveness, as well as stability, and ensure its financial system can dynamically react to advances and risks.

With this environment in mind, the Actuaries Institute recognises the significance of this Inquiry and welcomes the opportunity to make a submission on matters that are germane to the expertise of the profession. Rather than comment on each of the Inquiry's terms of reference, the Institute has concentrated on what it sees are several systemic drivers that have implications for the sustainability of the Australian financial system. They are:



- ▶ Demographic change.
- ▶ Regulation effects on competition and efficiency.
- ▶ Data collection and dissemination.

The Institute's contention is that the absence of a comprehensive retirement income policy framework, the lack of a dedicated mechanism to guide policy development and limited access to relevant government held data, constrains the nation's capacity to protect and enhance the financial system.

### Demographic change

The Actuaries Institute considers that Australia's changing demographics are adding significant pressure to our retirement income system and to the wider financial system, over the mid to long term. In Australia, over the next 30 years, the over 65's will double from 3.5 million (15% of the population) to 7 million people (22% of the population) and will outnumber the under 18's. The over 85's population nearly triples from under 0.5 million to 1.4 million people, which will significantly increase demand for acute health care and aged care (see Section 4). Our view is that without public policy changes demographic developments will adversely affect society's ability to finance a desirable standard of living during retirement. Changes to the retirement income system cannot be undertaken in isolation without consideration of age pension costs, aged care costs and all sources of potential funding, including housing wealth.

The retirement income system is a major component of the overall financial system and one that continues to grow steadily. Retirement assets within superannuation are currently \$1.7 trillion and are anticipated to reach \$3.4 trillion (in 2013 \$ terms) by 2028<sup>1</sup>. Significantly, 60% of the current \$1.7 trillion is held by the over 50s and will move into draw down phase over the next 20 years. The sheer size of the system and its impacts on the wider economy as the population ages and accumulation now starts to give way to expenditure requires careful policy planning.

We have intentionally refrained from putting forward a list of potential changes to the superannuation and Age Pension rules (although our attached 2012 White Paper *Australia's Longevity Tsunami What Should We Do?* does include recommendations). We have instead put forward an approach to ensure that a suitable framework is established so that all such decisions whether now or in the future can be made in an appropriate manner that balances all facets of ageing such as retirement income, Age Pension and aged care along with short-term and long-term budgetary constraints.

A coherent overarching framework will allow development of an efficient long-term strategy and reduce the incidence of short-term policy changes. For example, there were 96 superannuation tax changes announced under the previous Government of which 75 are now slated to be rescinded. Constant short-term change involves a significant and perhaps unnecessary cost for the industry and consumers to bear.

We consider that anticipated demographic changes and the resultant increases in aged care and health costs will result in an unsustainable level of government spending over time unless we establish consistent policies with agreed long term targets. We therefore recommend **adoption of a comprehensive framework for policy formulation on all issues relating to the sustainable financing of our ageing population.**

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<sup>1</sup> Rice Warner Personal Investments Market Projections Report, December 2013



## Regulation effects on competition and efficiency

There are a number of challenges facing the current regulatory system. Examples include;

- ▶ Lack of a formal mechanism to clarify or resolve policy differences across regulators.
- ▶ Lack of a 'public lens' when assessing the impact and benefits of financial system policy.
- ▶ Inappropriate time frames for dealing with emerging critical issues.
- ▶ A reactive rather than a proactive approach to emerging challenges.
- ▶ No overarching coordination of policy development related to demographics.

The Institute considers that a dedicated policy mechanism should be created to alleviate these problems with a view to making policy more effective and regulation more efficient. A major recommendation of the Institute is that a dedicated financial services policy mechanism – the Financial System Policy Commission (FSPC) - be established to put forward comprehensive policy options on how to manage the financial system over the longer term to ensure it delivers optimal outcomes for the consumer and the nation.

The Inquiry is also looking to understand how the principles of competition, efficiency, stability and consumer protection underpin the financial system and what risks exist to maintaining a strong regulatory system. Actuaries combine specialist knowledge and technical expertise to help understand risks and assist enterprises to formulate strategies to manage adverse outcomes. Regulation cannot, and should not, completely de-risk the system but should aim to strike the right balance between innovation, competition and stability. All these elements are required to create and maintain a resilient financial system that will satisfy society's needs.

There is a view that domestic regulation may be overly focussed on reducing risk without balancing it against the associated costs. Part of the problem is that the current regulatory framework does not work effectively to manage issues that fall across more than one regulator or is outside all regulator regimes. The Institute believes that a mechanism is required that can develop comprehensive policy recommendations to manage the broader risks to the financial system. We are not looking for more regulation just more efficient regulation.

Accordingly, the Institute recommends the **Government should establish a Financial System Policy Commission (FSPC) whose role is to put forward comprehensive policy options on how to manage the financial system over the longer term to ensure it delivers optimal outcomes for the consumer and the nation.**

## Data collection and dissemination

An actuary's technical skills include the collection and analysis of data to build the models that allow many sectors of the financial system (e.g. general and life insurance, superannuation and banking) to manage risks. While currently available statistics provide insights into particular financial sector activities, it is far more difficult to obtain a system-wide, sector, market or individual view of emerging risk dynamics and behaviours. This information is important and will be needed to help formulate the most effective policies for managing future macro risks to the financial system.

Adequacy of retirement income is a complex function of taxation, home ownership, marital status, superannuation and social security. One area where accurate data would be particularly helpful is in identifying the impact of policy settings. For instance, it would be beneficial in discussing retirement incomes policy questions if we had a better understanding of the extent to which Australian retirees draw down on their assets so they could benefit



from the pension, or conversely, are living too frugally so as to ensure that their assets last their lifetime. This is a critical and evolving risk that needs to be better understood.

Given the impact of changing demographics on the size of retirement savings pools, the effects on investment funds in the post-accumulation phase and rising future health costs it is important for market efficiency that the private sector has access to relevant data so that it can develop the products that will assist consumers best manage their evolving retirement needs. For example, the modelling that underpins Treasury's *Intergenerational Report* 2010 would enable the retirement income sector to better understand and manage the risks that have shaped Government policy, in this area.

The Institute considers that greater discipline across agencies in requesting data combined with expanding access to this more focussed data could allow for better risk signalling leading to improved market efficiency, finer pricing and greater innovation.

We therefore recommend the **creation of an open data regime to allow increased access to and analysis of important government held data and modelling information to better manage macro risks to the financial system**. However, the cost of data collection by the industry needs to be offset against perceived benefits.



# 1. Demographic change

## Recommendations

The Institute considers that enhancements are required to improve the capacity of the current financial system to better manage the ageing demographic challenges.

- ▶ Adopt a comprehensive framework for policy formulation to manage all issues relating to sustainable financing of our ageing population.
- ▶ Encourage bipartisan political agreement for the targets and principles of the comprehensive framework.
- ▶ Under this new policy framework the following issues should be considered:
  - Funding the aged (including the potential role of housing wealth).
  - Greater focus on measures to optimise capital allocation.
  - Reinforcement of the imperative to allocate capital to meet retirement policy obligations and to reject proposals for mandated capital allocation.
  - Consideration of the establishment of an appropriate industry insurance scheme or other forms of support to mitigate annuity counterparty risk.
  - Elimination of barriers to product innovation.

Demographic change, especially the ageing of the population, has been a key driver in the development of Australia's retirement income system. The predicament of an ageing population is well documented (see 2012 White Paper *Australia's Longevity Tsunami What should We Do?* and Treasury's 2010 *Intergenerational Report*).

Since the late 1800s life expectancy for boys and girls, at birth, has increased by over 30 years. By 2050 almost a quarter of the population will be aged over 65 compared to 14% now. Australians are already one of the longest lived populations on the planet and our longevity is steadily improving. As a result, ageing and health pressures are projected to result in an increase in total government spending from 22.4% of GDP in 2015-16 to 27.1% of GDP by 2049-50. Consequently, spending is projected to exceed revenue by 2.75% of GDP in 40 years time.

Accordingly, because the retirement income sector is such a significant accumulator and allocator of capital within the overall economy, there needs to be a mechanism for formulating the best policy outcome for the 'public good' and ensuring strong governance structures to maintain the overall integrity of the retirement income system. Specifically, regulation needs to be considered in the context of a comprehensive policy framework that involves:

- ▶ Setting overall targets for financing the ageing population e.g.
  - Retirement income levels
  - Age pension costs, levels and coverage
  - Aged care costs
- ▶ Establishing principles for policy formulation:
  - Consistency
  - Adequacy
  - Affordability



- Sustainability
- Simplicity
- Flexibility
- Equity
- Certainty
- Clarity

The current structure of the retirement income system results in the vast majority of retirement assets being invested in products where the individual retains the risk – market (including sequencing risk), inflation, longevity (both individual longevity and overall population) and morbidity risk. The taxpayer (through the Age Pension safety net) bears the risk of adverse outcomes in market, inflation, longevity or morbidity risk for the individual. This pension safety net can influence consumers' investment decisions knowing that they will benefit from any upside, but be protected on the downside.

### Longevity risk

It is often inefficient for diversifiable risks, such as an individual's longevity, to be retained, and they are better addressed through a pooling mechanism where they can be shared. There may be a range of mechanisms that can manage risk pooling. The more risk is borne by the private sector or other pooling mechanism the more the overall risk to the taxpayer will be reduced.

Policy focus at the moment is concentrated on the retirement fund accumulation process but attention needs to be refocused on the impacts of the de-accumulation phase as retirees begin to draw down from their superannuation assets. This will potentially have macro-economic and consumer impacts. Product innovation needs to be encouraged to promote flexible products (e.g. indexed linked annuities or annuities with reduced guarantees) to make pricing attractive and boost demand. It is in the community's interest to have effective retirement products that ensure de-accumulation is orderly and retirement goals continue to be met.

Given that the taxpayer ultimately bears the risk related to how individuals access and invest their retirement savings, it is reasonable that the Government proposes various incentives and/or restrictions on how superannuation fund assets can be drawn down (see 2012 White Paper *Australia's Longevity Tsunami What Should We Do?*) Underestimating life expectancy will have major implications for retirement incomes policy and also drive up economy-wide costs to levels significantly higher than currently projected.

The rise in Australians' life expectancy is not commonly understood although underestimating longevity risk has enormous tax, retirement, health and economic policy implications for the nation. Life expectancy quoted by media and even organisations such as the ABS is consistently understated. For example, life expectancy at birth is often quoted as being 79 for males and 84 for females. However, this increases to 93 and 94 respectively when the mortality improvements published by the Australian Government Actuary are taken into account.

### Capital allocation

The mandatory Superannuation Guarantee charge, tax concessions and policy responses to demographic changes, have all driven the development and expansion of superannuation pools. The Institute believes that capital allocation may become problematic as investment pools continue to deepen and become increasingly attractive as potential funding sources for infrastructure and social development. There is clear logic for superannuation funds to





support longer term investments in infrastructure but regulatory impediments currently exist (e.g. SIS 30/3 day liquidity rules). The sector as a whole must retain its ability to allocate capital in a manner consistent with retirement goals and free of mandatory allocation directives.

### Counterparty risk

Products with long-term payment guarantees to retirees issued by life companies are regulated by APRA and are subject to very strong capital and risk management requirements. However, there is still a potential risk that insurers may not be able to fulfil their obligations over the long term. Consumer concerns about counterparty risk may pose constraints for future development of lifetime annuity markets and products.

The GFC gave explicit form to the implicit guarantee to the global banking sector. The guarantee further encourages older investors to place a large proportion of their assets in short-term deposits. These are not always suitable investments for the generation of long-term income. Therefore to level the playing field and encourage long-term investments (such as infrastructure), to allay consumer concerns about counterparty risk, and to promote innovation in the longevity insurance market, consideration could be given to the introduction of an industry scheme, or other forms of support, to provide financial assistance to consumers that suffer loss through counterparty failure.

Nevertheless, any such guarantees need to be costed and paid for by the consumers to minimise cross-subsidisation between product consumers and the taxpayer. US state-based guarantee associations and the UK Financial Services Compensation Scheme are two options for consumer protection that could be explored. These guarantees may be limited to specific products or amounts so as not to impede product development of low or non-guaranteed products.



## 2. Regulation: stability, competition and efficiency

### Recommendations

- ▶ Establish a Financial System Policy Commission (FSPC) whose role is to recommend comprehensive policy options on how to manage the financial system over the longer term to ensure it delivers optimal outcomes for the consumer and the nation. Issues that could fall into the FSPC's domain could include:
  - Establishment of a comprehensive framework for policy formulation on all issues relating to sustainable financing of our ageing population.
  - The framework to balance prudential regulation against the broader public interest of cost and competition.
  - The framework for consideration of the competitiveness of Australian-based insurance capital on the global stage.
  - The cost of risk including the question of 'Too Big to Fail'.
  - Affordability and distortionary effects of financial system policy.
  - Efficiency and effectiveness of consumer disclosure.
  - Rationalisation of legacy products.
  - Clarification of regulatory inconsistencies.
- ▶ Require Mandatory Regulatory Impact Statements for all government initiatives related to retirement income and the aged to ensure consistency with accepted principles and clear understanding of social and economic impacts.
- ▶ Formalise and expand the role of the Council of Financial Regulators (Treasury, RBA, APRA, and ASIC) to include the proposed FSPC.

### Regulation -v- Cost

We note that this Inquiry intends to recommend initiatives that make the financial system more efficient, competitive and flexible consistent with financial stability, prudence, public confidence and capacity to meet the needs of stakeholders. The Institute believes that improved regulation and better policy formulation can drive efficiency within the financial system, particularly in the retirement income sector.

The regulatory framework established after the Wallis Committee has served the financial system well and helped it withstand its sternest test: the GFC. Nevertheless, regulation continues and, while policy objectives may be achieved, related costs are also imposed upon the system and ultimately consumers.

Globalisation has prompted the imposition of internationally formulated regulation that also adds cost to the Australian financial system and affects capital allocation. Despite its performance, the Australian financial sector is leading regulatory change ahead of its international counterparts. Moreover, Australian domiciled companies face additional costs both in terms of financing and in the usage of capital in overseas ventures relative to many of their international competitors.



The regulatory responses to the collapse of HIH, the Commonwealth Bank acquisition of Bankwest and the GFC highlight the tension between the imperative to ensure financial stability and the desire to maintain the benefits of competitive markets. Initially governments decided to err on the side of stability although different regulators have argued about the balancing point. It should be recognised that excessive regulation can also lead to a transfer of risk outside the regulatory regime (shadow banking, hedge funds) or offshore (internet-based insurance products) with the resultant loss of Australian regulator protection, services to the domestic consumer and loss of domestic jobs. However, excessive competition does not necessarily lead to positive consumer outcomes.

Two recent regulatory trends that have the ability to distort the effective risk signalling and efficient management of the various sectors are harmonisation and principles -v- prescription.

#### ► Harmonisation between sectors in the financial services

Regulatory harmonisation within the financial system makes sense in some aspects, such as business continuity and fit and proper standards. However, in other areas there are fundamental differences in the types of risks faced by life insurers, general insurers and banks. For instance, applying operation risk reserve requirements to corporate superannuation defined benefit schemes could be considered unnecessary, especially for AAA rated corporates. The transfer of regulatory concepts from one sector to another, e.g. banking to general insurance, without differentiating between them is counter to prudent risk management which must allow companies and sectors to manage their principal risks.

On the other hand, the broader financial system needs a consistent regulatory overlay to avoid any regulatory arbitrage of products or inconsistency that may reduce competitive neutrality.

#### ► The move from principles-based to a prescriptive regulatory regime

Principles-based regulation has been a strong theme of Australian regulation that has come under challenge since the GFC with several regulators applying more prescriptive regimes. For example, financial product disclosure and communication guidance are quite prescriptive about providing paper policy documents for internet sales even when consumers did not want them.

The Australian financial system needs to remain dynamic and adaptive in the face of broader societal changes that are occurring. Although prescription-based regulation can have a role the Institute considers that principles-based systems are better equipped to respond to change.

### Financial System Policy Commission

There are a number of challenges facing the current regulatory system. Examples include:

- Lack of a formal mechanism to clarify or resolve policy differences across regulators.
- Lack of a 'public benefit' lens when assessing the impact and benefits of financial system policy.
- Inappropriate time frames for dealing with emerging critical issues.
- A reactive rather than a proactive approach to emerging challenges.
- No overarching coordination of policy development related to demographics.



The Institute considers that a dedicated policy mechanism should be created to alleviate these problems with a view to making policy more effective and regulation more efficient. We recommend that a dedicated financial services policy mechanism - the Financial System Policy Commission (FSPC) - be established to put forward comprehensive policy options on how to manage the financial system over the longer term to ensure it delivers optimal outcomes for the consumer and the nation.

This Commission would be independent of current sector regulators, have the authority and commercial expertise to intervene when regulatory inconsistencies emerge and consider the need to weigh the risk/return elements of competition against the need for prudence and desire for resilience. Importantly a 'public benefit' lens should be applied to ensure the balance between stability and competition is finely tuned.

It is acknowledged that the Commonwealth Treasury has the primary role in formulating financial sector policy and is the key economic adviser to the Treasurer. The FSPC would not assume those roles but could function in a similar manner to the Australian Government Productivity Commission which is the Government's independent research and advisory body on all aspects of microeconomic reform.

The Institute envisages that the FSPC would have a similar aim to that of the Productivity Commission i.e. to help governments make better policies in the long-term interests of the Australian community. The FSPC would also be independent of government and its policy scope would be wider than just productivity. Importantly, the FSPC would work with related agencies - RBA, APRA, ASIC, Treasury - to develop comprehensive policies to manage the financial system over the longer term to ensure it delivers optimal outcomes for the consumer and the nation. The FSPC would undertake independent research into relevant issues. Its research findings and policy positions would be made available to the public to better inform important policy debates.

The FSPC would also be expected to act as a 'third umpire' in clarifying or resolving policy positions adopted by different regulators or at least assist the Council of Financial Regulators (COFR) reach determinations that remove regulatory uncertainty from the system. The FSPC could consider major policy topics such as those listed below.

## Areas of Investigation

### ► The cost of risk

Currently capital requirements are often set in isolation without consideration of the broader macro-economic impacts. For example, increasing capital backing for particular risks, products and services could lead to credit rationing or withdrawal of product. Consideration of the cost of risk also requires an understanding of who really bears that risk (customers, shareholders, taxpayers or others) and how they are rewarded for doing so. The existence of 'Too Big to Fail' institutions highlights this issue since it is not clear that taxpayers are adequately rewarded for the risks such institutions impose upon them. Mitigations to consider include the imposition of guarantee charges and operating conditions on relevant institutions. Of course sometimes when risks are transferred the market may be inefficient and risks can be under-priced which leads to an even greater amount of risk taking.

### ► Affordability and distortions

We use taxation to encourage or discourage certain behaviours (e.g. saving through superannuation) and capital charges can have similar impacts - although not necessarily by design. Price controls such as community rating are used to improve affordability for those



who otherwise would be locked out. These measures mean that there is cross-subsidisation within the financial system which should be tested periodically to ensure that policy goals are being met.

#### ► Effectiveness and efficiency of customer disclosure

Government attempts to encourage behaviour by tax incentives or other measures are thwarted by factors that reduce consumers' ability to make informed choice. Comprehensive product descriptions do not get read and financial literacy programs have had little impact, to date. The FSPC could examine the concept of a set of products with standard terms, conditions and structures enabling very short product disclosure statements. The UK, for example, has a small set of standard products called the 'stakeholder suite' that exhibit these characteristics. This option is not intended to impede innovation but simply to provide another product option for consumers.

### Current issues

#### ► Pricing and risk signalling

Another area of investigation by the FSPC could be the impact of natural disasters on general insurance affordability. When no flood cover was available and no risk signal was given to the community, properties were developed in high risk flood areas. Now that cover is available and information on the risk has improved, many insurers now estimate a price for each individual customer incorporating data at the address level. This has resulted in many inherent cross subsidies previously incorporated in premiums being eroded, with the most-at-risk customers paying the highest price.

Although this should in the long-term result in a price signal that encourages mitigation, in the short-term it results in a large number of people in flood exposed areas unable to afford their flood premiums and not insuring. Not insuring means communities are less likely to be resilient and that disasters are funded post the event by government. It is also not clear that these price signals are being borne by those in a position to actually mitigate the risk e.g. property developers.

The FSPC could also consider recent losses in the life insurance business which are expected to result in higher prices and increasing affordability issues. There are a number of factors affecting insurers' increasing claims and expense experience in recent years. The FSPC could assist with enabling the industry and different regulatory bodies to fast track a solution that is in the public interest by developing an overarching strategy to resolve these issues, many of which fall outside the areas of specific regulatory control.

#### ► Legacy products

Regulatory friction is also demonstrated by the system's inability to rationalise legacy products due to conflicting regulator priorities (ATO/APRA/ASIC) and a lack of a mechanism for changing existing products. This creates a drag on wealth management businesses in Australia and present a number of risks to consumers and businesses alike, including:

- Legacy products may no longer be servicing consumers' insurance and investment needs.
- Expensive maintenance costs are worn by consumers.
- Complex and outdated administration systems.
- Lack of investment in IT platforms and increased compliance risk.



- ▶ A resultant impediment to innovation as companies will not want to launch new products that could be on the books for many years even if they are not successful.

The introduction of a mechanism for rationalising legacy financial services products (subject to a no disadvantage test) will generate significant benefits for the economy, consumers and industry players. Rationalisation would also enable better data to be gathered to assist our understanding and management of underlying risks e.g. mental health claims within life insurance. Reforms of this nature will facilitate product rationalisation across all wealth management products and increased development of modern products, leading to better servicing of the population's insurance and investment needs, businesses cost and efficiency benefits for an overall reduction in compliance costs.

### Council of Financial Regulators

The FSPC could engage in the deliberations of the Council of Financial Regulators (COFR) - the regulator coalition that includes the RBA, Treasury, APRA and ASIC - to drive more consistent policy outcomes and achieve efficiency by:

- ▶ Taking a strategic view of the impacts, benefits and costs of sector regulation through the 'public benefit' lens.
- ▶ Balancing the views of multiple government stakeholders; APRA, Treasury, ATO and ASIC etc. in policy debates and acting as a "third umpire".
- ▶ De-politicising the retirement income system and reduce 'system tinkering'. The community's desire for simplicity and certainty is undermined by continuous change.
- ▶ Driving rationalisation of legacy products that are causing a drag on wealth management businesses through higher systems costs, increased compliance risk and act as a disincentive for product innovation.

On a broader note, the Institute sees benefit in formalising and expanding the role of the Council of Financial Regulators. The revamped COFR, including the Financial System Policy Commissioner, would meet formally and regularly to adjudicate on policy and regulatory conflicts emerging from the domestic sector or through international developments, e.g.

- ▶ Dealing with distressed entities.
- ▶ Coherent regulation of SMSFs.
- ▶ Competition aspects of consolidation of superannuation funds.

An example of where FSPC could apply a community 'public benefit' lens is to assist product development in the annuity market, which is currently constrained by a number of factors including: the differing policy objectives of individual regulators, a lack of consumer awareness of longevity risk and APRA's significant capital requirements.

Consequently, a number of annuity products that are readily available internationally are effectively absent in Australia. These include various forms of linked, with-profit and deferred annuities. The consumer benefits of such annuity products are that retirees can transfer their longevity risk but absorb the investment risk thereby reducing their overall cost.



### 3. Financial sector data collection

#### Recommendations

- ▶ Create an open data regime to allow increased access to and analysis of important government held data and modelling information to better manage macro risks to the financial system.
- ▶ Refer regulator data collection requests to FSPC or COFR to assess the costs, confidentiality and benefits of the request. Potentially representatives from the professions and universities that are likely to be users of the data and the industry as the providers of data could also be involved.
- ▶ Utilise the open data regime to better understand the growing impact of the capital flows in and out of the retirement income system, and their macro-economic implications.

Along with demographic changes, rapid technological advancement is one of the key drivers of system change and increased risk within the financial sector. Exponential increases in computing power, more extensive computer use, particularly internet use, and technological innovation such as big data analytics have changed our potential to collect and analyse government, company and industry data. However to benefit from this wealth of information there needs to be expanded access to it.

As actuaries, we have expertise in the monitoring of financial security systems. We believe that the industry could benefit as a whole from having better feedback mechanisms in place, in order to understand much more completely and dynamically the changes in the financial services “system”. Given the size and impact of the industry, we believe it would be beneficial to create an open data regime to allow increased access and analysis of important government information to help ensure the financial system achieves its goals with minimal negative impacts. The resultant transparency would spur competition and improve systemic and emerging risk management. It could also enhance Australia’s Pillar 3 public data disclosures by improving transparency and market discipline.

Currently there is very limited government data released on the insurance and banking industries and almost non-existent data on housing/mortgage markets and the broader changes in the accumulation, distribution and use of wealth that will define the financial services landscape over the coming decades. Much of this data is still displayed in 1980’s style reports and simple spreadsheets, compared to where other industries are at such as communications, media, mining, energy, transport, retail etc. This review could be the catalyst for making a transformational rather than incremental shift.

Although confidentiality needs to be considered to protect intellectual property and support innovation there are still advantages to be gained from the public collation and analysis of financial industry data including:

- ▶ **Competition** – frictionless information underpins fully competitive markets.





- ▶ **Market efficiency** – more information on insurance and financial risk allows it to be more finely priced, allowing companies to compete on an equal footing and for more extensive coverage.
- ▶ **Risk management** – more accurate information about the nature and uncertainty of risks allows for a better understanding of the total risk environment, more finely-tuned risk signalling, more comprehensive risk assessment and management, better regulation and more appropriate and efficient determination and allocation of capital.
- ▶ **Innovation** – the G8 describes the opportunities for open data, as follows:  
*Freely-available government data can be used in innovative ways to create useful tools and products that help people navigate modern life more easily. Used in this way, open data are a catalyst for innovation in the private sector, supporting the creation of new markets, businesses, and jobs. Beyond government, these benefits can multiply as more businesses adopt open data practices modelled by government and share their own data with the public."*
- ▶ **Testing policy efficacy** – policy effectiveness is ultimately tested on evidence. Evidence accumulates in data. Moreover, policy can operate across portfolio responsibilities and is often interdependent. Where data is uncollected or partial, policy impacts can only be hypothesised or approximated. In such cases policy may be poorly understood (effects under- or over-estimated) or be ineffective or even redundant. Data needs should be anticipated.
- ▶ **Improving the quality of policy debate** - relevant government data and modelling should also be made available to the private sector to foster constructive debate. Naturally, confidentiality and privacy concerns need to be managed.
- ▶ **Data protection** – privacy risks associated with data sharing are well understood by both private and public sectors and protection principles and regimes are being continually improved.

Open data systems also invite private sector data aggregators and analytical firms with greater propensity to innovate which may accelerate knowledge dissemination. Regulators collect significant volumes of data from financial institutions. There are often significant costs associated with the collection and collation of that data but once consolidated the marginal cost of sharing the data is comparatively small. Nevertheless, cost benefit analysis should underpin all data collection and aggregation.

One area where accurate data would be particularly helpful is in identifying the impacts of policy settings. For instance, it would be beneficial in discussing retirement incomes policy questions if we knew the extent to which Australian retirees spent down their assets so they could benefit from the pension, or conversely, are living too frugally so as to ensure that their assets last their lifetime. This information is not well known and we acknowledge it may be difficult to obtain.

Given the impact of changing demographics on the size of retirement savings pools, the effects on investment funds in the post-accumulation phase and rising future health costs it is important for market efficiency that the private sector has access to relevant data so that it can develop the products that will assist consumers best manage their retirement. For example, the modelling that underpins Treasury's *Intergenerational Report* (2010) would enable the retirement income sector to better understand the rationale for retirement policy settings and improve the retirement income sector's understanding of potential risks.



## 4. Demographics: the case for change

### In Australia in the next 30 years...

**22%** of the population will be over 65

**4%** of the population will be over 85

Age Range	2014 (M)	2025 (M)	2035 (M)	2045 (M)
0 - 17	5.2	5.8	6.2	6.6
18 - 44	8.8	9.7	10.4	11.1
45 - 64	5.8	6.4	7.1	7.9
65 - 84	3.0	4.3	5.1	5.7
85+	0.5	0.6	1.0	1.4
<b>Total</b>	<b>23.3</b>	<b>26.9</b>	<b>30.0</b>	<b>32.7</b>

ABS Series 3222.0 Table B9 Population projections by age and sex.

### 45 will be the new 25 and 85 will be the new 65



1 in 2 people will be aged 45 or over compared to age 25 in 1900



1 in 25 people will be aged 85 or over compared to age 65 in 1900

In Australia in the next 30 years, the over 65's will double from 3.5 million (15% of the population) to 7.0 million (22% of the population) and will outnumber the under 18's.

Whereas currently there are 4.2 people of working age (18-64) for every person aged 65 and over, in 30 years, this will reduce to 2.7. Hence the need to encourage our over 65's to remain active and in work for as long as possible.

The over 85's population nearly triples from under 0.5 million to 1.4 million people, which will significantly increase demand for acute health care and aged care.

The ageing population is a global phenomenon that is certain, the causes are known (decreasing fertility and increasing longevity) and it is not reversible.

### The baby boomers (1946-65) will own the major share of household wealth and will gradually move into drawdown phase.

**47%** of total net household wealth will be owned by the over 65s in 2030 (up from 22% in 2000)<sup>2</sup>

**60%** of the \$1.7 trillion invested in superannuation today is held by the over 50's and hence, will move into a drawdown phase over the next 20 years<sup>3</sup>

### but averages can be deceptive



of baby boomers own 60% of total household wealth of \$1.6 trillion (average personal wealth is \$910,000)

of baby boomers own just 4% of total wealth (average personal wealth is \$68,000)<sup>4</sup>

<sup>2</sup> Productivity Commission Inquiry Report Volume 1: Caring for Older Australians 2011 Page 60

<sup>3</sup> Actuaries Institute Australia's Longevity Tsunami What Should We Do? 2012 Page 11

<sup>4</sup> Productivity Commission Inquiry Report Volume 1: Caring for Older Australians 2011 Page 61

## Life expectancy is consistently understated

Life expectancy quoted by media and even organisations such as the ABS is consistently understated. For example, life expectancy at birth is often quoted as being 79 for males and 84 for females. However, this increases to 93 and 94 when the future mortality improvements as published by the Australian Government Actuary are taken into account<sup>5</sup>.

### Life expectancy at 65

The average 65 year old is already expected to live well in the late 80's. Within 50 years, this will increase to the mid-90s.



### Life expectancy at birth

Life expectancy at birth has increased by over 35 years since 1908, when the Age pension was first introduced in Australia for age 65 for men and 60 for females.



## What do these demographic challenges mean for Government spending?

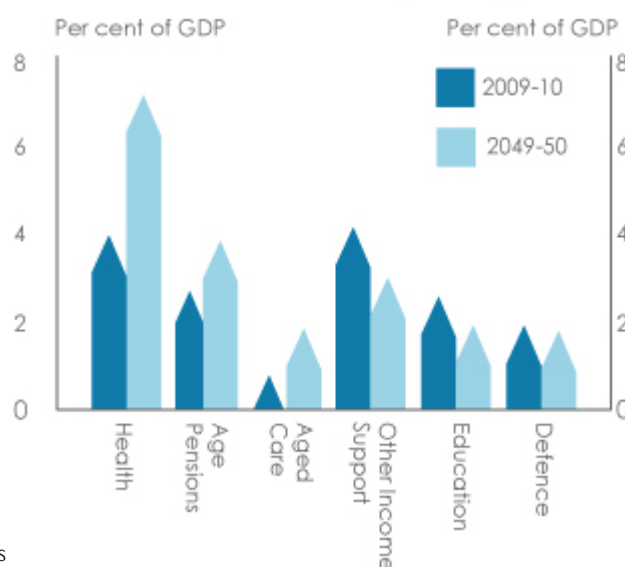
Government projections show that the means tested Age pension costs over the next 50 years is not in itself a problem (2.7% to 3.7% GDP). However, when combined with aged care and health costs, the total costs increase from 7.6% to 13.3% GDP<sup>6</sup>.

When State and Territory costs are included, the costs increase from 10.0% to 17.1% GDP<sup>7</sup>.

The Intergenerational Report 2010 states that:

*"Ageing and health pressures are projected to result in an increase in total government spending from 22.4 per cent of GDP in 2015-16 to 27.1 per cent of GDP by 2049-50. As a consequence, spending is projected to exceed revenue by 2¾ per cent of GDP in 40 years' time."*

### Government Spending



<sup>5</sup> Australian Life Tables 2005-2007 with mortality improvements

<sup>6</sup> Intergenerational Report 2010



<sup>7</sup> Productivity Commission Research Paper: An Ageing Australia: Preparing for the Future 2013

## How will we fund our older years?

Expenditure needs of individuals will be broadly split between personal living costs and accommodation/health/aged care costs. It is likely that our personal living costs will be largely funded by a combination of work, superannuation/savings and the Age Pension. Our accommodation/ health/aged care costs will be largely funded by our housing wealth.

### Personal living costs



The ASFA Retirement Standard benchmarks the annual budget needed by Australians to fund either a "modest" or "comfortable" standard of living in the years post-work.

	 single	 couple
"Modest" lifestyle	\$23,000 pa	\$33,000 pa
"Comfortable" lifestyle	\$42,000 pa	\$57,000 pa
Age Pension	\$21,500 pa	\$32,500 pa

### Retirement savings

Superannuation account balances are increasing but will remain modest for most people and are not in themselves sufficient to meet even a modest level of personal living costs.

### Current level of savings

	 single	 couple
Average superannuation account balance (2009-10)	\$72,000	\$40,000
Average superannuation payout on retirement (2009-10) <sup>9</sup>	\$192,000	\$113,000

### Projected future level of savings

#### \$300K/\$380K

Projected superannuation account balance where a worker on \$65,000 pa receives 9.25%/12% Superannuation Guarantee contribution for 35 years.

#### \$15K – \$20K pa

The annual income which could be funded from this level of savings for a 65 year old. However, an Age Pension would also currently be paid (after allowing for the means tests), which would take total annual income to around \$30,000-\$35,000 pa, which is between the modest to comfortable level of living costs noted above<sup>8</sup>.

Not all super will fund retirement income as 1 in 3 homeowners approaching retirement had mortgage debt in 2010, up from 1 in 6 in 2002.

## The role of the Age Pension

As the compulsory superannuation contribution will not generate sufficient savings to replace the Age Pension, the majority of workers will continue to be at least partially reliant on the Age Pension in their older ages.

**Now...**  
**80%** of retirees currently receive all or part Age Pension (60% on full age pension).

**In 40 years...**  
**75%** of retirees will still receive all or part Age Pension (35% on full age pension) in 40 years' time<sup>10</sup>.

<sup>8</sup> 6.5% investment return in accumulation, 5.5% investment return in retirement, 3.75% salary inflator and deflator, 35 years accumulation and ASIC Money Smart Retirement calculator

<sup>9</sup> ASFA Insight, 26 September 2011 Developments in the level and distribution of retirement savings

<sup>10</sup> Intergenerational Report 2010 Page 60

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## Accommodation/aged care costs

The need for aged care rapidly expands after age 85 due to the likelihood of dementia (over 20%) and disabilities requiring assistance with daily living (50%)<sup>11</sup> and the cost of aged care is increasing. The previous government, as part of the Living Longer Living Better reforms, clarified that self-funded retirees will be responsible for accommodation and personal living care costs, and the government will provide for health care costs. People with means will pay more in the future for aged care costs.

---

82

Average age of entry to permanent residential care for both sexes

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70%

of people in residential care receive high level care<sup>12</sup>



3/5 men and 3/4 women aged 65 will experience disability severe enough to require long term care in their lifetimes<sup>13</sup>.

---

Older people are often asset rich but income poor. As superannuation savings, work and the Age Pension is only expected to meet the personal expenditure costs, our home will be the source of funds for aged care costs.

---

80%

of over 65's own their own home<sup>14</sup>

---

\$400k

mean household value for over 65s<sup>15</sup>

---

Over 60%

of net wealth for 65-74 is in the home

---

Over 70%

of net wealth for over 75's is in the home<sup>16</sup>

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*(Information provided by Catherine Nance, Actuary, PwC)*

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<sup>11</sup> Productivity Commission Report, Caring for older Australians, August 2011 Pages 41 and 44

<sup>12</sup> CEPAR ARC Centre of excellence in Population Ageing Research November 2012

<sup>13</sup> Productivity Commission Report, Caring for older Australians, August 2011

<sup>14</sup> HILDA survey 6554.0 2013

<sup>15</sup> Productivity Commission Report Caring for Older Australians page 61 2011

<sup>16</sup> HILDA survey 6554.0 2013



## 5. The Actuarial Profession

### Actuaries' Role in the Financial Services Industry

Actuaries have a reputation for intellectual depth, for technical expertise and for integrity. They apply their risk management expertise to allocate capital efficiently, identify and mitigate emerging risks and to help maintain system integrity across multiple segments of the financial and other sectors.

Within the community we rely on engineers to stop things breaking down. We rely on actuaries to do a similar process in the financial system. They provide a control cycle with regard to pricing, reserving and risk management.

They have performed this control function in the life industry ever since it began, in general insurance over the last 30 years and more recently in health insurance. Within superannuation they have particularly assisted in defined benefit superannuation schemes.

Actuaries also work in other areas in non-statutory roles such as risk management, banking and data mining. By combining commercial acumen with mathematical rigour and deep analytical skills, actuaries have the ability to find pure, honest insights within business data. Insights which are then used to inform business and government and drive change.

In many instances, an actuary's role complements that of the government regulator by bringing attention to the board and management, issues that represent regulatory needs. As such, Actuaries are well placed to comment on the fitness of the current financial system to continue to support consumer needs into the future.

Although actuaries are embedded in the financial services industry, they have rigorous practice requirements, quality practice guidance and valuable continuing professional development, all of which ensure their integrity and effectiveness.

### The Actuaries Institute

The Actuaries Institute ("the Institute") is the sole professional body for actuaries in Australia.

This submission's recommendations are underpinned by the Institute's adherence to the following policy principles:

#### ► Public benefit

The Institute holds the 'public interest' or 'the common good' of the Australian community, or to a particular group of consumers, as a key principle of policy development. The financial services system should fundamentally serve the broadest public benefit whilst satisfying individual consumer needs.

#### ► Risk focus

In considering solutions to public policy issues actuaries take an evidenced based approach that focuses on identification and management of risks – what they are, who carries them, who should carry them and how those risks should be best managed.



### ► Transparency and disclosure

The careful analysis that actuaries can provide is underpinned by the availability of data. Broadly, the more data that is available and the better the quality of that data the more accurately risk can be assessed. Actuaries also value clear, concise and standardised disclosure of information to consumers on the basis that such disclosure enables consumers to exercise choice more confidently.

### ► Equity

Individual consumers should be given fair treatment and commercial enterprises should be allowed to compete on a 'level playing field'. Technological advancement is fostering new sources of competition from non-traditional players. As long as required capital standards are met consumers can benefit from this increased level of competition. Nevertheless regulation should be neutral for all competitors to avoid any arbitrage that can undermine consumer protection.

### ► 'Good' regulation

Excessive or unnecessary regulation can diminish market efficiency and undermine public benefit. Good regulation should balance cost and benefit. Self regulation is favoured as it is often efficient and reduces consumer costs although prescription can sometimes be more appropriate.



# Australia's Longevity Tsunami

What Should We Do?



WHITE PAPER

# Contents

EXECUTIVE SUMMARY	2
WHAT DO WE KNOW?	4
WHAT IS THE PROBLEM?	6
WHAT SHOULD WE DO?	9
KEY PRINCIPLES AND SUMMARY OF POSITIONS	10
Appendix A Life Expectancy	16
Appendix B Why We Underestimate Life Expectancy	23
Appendix C Amendments to Facilitate Innovation in the Annuities Market	29
Appendix D Retirement and Retirement Intentions	31
Appendix E The Case for Removing Barriers to Working Longer	32
Appendix F Annuity Products	34
CONTACT DETAILS – ACTUARIES INSTITUTE	36



# Executive Summary



Australia is experiencing a major demographic and societal transformation. By 2050, almost a quarter of the population will be aged over 65 compared to 14% now. Australians are already **one of the longest lived populations on the planet**, and our longevity is steadily improving.

Australian life expectancies are rising much faster than commonly understood and this has serious social policy implications – especially in economic, retirement incomes, health and welfare policy.

Public commentary on life expectancies is normally driven by the annual release of the Australian Bureau of Statistics reports<sup>1</sup>. These 'reported' life expectancies are a snapshot that capture past longevity improvements but make no allowance for expected future **improvements**.

There are efforts made by various arms of Government and other organisations to predict cohort life expectancies, i.e. life expectancies which include projected future mortality improvements. While more realistic, owing to uncertainty of future outcomes there are plausible scenarios where this approach too will underestimate life expectancy.

**Underestimating life expectancy will have major implications** for retirement incomes policy. An effective retirement incomes policy should take into account the uncertainty that an individual faces in understanding the financial implications of their own longevity. It should also anticipate that the **economy-wide costs** of providing for older people could be significantly higher than currently projected.

**What can policy-makers do** to protect Australians against the risk that we have underestimated future life expectancies?

In this White Paper the **Actuaries Institute** is contributing to the debate on this **Longevity Tsunami**, by identifying the issues that should be on the table when the Government is developing **retirement incomes policy**. This discussion builds on our Policy position on retirement incomes<sup>2</sup>, and previous submissions we have made to the Government, in particular the Cooper Review<sup>3</sup> in 2010 and pre budget submissions in 2011<sup>4</sup> and 2012<sup>5</sup>.

We explore some important ways in which the Government can address these problems, including a discussion on how post-retirement financial services products – and the Government's approach to their regulation – could contribute to the solution.

The objective of this discussion is to highlight structural changes in the current retirement incomes rules that are needed to mitigate the financial risks of unpredictable increases in life expectancy.

<sup>1</sup> ABS 4125.0 - Gender Indicators, Australia, Jan 2012

<sup>2</sup> [http://www.actuaries.asn.au/Libraries/PublicPolicy/PolicyPositionRetirement\\_IncomesMarch2012.sflb.ashx](http://www.actuaries.asn.au/Libraries/PublicPolicy/PolicyPositionRetirement_IncomesMarch2012.sflb.ashx)

<sup>3</sup> [http://www.actuaries.asn.au/Library/2010\\_0219\\_Sub\\_Super\\_System\\_Review\\_Phase\\_3\\_Structure\\_Final.pdf](http://www.actuaries.asn.au/Library/2010_0219_Sub_Super_System_Review_Phase_3_Structure_Final.pdf)

<sup>4</sup> [http://www.actuaries.asn.au/Library/2011\\_0124\\_Treasury\\_Pre\\_Budget\\_Submission.pdf](http://www.actuaries.asn.au/Library/2011_0124_Treasury_Pre_Budget_Submission.pdf)

<sup>5</sup> <http://www.actuaries.asn.au/Library/Submissions/reBudgetSubmissions/2012/PreBudgetSubmission2012.pdf>

# Executive Summary CONTINUED



These changes include:

1. **Providing greater incentives to individuals to take the majority of their retirement benefits as an income stream.** Currently there is no tax payable on lump sums drawn from superannuation funds for members aged 60 and over, although there are some tax incentives for assets to remain invested in the superannuation system in retirement. There is therefore potential for people to draw all of their retirement funds at the earliest opportunity, spend these savings, and then fall back on the Age Pension. Whilst there is little evidence that a material number of retirees do this, there may be a case for the Government to consider providing greater incentives for post-retirement assets to be used to provide an income stream. In particular, those retirees that can afford to should be incentivised to protect themselves against their own longevity.
2. **Increasing the preservation age to three to five years less than the Age Pension age.**
3. **Extending the MySuper regime to include post-retirement solutions with “intelligent defaults” that provide retirees with secure income streams.** In particular, we propose that if a person has retired from full-time employment and does not choose a specific retirement product (e.g. they are already in a MySuper default superannuation product), then they are placed into an income stream product that allows flexibility and control of capital in the younger retirement years, and then potentially provides a guaranteed income in later years to supplement the Age Pension.
4. **Removing the impediments that discourage older people who want to work.** In particular remove the age limits on superannuation contributions, encourage workforce participation by changing the Means Test, and consider introducing an increased Age Pension or a lump sum payment for people who continue to work past the Age Pension age.
5. **Removing the legislative barriers preventing innovation in developing post-retirement income stream products such as annuities.** There are a number of well documented legislative and taxation barriers to innovation in the annuities market.
6. **Moving to link changes in the Age Pension eligibility age to improvements in life expectancy.** We recognise that the Government has recently acted to increase the qualifying age for the Age Pension to age 67. This increase is to be phased in over six years, commencing from 1 July 2017. Over the longer term, we suggest that the Government consider increasing the Age Pension eligibility age in line with increases to life expectancy.

# What do we know?



The average global life expectancy has doubled over the past 100 years<sup>6</sup>. Half of all the people who have ever lived to age 65 are *currently alive*<sup>7</sup>.

A 2002 United Nations report<sup>8</sup> states that:

***“Population ageing is unprecedented, without parallel in human history...Population ageing is enduring: we will not return to the young populations that our ancestors knew...Population ageing has profound implications for many facets of human life.”***

Underfunding of retirement is a global issue. We have seen the problems in Europe and the need for severe austerity measures including the lifting of the retirement age and the reductions in age pensions in some countries. In the United States it has been noted that:

***“Social Security remains in a period of permanent cash deficits, with slower economic growth moving the looming bankruptcy date up to 2033. When its trust fund is exhausted, seniors can expect a 25 percent cut in their benefits.”***<sup>9</sup>

Chapter 4 of the International Monetary Fund's April 2012 Global Financial Stability Report<sup>10</sup> highlights the potentially significant global financial implications of longevity risk, that is, the risk that people may live longer than expected, and shows its magnitude – amounting to 25% – 50% of 2010 Global GDP, if people live three years longer than expected which they state is in line with underestimations in the past. The Report states that:

***“More attention to longevity risk is warranted now, given the potential size of these effects on already weakened public and private balance sheets, and because the effective mitigation measures take years to bear fruit. Governments need to acknowledge their exposure to longevity risk; put in place methods for better risk sharing between governments, private sector pension sponsors, and individuals; and promote the growth of markets for the transfer of longevity risk.”***<sup>11</sup>

In Australia, this problem is well understood and policymakers have been focused on the issue for a number of years. Treasury's Intergenerational Report 2010<sup>12</sup> identifies the future increases in Commonwealth Government spending (expressed as a % of Australia's GDP) from our ageing population, especially in the areas of health costs (from 4% to 7% of GDP) and Age Pensions (from 2.7% to 3.9% of GDP).

<sup>6</sup> The World Health Report 2998: Primary Health Care (Now More Than Ever), [http://www.who.int/whr/1998/media\\_centre/press\\_release/en/index1.html](http://www.who.int/whr/1998/media_centre/press_release/en/index1.html).

<sup>7</sup> Prime Time, Marc Freedman, Public Affairs Books, 1999

<sup>8</sup> <http://www.un.org/esa/population/publications/worldageing19502050/>

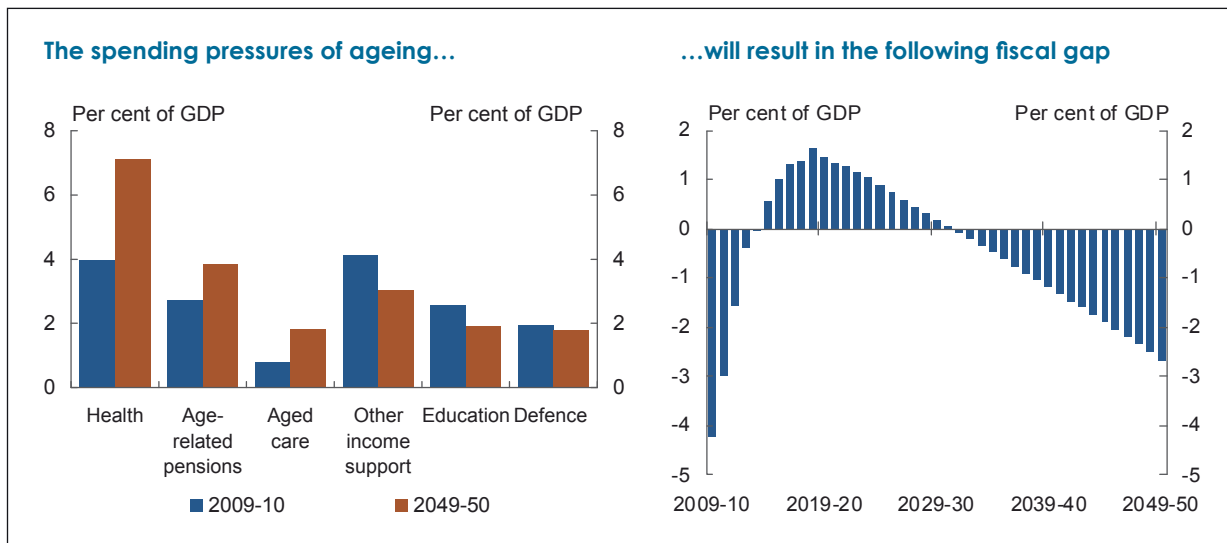
<sup>9</sup> Ryan, P Chairman Ryan: Seniors Deserve Better from President Obama, April 23 2012. Found at: <http://budget.house.gov/News/DocumentSingle.aspx?DocumentID=292036>.

<sup>10</sup> International Monetary Fund, Global Financial Stability Report: The Quest for Lasting Stability, April 2012. Found at: <http://www.imf.org/External/Pubs/FT/GFSR/2012/01/pdf/text.pdf>.

<sup>11</sup> International Monetary Fund, Global Financial Stability Report: The Quest for Lasting Stability, April 2012, page xii. Found at: <http://www.imf.org/External/Pubs/FT/GFSR/2012/01/pdf/text.pdf>.

<sup>12</sup> Intergenerational Report 2010, Australia to 2050: Future Challenges, The Treasury, January 2010. Found at: <http://archive.treasury.gov.au/igr/igr2010/default.asp>.

# What do we know? CONTINUED



Source: [http://archive.treasury.gov.au/igr/igr2010/Overview/pdf/IGR\\_2010\\_Overview.pdf](http://archive.treasury.gov.au/igr/igr2010/Overview/pdf/IGR_2010_Overview.pdf)

The Report states that:

**“Ageing and health pressures are projected to result in an increase in total government spending from 22.4 per cent of GDP in 2015–16 to 27.1 per cent of GDP by 2049–50. As a consequence, spending is projected to exceed revenue by 2¾ per cent of GDP in 40 years’ time.”**<sup>13</sup>

Australians are already one of the longest lived populations on the planet<sup>14</sup>, and our longevity is steadily improving. The Australian Bureau of Statistics recently stated that:

**“Since the late 1800s, life expectancy for Australian boys and girls has increased by over 30 years...”**

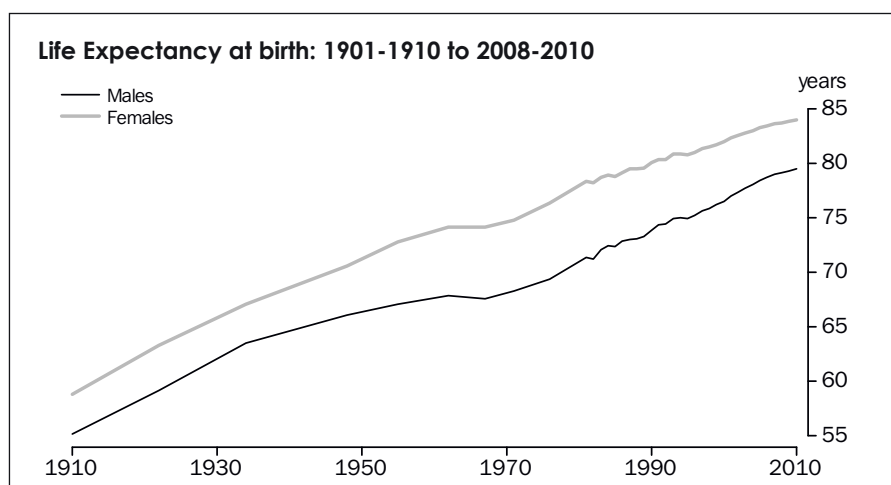
**The past two decades have seen further increases in life expectancy. These increases have been partly due to lower infant mortality, fewer young people dying in motor vehicle accidents, and fewer older men dying from heart disease. The reduction in deaths from heart disease has been linked to medical advances and behavioural changes such as improvements in diet and less smoking.”**<sup>15</sup>

<sup>13</sup> Intergenerational Report 2010, Australia to 2050: Future Challenges, The Treasury, January 2010. Page x. Found at: <http://archive.treasury.gov.au/igr/igr2010/default.asp>.

<sup>14</sup> Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat (2007). World Population Prospects: The 2006 Revision, Highlights. New York: United Nations. For more information, see Appendix A – Life Expectancy.

<sup>15</sup> Australian Social Trends: Using Statistics to Paint a Picture of Australian Society, Australian Bureau of Statistics, March 2011, ABS Catalogue No. 4102.0, page.1.

Source: Australian Historical Population Statistics (3105.0.65.001); Deaths Australia (3302.0).



# What is the problem?

## COMMON UNDERSTANDING VS. THE REALITY OF FUTURE LIFE EXPECTANCY

The latest ABS data reports the life expectancy at birth for a male as 79 and a female as 84<sup>16</sup>. These figures are reported in the media and most Australian retirees base their views on how long they will live on this information.

The more realistic predicted scenario is much more dramatic. After allowing for mortality improvements on a cohort basis (refer to Appendix A), it's estimated that **retirees** aged 65 now (i.e. in 2010) will live until 86 for men and 89 for women. So rather than living 14 years after age 65, men are expected to live 21 years i.e. 50% longer! Similarly women will be living 26% longer! By 2050 the average life expectancy for people aged 65 is projected to have improved to 92 for men and 93 for women.

And this is an average. Many will live longer than this.

So what is the longevity problem? We have nearly 40 years to prepare for increased life expectancies of younger and middle aged Australians. We have ample warning – we know it is coming, and policy-makers have plenty of time to react.

The problem is that it's notoriously difficult to predict improvements in longevity. What if life expectancies begin to improve even faster than the trend over the last 25 years? If that's the case, both individuals and policymakers may be underestimating longevity and hence significantly underestimating the cost of the aged on younger generations.

Exacerbating the underestimation issue is the fact that there appears to be no general community awareness of increasing longevity. The constant focus in the media on the ABS reported life expectancies, results in most people significantly underestimating their own life expectancy. Whilst retirees appear to be frugal because of specific uncertainty about their own life expectancy, for the whole community, the real risk is the UNCERTAINTY surrounding life expectancy.

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**65 year old men  
are projected to live  
50% longer than  
many expect.**

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<sup>16</sup> Australian Life Tables 2005-07. Australian Government Actuary, Commonwealth of Australia, 2009. For more information, see Appendix A – Life Expectancy.





# What is the problem? CONTINUED



## WHY IS IT DIFFICULT TO PREDICT LONGEVITY IMPROVEMENTS?

Actuaries estimate future improvements to life expectancy by looking at how fast life expectancy has improved over past years. This is all the data we have. However, projections based on past trends may not adequately recognise the impact of new medical and other technological advances that could significantly increase life expectancy. Appendix B shows that despite best efforts, some past projections of life expectancy have consistently underestimated actual life expectancies.

Even when allowing for future improvements to longevity (refer to Appendix A) the Government Actuary in the Life Tables Report acknowledges the uncertainty and states that these numbers "should be regarded as indicative rather than firm forecasts of life expectancy."<sup>17</sup>

## UNDERESTIMATION OF FUTURE LIFE EXPECTANCY

Although it is not possible to provide reliable predictions of life expectancy, this discussion anticipates that current projections based on past data (including those in the Intergenerational Report 2010) are likely to underestimate actual life expectancies. As stated in the actuarial paper Longevity in the 21st Century<sup>18</sup> (refer Appendix B):

*"The pace of scientific development appears to be accelerating, and it is possible that this explosion in knowledge will drive increasingly rapid advances in medicine. These advances may cause mortality rates to fall with increasing speed."*

Continued improvements in treatments for cancer and cardiovascular disease (the big killers), as well as the wealth of research currently underway into treating the physical impacts of ageing and even slowing the ageing process<sup>19</sup>, mean that it's plausible that life expectancies of the current middle-aged population could jump beyond expectations.

On the other hand there has been much debate about the so-called "obesity epidemic". If current trends continue it is expected that 80% of Australians will be overweight or obese by 2020<sup>20</sup>. Currently around 61% of Australians are either overweight or obese<sup>21</sup>. It has been noted that people who are overweight or obese suffer medical conditions that can materially reduce their life expectancy compared to their peers who have a healthy weight<sup>22</sup>. It could be argued therefore that increasing obesity reduces the financial risk of longevity. We agree that if the "obesity epidemic" cannot be arrested, this may dampen the potential increase in life expectancies for the unhealthy segment of the population.

However this trend may not continue, and even if it does medical advances will also improve the longevity of the unhealthy segment of the population. This paper argues that healthy people may have significantly increased longevity and public policy should recognise their needs. Whilst we are not specifically discussing health care costs it would also be expected that overweight or obese people may consume more healthcare over their shorter lives.

<sup>17</sup> Australian Life Tables 2005-07. Australian Government Actuary, Commonwealth of Australia, 2009, pg.21.

<sup>18</sup> Refer Appendix B.

<sup>19</sup> The Futurist May June 2012 page 21

<sup>20</sup> <http://www.modi.monash.edu.au/obesity-facts-figures/obesity-in-australia/>

<sup>21</sup> <http://www.health.gov.au/internet/healthyactive/publishing.nsf/Content/overweight-obesity>

<sup>22</sup> Australian Institute of Health and Welfare 2008, Australia's health 2008, Cat No. AUS99

# What is the problem? CONTINUED

**Historically, we have underestimated improvements in longevity, if this holds true, there is a tsunami coming.**

If the average expected life expectancy of 65 year olds in 2050 is 92 for men and 93 for women, then given the uncertainty of predicting life expectancies, and the fact that historically we have underestimated improvements in longevity, there are plausible scenarios where people who are currently aged 65 and healthy will be expected to live past 100. The life expectancy for younger generations could exceed 120 years.<sup>23</sup>

There's a tsunami coming...are we prepared?

## **CURRENT AGED BASED RULES ENCOURAGE PEOPLE TO RETIRE.**

It could be argued that Australia's age-based rules encourage people to retire earlier than they may otherwise because:

- We currently have access to superannuation assets from age 55 moving to age 60 (Preservation Age);
- The Disability Support Pension – provides half a million people above age 55 with an early age pension;
- There is unlimited access to super benefits tax-free from age 60 although, it should be said that there is little evidence that retirees are removing significant assets on retirement; and
- There is a specified Age Pension age (65 moving to 67) which does not suit everyone.

Increasing life expectancies, continued early retirement (with a median retirement age of 61 and an intention to retire at 63<sup>24</sup>), and the lack of either incentives or compulsion to take an income stream on retirement, are putting pressure on the Age Pension system. Whilst the Intergenerational Report 2010 predicted that the cost of the Age Pension would increase from 2.7% to 3.9% of GDP by 2050<sup>25</sup>, our view is that Government policy should anticipate that there could be a higher increase in the cost of the Age Pension due to longer than anticipated life expectancies.

<sup>23</sup> The October 2011 edition of the UK Wired magazine (<http://www.wired.co.uk/magazine/archive/2011/10/features/darwin-for-the-dna-age?page=all>) published an interview with Juan Enriquez – the founding director of the Life Sciences Project at Harvard Business School and a fellow at Harvard's Centre for International Affairs, where he says that lifespan will double over the next century because of advances such as:

- Researchers are growing new body parts using stem cells e.g. tracheas for people with TB, regrown ears for wounded soldiers, new bladders instead of colostomy bags.
- Researchers have found a way to transfer skin cells into stem cells. So the combination of these two technologies means you can take a piece of your skin and grow it into almost anything in your body.

<sup>24</sup> See Appendix D – Retirement and Retirement Intentions.

<sup>25</sup> Intergenerational Report 2010, Australia to 2050: Future Challenges, The Treasury, January 2010. Page 47. Found at: <http://archive.treasury.gov.au/igr/igr2010/default.asp>.



# What should we do?



## POLICY LEVERS

There are a number of areas where structural changes in the current retirement incomes rules can mitigate some of the financial risks of unpredictable increases in life expectancy.

This discussion does not include an assessment of the adequacy of the current Age Pension (other than observing that, on its own, it is set at a level sufficient to provide only a very modest standard of living), or an assessment of the implications that unpredictable increases in life expectancy will have on the costs of health care. We do not discuss the adequacy of the 12% superannuation compulsory contribution rate.<sup>26</sup> Our focus here is on the existing retirement savings system and how this integrates with the Age Pension.

The nature of the Australian accumulation-based superannuation system with, amongst other things, account balances primarily invested in riskier growth assets (approximately 70%<sup>27</sup> in the largest superannuation funds), means that there is already a sharing in the financial risks of adequacy of post-retirement incomes between the individual retiree and the community as a whole.

The risks for the individual retiree include:

- **Adequacy** – insufficient savings by retirement;
- **Investment** – capital values eroded by market movements in retirement;
- **Inflation** – the retiree's standard of living is eroded over time as income does not keep up with inflation; and
- **Longevity** – outliving accumulated retirement savings and falling back on the Age Pension. Longevity also exacerbates the above three risks.

The community as a whole also bears some of these risks. In particular, the Age Pension protects individual retirees if their assets are insufficient for any reason or if they live materially longer than expected. The families of the retired and the taxpayer generally provide the backstop to individual risks, including the risks that individuals themselves choose to take.

Since the community bears a risk related to how individuals access and invest their retirement savings, the Actuaries Institute believes that it is reasonable for the Government to propose various incentives and/or restrictions on how superannuation fund assets can be drawn down. There needs to be a balance between the rights of the individual to retain flexibility in how they access and invest their post-retirement assets, and the overall community need to ensure that the retirement system is integrated with the social security system.

As mentioned above, we believe that policy should be set in anticipation that life expectancies could be significantly higher than currently planned and costed, and that this change will affect existing generations. Our objective is to outline a suite of proposals that we believe will provide improved adequacy and predictability of retirement incomes from the perspectives of the individual and the community.

<sup>26</sup> The Actuaries Institute supported the increase in the compulsory superannuation contribution rate from 9% to 12%, because we recognised the need for each generation of retirees to carry a greater burden for funding their own retirement benefits.

<sup>27</sup> APRA Statistics Superannuation Bulletin June 2011 issued February 2012 Table 18. Assuming that Default funds are indicative of aggregated investment strategies of funds.



# Key Principles and Summary of Positions

**A deeper, more developed post-retirement market is vital to provide greater choices for people looking to sensibly invest their retirement savings – over what may be a 30+ year period for many.**

The Actuaries Institute considers that policy-making in this area should be guided by the following principles:

**a. Development of a long-term regulatory outlook which facilitates:**

- A goal of achieving a secure flow of income over an appropriate period;
- Adequacy of income for the relevant period of retirement; and
- Recognition that complexity in the superannuation system has a real financial cost and increases the chance that individuals will make the wrong decision.

**b. The need for flexibility within the regulatory framework in order to:**

- Reflect different individuals' retirement income needs and varying capacity to bear risk and exercise choice;
- Encourage competition and not impede innovation unless there are significant offsetting benefits; and
- Ensure proportionality between the social objectives of regulation and the implications for individual retirees.

**c. The need to encourage intergenerational equity whereby, to the extent possible, each generation funds their own costs of retirement.**

The Actuaries Institute believes that there is an immediate need to undertake some structural reform. We propose the following:

1. Providing greater incentives to individuals to take the majority of their retirement benefits as an income stream.
2. Increasing the preservation age to three to five years less than the Age Pension age.
3. Extending the MySuper regime to include post-retirement solutions with "intelligent defaults" that provide retirees with secure income streams.
4. Removing the impediments that discourage older people who want to work.
5. Removing the legislative barriers preventing innovation in developing post-retirement income stream products such as annuities.
6. Moving to link changes in the Age Pension eligibility age to improvements in life expectancy.



## STRUCTURAL REFORM TO ENABLE AUSTRALIANS TO SECURE A PREDICTABLE INCOME IN POST-RETIREMENT

Australia is experiencing a major demographic and societal transformation. The Intergenerational Report 2010 reveals that by 2050, almost a quarter of the population will be aged over 65 compared to 14% now.<sup>28</sup>

As part of this transformation, there is the potential that Australia will witness a significant outflow of money from superannuation funds in the next 15 years, as the baby boomers move into retirement. Currently, Australia's ageing population has a relatively limited range of options regarding how to invest their superannuation in a way that will provide the right balance of security and predictability of income in retirement.

The amount of money moving from the accumulation phase of the superannuation system into the retirement phase is likely to be substantial. This is a natural progression as the superannuation system matures. Relevant statistics at 30 June 2011 are:

- \$325 billion of assets is vested in people over the age of 60 and a total of \$645 billion is vested in people over the age of 50. That is, over the next 15 years more than 60% of all fund assets are expected to flow out of the accumulation phase and enter the retirement phase.<sup>29</sup>
- In addition, there is around \$418 billion of assets in the self-managed superannuation fund (SMSF) segment, the vast majority of which is vested in members over aged 50.<sup>30</sup>

The expected outflow of money from the accumulation to the retirement phase of the superannuation system means that those superannuation funds who are well placed with suitable retirement options will be those most likely to retain their existing members, and perhaps attract new retired members. On the other hand, a lack of intelligent defaults for retirement could leave many superannuation funds unable to retain members. Many retirees will be left without a sufficient choice of suitable products to protect themselves against the post-retirement financial risks, and for this reason may decide to withdraw their retirement savings from superannuation more rapidly than is consistent with their life expectancy.

A deeper, more developed post-retirement market is vital to provide greater choices for people looking to sensibly invest their retirement savings – over what may be a 30+ year period for many. However, a wide range of barriers needs to be better understood and then tackled in order to help new and innovative retirement solutions to enter the mainstream financial services system.

The Actuaries Institute has previously recommended to Government a range of changes to Australia's regulatory and taxation system to help overcome obstacles to having deferred lifetime annuities (DLAs) and innovative guaranteed income stream products available.<sup>31</sup>



<sup>28</sup> Intergenerational Report 2010, Australia to 2050: Future Challenges, The Treasury, January 2010. Found at: <http://archive.treasury.gov.au/igr/igr2010/default.asp>.

<sup>29</sup> APRA, Annual Superannuation Bulletin June 2011. Issued 29 February 2012. Table 5

<sup>30</sup> ATO, SMSF Statistical Overview 2009-10. Published April 2012.

<sup>31</sup> In our Pre-Budget Submission of 27 January 2012, we recommended the following changes:

- Amend Superannuation Industry Supervision Regulation 106, which is a block to the development in the annuities market of products which protect against the risk of individuals outliving their retirement savings and the market risk of losing superannuation capital in retirement.
- Reverse the unfavourable treatment of annuities under aged care and Centrelink rules.
- Allow annuities and deferred annuities to be issued as a component of an account based pension.
- Change the tax rules on deferred annuities so that, if taken out in the drawdown phase, the product is regarded as a pension (rather than a non-pension) for tax purposes.

For more information, see: <http://www.actuaries.asn.au/Library/Submissions/reBudgetSubmissions/2012/PreBudgetSubmission2012.pdf>

# Key Principles and Summary of Positions CONTINUED



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The Actuaries Institute proposes that the Government require that all approved superannuation funds develop a set of intelligent post-retirement default products.

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## 1.1 Greater Incentives to Take Retirement Assets as Income Streams

Currently, there is no tax payable on lump sums drawn from superannuation funds for members aged 60 and over, although there are some tax incentives for assets to remain invested in the superannuation system in retirement. There is therefore potential for people to draw all of their retirement funds at the earliest opportunity, spend these savings, and then fall back on the Age Pension. Whilst there is little evidence to indicate that a material number of retirees do this, there may be a case for the Government to consider providing greater incentives for post-retirement assets to be used to provide an income stream. In particular, those retirees that can afford to should be incentivised to protect themselves against their own longevity.

There are arguments that the Government should make the purchase of a guaranteed income stream (such as an immediate or deferred lifetime annuity) compulsory for people with more than a pre-determined amount invested in superannuation. The argument could be made that compulsory superannuation for pre-retirees already exists and should be extended to the drawdown phase.

The Actuaries Institute does not support the argument that a retiree should be compelled to purchase a specific type of product in post-retirement. We do, however, think that the Government should provide retirees with an incentive to enter into an income type product (we describe some typical products in Appendix F) or, if there is no active choice made by the retiree, there should be an approved set of intelligent type default products designed to provide some level of security and predictability of post-retirement income.

In effect, the Actuaries Institute believes that the Government should introduce disincentives for individuals with assets above a threshold amount, to take a large proportion of these as lump sums. The assets would need to be drawn down over the long term. There would need to be an appropriate phase-in period for this change.

## 1.2 Preservation age

In line with the idea of placing restrictions on the amount of lump sum that may be withdrawn from superannuation, we also recommend that **the Government increase the Preservation Age gradually to (say) three to five years or less than the Age Pension eligibility age**. Based on the current phased increase in the Age Pension age, this could see the Preservation Age move to above age 62 by 2023.

## 1.3 The Introduction of a System of Intelligent Defaults

While removing barriers and providing incentives to take out income streams would be a positive step forward, the Actuaries Institute also proposes that the Government require that all MySuper approved superannuation funds develop a set of intelligent post-retirement default products.

# Key Principles and Summary of Positions CONTINUED

In particular, we propose that if a person has retired from full-time employment and does not choose a specific retirement product (e.g. they are already in a MySuper default superannuation product), then they are placed into an income stream product that allows flexibility and control of capital in the younger retirement years, and then potentially provides a guaranteed income in later years to supplement the Age Pension. This product may be organised into two parts, i.e. to provide liquidity and to provide longevity protection. Flexibility in the early years may include access to a capped lump sum.

The rationale underlining this suggestion is that the Government is currently prescribing a system of pre-retirement defaults through the MySuper initiative. We are proposing that retirees benefit from the same system of defaults post-retirement, where retirees are otherwise much more exposed to the consequences of poor decision-making.

The Government should seek feedback from the superannuation industry with regard to the most appropriate types of default products. As with the MySuper initiative, the trustees of the various superannuation funds would be required to licence their default products and they would be accountable to their members for the design. In designing post-retirement default products it also needs to be recognised that the retiree will need to engage with the product provider if only to organise where the income should be paid.

## **1.4 Removing Existing Impediments for Older Australians who Want to Work**

One of the most powerful levers available to influence the level of post-retirement consumption is the retirement date, as this signifies the date that a person chooses to start drawing down on their retirement income and become eligible to receive the Age Pension. Many people are keen to keep working but, whilst there is no legal retirement age in Australia, there is a community idea about what age it is appropriate to retire (i.e. when the Age Pension commences).

There are significant benefits to both the individual and the community if individuals are able to work for longer. First, since a person continues working their superannuation account balance continues to grow through a combination of additional contributions and investment. If the person had retired, they would have started to drawdown their assets. Second, the community benefits from a productive taxpaying individual who is not drawing the Age Pension.

The Actuaries Institute specifically recommends that the Government:

- Removes age limits on superannuation contributions;
- Encourages workforce participation by changing the Means Test; and
- Considers introducing an increased Age Pension, or a lump sum payment, for people who continue to work past retirement.

Appendix E – The Case for Removing Barriers to Working Longer provides some background for these recommendations.

## 1.5 The Development of a Vibrant and Competitive Superannuation Annuities Market

The Actuaries Institute suggests that the Government considers placing limits on the amount of money that individuals may draw out of the superannuation system in post-retirement. In effect, we suggest that high net worth retirees should be required to draw down the majority of their funds over an extended period.

There are a number of potential products that could be made available to retirees to assist in this regard. We have described these products as annuity products although they each have significantly different features.

Appendix F – Annuity Products, provides detail on this recommendation.

## 1.6 Move to Link the Age Pension Age to the Life Expectancy

The Actuaries Institute recognises that the Government has recently enacted to increase the qualifying age for the Age Pension to 67. This increase is to be phased in over six years, commencing from 1 July 2017.

Over the longer term, we suggest that the Government consider increasing the Age Pension age in line with increases to life expectancy. This recognises the effect of increasing longevity and improved health, and offsets some of the effects of an ageing population on social security costs.

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We suggest that the Government consider increasing the Age Pension age in line with increases in life expectancy.

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# Appendices

# Appendix A Life Expectancy

## AUSTRALIANS HAVE A LONG LIFE EXPECTANCY

Australians are one of the longest lived populations in the world.

TABLE S.15.								
THE TEN COUNTRIES OR AREAS WITH THE HIGHEST AND THE TEN COUNTRIES OR AREAS WITH THE LOWEST LIFE EXPECTANCY AT BIRTH, 2005-2010, 2045-2050 AND 2095-2100								
2005 – 2010			2045 – 2050			2095 – 2100		
Rank	Country or area	Life expectancy	Rank	Country or area	Life expectancy	Rank	Country or area	Life expectancy
<b>A. Highest life expectancy at birth</b>								
1.	Japan	82.7	1.	Japan	87.4	1.	Japan	92.3
2.	Switzerland	81.8	2.	China, Hong Kong SAR	87.2	2.	China, Hong Kong SAR	91.8
3.	China, Hong Kong SAR	81.6	3.	Switzerland	86.4	3.	Switzerland	91.4
4.	<b>Australia</b>	<b>81.4</b>	4.	Israel	86.3	4.	Israel	91.2
5.	Italy	81.4	5.	<b>Australia</b>	<b>86.0</b>	5.	<b>Australia</b>	<b>91.0</b>
6.	Iceland	81.3	6.	Iceland	85.8	6.	Iceland	90.8
7.	France	81.0	7.	France	85.8	7.	Spain	90.8
8.	Sweden	80.9	8.	Spain	85.8	8.	France	90.8
9.	Israel	80.7	9.	Italy	85.7	9.	Sweden	90.7
10.	Singapore	80.6	10.	Sweden	85.7	10.	Italy	90.6
<b>B. Lowest life expectancy at birth</b>								
1.	Central African Republic	45.9	1.	Lesotho	58.0	1.	Sierra Leone	74.1
2.	Lesotho	46.0	2.	Dem. Republic of Congo	61.5	2.	Dem. Republic of Congo	74.1

United Nations Department of Economic and Social Affairs/Population Division  
World Population Prospects: The 2010 Revision, Highlights and Advanced Tables

## Appendix A Life Expectancy CONTINUED

### Australian life expectancies are improving rapidly

The following data from the Australian Bureau of Statistics demonstrates how Australian life expectancy at all ages has improved dramatically over the last 100 years:

#### Complete expectation of life at selected ages:

Males				Females			
Life Tables	0	Age 30	65	Life Tables	0	Age 30	65
1881-90	47.20	33.64	11.06	1881-90	50.84	36.13	12.27
1891-00	51.08	35.11	11.25	1891-00	54.76	37.86	12.75
1901-10	55.20	36.52	11.31	1901-10	58.84	39.33	12.88
1920-22	59.15	38.44	12.01	1920-22	63.31	41.48	13.60
1932-34	63.48	39.90	12.40	1932-34	67.14	42.77	14.15
1946-48	66.07	40.40	12.25	1946-48	70.63	44.08	14.44
1953-55	67.14	40.90	12.33	1953-55	72.75	45.43	15.02
1960-62	67.92	41.12	12.47	1960-62	74.18	46.49	15.68
1965-67	67.63	40.72	12.16	1965-67	74.15	46.34	15.70
1970-72	68.10	41.10	12.37	1970-72	74.80	46.86	16.09
1975-77	69.56	42.18	13.13	1975-77	76.56	48.26	17.13
1980-82	71.23	43.51	13.80	1980-82	78.27	49.67	18.00
1985-87	72.74	44.84	14.60	1985-87	79.20	50.49	18.56
1990-92	74.32	46.07	15.41	1990-92	80.39	51.48	19.26
1995-97	75.69	47.26	16.21	1995-97	81.37	52.30	19.88
2000-02	77.64	49.07	17.70	2000-02	82.87	53.72	21.15
2005-07	79.02	50.20	18.54	2005-07	83.67	54.44	21.62

Source: Australian Life Tables 2005-07 [http://www.abs.gov.au/publications/life\\_tables\\_2005-07/downloads/Australian\\_Life\\_Tables\\_2005-07.pdf](http://www.abs.gov.au/publications/life_tables_2005-07/downloads/Australian_Life_Tables_2005-07.pdf).

During this 103 year period:

- Life expectancy at birth has lengthened by 67% for men and 65% for women; and
- Life expectancy at age 65 has lengthened by 68% for men and 76% for women.



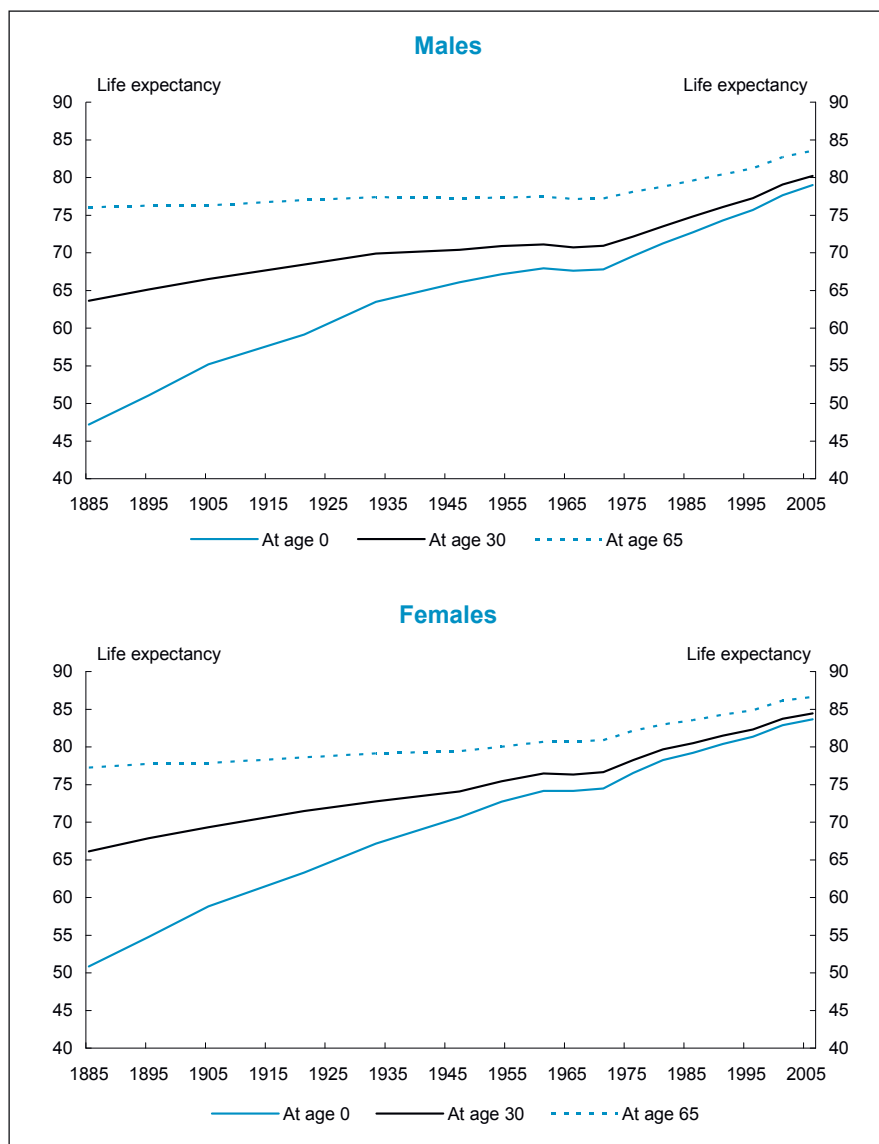
## Appendix A Life Expectancy CONTINUED



Source: The Australian Life Tables 2005-07 [http://www.aga.gov.au/publications/life\\_tables\\_2005-07/downloads/Australian\\_Life\\_Tables\\_2005-07.pdf](http://www.aga.gov.au/publications/life_tables_2005-07/downloads/Australian_Life_Tables_2005-07.pdf)

The improvements in recent years, especially the last 40, have been more rapid than in previous years – as the following charts illustrate:

### Total life expectancy at selected ages\*



\* Note that these life expectancies do not make allowance for the improvements in mortality experienced over a person's lifetime.

The Australian Life Tables 2005-07 Report<sup>32</sup> states:

***“Reported life expectancy at birth has shown dramatic improvement, increasing by over 30 years for both males and females... At older ages, the substantial improvements in mortality rates for this group over the past thirty years have flowed through into significantly increased life expectancies, with expectation of life at age 65 increasing by around six years for both males and females. This represents an increase of more than 50 per cent for males and 37 per cent for females in the expectation of life at this age.”***

<sup>32</sup> Australian Life Tables 2005-07 Report. Australian Government Actuary, Commonwealth of Australia, 2009. Pages 12-13.

# Appendix A Life Expectancy CONTINUED

## Reported figures don't include all the mortality improvements we can expect

The latest ABS data, based on the 2005-07 Life Tables, reports the life expectancy at birth for a male as 79 and a female as 84. These figures are reported in the media and hence most Australians base their views on how long they will live on this information. Reported life expectancies are based on actual deaths in the investigation period. They do not project future life expectancy of people currently alive.

The following table compares the reported life expectancies with life expectancies allowing for mortality improvements derived by using 25 year mortality improvement factors.

	LIFE EXPECTANCY AT BIRTH					
	In 2010		Expected in 2050		Additional years of life 2050 vs. 2010**	
	Males	Females	Males	Females	Males	Females
ABS reported in annual stats <sup>33</sup>	79.5	84.0				
Cohort expectancy allowing for faster improvements over last 25 years*	92.4	93.9	96.7	97.3	17.2	13.3

\* Figures in the last row are sourced from the Australian Life Tables 2005-07 Report, Australian Government Actuary, on page 19.

\*\* This is the increase in life expectancy between reported and cohort.

## What's the difference between the figures?

When you are looking at the likely life expectancy of future Australians, a cohort life expectancy measure is more realistic. As stated by the Government Actuary in the Australian Life Tables 2005-07 Report:

*"Cohort life expectancy... takes into account the improvements that could be experienced over the lifetime of the individual... Cohort life expectancies can be thought of as being a more realistic representation of the unfolding mortality experience of the Australian population."*<sup>34</sup>



<sup>33</sup> ABS 4125.0 - Gender Indicators, Australia, Jan 2012

<sup>34</sup> Australian Life Tables 2005-07 Report. Australian Government Actuary, Commonwealth of Australia, 2009. Page 18.

## Appendix A Life Expectancy CONTINUED

Whilst the government uses cohort life expectancies to guide its policy settings, these figures are not widely publicised and the average Australian is unaware of their likely true life expectancy when they reach retirement.

So why are the media not reporting cohort life expectancies? Maybe because these figures involve making a series of assumptions, and as a result are somewhat volatile and jump around from census to census. Forecasting mortality improvements is not an exact science. The Government Actuary issues this word of caution about using cohort data to estimate future life expectancy:

***“The period and cohort life expectancies ... illustrate what would occur if mortality continued to improve at the rates observed in the past. Measured mortality improvement can change appreciably between successive Tables...”***

***As a result, the 25 year mortality improvement factor at this age has more than doubled from 0.8 per cent per annum to 1.8 per cent per annum between the 2000-02 Tables and the current Tables.***

***Furthermore, the effects of these movements are magnified because the projections assume that mortality improvement will be constant for a particular age...***

***History demonstrates that mortality improvement is not constant at a particular age and, indeed, can vary within a quite considerable range...***

***Thus, the estimates of cohort mortality included here must be accepted as projections of outcomes under assumptions that have a certain historical basis. They should be regarded as indicative rather than firm forecasts of life expectancy.”<sup>35</sup>***

Cohort life expectancies are only an indication, but they may be the best indication that we have, and are more realistic than the reported life expectancies.

### What’s the potential impact on retirees?

The above discussion looked at life expectancy from birth. This was useful to illustrate the use of cohort life expectancies and the difference they can make. What matters for this discussion however is the life expectancy of retirees. So let’s now use cohort life expectancies to see what mortality improvements people aged 65 can expect.

Total life expectancy at age 65 is longer than life expectancy at birth, because by age 65 some people have already died. However we can expect improvements in life expectancies for 65 year olds in 2050 to be smaller than those for a new baby being born in 2050.

<sup>35</sup> Australian Life Tables 2005-07 Report. Australian Government Actuary, Commonwealth of Australia, 2009. Page 21.

## Appendix A Life Expectancy CONTINUED

The table below repeats the previous analysis, but looks at life expectancies at age 65 rather than at birth.

	LIFE EXPECTANCY (EXPRESSED AS TOTAL LIFE SPAN) AT AGE 65					
	In 2010		Expected in 2050		Additional years of life 2050 vs. 2010**	
	Males	Females	Males	Females	Males	Females
ABS reported in annual stats <sup>36</sup>	83.9	86.8				
Cohort expectancy allowing for faster improvements over last 25 years*	86.3	89.0	92.0	93.3	8.1	6.5

**We could realistically be living longer in retirement, 30% longer for women and 44% longer for men, than currently.**

\* Figures in the last row are sourced from the Australian Life Tables 2005-07 Report, Australian Government Actuary, Projected Cohort Life Expectancy, on page 19.

\*\* This is the increase in life expectancy between reported and cohort.

The above figures indicate that the more realistic scenario based on the cohort figures is that 65 year olds in 2050 will actually be living an extra six to eight years in retirement above the current reported life expectancy.

That's 30% longer for women and 44% longer for men than currently.

But it could be longer. What if life expectancies begin to improve even faster than the trend over the last 25 years? **You can see from the above analysis how uncertain projecting longevity improvements is. In Appendix B we claim that there is a chance that the above analysis, even the longer "cohort" figures, will underestimate future longevity improvements, as it has done in the past.**

### What figures are policymakers using?

Treasury in their Intergenerational Report 2010<sup>37</sup> has the following analysis:

These mortality and life expectancy trends are projected to continue (Table 1.3).

- Men born in 2050 are now projected to live an average of 7.6 years longer than those born in 2010, and women an average of 6.1 years longer.
- Men aged 60 in 2050 are projected to live an average of 5.8 years longer than those aged 60 in 2010, and women an average of 4.8 years longer.

**Importantly, Treasury's predictions are lower than the life expectancy indicated by the cohort analysis.**

<sup>36</sup> ABS 4125.0 - Gender Indicators, Australia, Jan 2012

<sup>37</sup> [http://archive.treasury.gov.au/igr/igr2010/report/pdf/IGR\\_2010.pdf](http://archive.treasury.gov.au/igr/igr2010/report/pdf/IGR_2010.pdf)

## Appendix A Life Expectancy CONTINUED

**Table 1.3: Australians' projected life expectancy (years)**

	2010	2020	2030	2040	2050
<b>Life expectancy at birth</b>					
Men	80.1	82.5	84.5	86.1	87.7
Women	84.4	86.2	87.8	89.2	90.5
<b>Life expectancy at age 60</b>					
Men	23.4	25.2	26.7	28.0	29.2
Women	26.6	27.9	29.2	30.4	31.4
<b>Life expectancy at age 67</b>					
Men	17.6	19.1	20.4	21.6	22.6
Women	20.4	21.6	22.8	23.8	24.8

Source: Treasury.

So at age 67 in 2050, Treasury are predicting that men will live until 89.6 and women until 91.8. This is lower than the life expectancy indicated by the cohort analysis outlined above, and actual life expectancies could be longer again.

# Appendix B Why We Underestimate Life Expectancy

The following is an extract from the paper "Living Until 120: The Implications for Absolutely Everything" by actuaries Barry Rafe and Melinda Howes.<sup>38</sup>

<sup>38</sup> This Paper was presented at the Actuaries Institute Financial Services Forum, Melbourne, 30th April 2012 and the IAA Colloquium, Hong Kong, 7th May 2012.

<sup>39</sup> Longevity Management Issues for Australia's Future Tax System, The Treasury", Mike Sherris & John Evans, UNSW, Aug 2009.

Normal modelling techniques cannot handle discontinuities – things like major medical breakthroughs, a cure for cancer or viruses.

Actuaries have been modelling mortality for more than 100 years. We are very good at predicting gradual increases in life expectancy. However, we have a problem.

In a paper written for the Henry Review of the Tax System<sup>39</sup>, actuaries Mike Sherris and John Evans contend that longevity risk can be considered as being made up of:

- The "known/knowns" – A general improvement trend from socioeconomic improvements – as we can see on this chart;
- The "known/unknowns" – Some variation around the longer term improvement trend; and
- The "unknown/unknowns" – Sudden changes from wars, pandemics that may shorten life expectancies and disease management which may substantially increase life expectancies.

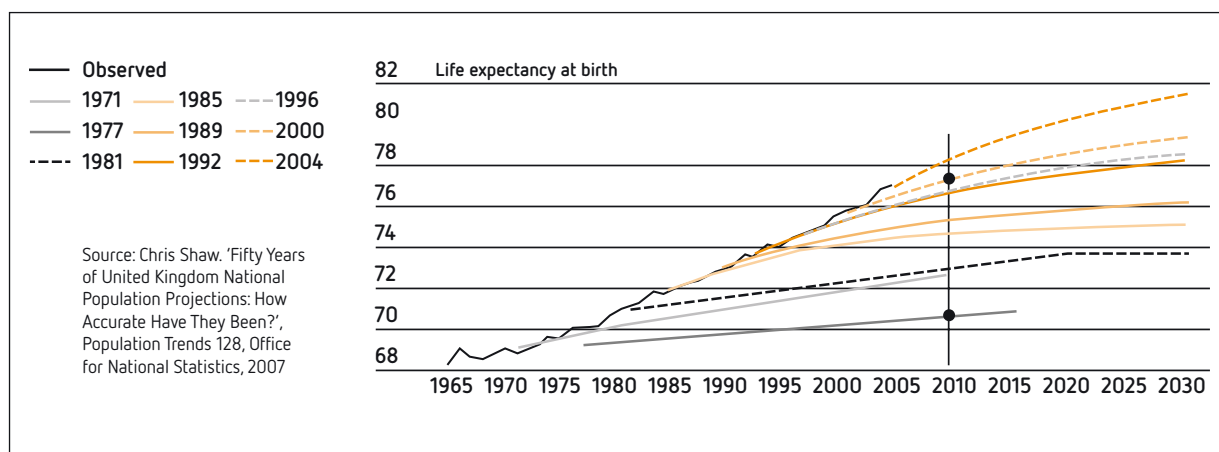
They go on to say:

*"Whilst the known/known risk is easily managed as it can be modelled and therefore appropriate allowances made in pricing, the known/unknown risk is more difficult as its modelling is uncertain, and the unknown/unknown risk is impossible to manage as it is not predictable, and therefore appropriate allowances for these possible changes is not feasible."*

The problem is **DISCONTINUITIES** – normal modelling techniques cannot handle things like major medical breakthroughs, a cure for cancer or viruses. If normal modelling techniques are unable to anticipate discontinuities then there are difficulties in developing policy.

The following chart shows the success rate UK actuaries have had in the past with predicting mortality improvements – as you can see it clearly illustrates the difficulty of predicting the future based on past improvement trends.

Actual and projected life expectancy at birth, UK males



## Appendix B Why We Underestimate Life Expectancy CONTINUED

<sup>40</sup> "A window into the Future: Understanding and Predicting Longevity," SwissRe, 2011.

The list below<sup>40</sup> sets out some of the medical advances that took place between 2000 and 2010. Each of these can have a significant impact on life expectancy and quality of life.

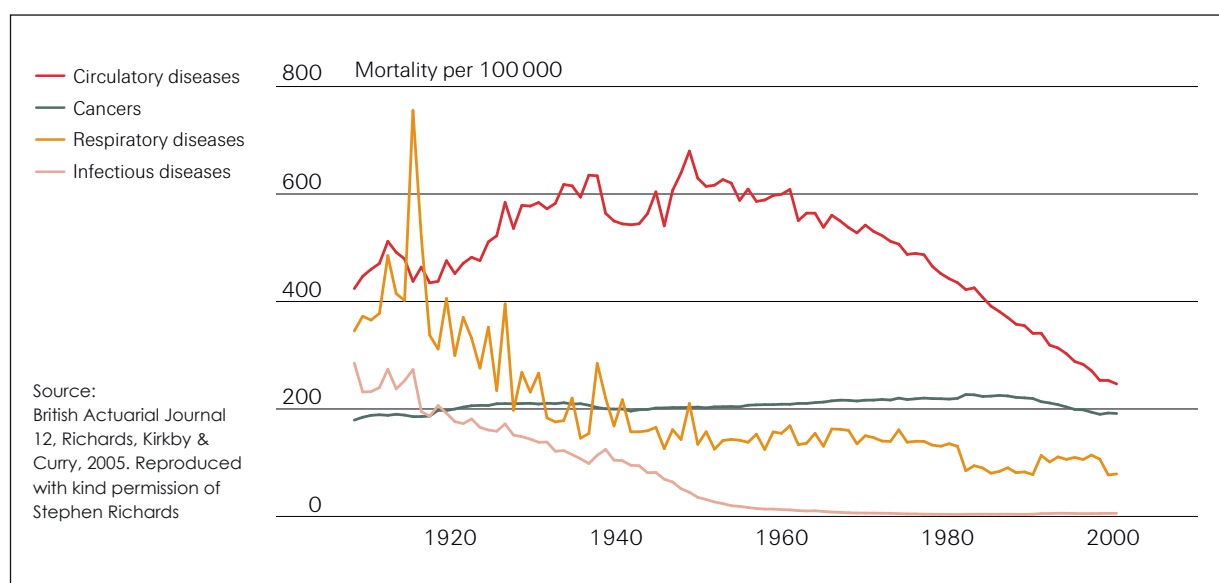
### ABC News and Med Page Today's top-ten US medical advances of 2000-2010

1. Human genome discoveries reach the bedside
2. Doctors and patients harness information technology
3. Anti-smoking laws and campaigns reduce public smoking
4. Heart disease drops by 40%
5. Stem-cell research: laboratory breakthroughs and some clinical advances
6. Targeted therapies for cancer expand with new drugs
7. Combination drug therapy extends HIV survival
8. Minimally invasive and robotic techniques revolutionise surgery
9. Study finds heart and cancer risk with hormone replacement therapy
10. Scientists peer into mind with functional MRI

Deaths from some of our major diseases are on their way down as a direct result of medical advances.

In addition, we can see from the chart below that deaths from some of our major diseases are on their way down as a direct result of these medical advances. Only cancer is stable.

**Mortality by cause, England and Wales**





## Appendix B Why We Underestimate Life Expectancy CONTINUED

The following is an extract from the actuarial paper “Longevity in the 21st Century” by R. C. Willets, A. P. Gallop, P. A. Leandro, J. L. C. Lu, A. S. Macdonald, K. A. Miller, S. J. Richards, N. Robjohns, J. P. Ryan and H. R. Waters.<sup>41</sup>

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**Rapid advances in medicine may cause mortality rates to fall with increasing speed.**

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### 4. MEDICAL ADVANCES

#### 4.1 Introduction

- 4.1.1 In Section 2 it was observed that a substantial part of current mortality improvement is being driven by advances in medicine. The reduced number of heart disease deaths has been partly due to the development of new treatments, such as beta-blockers, and new surgical procedures, such as bypass grafts and angioplasties. Improvements in cancer mortality have been largely due to advances in detection and treatment of cancers; underlying incidence rates appear to have remained broadly level or increased for many cancer types.
- 4.1.2 At the beginning of the 21st century, the results of scientific development are increasingly altering the way in which we live our lives. A prime example was the project to decode the entire human genome, which has provided us with a map of the DNA making up our chromosomes. This task was only possible because of the enormous developments in computing technology that have occurred over the past few decades. The human genome project is now likely to sow the seeds for a whole range of scientific and medical progress.
- 4.1.3 The battle against cancer is progressing on a number of fronts, with much of the research having a genetic basis (one aspect of this is discussed later in this section). The growth of replacement organs for transplantation is another area in which progress is likely in the 21st century, and new surgical procedures for combating heart disease are also likely.
- 4.1.4 The pace of scientific development appears to be accelerating, and it is possible that this explosion in knowledge will drive increasingly rapid advances in medicine. These advances may cause mortality rates to fall with increasing speed.
- 4.1.5 A comprehensive analysis of future trends in medicine is beyond the scope of this paper. However, two particular areas of medicine will be explored: firstly, a potential development in the treatment of cardiovascular disease; and secondly, research into the ageing process.

...

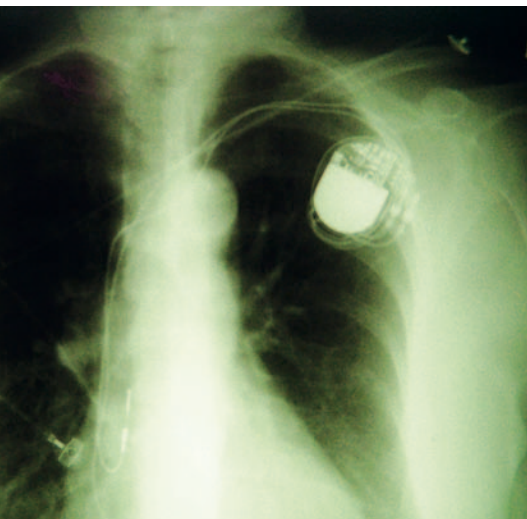
#### 4.2 Drug Treatments for Cardiovascular Disease

- 4.2.1 In this section, some recent developments in the treatment and prevention of heart disease and stroke are discussed. These developments are of considerable interest in themselves, and also provide some insight into how medical advances may occur in future. Heart disease and stroke are major causes of mortality in the U.K. In Sections 2.5 and 2.6 we saw that over 40% of deaths for people aged over 70 in England and Wales are due to circulatory disorders, such as heart disease and stroke. Clearly, any

<sup>41</sup> This Paper was presented at the Faculty of Actuaries, 15 March 2004, and to the Institute of Actuaries, 26 April 2004.



## Appendix B Why We Underestimate Life Expectancy CONTINUED



developments which reduce the incidence of heart disease and stroke are likely to have a major impact on population mortality.

4.2.3 Some of the developments discussed in this section have been established medical practice for a number of years. However, the most recent development has not yet even been tested. This was announced in a series of three papers in a June 2003 issue of the British Medical Journal, one of which was entitled, 'A strategy to reduce cardiovascular disease by more than 80%' (Wald & Law, 2003). These papers were highlighted by two editorial articles in the same issue, entitled, 'A cure for cardiovascular disease?' (Rodgers, 2003), and, 'The most important BMJ for 50 years?' (Smith, 2003).

...

4.2.8 The claims that cardiovascular disease could be reduced by more than 80%, mentioned previously, are based on the research of Professors Law and Wald. Their concept, for which they are currently seeking a patent, is appealingly simple. They propose that a single pill, consisting of six drugs already used individually to treat risk factors for cardiovascular disease, should be taken by everyone over the age of 55, irrespective of their pre-treatment levels of these risk factors. The ingredients of this 'polypill', a name for which Professors Law and Wald have applied for a trademark, are:

- a statin to reduce LDL;
- a combination of low doses of three blood pressure reducing drugs;
- folic acid to reduce the level of homocysteine in the blood; and
- aspirin to regulate blood platelet function.

...

This paper was published in 2004. A search of "polypill" on Wikipedia gives the latest state of play:

### CARDIOVASCULAR POLYPILL

In their paper *A strategy to reduce cardiovascular disease by more than 80%* (published in the British Medical Journal) on June 28, 2003, Wald and Law postulated that by using a combination of well known, cheap medications in one pill (the "Polypill") would be a particularly effective treatment against cardiovascular disease. They presented a statistical model which suggested widespread use of the polypill could reduce mortality due to heart disease and strokes by up to 80%. The treatment is potentially cheap, with few side effects (in perhaps 10-15% of recipients) and the research was based on data from many trials relating to the individual components.

**The polypill could reduce mortality due to heart disease and strokes by up to 80%.**

The concepts they present are based on these principles: reducing blood pressure, cholesterol and taking a low dose of aspirin to help prevent heart disease and stroke. (In the interim, however, there is concern that the use of aspirin in a healthy population causes more harm than good.<sup>[4]</sup>) Tests of the Wald and Law polypill have been recommended in 2005. Additionally, "polypills" are currently available in India. Any GP can currently prescribe

## Appendix B Why We Underestimate Life Expectancy CONTINUED

all the components of the polypill separately for her/his patients. The ingredients of the polypill are off patent. Since this would make the polypill quite cheap (some estimates on the BMJ rapid responses were less than 70 pounds per year), there is little financial incentive for pharmaceutical companies to pay the high costs of a clinical trial. (Naturally, however, large insurers, or national healthcare systems, may have considerable financial incentive to pay for such trials).

Cardiologists in Spain (Sanz and Fuster, 2009) are currently developing a polypill for secondary cardiovascular prevention. This project is being done in collaboration with Ferrer-Internacional, which is a Spanish pharmaceutical company based in Barcelona with experience in the development and launching of international projects. These authors believe that this polypill delivered at a low price could improve adherence to treatment, reduce the cost and make treatment affordable in low-income countries. Furthermore, they preview that success in this area of prevention could lead to the development of polypills for several other diseases, such as diabetes and stroke.

Continuing the  
extract from the  
actuarial paper  
"Longevity in the 21st  
Century" by  
R. C. Willets,  
A. P. Gallop,  
P. A. Leandro,  
J. L. C. Lu,  
A. S. Macdonald,  
K. A. Miller,  
S. J. Richards,  
N. Robjohns,  
J. P. Ryan and  
H. R. Waters.

### 4.5 Theories of Ageing

4.5.1 Whilst there is a lack of complete understanding, there has been a lot of progress, in the field of ageing research. There are plenty of ideas and a 748 Longevity in the 21st Century large range of different theories. In his review paper, Held (2002) cited the example of the Russian gerontologist Medvedev, who had reportedly listed and categorised over 300 theories of ageing. Some of these ideas overlap, and others appear quite independent. One challenge facing researchers is the development of a 'unified theory of ageing'. A few decades ago this appeared to be a long way off. However, in recent years scientists have been getting more optimistic, as the quotes listed below demonstrate:

*"With the knowledge that is accumulating now about the nutritional and neuroendocrine aspects of ageing, and if we develop ways to repair ageing tissues with the help of embryonic cells, we could add 30 years to human life in the next decade. And beyond that, as we learn to control the genes involved in ageing, the possibilities of lengthening life appear practically unlimited."* – **William Regelson - Professor of Medicine at the Medical College of Virginia - quotation in Medina (1996)**

*"I believe ... in 25 years time we could see the creation of the first products that can postpone human ageing significantly. This would be only the beginning of a long process of technological development in which human life span would be aggressively extended. The only practical limit to human life span is the limit of human technology."* – **Michael Rose - University of California - quotation in Medina (1996)**

*"The cure for ageing must now be taken seriously by responsible gerontologists, because it is no longer science fiction."* – **Aubrey de Grey (2003) - Department of Genetics, University of Cambridge**

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**The cure for ageing  
must now be taken  
seriously as it is no  
longer science fiction.**

---

# Appendix B Why We Underestimate Life Expectancy CONTINUED

<sup>42</sup> de Grey, Aubrey D. N. J. (June 15, 2004), "Escape Velocity: Why the Prospect of Extreme Human Life Extension Matters Now", PLoS Biol 2 (6): 723–726, DOI:10.1371/journal.pbio.0020187, <http://biology.plosjournals.org/perlserv/plosonline/%3Frequest%3Dget-document&doi%3D10.1371/journal.pbio.0000045?request=get-document&doi=10.1371/journal.pbio.0020187>, retrieved 2007-02-12.

<sup>43</sup> Traister, Rebecca (November 22, 2006), "Diet your way to a long, miserable life!", Salon.com, [http://www.salon.com/mwt/feature/2006/11/22/cr\\_diets/index.html](http://www.salon.com/mwt/feature/2006/11/22/cr_diets/index.html), retrieved 2008-10-31

<sup>44</sup> Dibbell, Julian (October 23, 2006), "The Fast Supper", New York Magazine

<sup>45</sup> de Grey, Aubrey; & Rae, Michael (September 2007), Ending Aging: The Rejuvenation Breakthroughs that Could Reverse Human Aging in Our Lifetime, New York, NY: St. Martin's Press, p. 416, ISBN 0-312-36706-6

<sup>46</sup> Birnbaum, Ben (2006), "Extension program", Boston College Magazine

**This paper was published in 2004. (Latest state of play)**



4.5.2 The work of Dr Aubrey de Grey has become more widely known amongst actuaries in the U.K. through his participation in a recent seminar (October 2003) on mortality improvement, jointly sponsored by the CMI Bureau and the GAD. In his presentation at the seminar, de Grey described how the 'war on ageing' could be only a decade away, and discussed what actuaries should be doing in the run-up to a 'post ageing world'. He explained how advances in medicine could lead to 'engineered negligible senescence', and described a set of milestones on the path to achieving this goal. De Grey's theories are founded on the belief that there are only seven mechanisms for accumulating damage to the human body. Furthermore, therapies for reversing or obviating all of these types of damage are clearly foreseeable. He felt that, given sufficient commitment and resources, the goal of 'engineered negligible senescence' could be achieved by the year 2025.

4.5.3 Obviously, not everyone agrees with these views; but should we completely ignore what these scientists are saying? The general consensus suggests that we are unlikely to see a cure for ageing in the next few decades. However, looking further into the future – say 30 or 40 years – it is very difficult to tell whether the optimism of some scientists will prove to be correct. With the accelerating pace of scientific development, a great deal can change in 30 or 40 years. Yet, the youngest members of final salary schemes may well be alive 60 or 70 years from now, perhaps even longer.

...

De Grey has an article in The Futurist in May 2012 called "A Thousand Years Young" where he identifies the medical and biochemical advances that could eventually eliminate all the wear and tear that our bodies and minds suffer as we grow old. A link to the article is here: <http://www.wfs.org/futurist/may-june-2012-vol-46-no-3/thousand-years-young> (subscription required).

You can hear de Grey talk about his ideas at TED through this link: [http://www.ted.com/talks/aubrey\\_de\\_grey\\_says\\_we\\_can\\_avoid\\_aging.html](http://www.ted.com/talks/aubrey_de_grey_says_we_can_avoid_aging.html)

## ACTUARIAL ESCAPE VELOCITY

Wikipedia provides the following definition:

***"Life expectancy increases slightly every year as treatment strategies and technologies improve. At present, more than one year of research is required for each additional year of expected life. Actuarial escape velocity occurs when this ratio reverses, so that life expectancy increases faster than one year per one year of research, as long as that rate of advance is sustainable."***<sup>42,43,44</sup>

The concept was first publicly proposed by David Gobel, founder of the Methuselah Foundation. The idea has been championed by biogerontologist Aubrey de Grey<sup>45</sup> and futurist Ray Kurzweil.<sup>46</sup>

# Appendix C Amendments to Facilitate Innovation in the Annuities Market

Legislation should be sufficiently broad to allow different product solutions to be developed.

## 1. Amend Regulations 1.05 and 1.06 of the Superannuation Industry (Supervision) Regulations to ensure that they allow product innovation in pensions and annuities.

The current regulations are overly complex and prescriptive and discourage or prevent the introduction of most of the annuity products that have been successful internationally.

In particular, the Actuaries Institute's view is that the following product designs, which are "mainstream" internationally, and meet all of current policy objectives (mainly of a revenue nature), are either prohibited or difficult to implement:

- Variable annuities with the pooling or guarantee of longevity risk.
- With profit annuities, where investment and longevity profits and losses are shared with the pensioners.
- Income stream packages that incorporate a deferred annuity from an advanced age.

In each case, the product design should specifically allow payments to be varied to limit fluctuations in the combined payments from the pension/annuity and the Age Pension.

We suggest that the legislation should not define an annuity as a product that has one or two named features, and should instead be sufficiently broad to allow different product solutions to be developed.

## 2. Change the tax rules on deferred lifetime annuities so that, if taken out in the drawdown phase, the product is regarded as a pension (rather than a non-pension) and therefore exempt from income tax.

The Actuaries Institute is not aware of any provider issuing deferred lifetime annuities largely due to the product's classification as a non-pension. Challenger has estimated that the price of a deferred lifetime annuity is 14% higher because of the current taxable classification.<sup>47</sup>

We understand that the Government is concerned about the impact on revenue from changing the tax status.

Introduction of deferred annuities into the Australian superannuation system would involve a short term cost to government finances. By buying a deferred annuity, a retiree is deferring retirement income that will result in a reduction in retirement income during the deferral period. If the retiree is eligible for a part Age Pension this would result in a small increase in pension outlays. Provided retirees are complying with the minimum draw down rules they have the option to defer private income and take a larger Age Pension whether they are buying a deferred annuities or not. The Institute notes, however, that any rule changes would need to be carefully framed to apply tax free status to genuine retirement deferred lifetime annuities purchased with superannuation money, and not extend such treatment to other deferred annuities.

<sup>47</sup> Challenger's figures are based on a deferred annuity at age 65 commencing payment at age 85 i.e. a 20 year deferral period.

## Appendix C Amendments to Facilitate Innovation in the Annuities Market CONTINUED



The Actuaries Institute contends that if the proposed tax treatment is limited to non-commutable income streams purchased with superannuation money, there is no opportunity to exploit the system. People will not attempt to “hide” capital in something that is non-commutable, because they can never get the money back.

The Actuaries Institute believes that there is no justification to have different tax treatment for deferred annuities compared to other income streams that can be purchased with superannuation money. The special tax treatment of annuities was put in place a number of years ago to prevent exploitation in a different part of the market. The resulting application to superannuation deferred annuities appears to be an unintended consequence.

### **3. Issue longer dated Government (and corporate) bonds.**

The Actuaries Institute recognises that product providers currently experience problems finding investments to back annuity products.

A key element which could facilitate product development, but which is currently missing, is the availability of longer dated government (and corporate) bonds. Superannuation funds can try to create their own fixed term annuity type products, but the lack of available longer dated government bonds has made this a difficult exercise. (There are even fewer corporate bonds - having a deeper /longer dated market there would help too.)

Having the Government issue longer dated bonds (say 30 or 40 years) could also be of use in the life / deferred annuity market (as well as the fixed term market).

### **4. Reverse the unfavourable treatment of annuities under aged care and social security rules and make lifetime non-commutable annuities exempt from the Centrelink Assets Test.**

The Actuaries Institute believes that a non-commutable guaranteed annuity should be excluded from the Centrelink assets test; however we understand that there are revenue implications for this measure that have not been costed here.

### **5. Do away with minimum surrender values.**

APRA Prudential Standard *LPS4.02 Minimum Surrender Values and Paid-Up Values* (28 June 2010) treats deferred annuities as an investment product during the deferral period and requires a surrender value. This would render a deferred annuity uneconomic to provide as a lifetime product, or would defeat the attractive pricing, which is the basis of deferred lifetime annuities as having a role in an ageing society.

### **6. Remove deferred lifetime annuities from being subject to minimum drawdown rules.**

The rule requiring a minimum payment to be made from a pension every year does not cater for deferred annuities.



## Appendix D Retirement and Retirement Intentions

The following is an extract from ABS Publication 6238.0 – Retirement and Retirement Intentions, Australia, July 2010 to June 2011. Issued 13 December 2011. Found at: [http://www.ausstats.abs.gov.au/ausstats/subscriber.nsf/0/C4C9530A2947002ACA25796400145D56/\\$File/62380\\_july%202010%20to%20june%202011.pdf](http://www.ausstats.abs.gov.au/ausstats/subscriber.nsf/0/C4C9530A2947002ACA25796400145D56/$File/62380_july%202010%20to%20june%202011.pdf)

### Average Retirement Age

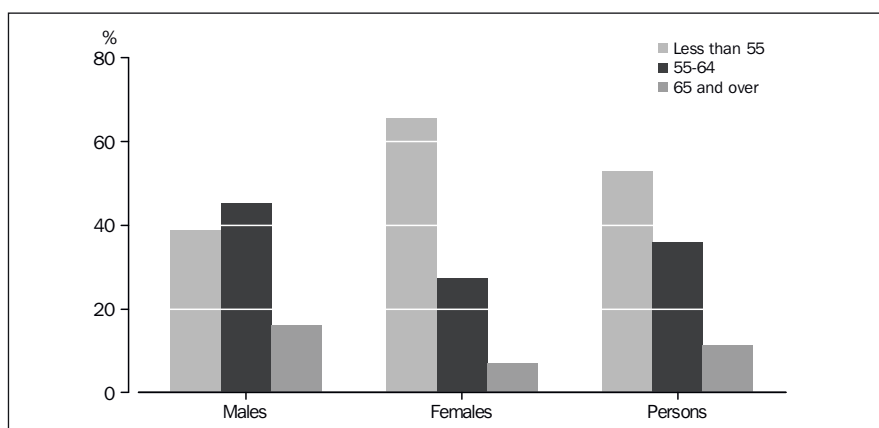
The average age at retirement from the labour force for people aged 45 years and over in 2010-11 was 53.3 years (57.9 years for men and 49.6 years for women). Of the 1.4 million men who had retired from the labour force:

- 27% had retired aged less than 55 years;
- 53% had retired aged 55-64 years; and
- 20% had retired aged 65 years and over.

The 1.8 million women who had retired from the labour force had retired on average at a younger age than men. The ages at which women retirees had retired from the labour force were as follows:

- 57% had retired aged less than 55 years;
- 35% had retired aged 55-64 years; and
- 8% had retired aged 65 years and over.

### Persons retired from the Labour Force – Age at retirement (years) – by sex



The average age at retirement for recent retirees (those who have retired in the last five years) was 61.4 years. Within this group, the difference between the retirement age of men and women was relatively small, with women retiring a little younger than men (the average retirement ages for this group were 62.5 years for men and 60.3 years for women).

### Age Intends to Retire

Of the 3.9 million people in the labour force who indicated that they intend to retire from the labour force, 1.6 million people (40%) did not know the age at which they would retire (38% of men and 43% of women). Of those who did indicate an age:

- 14% intend to retire aged 70 years and over (17% of men and 10% of women);
- 47% intend to retire aged 65-69 years (53% of men and 40% of women);
- 28% intend to retire aged 60-64 years (22% of men and 35% of women); and
- 12% intend to retire aged 45-59 years (9% of men and 15% of women).

The average age at which people intended to retire was 62.9 years (63.5 years for men and 62.0 years for women).



## Appendix E The Case for Removing Barriers to Working Longer



The Actuaries Institute recommends that the Government:

- Remove age limits on superannuation contributions;
- Encourage workforce participation by changing the Means Test; and
- Consider introducing an increased Age Pension, or a lump sum payment, for people who continue to work past retirement.

More people are gradually winding down to retirement instead of stopping work completely.

According to the Australian Bureau of Statistics (Multipurpose Household Survey 2011), about 40% of older workers expect to wind back their hours for several years before eventually retiring, while another 13% intend to never retire but just keep working – at least part time.

According to Australian Super General Manager of Strategy, Paul Schroder, the notion of 'retirement' no longer exists: ***"People are working part time, changing careers, learning new skills and all kinds of transitions. People are morphing into retirement these days, there is no big race to the finish line."***<sup>48</sup>

Appendix D sets out an indication of intended retirement age. In particular 12% expect to retire before age 60 and 14% intend to retire after age 70.

In its 2011 Report to the Federal Government – ***"Realising the Economic Potential of Senior Australians: Turning Grey into Gold"*** – the Advisory Panel on the Economic Potential of Senior Australians made the following recommendation: ***"The Federal Government conduct a review of how the retirement income system interacts with mature age workforce participation, for completion by the end of 2013."***<sup>49</sup>

The Age Discrimination Commissioner, The Hon Susan Ryan AO, says that: ***"As a society, we have been slow to recognise that millions of older Australians are locked out of the workforce by age discrimination."***<sup>50</sup>

The Federal Government's commitment to removing the superannuation guarantee age limit (from 1 July 2013) should be commended. However, age limits on some contributions, for example salary sacrifice contributions, remain within the superannuation system, restricting older Australians aged 75 and over from making these contributions.

The Federal Government could encourage workforce participation by removing earned income from the Means Test for the Age Pension so retirees are not penalised for working if and when they can.

To assess the financial impact of continuing to work and earn an income post Age Pension age, a retiree currently needs to determine the reduction in the Age Pension due to earned income and the complex marginal tax rates payable on earned income.

The impact of this confusing system of Age Pension reductions, personal tax rates and tax offsets is that it is extremely complicated for a person of Age Pension age who is in receipt of the Age Pension to even know the "cost" of earning additional income.

<sup>48</sup> "Don't Stop Working – Ever?" Tuesday 27 March 2012. [http://www.agedcareguide.com.au/news.asp?newsid=7075&utm\\_source=feedburner&utm\\_medium=feed&utm\\_campaign=Feed%3A+AgedCareLatestNews+%28Aged+Care+Latest+News%29](http://www.agedcareguide.com.au/news.asp?newsid=7075&utm_source=feedburner&utm_medium=feed&utm_campaign=Feed%3A+AgedCareLatestNews+%28Aged+Care+Latest+News%29)

<sup>49</sup> Recommendation 19.

<sup>50</sup> Source Working past our 60s: Reforming laws and policies for the older worker [http://www.hreoc.gov.au/age/publications/Working\\_past\\_60\\_2012.html](http://www.hreoc.gov.au/age/publications/Working_past_60_2012.html)



## Appendix E The Case for Removing Barriers to Working Longer CONTINUED

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More people are gradually winding down to retirement instead of stopping work completely.

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The Actuaries Institute recommends that earned income be removed entirely from the Means Test and that simpler means testing rules be applied to assets, with a view to both reducing complexity and improving labour market participation amongst older workers.

We believe that there would be significant administrative and efficiency advantages in making these changes to the means testing regime, as well as improvements in the behavioural and financial incentives to keep working.

In turn, this would then make it easier for retirees to provide additional post-retirement income for themselves from multiple sources.

The Actuaries Institute believes that the Government should revisit the idea of allowing the Age Pension to be deferred, so that if a person who is eligible for the Age Pension keeps working for a limited (or unlimited) deferral period after the Age Pension commencement age, their Age Pension entitlement increases. This means retirees can fund the first part of their retirement through their superannuation savings for a known period and rely on a higher Age Pension to manage their longevity risk.

A deferred Age Pension is a policy that is used in a number of OECD countries, including the United Kingdom and United States. As an example in Australia, an option could be to increase the Age Pension by 5% for each year that it is deferred up to a maximum increase of 50% after 10 years of deferment. The relevant means testing will still need to be applied each year of payment or deferment, in particular if the retiree is not eligible for the Age Pension then they would not be eligible to defer it. The objective therefore will be to encourage age pension eligible persons to keep working.

It could be argued that deferring the age pension could create a larger liability for the Government than it gains from the lower period of payment. Detailed modelling would be required but we believe that the benefits from securing productive work and tax from people who would otherwise have retired could more than compensate for any additional cost. We note that there would need to be rules that ensured that more wealthy people will not qualify for the increasing pension payments if they were not eligible for the Age Pension. Rather than deferring the age pension and receiving higher payments later there may be an option for the retiree to receive a lump sum from the Government in recognition of the deferral, this may be a small one off payment or may be a contribution to the individuals superannuation fund for example in the form of a co-contribution.

Whilst the Government should remove barriers to working longer there are also the social issues around providing opportunities for older persons to find meaningful employment. These issues are outside the scope of this discussion.



## Appendix F Annuity Products

The Actuaries Institute is suggesting that the Government place limits on the amounts of money that may be drawn out of the superannuation system post-retirement. In effect the high net worth retirees would need to draw down the majority of their funds over an extended period of time. This section discusses some potential products available to retirees. We have termed these annuity products although they have significantly different features.

Annuities are income stream products that provide an income in retirement. There are different types of annuities that can be made available by superannuation funds or financial services businesses. The following is a summary of the range of products available:

- **Account-Based Annuity** (Note that these are currently referred to as account based pensions) – Retiree manages their own individual account. Features include: choice of investments, no guarantee of balance or income, flexible income with a minimum annual draw-down, complete access to capital for transfer to another annuity product or withdrawal as determined by the Government rules. There is no insurance component to this product.
- **Term Annuity** – Retiree purchases product from an annuity provider. The income is not flexible but is fixed or indexed to a specified indicator, income is guaranteed to be paid for a certain term. Some annuities return the capital at the end (100% RCV), others utilise the capital to make regular payments so there is no residual capital value (zero RCV). Under current legislation there must also be a benefit paid on death.
- **Lifetime Annuity** – Retiree purchases product from an annuity provider, income is not flexible but is fixed or indexed, income is guaranteed to be paid for life, there is usually no residual capital value (zero RCV) on death – although “insurance” can be bought which may provide for a payment guarantee or a death benefit.
- **Deferred Lifetime Annuity** – As for lifetime annuity, these may be purchased at retirement or over a number of years, but the payments are “deferred” – they do not commence immediately but start in future. E.g. a 20 year deferred annuity bought at age 65 will commence payments at age 85 if the retiree is still alive. There is generally no return of capital on earlier death.
- **Variable Annuities** – Variable annuities are unit linked savings contracts with attaching guarantees, for example they may provide capital guarantees or minimum annuity rates.
- **Other new innovative products** These are a hybrid of some of the above types of annuity. E.g. a variable annuity may start as an account-based annuity then “morph” into a guaranteed annuity at say age 85.

Over the past 15 years, account-based pensions have become the most popular choice for retirees with substantial superannuation balances. Investment markets were strong up until 2007, and high equity returns boosted account balances. Retirees are attracted to the payment flexibility and access to capital in the early, active stage of their retirement. The disadvantage with these products is that they offer no protection of capital



## Appendix F Annuity Products CONTINUED

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**Current lifetime annuities products are becoming increasingly unattractive and insurers should be enabled to develop further options for future retirees.**

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and many retirees have had their capital reduced by low investment returns since 2008. In addition, there is no longevity guarantee so when the account balance is used up, the payments cease.

Lifetime annuities were popular when interest rates were high (and retirees could lock in this high rate of return for life) and investments in lifetime or long term certain annuities were exempt from the Age Pension asset test. Lifetime annuities provide the greatest protection against both investment and longevity risk, and can also protect against inflation if they are indexed. However, these products are unattractive to today's retirees because, amongst other things:

- They do not allow access to capital;
- They do not allow flexibility of payments;
- They introduce a counterparty risk, because annuity payments are dependent on the provider or insurance company's ability to meet future payments over a potentially longer period; and
- The products appear expensive because the risks and uncertainties are significant from a provider's perspective which is reflected in the pricing and prudential capital requirements.

In the absence of the reintroduction of major tax or other incentives, it is unlikely that lifetime annuities will become popular with today's retirees. However, the Actuaries Institute believes that there is an important role for deferred lifetime annuities as an "insurance policy" against longevity.

Purchasing a deferred lifetime annuity on retirement (which starts payments say 20 years later) may be a cost effective way for a retiree to lock in an income above the Age Pension in their later years. Deferred annuities deliver a guaranteed income stream in addition to the Age Pension in old age when most retirees want certainty and do not want to be burdened with looking after complex financial affairs.

A deferred annuity can be viewed as the opposite of life insurance; it insures the retiree against not dying! It is also not an investment product, although the upfront premium is invested by the insurance company. There is no payment on death prior to the commencement age.

Deferred annuities face a range of legislative and regulatory impediments that make them inefficient. The Actuaries Institute believes the Government needs to remove these barriers to retirement product innovation. We have summarised these changes in Appendix C.

Removing the legislative barriers to lifetime, deferred lifetime and variable annuities, and drafting legislation flexible enough to accommodate product innovation, will enable insurers to develop products that can compete with the other options available to the retiree.

■ END

# Notes

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### **About the Actuaries Institute**

The Actuaries Institute is the sole professional body for actuaries in Australia. It is the public face of the profession which represents the interests of its members within Government, the business community and the general public.

### **Australia's Longevity Tsunami – What Should We Do?**

Published by the Institute of Actuaries of Australia  
August 2012

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## FROM 14 APRIL 2014

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