

March 2004

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Growth



Committee for Economic Development of Australia

## Australia's Ageing Population Fiscal, Labour Market and Social Implications



The PHARMACY GUILD of AUSTRALIA



*Australian Unity, an integrated financial services and healthcare organisation, has been looking after Australians for more than 160 years. In line with Australian Unity's history of contributing to the wellbeing of the community, Australian Unity is proud to support CEDA and its research publication 'Australia's Ageing Population: Fiscal, Labour Market and Social Implications'.*

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CEDA gratefully acknowledges the generous support of The Pharmacy Guild of Australia, ASFA and Australian Unity.



**ISSN** 0085-1280  
**ISBN** 0-85801-262-6

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Production co-ordination by Margaret Mead  
Design and production by Origin Design  
Cover photo: Origin Design

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# Australia's Ageing Population: Fiscal, Labour Market and Social Implications

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**The Institute of Actuaries of Australia** represents the actuarial profession comprising some 1300 Fellows and a total of 2800 members. Established in 1897, the Institute establishes and maintains professional standards, provides pre-qualification and continuing professional education, creates forums for discussion about contemporary and relevant issues, promotes research and the development of actuarial science, and contributes to and informs the debate on public policy. As an independent and impartial body, the IAAust has a commitment to working with governments, Opposition parties, business and the community to advance public policy development. In the research and writing of this chapter, the Institute would like to acknowledge the contribution of Andrew Kirk BSc (Hons), FIAA who was employed as the Institute's Manager, Policy and Research.

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Dr. Keating continues to provide advice to governments in Australia and overseas, he has been a director of Australia Post and Fujitsu Australia, and is currently a member of the Council of the Australian National University.

**Ian Little** is Secretary of the Victorian Department of Treasury and Finance. Ian began his career at the Reserve Bank in Sydney in 1979. He spent seven years at the Reserve Bank, holding various economic, forecasting and finance positions. In 1987 he joined the ANZ Banking Group in Melbourne as Senior Economist. In his six years with ANZ, he became Group Chief Economist in 1990 and Chief Manager, Retail Bank in 1992. Ian joined the Department of Treasury and Finance as Deputy Secretary in 1994 with responsibilities spanning budget strategy, tax policy, debt and superannuation management, and financial relations with the Commonwealth. In March 1998 he was appointed to his current position as Secretary of the Department. Ian completed a Bachelor of Economics degree with Honours at Monash University in 1977, followed by a Master of Science (Economics) from the London School of Economics and Political Science (UK) in 1983–84. Ian is a Fellow of the Institute of Public Administration Australia (IPAA), past president and treasurer of the Victorian Branch of the Economics Society of Australia, and a non-executive director of the Treasury Corporation of Victoria.

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**Louise Rolland** is Professor of Ageing and Work at Swinburne University of Technology and CEO of Business Work and Ageing (BWA). Her background in labour market policy, economic development and business administration brings a cross-sectoral view to the work of BWA. In her role as CEO of BWA Louise oversees the academic research agenda of the BWA Centre for Research and the business and government services delivered by the organisation.

**Phil Ruthven** is the founder and Chairman of IBISWorld, an Australian business information, forecasting and strategic services corporation. A respected strategist and futurist on business, social and economic matters, he regularly contributes his comments for television and print mediums. He is a CEDA Board member and is also a director of other companies, advisory boards and charitable organisations. His skills for business communications involve him in many congresses, seminars and conferences held in Australia and overseas each year. A science graduate from the University of NSW with further qualifications in management and economics, Phil has held executive positions in research, production and operations, and market research.



**Philippa Smith, AM** is Chief Executive Officer, The Association of Superannuation Funds of Australia. She has broad-ranging experience, both inside and outside government. In the 1970s Philippa was the Senior Policy Analyst and Acting Secretary General with the Australian Council of Social Service, and in the 1980s Manager Australian Consumers' Association. She held the statutory position of Commonwealth Ombudsman for almost five years, until February 1998. Philippa has been the Chief Executive Officer of the Association of Superannuation Funds of Australia since February 1998. ASFA is the peak industry body for superannuation funds. ASFA membership collectively covers 80 per cent of superannuation assets and every sector of the industry is represented in the ASFA membership.

**Michael Tatchell** has held the position of Director, Health Economics at the Pharmacy Guild of Australia since 1985. Michael is an economist by training with a long-standing interest and expertise in economic aspects of health services. Born in England, Michael spent 12 years in New Zealand before crossing the Tasman in 1978 to take up a research position at the Australian National University. In New Zealand he conducted ground breaking research into the level of health spending in that country. His PhD was awarded for his innovative research into the cost of running New Zealand's hospitals. While at the ANU in Canberra he undertook a major study of wage costs in Victoria's public hospitals. Michael's current energies are focused on issues of health spending and financing, the costs and benefits of Australia's Pharmaceutical Benefits Scheme, and the challenges for our health system of an ageing population.

# 1 Overview

Philippa Smith

Life cycles can often be divided into three major stages: childhood, working age, and retirement. As a society we have grown to accept that we should subsidise the young and the old. This is in essence an intergenerational contract—or compact. Society also accepts that it should subsidise other support and services (for example, health and social security for the disadvantaged), and other services and functions that operate in the community's interest—a social compact.

The challenge and question is exactly how this 'balance' between the generations and social compact will or should pan out over the next 30 to 40 years and beyond. With the ageing of our population, just how big will the extra demands be? How will we—should we, plan and manage these needs?

Is the ageing of our demographics a permanent shift or a blip of history?

How will the extra demands be paid for—by government (through increased taxes on those working), by families (through reduced disposable income or hopefully through increased private savings), or by future generations (in the form of debt or increased taxes)? Or will we as a community have to rely on reduced government services?

One thing is for certain—there is no magic pudding. The questions are more ones of what, how, when and who.

The following papers add considerable informed analysis to these questions. As noted by the Institute of Actuaries, this 'is a field that is far from crowded' and the *Intergenerational Report* (IGR) is one of the most welcome innovations in Australian public policy in recent times.

But the IGR should not be treated as the full or final story.

For starters, it looks at only one part of our economy—the government sector and expenditure. It does not cover the likely spending and debt of households or indeed of the state governments. What these papers make increasingly clear is that there is more than one possible solution. Indeed, a variety of solutions will be needed. It would be foolish to think that closure of the problem would be possible through one or two measures alone.

The Treasury paper (Chapter 2) sets out the landscape for the Commonwealth Government expenditure if nothing changes and given the impact between population, workforce participation and productivity. Their conclusion is that a reliance on increased productivity down the track is 'dangerously complacent', especially since the projected increase for productivity and wealth is in fact less than half that achieved by Australians during the period 1950–2001. Relying on likely productivity improvements as our saviour would be similar to looking back to 1950 and saying that at least half the progress in living standards since then could (or ought) comfortably be forgone.

To my mind it is also dangerously complacent to assume, as Treasury does, that the way of tackling increased expectations for retirement incomes is to reduce those expectations. The solution needs to be through increased community awareness and improved savings, supported by government action as appropriate.

These papers make it increasingly clear that there is more than one possible solution. Indeed, a variety of solutions will be needed. It would be foolish to think that closure of the problem would be possible through one or two measures alone ... a reliance on increased productivity down the track is 'dangerously complacent'.



The Victorian Treasury argues burgeoning health expenses pose significant fiscal pressures for a state budget. In their view the terms of the implicit ‘social contract’ cannot be sustained and need to be renegotiated before it is too late.

The Institute of Actuaries paper argues for the importance of testing the projections through ‘what if’ scenarios and other ‘feedback loops’ as a kind of reality check.

For example, they ask can we really assume that PBS costs will rise from less than one-fortieth to one-eighth of Commonwealth spending. In reality, they argue price and budgetary impacts (and the political fallout) would be so great as to force policy change.

The Pharmacy Guild of Australia also picks up on the issue of health costs. They note from international experience that the size of the aged population is not the only determinant of health costs and that the positive side of better health care and healthier older generations (not just the direct costs) needs to be considered. For example, newer drugs may cost more. However, this, they say, is more than offset by other gains, such as lesser frequency of dying, fewer work days lost, and less hospital utilisation.

They argue that ‘the appropriate policy responses and control should revisit the public private split, and the implicit public policy and societal choices in the distribution of health care’.

The Victorian Treasury (Chapter 6) warns that it is already feeling the heat of burgeoning health expenses. People aged 65 and over are four times more likely to require hospitalisation and the health costs of the average 75-year-old are about three times those of the average 25-year-old. Community appetite for new technologies and services continues to expand at all ages. The Victorian Treasury notes that this is not a ‘bad thing’ but poses significant fiscal pressures for a state budget. In their view, the terms of the implicit ‘social contract’ cannot be sustained and need to be renegotiated before it is too late.

Michael Keating’s analysis (Chapter 8) examines the option of increasing labour force participation as a partial solution to the ageing dynamics. His priority focus is for those men aged 55–64. He argues that in the most optimistic scenario an ageing society would not present a problem for another 50 years if the next cohort of men entering their late 50s kept working a little longer and postponed their retirement for as long as the previous generation did.

The problem is currently the lack of jobs for people with ‘inappropriate skills’ and hence the need for retraining of older workers and lifetime learning strategies. This requires government support and intervention.

Another issue explored by Keating is whether there is a need for greater inducements to keep working, but, as he notes, the opportunity cost of not working is already quite high. The current replacement rate of pensions and retirement incomes is relatively poor and evidence cited by the OECD suggests that there is no clear relationship between this (the replacement rate) and retirement age. In any event, the government has already legislated to increase the preservation age for superannuation to age 60. Other policy options could also be considered, e.g. requirements to take retirement income as a pension rather than as a lump sum. However, the grim reality for many who retire from the workforce prior to age 65 is that they have relatively little superannuation or private savings.

Keating’s conclusion is that the primary focus needs to be on the present mismatch between the experience and aptitudes of many older males and the jobs being

created. In his view, this mismatch is likely to continue without positive intervention by government. FitzGerald (Chapter 10) also returns to this issue and the importance of removing the rules and anomalies which currently discourage contract, casual and part-time work after retirement.

Louise Rolland (Chapter 7) also examines the shifting profile of labour supply and notes that the contribution of those aged 55 years and over is likely to be more important than increased migration levels. She argues that business might have only six to 12 years to address such issues. While Keating highlighted the skills mismatch faced by this grouping, Rolland notes that they are currently less likely to participate in either formal or informal training.

Ruthven (Chapter 9) looks at the dynamics of the ageing demographics from the viewpoint of attitudes and politics. Different cohorts have different life experiences, expectations and attitudes towards government and society.

Today the babyboomers and Generation Xers are the 'power generation' or cohorts. By 2042 the 'Net Generation' (now aged 2–21 years) will be 41–60 years and will be holding the power.

So what are the implications? In Ruthven's view, the rise of 'Generation X' and the 'Net Generation' will see the rise of a 'get real' attitude. They will be interested in wealth generation, self-reliance and user pays principles, but will also bring society back to a 'we' focus rather than 'me, me' focus.

According to Ruthven, the *Intergenerational Report* of 2001–02 had its greatest contribution in helping focus community debate on the issue of user pays versus inexorable higher taxes.

Vince FitzGerald (Chapter 10) continues on the theme of who pays. 'From a macroeconomic perspective', he notes, 'it is of secondary importance whether increased savings are private or public'. As he notes, however, politics can intervene in the priorities set (especially where expenditure is public and funded by the taxpayers).

In the private spending and/or user pays model, household savings will still need to increase to cover the increased expenses. Whichever way you cut it the clear conclusion is that the ageing of the population implies very substantial requirements for increased savings over the medium to longer term so that savings can be drawn upon in the longer term.

FitzGerald's analysis of our recent savings performance notes that the shift downwards needs to be discounted further since the acquisition of wealth in the form of owner-occupied housing typically remains locked up and unavailable as a source of finance for daily living expenses until many years after retirement.

On a more optimistic reading, he speculates that the recent 'spending spree' cannot be sustained and the baby boomer cohort may start to accelerate their efforts to save as their horizon to retirement shortens.

The reality between the current level of savings and even minimum expectations of living standards in retirement remains a large one. This gap between actual provision and what is required poses important public policy issues if we are to reduce this gap.

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FitzGerald suggests at least five elements to this strategy:

- extended participation in work at older ages
- directly addressing the issue of the current inadequacy of superannuation provisions (and savings)
- improved incentives to save through super and in other forms
- unlocking housing wealth
- ensuring that the balance sheet of Australian governments is grown over the medium to long terms.

'Without some combination of the above types of actions we are drifting towards a future in which many older Australians will be disappointed and resentful about the reduced lifestyle open to them and younger Australians will be equally resentful about high taxes and fiscal priorities biased to the needs of the old. That is not an inevitable future, however,' he says.

Rather than assuming  
we can reign in  
expectations or shift  
costs from the  
Commonwealth to the  
states or individuals,  
we need to ensure  
that we have more  
resources available  
for the future.

Amen to that. There is much that governments, organisations and individuals can do to bring about the best possible outcomes. The papers in this volume better diagnose the problems and challenges that Australia faces.

As outlined, the solutions are not easy and may be multifaceted. As a community we need to shift the public policy focus from the immediate to include the medium and longer-term scenarios. For example, rather than assuming we can reign in expectations or shift costs from the Commonwealth to the states or individuals, we need to ensure that we have more resources available for the future. One of the most effective ways of achieving that is through lifting private and national savings.

Removing or reducing taxes on superannuation contributions would be one of the more effective ways of achieving this. It would also feed directly into improving future retirement incomes. Reform of social security means test rules would also have the potential to lift private savings and labour force participation of mature workers.

The challenges are clear. What is needed is action to lay the foundations for the outcomes Australians need and deserve. Time is running out.

## 2 An ageing population and the challenge for Australia's living standards and public policy

Dr Ken Henry

Much has been made of the implications of the changes in age structure of the Australian population over the next several decades. These changes will be significant ones, and will have impacts across the whole of society. This chapter examines some of the economic and fiscal implications of these changes, including for the future growth of living standards of Australians, and the challenges they pose for government policy.

### The impacts of population ageing

It is inevitable that the Australian population will age over the next few decades, due to continued falls in mortality rates and to the fall in the fertility rate that began in the late 1960s.

The *Intergenerational Report* (IGR)<sup>1</sup> projected that the size of the population over the traditional retirement age of 65 will more than double over the next 40 years, while the population of traditional working age (15–64 years) will grow by only around 14 per cent. While today there are around five people of working age for every person over 65, by 2042 this number will fall to less than three.

This projected change in the age structure of the population, with relatively more of the population being in the age groups traditionally associated with lower participation in the workforce, potentially could have large effects on the Australian economy.

The IGR projected that this change, together with an assumed return to the average productivity growth rate experienced over the past 30 years, could lead to the living standards of Australians growing much more slowly than has been the case in the last decade or so. The projections in the IGR suggested that the growth rate of GDP per capita could fall from the rates of around 2.25 per cent per year experienced in the 1990s to around 1.5 per cent per year in the 2010s, 2020s and 2030s.

This fall in growth could also lead to slower growth in government revenues. When combined with the increased demand for a range of government services that an older population could create, such as aged care, health and pension payments, the result would be a tendency toward budget deficits. For example, the IGR projected that these trends could lead to budget deficits potentially growing to over 5 per cent of GDP by 2042, without higher taxes or lower spending by government in other areas.

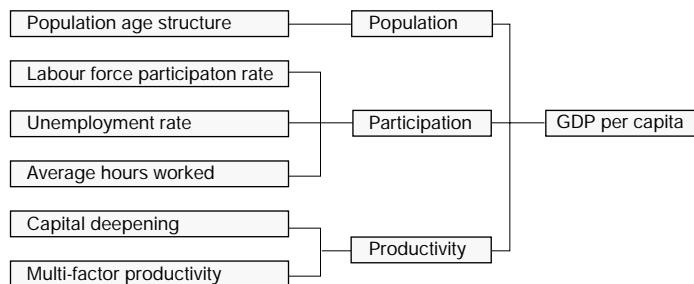
Growth in GDP per capita is a reasonably good measure of the change in average consumption possibilities available to Australians. Consumption possibilities are just one part of the living standards of Australians, but an important one. They are also the part of the living standards likely to be most affected by the expected demographic transition over the next few decades. Although this chapter focuses on GDP per capita as a proxy for overall living standards, it is important to remember that it is only one part of a broader picture.

The *Intergenerational Report* (IGR) projected that the size of the population over the traditional retirement age of 65 will more than double over the next 40 years, while the population of traditional working age (15–64 years) will grow by only around 14 per cent.



One framework by which to analyse the challenges and opportunities that the coming decades will offer looks at the impact of trends in the size and age structure of the population, participation in the labour force and growth in productivity. This framework, as used in Budget Statement 4 of the 2003–04 Budget, allows the different contributions to economic growth to be analysed.

**Figure 2.1: Contributions to economic growth**



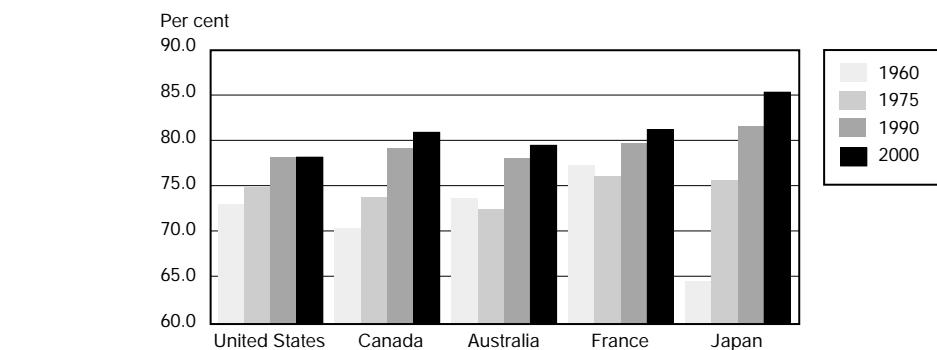
In Australia's case, trends in population, participation and productivity have all interacted to produce strong growth in GDP per person over the past decade or so, but these trends may be much less favourable in that regard over coming decades.

### Population

Population trends over recent years have featured a rising proportion of the population aged over 15. This has been the first part of a transition that started with the substantial decline in birth rates experienced in the 1960s and 1970s. The falling birth rate has led to the population below the age of 15 falling in size relative to the number of people of working age. This fall started as soon as the fertility rate began to fall, as the reduction in the number of babies born will appear in this ratio immediately.

Figure 2.2 below shows how the proportion of the population aged over 15 has changed in Australia, the United States, Canada, France and Japan. This ratio has generally risen over time in each country, consistent with a falling youth dependency ratio and a rising workforce relative to the overall population.

**Figure 2.2: Proportion of population aged over 15**



Source: *World Population Prospects Database*, United Nations Population Division

The second part of the transition will see a rise in the population of people aged 65 or older relative to the number of people of traditional working age (15–64), as those born in the baby boomer generation begin to retire, and the lower fertility rates from the 1970s begin to reduce the relative size of the labour force. This transition, combined with improvements in medical care that have increased expected life spans, will lead to a substantial increase in the aged dependency ratio.

Taking into account these two trends, the IGR projected that the total dependency ratio (those under 15 and over 65 relative to the population of traditional working age) is likely to reach its lowest point in 2009, before rising to substantially higher levels over the subsequent three decades. The projected rise after 2009 reflects continued rises in the proportion of the population over 65 more than offsetting a declining proportion of the population under 15.

Policy can have little impact on these outcomes. Most of the choices that will influence the age structure of the population in the next 40 years have already been made. Conceivable changes in the level of immigration relative to recent outcomes would have only marginal impacts on the overall population growth rate and age structure of the population. Even if the birth rate were to increase in the future, it would be at least 25 to 30 years before the proportion of the population in the traditional working age group would start to rise in response. In the meantime, labour force participation rates among young adults could actually decline in response to increased parenting responsibilities, while the number of dependents would rise.<sup>2</sup>

### Participation

The three components of participation determine the extent to which the population aged over 15 is willing and able to work. Over the last several decades these factors have made a mixed contribution to the rate of economic growth in Australia.

The *labour force participation rate* has risen as more women have entered the labour force. Although this has been offset partially by falling labour force participation for men, the overall trend has been to lift Australia's labour force participation rate from around 60 per cent in the mid-1960s to around 64 per cent in recent years.

The *unemployment rate* today is much higher than the rates experienced in the 1950s and 1960s, so overall this factor has detracted from growth. More recently, however, falls in unemployment have generally promoted growth. The final component, *average hours worked* per employed person, has generally slightly reduced the contribution of participation factors to growth, as the growth in part-time work has reduced the number of hours worked on average.

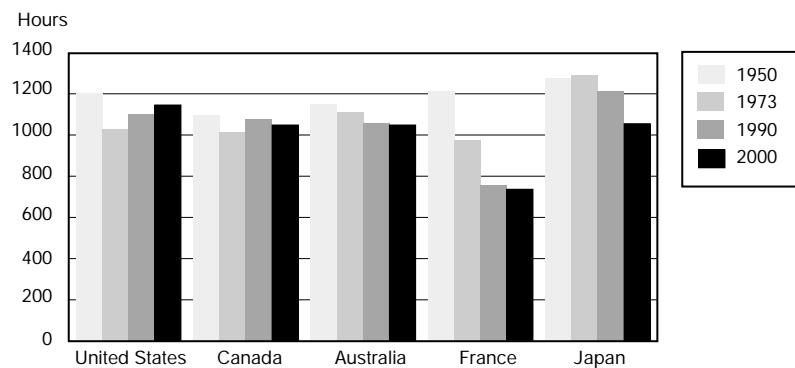
Taken together, these three factors have generally contributed to a lower growth rate in Australia, although this trend has been reduced greatly in recent years thanks to significant improvements in the unemployment rate, continued rises in the participation rate, and smaller falls in hours worked.

Figure 2.3 shows the level of overall participation (hours worked per head of the population aged over 15) for Australia, the United States, Canada, France and Japan. The number of hours worked in a year takes into account all three of the participation factors. France and Japan have both experienced substantial falls over the past 50 years, while the fall in Australia has been considerably smaller.

The IGR projected that the total dependency ratio is likely to reach its lowest point in 2009, before rising to substantially higher levels over the subsequent three decades.



Figure 2.3: Hours worked per head of population aged over 15



Source: Treasury calculations based on *World Population Prospects Database*, United Nations Population Division and University of Groningen and The Conference Board, GGDC Total Economy Database, 2003, <http://www.eco.rug.nl/ggdc>. Accessed 7 April 2003.

The demographic transition that Australia is likely to face over the next few decades will have significant economic effects through the impact that it has on participation. The IGR projected that the overall participation rate would fall from around 64 per cent at present to just over 55 per cent by 2041–42, driven primarily by more of the population moving into the older age groups traditionally associated with lower participation.

Given that the nature and extent of labour force participation is largely a matter of individual choice, the wellbeing of society as a whole is likely to be enhanced if people have maximum scope to make choices, taking into account their own circumstances and preferences. However, it needs to be recognised that such choices may impose costs on society and can be distorted by disincentives or obstacles to participation that may exist. Policy choices can affect these distortions and obstacles, as discussed below.

### Productivity

The population and participation factors reveal the average hours worked per head of population. Multiplying by labour productivity (GDP per average hour of work) provides GDP per capita. Productivity, then, is an important determinant of per capita GDP and a key driver of long-term economic growth. The gains that can be made from improving productivity growth are, over the longer term, virtually unlimited.

For example, Australia's economic growth over the second half of the last century, from 1950 to 2000, was almost entirely due to growth in productivity, with the slight positive contribution from population factors and the slight negative contribution from participation factors cancelling out. In the same way, continued strong productivity growth will be vital for maintaining the rate of increase in the living standards of Australians.

Over the last decade, Australia was one of only a few OECD countries to experience a rise in productivity growth. Recent Australian and US analysis, and new multi-country comparisons, have helped to identify the reasons for this strong performance. In short, strong competition drove new work practices and encouraged

rapid uptake of business-transforming information and communication technologies in a macroeconomic environment that supported steady growth and strong investment.

Australia's level of productivity is still some distance behind the United States and other high productivity nations. In 2001 Australia produced only around 80 per cent as much as the United States per hour, which accounts for most of the difference between the material living standards of residents of Australia and the United States.

### International comparisons

**Table 2.1: Population, participation and productivity influences on GDP per capita**

	Relative level United States=100				Growth 1950–2001	Average growth rate			
	1950	1973 <sup>(a)</sup>	1990	2001 <sup>(b)</sup>		1950– 1973 <sup>(a)</sup>	1973– 1990	1990– 200 <sup>(b)</sup>	
	Index	Index	Index	Index	%	%	%	%	
GDP per Person (c)									
United States	100	100	100	100	193	2.5	2.0	1.7	
Canada	79	84	83	81	200	2.7	1.9	1.5	
Australia	78	76	73	78	192	2.3	1.7	2.3	
France	54	77	76	73	300	4.0	1.9	1.4	
Japan	20	69	82	75	987	8.1	3.0	1.0	
Population (d)									
United States	100	100	100	100	7	0.1	0.3	0.0	
Canada	96	99	101	104	15	0.2	0.5	0.2	
Australia	101	97	100	102	8	-0.1	0.5	0.2	
France	106	102	102	104	5	-0.1	0.3	0.2	
Japan	88	101	104	109	32	0.6	0.5	0.5	
Participation (e)									
United States	100	100	100	100	-5	-0.7	0.4	0.3	
Canada	91	98	98	92	-4	-0.3	0.3	-0.3	
Australia	96	108	96	93	-8	-0.2	-0.3	-0.1	
France	101	94	69	64	-39	-1.0	-1.5	-0.3	
Japan	106	125	110	93	-18	0.1	-0.4	-1.3	
Productivity (f)									
United States	100	100	100	100	189	3.0	1.3	1.4	
Canada	91	87	84	85	170	2.9	1.0	1.6	
Australia	81	73	76	82	194	2.6	1.5	2.2	
France	50	80	108	110	527	5.1	3.1	1.6	
Japan	22	55	71	75	897	7.3	2.9	1.9	

(a) 1975 rather than 1973 for population

(b) 2000 rather than 2001 for population

(c) Measured at 1999 \$US purchasing power parity levels.

(d) Proportion of population aged over 15

(e) Hours worked per head of population aged over 15

(f) GDP per hour worked

Source: GDP, Participation and Productivity: University of Groningen and The Conference Board, GGDC Total Economy Database, 2003, <http://www.eco.rug.nl/ggdc>. Accessed 7 April 2003. Population: World Population Prospects Database, United Nations Population Division.



The demographic challenges Australia faces provide a challenge to our growth rate of GDP per capita. However, there is scope for further reform to have an influence on this. If Australia can sustain high rates of productivity growth, and lift participation rates, there is potential for living standards to continue to grow.

Taking the three factors together, Australia's level of per capita income has been around three-quarters of the US level for most of the past half-century (Table 2.1). Between 1950 and 1990, the level of Australia's per capita income relative to the United States fell, although it still grew strongly in absolute terms. The main causes of the widening gap between Australia and the United States were a relatively poor productivity performance through the 1950s and 1960s—indeed, one of the worst in the OECD—and a relatively poor participation performance in the 1970s and 1980s.

Australia's impressive productivity performance since the beginning of the 1990s has only now restored the level of relative productivity and GDP per person to the position held in the 1950s. By contrast, for large continental European countries, GDP per capita stopped converging to US levels in the 1980s. And probably backtracked in the 1990s. The same conclusions also apply for Japan.<sup>3</sup> The OECD believes this diversity of performance stems primarily from costly policy failures in some member countries.

Looking ahead, the demographic challenges Australia faces provide a challenge to the maintenance of our growth rate of GDP per capita. However, there is scope for further reform to have an influence on this. If Australia could sustain recent historically high rates of productivity growth, and lift participation rates towards the top of the OECD, there is potential for living standards in Australia to continue to grow in the fashion to which we have become accustomed.

#### The challenges for government policy

Some have argued that the prospect of falling participation and slower productivity growth ought not be of much, if any, concern; after all, the *Intergenerational Report* baseline projection showed Australians will, on average, be some 85 per cent richer 40 years hence than today.

This 'let's wait and see' approach is dangerously complacent, and raises at least four potential areas of concern.

First, lower future GDP growth means that tax rates will have to increase to fund projected budget outlays. Increasing international competition for skilled workers—particularly teachers, nurses, lawyers and accountants—will make raising tax rates even more difficult than it is today.

Second, Australians became about 190 per cent richer in GDP per capita terms from 1950 to 2001. Looking back over that period from today's vantage point, it is difficult to argue that more than half that progress could (or ought) comfortably have been forgone.

Third, others' living standards are likely to continue to grow in the future—the United States in particular. A slowing in Australia's per capita GDP growth would represent a substantial decline in relative material wealth. Ongoing improvements in transport and communications technologies are likely to make relative differences in wealth all the more obvious.

The fourth reason is that improving participation and productivity outcomes are

worth pursuing for their own sake, not just for its contribution to GDP per capita. For example, OECD reports of longitudinal studies in 13 EU member companies emphasise that withdrawal from participation among older workers often follows job loss, usually afflicts the poorer, less educated and less skilled, is seldom reversed and is associated with persistent poverty. Policies aimed at improving participation in these age groups can help to alleviate these outcomes.

Thus, there is a strong case for pursuing policies aimed at increasing both productivity and participation above the levels projected in the IGR. Faster economic growth will allow the level of government services projected in the IGR to be provided without resort to a large fiscal deficit. The following sections examine the policy directions that might be worth investigating in this regard.

### Productivity

Recent OECD research points to the linkages between policy settings and participation and productivity performance. The research confirms the importance of a policy environment that supports competition, enhances flexibility in lightly regulated product and labour markets, and encourages productive human and physical capital formation. Specifically, it finds that:

- anti-competitive product market regulation worsens labour market performance;
- labour market regulation affects product market performance. In particular, the deployment of new technologies is likely to occur fastest where working conditions and wages are the most flexible;
- job security cannot be bought with anti-competitive product market regulation;
- product market deregulation does not lead to permanent increases in earnings inequality.

The central message from this research is that policy reforms on a wide front are more likely to yield significant dividends than reforms focused on just one set of markets.

The IGR projections assume productivity growth of 1.75 per cent a year—the same as over the past 30 years. Better performance—which was achieved over the past decade—will generate extra growth in incomes. But it is important to recognise that strong productivity performance over the last ten years is a pay-off from two decades of reform. In order to maintain this performance, Australia will need to continue with reforms that free up economic activity, enhance labour market flexibility, strengthen competition, promote efficient resource allocation, and continue to develop a more innovative and dynamic society. The task is truly never-ending.

There are a number of areas in which Australia still lags behind world best practice. This includes acknowledged parts of an ongoing reform agenda encompassing energy, water and transport. There is also considerable scope for further reform in the communications sector. It also will be helpful to participation and productivity outcomes to continue to lower barriers to trade.

In order to maintain strong productivity growth, Australia will need to continue with reforms that free up economic activity, enhance labour market flexibility, strengthen competition, promote efficient resource allocation, and continue to develop a more innovative and dynamic society. The task is truly never-ending.



A further helpful contributor to Australian productivity will come from foreign direct investment, underpinned by the shift over the last two decades to a more liberal policy regime. Even in the United States and the United Kingdom, both often closer in many industry sectors to the global productivity frontier than Australia, foreign direct investment has clearly generated higher productivity levels and faster productivity growth in the sectors where it is prevalent through intensifying competition.

### Participation

Labour force participation largely results from choices by individuals and families. Among OECD countries, Australia's total participation rate ranked thirteenth in 2001, suggesting there is significant potential to improve participation, both in the short and medium term. There are a number of policy areas where there is potential to improve existing participation rates, including: skills and education, health, income support policies, workplace relations, and retirement incomes policies.

There are a number of policy areas where there is potential to improve existing labour force participation rates, including: skills and education, health, income support policies, workplace relations, and retirement incomes policies.

The aim should be to remove constraints or disincentives that lead people not to participate in the workforce. They are not about forcing people to work or to work longer. Rather, the appropriate policy direction is to ensure that free choices made by individuals are not influenced by aspects of policy that currently bias their choices against participation or make it difficult to participate.

An area of particular importance in this respect is skills and education.

There is a strong correlation between an individual's skill level, their labour force participation and their lifetime income. Participation of unskilled men is now significantly less than that for skilled men. Further, low skill levels affect the participation rates of young and old alike. While female participation rates have increased markedly over the last 20 years, participation by unskilled women continues to lag significantly behind those with skills. Improving skill levels—particularly for the low-skilled—will improve overall participation levels. This will boost lifetime income, contribute to greater social cohesion and increase productivity.

Skills and educational levels in Australia have been increasing steadily over time, with Year 12 retention rates of the younger cohorts significantly higher than that of older cohorts (although school retention rates have been static for over a decade). Recent international comparisons also show that Australia achieves good results in student foundation skills, rating highly in reading, scientific and mathematical literacy.

Year 12 retention has increased to around 72 per cent, from around 40 per cent in the early 1980s, and participation in all education and training pathways, including VET, has reached 80 per cent for 15–19 year olds. This performance compares with over 90 per cent of upper-secondary attainment in the top ten OECD countries. Similarly, while our students perform well compared to the OECD average, significant numbers—12 per cent of 15-year-olds—have very poor (or worse) literacy skills. These skills form the basic building blocks for participation in education, training and subsequently, labour force participation.

The health of the workforce is another important factor in sustaining and potentially enhancing labour force participation. Ill health can play a significant role in detachment from the workplace (often for significant periods) and in early retirement decisions. Maintaining and improving health will therefore become increasingly important as the population ages, not only for older workers but indeed for the population as a whole. The goal is to ensure that lives are longer and healthier, with the ability to sustain independent lifestyles and self-reliance well into old age.

A third crucial issue is the structure of the income support system and whether it does enough to address disincentives to labour force participation. Australia's income support system has a number of strengths that will help limit the financial impacts of an ageing population. For example, a flat rate of benefits allied to income and assets tests makes the system much more affordable than in many other countries that have earnings-related benefits.

The key balancing act in any welfare system is ensuring that it provides an adequate safety net for those in need, while encouraging self-provision and labour force participation. Income test structures (and their interaction with the income tax system), the eligibility criteria for payments, activity tests attached to payments for those of workforce age (such as requirements to look for work) are all important in this regard.

High effective marginal tax rates (EMTRs) are often cited as a disincentive to work for those on income support payments. This is because a high EMTR reduces the individual's effective returns from working. While there is merit in these arguments, the policy prescriptions are not obvious.

- Correcting high EMTRs is a balancing act, because reducing EMTRs for one group usually means increasing them for another group. That is, improving incentives to work for some individuals almost always comes at the expense of reducing work incentives for others.
- In addition, reducing EMTRs often results in higher levels of benefits for many existing and some new recipients, which can in itself act as a disincentive to work.

Under the current system, those on pension payments generally face lower EMTRs than those on allowances, yet participation for those on pension payments is lower than for those on allowances. This suggests that we need to look more broadly at other factors affecting participation—such as eligibility criteria and activity testing—if we are to encourage participation.

The ageing of the population will, by definition, have a substantial impact on the nature of the labour market over time. Younger workers will become relatively scarce, while a larger proportion of the labour market will be 'mature-aged'. Employers will need to adapt to these changes, including through recognising the benefits of hiring and retaining the services of more mature-age workers. This may involve a greater reliance on part-time work, as those approaching retirement age choose to gradually reduce the hours that they work. It will be important that workplace relations arrangements are sufficiently flexible to allow these adjustments to occur.

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Finally, with an ageing population it is vitally important that retirement income policies are effective in improving retirement incomes, are fiscally sustainable and have community acceptance.

The fully implemented Superannuation Guarantee arrangements, in conjunction with the age pension, will make the average person more financially secure in retirement than at any other time in Australia's history. Nevertheless, there is evidence that community expectations with respect to retirement incomes are unreasonably high, and it is up to each individual to determine whether the combination of the Superannuation Guarantee and the age pension will satisfy their own individual retirement income needs.

It is also important to ensure that policy settings do not inadvertently create incentives for early retirement. There is clear evidence of an increasing trend towards early retirement, particularly for men. By itself this need not be a major concern. However, a key issue is whether or not early retirement is being actively encouraged by policy or effectively subsidised by other taxpayers (through, for example, the dissipation of superannuation assets and subsequent claiming of the old age pension).

The preservation age can act as a signal to people of an appropriate retirement age. At the moment, benefits must be preserved until age 55. That is, ten years before pension age. A person's retirement income is also affected by when they start to draw down on their superannuation—the earlier they start drawing down on their superannuation, the lower the income during retirement. For this reason, the preservation age is being progressively increased to age 60 by 2024.

### Conclusion

The challenges to our future living standards posed by demographic change will call for many reform initiatives over a number of years. The future economic reform agenda is stacking up to be every bit as important, just as extensive, and perhaps even more challenging than that which has been achieved over the last couple of decades. This makes it even more imperative that, as a nation, Australians give these issues careful consideration. The choices society makes now will have ramifications for generations to come.

### Endnotes

- 1 Australian Government Treasury 2002, Budget Paper No. 5, *Intergenerational Report 2002–03*.
- 2 Henry, K. 2002, The Demographic Challenge to our Economic Potential, speech to the Economics Society of the ACT, November 2002, Canberra. Available at <http://www.treasury.gov.au/documents/472/pdf/higgins.pdf>
- 3 Cotis, J-P (2003), The Divergence of Growth in the OECD: Structural Versus Conjunctural Factors, presentation to a CEA-IIE-OECD forum, 26 March 2003, Washington DC

### 3 Official forecasts of the fiscal impact of an ageing population: A critique

Institute of Actuaries of Australia\*

Nobody can predict the future but it is important to look forward to how ‘the future’ or alternative ‘futures’ might play out, so that governments and individuals can plan and set priorities. This chapter considers the challenge of forecasting long-term fiscal impacts. This is a field that is far from crowded. In Australia the only widely available forecast in recent years is the *Intergenerational Report* (IGR), produced as part of the 2002 Commonwealth Budget Papers. First we will review the IGR, and then briefly canvass if there are other available forecasts that can provide additional perspectives on these issues.

#### The *Intergenerational Report*<sup>1</sup>

Because of its long-range focus, in contrast to the myopic basis of traditional fiscal planning, the IGR is one of the most welcome innovations in Australian public policy in recent times.

The IGR states clearly that Treasury does not consider the IGR to be a forecast: ‘The projections cannot be considered to be forecasts of the future: the factors underlying the projections are reasonable assumptions rather than forecasts’.

However, despite the disclaimer, in the considerable media discussion of the report at the time of its release and since, the IGR has been treated continually as if it were a forecast.<sup>1</sup>

It is useful to identify the difference between a forecast and a projection. A forecast is a best estimate of what the forecaster thinks will happen. Where there is uncertainty, the forecast aims for the centre of a range of possible values, typically measured by a mean or median. The forecaster knows that the forecast will be proven wrong by events, but the aim is to minimise the expected error. A projection, on the other hand, is a ‘what if’. It shows a hypothetical future outcome, assuming a set of inputs. The inputs may be best estimates, as in a forecast, or they may be deliberately chosen to represent alternative approaches, policies or environments. Projections may often depict possible futures that are not expected to occur. However, this can still be useful, as it can demonstrate or quantify the consequences of a particular set of circumstances or a change to the ‘rules of the game’.

It is assumed that the outcomes projected in the IGR are Treasury’s best estimate of what will happen. Hence in the eyes of the public it is a forecast, even if it was not intended as such, and based on this premise, the IGR will be considered as a forecast in this chapter.

The IGR is well constructed on many fronts, and with a few enhancements it would be an excellent forecasting tool for long-range fiscal outcomes. It would also be extremely useful for doing ‘what if’ projections, and, in particular, for assessing policy alternatives. It should be used extensively for scenario testing of future projections.

Because of its long-range focus, in contrast to the myopic basis of traditional fiscal planning, the IGR is one of the most welcome innovations in Australian public policy in recent times.

\* The Institute of Actuaries of Australia would like to acknowledge the significant contribution of Andrew Kirk in the preparation of this paper.



### Negative outlook

Perhaps the key reason why the IGR has been treated as a forecast in the media is that its bottom line sounds so alarming, and nothing sells papers as well as bad news. If its projections come true, over the next 40 years the Commonwealth's tax take as a percentage of GDP will have to increase by one-quarter, from 22 per cent to 28 per cent. If we all bear equal shares of this then we will be paying tax rates 25 per cent higher than at present. For a range of reasons, the burden is unlikely to be evenly spread,<sup>2</sup> so some groups, particularly middle-income earners, are likely to have to pay considerably more than this. Is Australia doomed to become a decaying socialist state full of disadvantaged old people and over-taxed, resentful workers?

Before answering that question, we need to consider the nature of the IGR itself. As is traditional in a 'critique', we should start by identifying the best aspects of the subject.

The IGR demonstrates the very important point that ageing isn't necessarily the main problem. The biggest driver of the projected Budget deficits is the increasing age-adjusted cost of healthcare.

### What's good about the IGR?

The best and most important feature of the IGR is the fact of its existence. Long-range planning has not been a major feature of government policy over the last 50 years. In many ways this is an inevitable consequence of our short and variable electoral cycle. Political considerations demand that fiscal planning be centred around balancing the books in the short term, with break-outs only allowed in a pre-election year. The IGR is the first public investigation by government into long-term fiscal impacts, at least in recent memory, and just by doing so the issue gets an important place on the policy agenda.

Additionally, it demonstrates the very important point that ageing isn't necessarily the main problem. The biggest driver of the projected Budget deficits is the increasing age-adjusted cost of healthcare,<sup>3</sup> the cost impact of which significantly outweighs the cost impact of population ageing. The prime drivers of this increase are the public's demand for the latest and best medicines and treatment, regardless of cost (for this reason it is sometimes referred to as 'technology-driven' cost increase). The only way to rein in that cost is to manage the public's expectations and demands.

The inference we can draw from the IGR is that the increasing age-adjusted cost of healthcare needs to be better managed. While the IGR's assumptions about healthcare costs are regarded by many as unduly pessimistic, the central message that healthcare cost increases will drive fiscal deficits is corroborated by several other studies around the world.<sup>4</sup>

Another great feature of the IGR is that it includes 'sensitivity analysis', where projections are re-calculated, making changes to key input assumptions, to assess the sensitivity of the results to the input assumptions. Treasury's sensitivity analysis indicates that:

- variations in the rate of age-adjusted health cost growth have the biggest impact on outcomes;
- migration is the next biggest factor, with increased migration capable of constraining costs as a percentage of GDP (by making GDP bigger);<sup>5</sup>

- longevity is the third most sensitive factor, with increased longevity significantly adding to projected costs.

Sensitivity analysis is important because it shows the likely impact of changes in the model's assumptions. Also, by showing which inputs have the most effect upon the outcomes, the analysis provides a guide to which areas should be a focus for policy activity.

On a more technical level, a particular strength of the IGR is that some parts of the modelling are very sophisticated for a model of such broad scope. One example is the treatment of age pensions. The projected outlays for age pensions are adjusted to take account of the means testing impact of increased superannuation accumulations arising from the Superannuation Guarantee. This is an important feedback loop that only Treasury is in a position to evaluate, as it has access to real Social Security and Tax Office data to guide its projections. A key motive for introducing the Superannuation Guarantee in the early 1990s was to reduce reliance on the age pension, so it is important that this effect is reflected in fiscal projections. It is a pity that the IGR provides no information on how the coverage rate (the proportion of people in the eligible age group receiving a pension) is expected to change over time, as that would provide a useful insight into the success of the Superannuation Guarantee system.

#### **What should be added?**

The IGR gives an illuminating, if alarming, projection of our possible fiscal future. Given that the Commonwealth Government has undertaken to do further IGRs, how could that projection be clarified, made more complete and robust, for future versions? Here are a few thoughts.

#### **Feedback loops and political change**

In a model with any breadth of scope, the variables that are projected will interact, and the greater the number of projected variables, the greater the number of potential interactions. Some of these interactions, or 'feedback loops', will be weak and can be ignored, but others can be significant. In 2002, CSIRO released a report to the Department of Immigration and Multiculturalism and Indigenous Affairs (DIMIA) entitled *Future Dilemmas—Options to 2050 for Australia's Population, Technology, Resources and Environment*. CSIRO projected resource consumption, emissions and environmental impacts for Australia over the next 50 years, using low, medium and high net immigration assumptions. This projection was criticised in the media for omitting the feedback loop of 'prices', whereby increasing consumption of a resource increases prices, which then restrains consumption (if demand is elastic). Whether or not that criticism is fair, it highlights the importance of being aware of feedback loops.

Price effects provide an important feedback loop that is also omitted from the IGR model. The most important instance of this is for the Pharmaceutical Benefit Scheme (PBS), which is the centrepiece of the report. The report projects Commonwealth expenditure on PBS drugs to increase indefinitely at a rate of 5.64 per cent per annum age- and inflation-adjusted. This is the rate of age- and inflation-adjusted increase in PBS expenditure observed over the preceding 20 years. The problem with projecting it out for another 40 years is that it projects PBS expenditure increasing from 0.6 per cent to 3.4 per cent of GDP, nearly a

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One way the IGR could be enhanced would be to incorporate a feedback loop whereby PBS cost increase rates became constrained once they exceed a certain level.

five-fold increase! PBS costs would rise from less than one-fortieth to one-eighth of Commonwealth spending. In reality, before the cost trend rose even halfway towards that point the price and budgetary impacts would be so great as to force policy change. It is unlikely that working people would be prepared to pay ever-higher taxes in order to subsidise the provision of the latest medicines to older, mostly non-working people.

The point is that, with the passage of time and the accompanying significant change in the social, economic and political environment, what may seem a political impossibility today may become a political inevitability. Indefinite extrapolation of recent trends, requiring the current political and economic environment for their persistence, can generate results that are unlikely to come to pass.

This is perhaps the reason why there have been so few long-term fiscal projections before. There are plenty of sophisticated economic models around that assess policy impacts, cost initiatives, measure trends and make short-to medium-term forecasts. However, they mostly rely on the parameters of our current environment, which we know will not apply beyond the next decade or so.

How could the IGR be enhanced in this regard? One way would be to incorporate a feedback loop whereby PBS cost increase rates became constrained once they exceed a certain level. This would reflect the inevitable policy responses that would occur, whether they be via income measures such as an increased co-payment or expenditure measures such as setting annual budgets for PBS expenditure under which new drugs can be added only if estimated expenditure remains within the cap.

Another example of where feedback through political change will alter outcomes is the case of age pensions. The IGR projects that age pension costs will increase from 2.9 per cent of GDP to 4.6 per cent by 2040, a 60 per cent increase. As mentioned above, the model makes a fairly sophisticated allowance for means-testing, but it is nevertheless based on current means-testing rules. The current means-test excludes owner-occupied housing from assessment of an individual's assets, because this is currently regarded as politically unacceptable. This is understandable at a time when age pensions are easily affordable within the Commonwealth Budget, and do not place an undue burden on wage earners. The IGR budget projections suggest such large increases in tax collections that perhaps means-testing the family home will be regarded as a 'no brainer' long before 2040. Are working taxpayers going to be prepared to pay ever-increasing shares of their income as tax in order to support pensioners who could, through appropriate reverse-mortgage type arrangements, instead fund their own retirement income from their largest asset, their home?<sup>6</sup>

Before moving on, we should note that the IGR recognises the importance of feedback loops, and their absence from the projections:

*An additional source of uncertainty is that the interaction between the factors and government spending and revenue could vary over time, leading to significantly different results from those expected now.<sup>7</sup>*

This brings us back to the perception of the IGR as a forecast. The report tells us what would happen if past PBS rates of increase continued indefinitely, and means-testing rules never changed. However, a forecast should also assess the reasonableness of such assumptions, and amend them where they are not reasonable.

### **Reality checks and causality**

The best financial forecasts are based on real world phenomena, translated into dollars at the appropriate point. Where the forecast assumes the continuation of observed financial trends, it should be possible to point to the fundamental cause(s) of each trend and justify its continuation. When the projection goes a long way into the future, reality checks need to be performed on the outcomes that are implied. A classic example of this was the US technology stock bubble. Prices for technology stocks were so high in early 2000 that they implied rates of profit growth which, if realised, would have had technology stock profits greater than projected US GDP within a few decades. Clearly such a result is nonsensical, but the people who were buying the stocks never did the maths and, when reality set in, suffered the consequences.

Many of the IGR assumptions seem robust against this type of reasonableness check but again, the PBS increase rate stands out. Reasonableness checks to apply would be:

- What would the enormous increase in payments for pharmaceuticals assumed in the IGR do for pharmaceutical industry profits? What would be the effect of that on competition, new entrants to the industry and, consequently, feedback to profit margins and prices?
- How many pills does the projection imply that the average person will be taking each day? Is that reasonable, or likely? The past trend that has been extrapolated is based on dollars of expenditure, but decomposing this into number of pills and average price per pill would cast a much clearer light on the reasonableness of extrapolating the trend. Surely saturation point will be reached at some stage.

The IGR is only part of the overall picture. To fully assess the impact of ageing and other long-term trends on public sector costs, projections are needed for state governments as well.

### **Intergenerational projections for state budgets**

The IGR provides some very useful and interesting insights, but it is only part of the overall picture. To fully assess the impact of ageing and other long-term trends on public sector costs, projections are needed for state governments as well. State governments spend a smaller proportion of their budget on the aged than the Commonwealth, as funding aged care (mostly) and age pensions (entirely) are Commonwealth responsibilities. The notable exception is state funding of hospitals. The IGR predicts that increases in this funding will be offset by reductions in education costs—giving a constant expenditure of just under 5 per cent of GDP.<sup>8</sup> However, this is only an ‘indicative comparison’. If the states were to conduct their own detailed projections, using the more comprehensive data they have available, the results would allow a complete picture of the burden on Australia’s future taxpayers.

Perhaps the Commonwealth, state and territory governments could agree to perform periodic, consistent, synchronised intergenerational reports. Public policy and fiscal decision-making in Australia would certainly be the better for it.

### **Translation into tax impact for individuals**

The IGR projects that Commonwealth revenue will have to increase by 25 per cent as a proportion of GDP. Commonwealth revenue comes from four main sources:<sup>9</sup> income tax on individuals, tax on companies and trusts, indirect taxes such as excise, and non-taxation revenues such as dividends and sale of goods and services. The IGR projects that the proportion of GDP collected from these sources will have



One of the reasons the IGR numbers are so alarming is the implication that total personal income tax revenue as a percentage of GDP will have to increase by 25 per cent. The simplistic interpretation is to imagine having to pay a 25 per cent higher average tax rate on your current income. But that is incorrect.

to increase by 25 per cent in aggregate. For now, let's focus on the impact of that on individuals' income tax rates, assuming that the other revenue sources also increase by 25 per cent as a proportion of GDP.

One of the reasons the IGR numbers are so alarming is the implication that total personal income tax revenue as a percentage of GDP will have to increase by 25 per cent. The simplistic interpretation is to imagine having to pay a 25 per cent higher average tax rate on your current income. But that is incorrect. The IGR incorporates an assumption that incomes will rise in real terms at 1.75 per cent per annum, so the higher tax rate will be on a higher real income. A more accurate interpretation, or question, is: how would you feel about paying a 25 per cent higher tax rate if your inflation-adjusted income was twice what it is today? But even that is oversimplified, because the distribution of ages and incomes will also change. A detailed projection of tax brackets is needed to show what average tax rates would have to be paid by representative taxpayers in 40 years time.

However, the IGR doesn't show what those rates would be. A calculation that shows the required changes to income tax and other taxes would be a useful enhancement. That is, what would the rates and bracket thresholds have to be in a tax system that was able to pay for all the projected costs? Treasury is the best placed body to make this calculation because it has access to information about the distribution of taxable incomes.

To have meaning, the tax thresholds would need to be deflated to today's dollars. This could be done using AWE or CPI. The affordability of the tax is best assessed by deflating with CPI. This will produce much higher tax bracket thresholds, and hence a lower average tax rate for a given income, because AWE is projected to increase at 1.75 per cent per annum greater than CPI. Hence deflating with CPI will make the tax impost look more acceptable. This is as it should be. The real growth in AWE will make Australians increasingly richer on average than they are now, and so more able (and hopefully, willing) to pay higher rates of tax.

Perhaps this fact alone will be enough to save the situation. If the average tax rate paid allows the same amount of consumption in 2042 as today, then standards of living may not be reduced.

On the other hand, it is likely that the personal tax sector will have to bear more than a 25 per cent increase. There is no clear means for increasing receipts from non-taxation revenue (dividends, etc). Indirect taxes may even fall, due to the non-indexation of the petrol excise. And significant increases in company tax rates may be prevented by the ever-present threat of companies moving offshore. If these come to pass, individuals' tax rates will have to increase by more than 25 per cent. Modelling of these scenarios to assess affordability would be highly valuable.

#### Indication of when things level out

Another issue of concern in the IGR is the chart that shows that the Commonwealth Budget deficit is projected to be 5 per cent of GDP in 2042, and that it will worsen by about 0.2 per cent of GDP each year thereafter.<sup>10</sup> This raises the critical question: when will it stabilise, and at what level? Ultimately the most important question will be whether the level at which it stabilises will be affordable. But whatever level spending settles at in the long run, it is going to

have to be matched by tax collections. Given that the charts show a strong trend continuing to the end of the projection period (2042), we need to know when or where it will level off.

Using the IGR's PBS cost-increase assumption, the current IGR-projected deficits would increase without limit. But assuming next time that assumption is reined in by some feedback loops and reality checks, it should be possible, over a longer time frame, to observe a tendency towards some level of stability. In particular, the population 'hump' of the baby boomers will eventually disappear, leaving a more stable population distribution—assuming no future baby booms or sudden, large changes in longevity, fertility or migration.

Another reason why looking beyond 2042 is important is to assess whether potential fixes are permanent or temporary solutions. For example, the IGR sensitivity analysis shows that increased migration is one of the most powerful levers for reducing the Budget deficit by 2042. But does that fix the problem or just postpone it? We need to look further into the future to see.

#### **Modelling compression of morbidity**

Compression of morbidity is the term used to describe the phenomenon whereby, as medical advances make people live longer, health at older ages improves as well. If this happens, the cost of healthcare may not be as great as assumed, because an 80-year-old in 2040 will need less medical services than an average 80-year-old does now.

There is some evidence that compression of morbidity should occur, and may have already occurred to some extent.<sup>11</sup> But there is also some conflicting evidence. What does happen will be critical because the health cost impact of a longevity-induced doubling of the proportion of the population over 65 will be far less if compression of morbidity occurs.

The IGR does not explicitly allow for compression of morbidity. It would be asking too much to tackle such a complex and difficult issue in the first such projection. However, the importance of this issue suggests that there should be some attempt to analyse and incorporate the phenomenon in future projections.

#### **Modelling policy alternatives**

Most economic models in common use are short-term models aimed at assessing policy alternatives. By contrast, the IGR uses very long-term modelling but assumes that no change occurs to policy. The best of both worlds would be achieved by using the powerful projection tools on which the IGR is based to assess the long-term impacts of policy alternatives. The range of alternatives that could be considered is wide. A few examples are:

- changes to the means-testing of age pensions (e.g. removing exemption for owner-occupied housing);
- changes to the PBS or other aspects of the pharmaceutical funding and delivery framework;
- simplifications to the superannuation tax system, such as shifting tax from contributions to benefits;

The IGR does not explicitly allow for compression of morbidity. It would be asking too much to tackle such a complex and difficult issue in the first such projection. However, the importance of this issue suggests that there should be some attempt to analyse and incorporate the phenomenon in future projections.



- changes to the funding arrangements for aged care.

If long-term modelling, in addition to the usual two- to five-year budgetary assessments, was applied to all major budgetary proposals of lasting significance, the formulation of fiscal policy would become far more transparent, soundly based and successful in the long term.

The Charter of Budget Honesty requires an intergenerational report to be produced every five years. We suggest that it should be an ongoing evaluation that becomes a part of every annual Budget and consideration of every major policy proposal with fiscal implications.

#### Other long-range projections

There are no other public forecasts of long-term fiscal impacts available in Australia. Other long-range projections of current interest are:

#### The Charter of Budget

Honesty requires an intergenerational report to be produced every five years. We suggest that it should be an ongoing evaluation, that becomes a part of every annual Budget.

- The CSIRO projections underlying its *Future Dilemmas* report to DIMIA. Whereas this did not directly project fiscal impacts, it did project variables such as population and resource consumption, which in turn affect fiscal outcomes. The methodology used is innovative, in that it measures everything in terms of physical quantities rather than money. This has been criticised as a weakness because it does not allow for price effects. But it is also a strength, in that looking solely at prices or economic variables, as most economic models do, can hide important, underlying physical realities, or sometimes even contradictions. If some way could be found to cross-fertilise these models with economic ones such as Treasury's, then truly powerful projection tools might be developed that could provide enormous insight into the long-term impact of current and proposed policies.
- The Allen Consulting/Stafford Mackenzie projection of aged care and health costs. This model provided the projections for a report to the Myer Foundation, *The Financial Implications of Caring for the Aged to 2020*. The model projects Commonwealth government aged care costs to increase from 0.81 per cent to 1.25 per cent of GDP by 2020, compared to 1.0 per cent in the IGR, implying that the IGR is 'light' on its assessment of aged care costs. The model has a fair amount of flexibility and has been used by Allen Consulting and Stafford Mackenzie to evaluate alternative healthcare initiatives such as increased community-based low aged care and a chronic disease self-management program. The model is more detailed than the IGR model, in that it models actual episodes of patient care and components of nursing home cost, rather than just dollars per year subdivided by age and sex. Of some concern is the fact that the Allen/Stafford Mackenzie calculations project a 25 per cent higher cost than the IGR by 2020. If the Allen/Stafford Mackenzie projections were extended to 2050, one wonders how much greater the cost increase might be, and what fiscal impact that would have.
- Access Economics has done some long-range projections of the impact of migration on fiscal outcomes, e.g. Richardson (2002). It suggests that a rebound in fertility could significantly improve the Budget position after a few decades, in contrast to the IGR, which suggests that the fertility changes would have little impact. These projections also cover state budgets, which are projected to

suffer worsening financial positions if fertility increases—mostly due to increased education costs. This turns around after 2040 as the extra babies grow up and start paying taxes.

- The OECD has collected long-term fiscal forecasts from most of its member countries. These forecasts show an average increase in age-related spending of 6–7 per cent of GDP across member nations over the next 50 years. The figures are hard to compare, but it appears that Australia's problem is smaller than that of many other OECD countries, especially if allowance is made for the pessimistic PBS assumption in the Australian projections. Age pensions appear to be a larger problem for most countries than for Australia, because many do not means-test pensions.

In short, there is not a great deal of modelling available to provide a comparison with the IGR. There is no other publicly available projection that covers the entirety of Commonwealth revenues and expenditure for such a long period. This may be attributed at least partly to the absence of good available data covering all the inputs needed. The IGR modelling uses summary data from tax, Social Security and ABS, much of which is not available to the public. The consideration of policy alternatives would be enhanced if this data were made available for outside parties to use in their own modelling. This would facilitate robust assessment and debate of a whole range of policy options that at present can only be informed by educated guesswork.

All the forecasts agree that the strain on Budget deficits will grow over the coming decades, and that ageing and healthcare costs will be the major drivers of this. Whether that strain is manageable will depend on the policy responses that are developed, both now and in response to the Budget strains as they arise. Assessing the impact of potential policy responses requires good long-range models, and the *Intergenerational Report* is an excellent start in this direction.

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## Endnotes

- 1 IGR p. 33.
- 2 For example, the decision in 2000 to cease petrol excise indexation will cause the contribution to revenue from that source to fall significantly over time in real terms, and more rapidly still as a percentage of GDP.
- 3 By the age-adjusted increase rate, we mean the real rate of increase after removing the effects of changes over time in age and sex distribution of the population.
- 4 Bolnick 2003.
- 5 Interestingly, the IGR suggests that increased fertility will have little impact on fiscal outcomes. This is different from the projections of some other commentators such as Richardson (2002).
- 6 PBS and other health cost increases may be further constrained by effective public health programs. Increasing government commitment to these campaigns may reduce the prevalence and severity of manageable diseases such as diabetes, asthma or coronary disease.
- 7 IGR p. 33.
- 8 IGR p. 58.
- 9 GST is not a net source of Commonwealth revenue, as it is entirely passed on to the states.
- 10 IGR p. 4.
- 11 see Bolnick 2003.



## References

- Allen Consulting (2002), 'The Financial Implications of Caring for the Aged to 2020', [www.myerfoundation.org.au](http://www.myerfoundation.org.au)
- APRA (2002), Superannuation Market Statistics December 2002, [www.apra.gov.au/Statistics/Superannuation-Market-Statistics.cfm](http://www.apra.gov.au/Statistics/Superannuation-Market-Statistics.cfm)
- Bolnick, H. (2003), 'Planning Healthcare for the 21st Century', Working Paper presented to the Institute of Actuaries of Australia May 2003, [www.actuaries.asn.au/PublicSite/events/conv03papers.htm](http://www.actuaries.asn.au/PublicSite/events/conv03papers.htm)
- Costello, P. (2002), *Intergenerational Report 2002–03*, 2002–03 Budget Paper No. 5, [www.budget.gov.au/2002-03/bp5/html](http://www.budget.gov.au/2002-03/bp5/html)
- Dang, T., Antolin, P. and Oxley, H. (2001), 'Fiscal Implications of Ageing: Projections of Age-Related Spending', OECD Economics Department Working Papers No. 305, [www.oecd.org/dataoecd/28/0/1890227.pdf](http://www.oecd.org/dataoecd/28/0/1890227.pdf).
- FitzGerald, V. and Haebich, W. (2002), 'The future costs of health and aged care in Australia', presented at the Australian Health Reform Discussion Forum 2002, [www.allenconsult.com.au/publications\\_healthforum.php](http://www.allenconsult.com.au/publications_healthforum.php)
- Foran, B. and Poldy, F. (2002), 'Future Dilemmas: Options to 2050 for Australia's population, technology, resources and environment', CSIRO Sustainable Ecosystems, Working Paper series 02/01, [www.dwe.csiro.au/research/futures/futuredilemmas](http://www.dwe.csiro.au/research/futures/futuredilemmas)
- Guest, R. and McDonald, I. (1999), 'Population ageing and projections of government social outlays in Australia', <http://melbecon.unimelb.edu.au/staffprofile/imcdonald/socoutlay2.pdf>
- Henry, K. (2003), Address to the Australian Business Economists, 20 May 2003, [www.treasury.gov.au/documents/639/PDF/Australian%20Business%20Economists.pdf](http://www.treasury.gov.au/documents/639/PDF/Australian%20Business%20Economists.pdf)
- Institute of Actuaries of Australia (1999), 'Financing the Ageing, Now is the Time to Act, Position Paper', [www.actuaries.asn.au/PublicSite/public\\_policy/public\\_policy\\_frameset.htm](http://www.actuaries.asn.au/PublicSite/public_policy/public_policy_frameset.htm)
- Institute of Actuaries of Australia (2002), 'Response to The Intergenerational Report', [www.actuaries.asn.au/PublicSite/public\\_policy/public\\_policy\\_frameset.htm](http://www.actuaries.asn.au/PublicSite/public_policy/public_policy_frameset.htm)
- Investment and Financial Services Association (2003), 'Retirement Incomes And Long Term Savings: Living Well In An Ageing Society', [www.ifsa.com.au](http://www.ifsa.com.au)
- Richardson, C. (2002), Address to Staff of the Department of Immigration Multicultural and Indigenous Affairs, <http://www.dimia.gov.au/research/publications/richardson.pdf>

## 4 Getting a little older each year: The demography of ageing in Australia

Peter McDonald

With the single exception of the rise in fertility that occurred during the baby boom years, fertility and mortality rates in Australia have been falling for more than a century. As a result of these demographic trends, the percentage of the population aged 65 years and over increased from 2 per cent in 1870 to around 13 per cent today. Thus, demographic ageing is not a new phenomenon; it has been with us for more than a century. Why then has ageing taken on greater policy significance in recent times?

The percentage of the population aged 65 years and over is now projected to rise to between 27 and 30 per cent by 2051 according to the three projections that the Australian Bureau of Statistics chooses to highlight in the most recent official population projections (ABS 2003). The ABS revises its official projections once every two years and it is interesting to note that the ABS marginally increases the speed of ageing with each successive projection published. Biennially, the assumed input parameters used in the official projections move in the direction that produces a higher level of ageing. Thus, as time passes, we are becoming more and more convinced about the strength of demographic ageing and we are getting a little older than we expected each year.

We have not always had this perspective on ageing, as evidenced by the long-term population projections that were published in 1975 as part of the National Population Inquiry (NPI). These projections provided estimates of the percentage of the population that would be aged 65 and over by 2051 ranging between 9 and 15 per cent (Commonwealth of Australia 1975: Volume 1: 294). Thus, based on these 1975 projections, even the highest estimate of future ageing was very substantially below the levels that are being projected today, and five of the six NPI long-term projections provided estimates for 2051 that were below the level actually reached by 2001. In 1975, the future ageing of the population received only passing mention in this, the most comprehensive report on Australia's population ever undertaken, and no mention at all in the concluding chapters related to policy.

The speed and extent of population ageing emerged as a 'new' policy issue in the 1980s, partly because it had not been predicted by the demographic projections made in the 1970s. In simple terms, population ageing has emerged as a policy issue since the 1980s because both fertility and mortality have fallen faster than was foreseen in the 1970s. The last year of recorded vital statistics available at the time of writing of the NPI Report was 1973. If birth rates were the same at each age today as they were in 1973, there would be 40 per cent, or 100 000, more births each year. If death rates at each age were the same today as they were in 1971–76, there would be 60 per cent, or 80 000, more deaths each year. It is no surprise that an annual 100 000 less people at the young end of the age distribution and 80 000 more at the old end has changed our perspective on the speed of ageing.

Ageing will be rapid in the second, third and fourth decades of the next century because in those years the large postwar, baby boom generation will be in the older age groups, replacing the smaller generations born in the depression and war years. However, the ageing of the baby boom generation was factored into the low-ageing projections that were made in the 1970s, therefore, the progression of the baby boomers to older ages becomes a significant factor in the ageing of the population only though its association with continued low fertility and increases in the length of life.

Demographic ageing is not a new phenomenon; it has been with us for more than a century ... Population ageing has emerged as a 'new policy' issue since the 1980s because both fertility and mortality have fallen faster than was foreseen.



Given that the speed of ageing has increased in every official projection made over the past 30 years, should we conclude that this trend will continue? The answer depends upon assessment of assumptions made in official projections.

Given that the speed of ageing has been increased in every official projection made over the past 30 years, should we conclude that this trend will continue and that current estimates of ageing are conservative? The answer to this question depends upon assessment of assumptions made in official projections about future levels of fertility, mortality and international migration. The remainder of this chapter addresses these assumptions, but ageing is not just a national matter. Indeed, it is now emerging that issues related to local concentrations of aged people are likely to be a much more significant issue than ageing at the national level.

#### Future fertility rates

Couples have babies across their lifetimes and this is the perspective they have on fertility. They plan (precisely or roughly, early or later) on the number of children that they will have over their reproductive years. In contrast, it is the annual or cross-sectional fertility rates that are important in population projections.

Annual fertility rates are not only affected by the numbers of children that women have over their lifetimes but also by the timing of their births. For example, if everyone in Australia decided to delay their next birth beyond 2004 then the fertility rate in 2004 would be zero, even if the number of births that people ultimately had did not change at all. This zero birth rate would remain a permanent part of the age structure of the population; it would not disappear when people had the delayed birth.

During the baby boom years, annual fertility rates rose mainly because of a change in the timing of births and not so much because of a change in the number of births that people had across their lifetimes. People had their births at increasingly younger ages, that is, births were brought forward in time and this produced the boom. During these years, the annual fertility rate (the Total Fertility Rate) reached a peak of 3.6 births per woman in 1961, but, for women living through these years, completed lifetime fertility never rose above a peak of 2.9 births per woman (for the cohort of women born in

1933–37). When women have their first birth at an early age, however, they may have more children over their lifetime because they have more time to consider having another child or more time to have an unintended birth. However, during the baby boom years, the average age at last birth in Australia fell by almost exactly the same number of years that the average age at first birth had fallen, that is, the average number of years that women were engaged in childbearing did not change. On the other hand, early childbearing had two other effects that did increase the number of births over the lifetime. First, a higher proportion of all women had a first birth and, second, there were shorter intervals between births. Both of these probably resulted from relatively inefficient use of contraception at young ages (Jain and McDonald 1997). We are able to provide these explanations of fertility during the baby boom after they have occurred, but they certainly were not predicted in advance. The baby boom came as a considerable surprise to demographers and projections of population made in the late 1940s proved to be very wrong because the boom was not predicted, neither in Australia nor in all other Western countries.

Since the late 1970s the timing of births has been moving in the opposite direction to the baby boom years. Australians have been delaying their first birth to increasingly older ages on average. If there was no change in the number of births that women had across their lifetimes, this would have the opposite effect to the baby boom years, that is, births would be put off to later years and there would be a

relative birth deficit in the years in which the delay was occurring. The annual Australian fertility rate has fallen slowly from 1.92 births per woman in 1992 to 1.73 in 2001. Can we say that this fall is mainly due to the deferral of births to some future time or is it due more to a fall in the average number of births that women will have over their lifetime? The answer to this question is the key to projection of future annual fertility rates. If we are experiencing merely a deferral of births then the annual fertility rate will rise at some future time—around the time we stop deferring births to later and later ages (Lutz et al. 2003). Projection then becomes a matter of estimating how much further fertility will fall before it starts to rise again. On the other hand, it has been argued that many deferred births will not occur because of the onset of infertility or because people become set in a childless lifestyle or a lifestyle involving fewer children than they might otherwise have had. If this is the case, fertility may remain at some future low level.

Demographers today are probably more aware of what the possibilities may be compared to demographers in the 1940s, but, internationally, they remain deeply divided between those who support the deferral argument and those who support the view that lifetime fertility is falling. In the case of Australia, on the basis of very inadequate information, I tend to support the latter argument. At the same time, however, governments concerned about the persistence of low fertility are increasingly adopting pronatalist policies and these are very likely to have an effect on fertility, further complicating the projection of future fertility. Policies related to the work–family balance that are effectively pronatalist are on the policy agenda in Australia. Therefore, a projection of fertility based simply on past statistical trends is likely to be wrong.

So, from the perspective of fertility trends, are current projections of ageing in Australia conservative? We are presently attempting to compile better demographic data (cohort parity progression rates) that will enable a better Australian answer to this question, but, in the absence of such data, it is instructive to note that fertility in two similar countries, the United Kingdom and Canada, has fallen to levels below that of Australia, and their falls are continuing. The latest ABS projections (ABS 2003) have Australian fertility either rising to 1.8 births per woman or falling to 1.60 births per woman or 1.4 births per woman by 2011 and then remaining constant. This is very likely to cover the range of possibilities to 2011, and, indeed, the likely range for the foreseeable future thereafter. Given fixed assumptions about future mortality and future international migration, variation in longer-run fertility from 1.8 births per woman to 1.4 births per woman changes the percentage of the population aged 65 and over by 2051 by about four percentage points, a not insignificant amount.

### Future mortality rates

It is conventional for statistical agencies around the world to be conservative about the potential for future falls in mortality (Booth). This conservatism stems from the notion of a biological limit to the length of the human lifespan. Once all diseases and deaths from external causes are eliminated, death would be determined by the rate of human cell formation. Statistical agencies have tended to accept that there is a fixed biological limit, current mortality levels are too relatively close to the biological limit, and that expectation of life will approach the limit asymptotically (slowly rather than suddenly). Accordingly, statistical agencies routinely project

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In Australia it has been argued that improvements in mortality may turn out to be better than statistical agencies have projected in the past ... A higher expectation of life, of course, means a higher proportion of the population at old ages.

that improvements in mortality will be smaller than they have been in the past. Internationally (Oeppen and Vaupel 2002), and in Australia (Booth) it has been argued that improvements in mortality may turn out to be better than statistical agencies have projected in the past. The argument is based on the simple observation that, in the past, improvements in mortality have been better than those projected by statistical agencies, particularly over the last three decades. These authors argue that it is quite plausible that mortality will continue to fall at the same rate that it has fallen in the past 30 years. In response to these arguments, the ABS has provided a second mortality assumption in its projections, one that has expectation of life rising much more rapidly than the Bureau has ever projected before. This projection has expectation of life for females reaching 95.0 years by 2051, a more or less linear increase from the present day. This compares to the standard projection of 87.7 years, based on a slowing down of the improvement in mortality.

A higher expectation of life, of course, means a higher proportion of the population at old ages. The ABS projections (ABS 2003: 69) indicate that if fertility was 1.6 births per woman, the proportion of the population that would be aged 65 years and over would be 27.1 per cent with the 'standard' projection of expectation of life and 30.6 per cent with the higher expectation of life. This latter figure is a little beyond the level of ageing that occurs in the three preferred projections published by ABS. Again, the range of 3.5 percentage points in the extent of ageing is not insignificant. Furthermore, the ABS does not publish the percentage aged 65 years and over that would result from a combination of the low fertility assumption (1.4) and the low mortality assumption ( $e_0 = 95.0$  for women). This would be approaching 33 per cent aged 65 years and older, a level well above the range that the ABS has chosen to highlight in its latest projections publication (ABS 2003).

#### International migration

The impact of changes in international migration upon population ageing in Australia has been thoroughly researched by McDonald and Kippen (1999a). In simple terms, they point out that the impact of immigration is a function of two factors, the number of migrants and the difference between the age distribution of migrants and the age distribution of the population. Obviously, if migrants had exactly the same age distribution as the existing population, migration would have no impact on the age structure of the population. Compared to the existing population, there are fewer older people among new migrants, however, there also tend to be fewer children. The net effect is that migrants are younger on average than the existing population, but not all that much younger. However, the persistence of below replacement fertility progressively makes the population older than it is now. As the population gets older from natural increase, the gap between the average age of the existing population and the average age of migrants widens and, consequently, migration begins to have a meaningful effect upon the ageing of the population.

Table 4.1 shows that, under standard assumptions of fertility and mortality and keeping the age distribution of migrants constant over time, the first 50 000 (net) migrants reduces the proportion of the population aged 65 years and over by the

middle of this century by 2.2 percentage points. The next 50 000 (to a total of 100 000) would reduce ageing by an additional 1.6 percentage points. A reduction of 3.8 percentage points for a net 100 000 migrants is clearly worthwhile, however, this reduction of ageing would come as a result of adding 6.7 million people to the population of Australia.

**Table 4.1: The effects upon ageing of Australia's population of increments to annual net migration**

Increment to annual net migration	Incremental reduction in % aged 65 and over by 2048
From 0 to 50 000	2.2
From 50 000 to 100 000	1.6
From 100 000 to 150 000	1.2
From 150 000 to 200 000	1.0
From 200 000 to 250 000	0.8

Source: McDonald and Kippen 1999a: 23.

If net migration were to increase by another 100 000 (to 200 000), this would reduce the ageing of the population by only a further 2.2 percentage points. This is only 58 per cent of the impact of the first 100 000 migrants, even though the additional migration would add the same number of people to the total population (6.7 million) as the first 100 000 migrants had done. Beyond the first 100 000 migrants, ever-increasing migration becomes an increasingly inefficient way of reducing the extent of ageing, inefficient in the sense that increasingly larger numbers must be added to the total population in order to achieve the same impact. The reason for this is that, as the number of migrants increases, the average age of the population falls and, in time, becomes closer and closer to the average age of the migrants. Hence, in considering the optimal level of migration in relation to retardation of ageing, there is a trade-off between reduced ageing and increased total population.

As a final comment on migration and ageing, there is a popular myth that 'post-war migration kept Australia's population young'. Kippen and McDonald (2000) have shown that migration between 1945 and 2000 reduced the percentage of Australia's population that was aged 50 years and over in 2000 by only 1.3 percentage points. This compares with the 6.1 percentage points reduction that was due to the baby boom. Babies are much younger than the average migrant and the average member of the population.

### Localised patterns of ageing

Most studies of the ageing of Australia's population consider only the national level. For example, the Federal Treasury's *Intergenerational Report*, brought down at the time of the 2002–03 Budget, considered future labour supply, income support expenditure and even the provision of obviously local health services, such as education, hospitals and nursing homes, only at the national level. While there has been an understanding that many small towns in Australia are ageing very rapidly and that this presents localised problems for the delivery of services, new work underway in the Australian Centre for Population Research indicates that severe

Beyond the first 100 000 migrants, ever-increasing migration becomes an increasingly inefficient way of reducing the extent of ageing, in the sense that increasingly larger numbers must be added to the total population in order to achieve the same impact.



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issues of ageing will emerge in many non-metropolitan regions of Australia in the future.<sup>1</sup> This is especially the case in those coastal regions that have been areas of substantial in-migration of older people. The issue is that, on existing trends, the aged populations of many regional areas will far outstrip the potential of the regional labour forces to provide for the consumption of goods and services by older people. Current trends are unsustainable on a level much greater than previously envisaged.

### Discussion

Any discussion about population futures must be conducted with an understanding of basic population dynamics. The core component of population dynamics is reproduction. Reproduction is the extent to which one generation replaces itself in the next generation. When one generation of women has on average one daughter who lives to the age of the mother when she gave birth, exact replacement of the generation occurs. With no migration and no change in mortality, such a population, would have zero growth in the long term and a constant age structure. Because of very low mortality rates at younger ages, the rate of reproduction in Australia is determined almost solely by fertility, that is, the complete elimination of deaths under the age of 50 would have almost no effect on the rate of reproduction.

Assuming mortality is constant and there is no migration, a fertility rate below an average of two children per woman, sooner or later, leads to a declining population, with all of the decline occurring at the young ages. Across generations, this decline would be multiplicative. As a consequence, many countries today that have experienced sustained low fertility are implementing policy measures to increase their fertility rate. While it can be expected that such policies will have only a marginal effect on fertility, in most instances it is only a marginal effect that is required. Thus, future fertility cannot be predicted accurately for the simple reason that it will be the outcome of government action or in-action in relation to policies that support fertility.

As already mentioned, lower mortality would have virtually no impact on reproduction. The main effect of lower mortality in the future will be to add numbers at the older ages, particularly at ages 80 and over. The important uncertainty at present is how far and how rapidly mortality will fall and hence how many additional people there will be at older ages in the future. Recent discussion in the literature suggests that there may be more people aged 80 and over than official projections of the past decade have indicated. Lower mortality increases population size but with a very distinctive type of person, one that is less likely to be engaged in the paid labour force. While policy may advocate lengthening of the working life, in labour force terms an additional person at age 85 cannot be considered a close substitute for a person aged 25.

As discussed above, the effects of migration upon ageing are complex. Postwar migration added vastly to the size of Australia's population but had a minimal impact on its age structure. However, when fertility falls to very low levels, migration can have a significant effect on age structure. In broad terms, given present demographic trends in Australia, net migration of 100 000 per annum would have a beneficial impact on slowing the ageing of the population. Migration beyond that level would be less beneficial from the perspective of slowing the rate of ageing.

The best environmental (low population) result is a soft landing at zero population growth. This is reached more rapidly and at a lower population total if it is achieved through a combination of relatively high fertility and low migration than the reverse. If fertility were to rise immediately to two children per woman and net migration was zero, Australia's population would reach zero growth at around 21 million people (except for a gradual increase in numbers at older ages as mortality continues to fall). However, if fertility fell to one child per woman and zero population growth was achieved through increased net migration, the population would eventually reach zero growth at around 35 million (McDonald and Kippen 1999). Despite this well-publicised dynamic, many environmental scientists continue mistakenly to celebrate the fall in Australia's fertility.

Despite the many uncertainties, the range of likely future population scenarios for Australia is relatively narrow, somewhere in the range of 25–30 million people by 2050 (McDonald 2003). All of the increase in the size of the population will be at ages 50 years and over. Almost all of these future older people are already with us and their numbers will increase by at least 6 million. Until evidence emerges to the contrary (e.g. the unlikely events of a new baby boom or a mass exodus into or out of Australia), economic and environmental planning should be geared to this likelihood. It is important also to recognise that these additional older people will be much more concentrated in some regions than in others and that, on present trends, many large regions of Australia would have unviable age structures.

1 The researchers involved are Jeromey Temple and Peter McDonald of the Australian National University.

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## References

- Australian Bureau of Statistics (ABS) (2003), *Population Projections Australia: 2002-2101*, ABS Catalogue No. 3222.0, ABS, Canberra.
- Booth, H. and Tickle, L. (2003), 'The future aged: new projections of Australia's elderly population', Working Papers in Demography, No. 90, Demography and Sociology Program, Australian National University: <http://demography.anu.edu.au/workingpapers.html>
- Jain, S.K. and P.F. McDonald (1997), 'Fertility of Australian birth cohorts: components and differentials', *Journal of the Australian Population Association*, 14(1): 31–46.
- Kippen, R. and P. McDonald (2000), 'Australia's population in 2000: The way we are and the ways we might have been', *People and Place*, 8(3): 10–17.
- Lutz, W., O'Neill, B. and Scherbov, S. (2003), 'Europe's population at a turning point', *Science*, 299: 1991–1992.
- McDonald, P. (2003), Australia's future population: Population policy in a low-fertility society, in Khoo, S-E. and McDonald, P. *The Transformation of Australia's Population, 1970–2030*. UNSW Press, Sydney, 266–79.
- McDonald, P. and Kippen, R. (1999a), The impact of immigration on the ageing of Australia's population, DIMA Discussion Paper, May, Canberra: Department of Immigration and Multicultural Affairs.
- McDonald and Kippen. (1999b), Population futures for Australia: the policy alternatives, Parliamentary Library Seminar Series, Research Paper 5, 1999, Canberra: Australian Parliamentary Library.
- Oeppen, J. and Vaupel, J. (2002), 'Broken limits to life expectancy'. *Science*, 296: 1029–31.



## 5 Ageing and health costs: Managing the future

Dr Michael Tatchell

### 1 Introduction

Australia's population is ageing—the evidence for this is clear and compelling. Falling fertility, the ageing of the 'baby boomer' generation, declining mortality and increased life expectancy are combining to increase the number and proportion of the population that is elderly, that is, those aged 65 years or more. This trend will accelerate over the next 50 years to such an extent that the numbers of elderly will have increased from the present 2.5 million to around 7.2 million in 2051 (ABS 2003).

The implications of an ageing population for healthcare costs have been the focus of much analysis and commentary in the past decade. Most recently, the Treasurer's

*Intergenerational Report* (2002) concluded that 'a steadily ageing population is likely to continue to place significant pressure on Commonwealth government finances', and that 'Commonwealth health and aged care spending is projected to grow significantly, due to the increasing cost of new procedures and medicines, with the ageing of the population also increasing demand for health spending'.

The extent to which Australia's ageing population constitutes an impending crisis for our health system is open to question.

The extent to which Australia's ageing population constitutes an impending crisis for our health system is open to question. Extrapolation of today's health service utilisation and cost figures into the future can give rise to predictions that the costs of providing health care to such a sizeable older population will be prohibitive and could place significant strain on our health system. But is this so? This paper examines the approaching demographic 'problem', discusses whether or not we are in fact facing an impending 'crisis', and provides policy suggestions to meet and manage the challenge ahead.

### 2 What is the problem?

#### 2.1 Demographic projections

The most recent demographic projections (ABS 2003) suggest that Australia's population will grow from 19.7 million in June 2002 to between 23.0 million and 31.4 million in 2051, the difference being due to varying assumptions about fertility, net overseas migration and life expectancy at birth (see Table 5.1). The ABS report also provides projections for the ageing of Australia's population. These show that:

- the median age of the population will increase from the present 35.9 years to between 46.0 years (Series A) and 49.9 years (Series C) in 2051;
- life expectancy at birth is projected to increase from the present 77 years for males and 82 years for females to around 84 years and 87 years respectively in 2051;
- the proportion of people aged 65 years and over will grow from 13 per cent in June 2002 to between 27 per cent (Series B) and 30 per cent (Series C) in 2051. That's more than double the present percentage;
- the proportion of 'old-old' people (those aged 85 years and over) will increase from 1.4 per cent of the population in June 2002 to between 6 per cent and 9 per cent of the population in 2051. Their numbers are projected to grow from the present 280 400 to between 1.5 and 2.7 million by 2051.

**Table 5.1: Population projections to 2051 under varying assumptions**

	Assumptions		Population		
	Total fertility rate(a)	Net overseas migration(b)	Life expectancy (years)(c)		As at 30 June 2051
	Babies per woman	Persons	Males	Females	Million
Series A	1.8	125 000	92.2	95.0	31.4
Series B	1.6	100 000	84.2	87.7	26.4
Series C	1.4	70 000	84.2	87.7	23.0

(a) From 2011  
 (b) From 2005–06  
 (c) From 2050–51

Source: ABS 2003

Growth rates for those aged 85 years and over are projected to be more rapid than for any other group in the population. Two growth peaks are expected, coinciding with the ageing of persons born after the two World Wars. The first peak (of 7 per cent) will occur in 2006, 85 years after the post-World War I baby boom of 1921, while the second will occur in 2032, 85 years after the post-World War II boom year of 1947.

In contrast, the proportion of young persons in the population (those aged under 15 years) is projected to fall over the next 50 years from 20 per cent (4 million persons) to between 12 and 15 per cent (2.8 million to 4.8 million) in 2051. As well, the proportion of people of working age (between 15 and 66 years) is expected to fall from the present 67 per cent (13.2 million people) to between 57 and 59 per cent (13 and 17 million people) in 2051.

## 2.2 Ageing and health costs

Many believe our ageing population is a crisis in the making—that a proportionately small working age population will find it hard to support a proportionately large older population; and that the costs of providing healthcare services to a much larger older population will prove prohibitive in the longer term.

The upward pressure on health costs applied by an ageing population results both from the fact that older people tend to have a greater need for health services and that they use those services more often than other age groups. The other major drivers of rising health costs are the increasing cost and availability of new health technology, as well as burgeoning consumer demands and expectations. Consumers increasingly expect and demand the latest and the best, whether it be the latest medical/surgical advance, or the latest blockbuster drug.

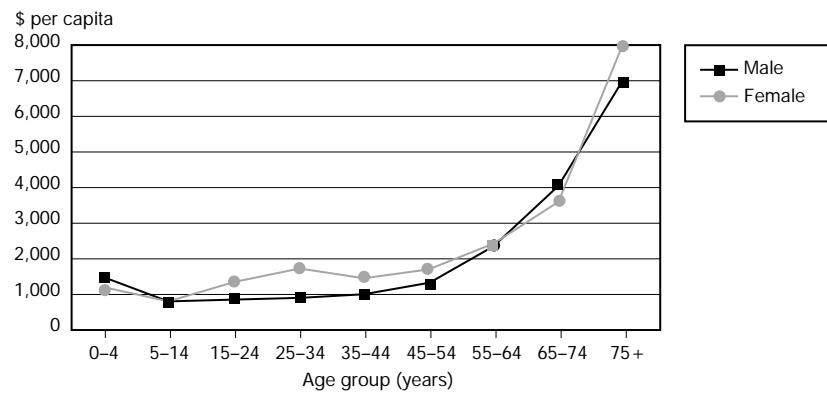
Growing older is accompanied by an increasing incidence of non-fatal diseases of ageing and chronic degenerative diseases. These include arthritis, diabetes, heart disease, cancer and dementia. Such diseases can severely impact on the quality of life and independence of older people. They also bring with them markedly increased utilisation of health services—medications, doctor consultations, hospital admissions, and so on—and significantly higher health costs.

The relationship between a person's age and the amount spent on health services has been clearly demonstrated in two recent studies undertaken by researchers at the Australian Institute of Health and Welfare. Mathers et al. (1998), in their study of the health system costs of diseases and injury in Australia in 1993–94, found that,



per capita, health system costs rise with age for both males and females, particularly from the mid-50s (see Figure 5.1).

**Figure 5.1: Health system costs per capita by age group and sex, 1993–94**

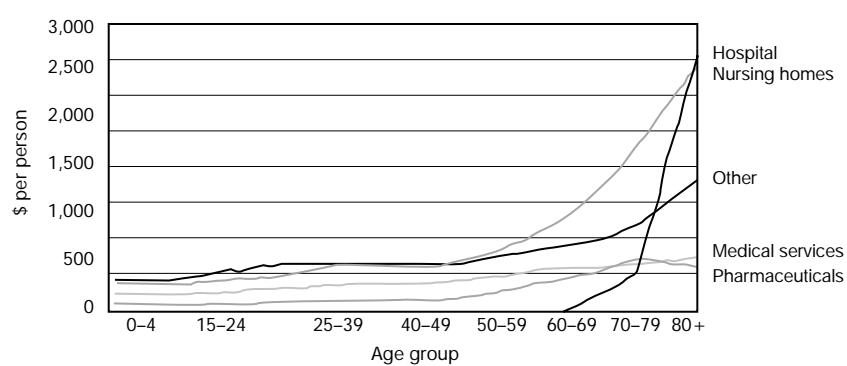


Source: Mathers et al. (1998)

The study shows that health system costs per capita in 1993–94 ranged from a minimum of \$800 for males aged 5–14 years to \$7,500 for females aged 75 years and over, close to a ten-fold difference. The other feature of the results, shown clearly in Figure 5.1, is the cost peak for females during their reproductive years.

More recently, Gibson and Goss (1999) have disaggregated the various components of healthcare to demonstrate how the amounts spent on those components—hospital, nursing homes, medical services and pharmaceuticals—vary with age.

**Figure 5.2: Health expenditure per person by age by area of expenditure, 1989–90**



Source: Gibson and Goss (1999)

Both studies show the significant increase in spending on health services that occurs after age 50. Gibson and Ross show this to be the case particularly with spending on hospital and nursing home services. While the data for both these studies are somewhat dated, the findings are unlikely to have changed in the decade that has passed. The Institute has advised that up-to-date estimates of per capita health system costs will be available shortly.

One disease of old age recently the subject of research in Australia is dementia. Access Economics (2003), which undertook the study for Alzheimer's Australia, shows that more than 162 000 Australians currently suffer from dementia, with as many again likely to be experiencing the early stages of the disease. As the population ages, Access predicts that by 2041, 500 000 Australians will have a diagnosis of dementia. Moreover, the cost of dementia (both direct and indirect) is projected to grow from the present 1 per cent of GDP to more than 3 per cent by 2050. Access predicts that neuro-degenerative diseases such as dementia will replace systemic degenerative diseases such as heart disease and cancer as the major cause of death and disability in the early decades of the twenty-first century. Proper management of these diseases is essential to ensure their costs do not get out of hand in the future—more of this later in the chapter.

### 2.3 The *Intergenerational Report*

The combination of an ageing population and higher health spending on the elderly provide the main impetus for the projected growth in Commonwealth health spending over the next 40 years, as set out in the Government's first *Intergenerational Report* (IGR), released at the time of the Budget in May 2002. Currently the Commonwealth funds close to half of total health spending in Australia. In 2002 this amounted to \$30.7 billion out of a total health spend of \$66.6 billion (AIHW 2003). The major health and aged care programs funded by the Commonwealth include:

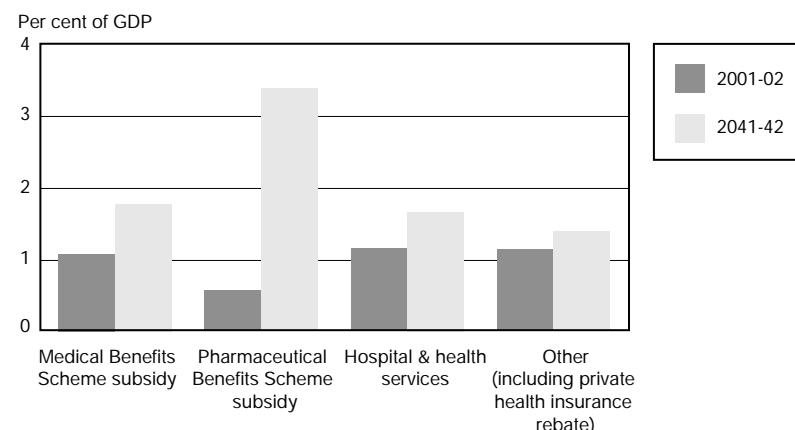
- the Medical Benefits Scheme (MBS), which provides patient subsidies for medical practitioner services, optometry, diagnostic imaging and pathology;
- the Pharmaceutical Benefits Scheme, which provides subsidised pharmaceuticals to patients, so as to ensure all Australians have affordable access to cost-effective medicines;
- public hospital services, through contributions to state governments;
- contributions to residential aged care provided, mainly by non-government organisations and community care services delivered by state and territory governments;
- a 30 per cent rebate to Australian taxpayers to subsidise the cost of private health insurance; and
- financial support in many other areas including medical research, public health, indigenous health services, health information management, health safety and quality, as well as health workforce development and infrastructure.

Treasury projections suggest that Commonwealth spending on health will increase from around 4 per cent of Gross Domestic Product (GDP) in 2001–02 to 8.1 per cent of GDP by 2041–42. Figure 5.3, taken from the IGR, shows that spending on the PBS is projected to grow most rapidly, from its present share of 0.6 per cent of GDP to 3.4 per cent by 2041–42. Less rapid rates of increase are expected for the MBS (from 1.1 per cent of GDP to 1.8 per cent in 2041–42) and hospital and health services (from 1.2 per cent of GDP to 1.6 per cent in 2041–42).

The combination of an ageing population and higher health spending on the elderly provide the main impetus for the projected growth in Commonwealth health spending over the next 40 years, as set out in the Government's first *Intergenerational Report*.



**Figure 5.3: Projected growth in components of Commonwealth health spending**



Source: *Intergenerational Report (2002)*

These cost projections have led the Treasurer, Mr Costello, to identify the PBS as the most significant area of future spending pressure in the Commonwealth Budget. In a recent speech to the Queensland Press Forum (2003), Mr Costello drew attention to the fact that the cost of the PBS has increased by 60 per cent in the past four years to its present level of \$4.5 billion. He said 'it is vitally important that we make certain that the PBS is sustainable, because the reality is that the real cost of a number of commonly used medicines puts them out of reach of many Australians'. This sentiment is echoed in the IGR, which argues that 'ongoing sound management of the PBS will be required to keep long-term growth in the Scheme sustainable, to allow governments to continue providing access to affordable medicines for all Australians'.

### 3 Are we facing a crisis?

Contrary to widespread perceptions, there are several reasons to believe that Australia's ageing population does not constitute a crisis in the making.

#### 3.1 Health costs and the size of the aged population

First, international experience suggests otherwise. Kinnear (2001), for example, has shown there is little association between health costs and the size of the aged population in a selection of countries. Countries with a significant proportion of their population aged over 65, such as Japan (16.2 per cent), Finland (14.7 per cent) and Germany (16.6 per cent), have relatively low levels of health spending relative to GDP of 7.6, 7.4 and 10.6 per cent respectively. This contrasts with the United States, where health spending is relatively high (13.6 per cent of GDP), while the population aged over 65 is a relatively low 11.9 per cent. This result is confirmed in a recent study by Castles (2001), who shows there is an 'almost complete lack of correspondence' between population ageing and levels of health care costs. There is, however, evidence of a relationship between the size of the aged population and spending on aged care services—which is hardly surprising given that such services are targeted exclusively at older people. The main drivers of rising health spending are new medical technology, the cost of new drugs, rising consumer demand, rising prices and the overall growth in population numbers.

### **3.2 Older but healthier**

Second, while people are living longer, they are generally healthier than previous generations. We cannot, and should not assume that the elderly of tomorrow will be an economic or social burden on society due to poor health. Indeed, the opposite may well be the case. Kinnear (2001) puts it well:

... the vast majority of older Australians enjoy healthy, active and independent lives, with 93 per cent living in private homes and only 7 per cent in residential care. Only 3.5 per cent of people over 65 require public assistance for daily living. Even for those over 80, only one-third require help with self-care activities.

This view is supported by a recent AIHW publication (2002), which provides evidence that many older people have a positive view of their health. AIHW refers to data from the 1997 National Survey of Mental Health and Wellbeing of Adults conducted by the ABS, which found that 70 per cent of Australians aged 65 years or older rated their health as either good, very good or excellent, while 30 per cent reported their health as fair or poor. Self-rated health has been found to work well as a measure of health status. Furthermore, it seems older people typically adapt to the limitations and increasing prevalence of disability and illness that age brings. It seems they also adjust their expectations of health and wellbeing with advancing age.

### **3.3 The hazards of prediction**

Third, it is worth bearing in mind that 'prediction is very difficult, especially about the future' (Neils Bohr). We only have to step back in time to remind ourselves of the incredible changes that have occurred in health services and treatments in the past few decades. As Gibson and Goss (1999) observe:

the nature of health care 50 years ago was hugely different to the nature of health care today, and the nature of health care in 50 years time is likely to be hugely different again. These differences are likely to be not only the incremental improvements in treatment, but differences in terms of the nature of the illness, the medications, the surgery, the diagnostic and therapeutic technology, the health care system and indeed the broader context of society itself.

Take medications as an example. In 1964 (the first year for which detailed drug utilisation statistics are available from the Commonwealth Department of Health), the most frequently prescribed medicines on the PBS were analgesics, antihistamines, sulpha drugs, barbiturates, early anti-hypertensives and a range of antibacterial antibiotics.

Today, the most commonly prescribed medicines (none of which were available in 1964) are Salbutamol (for the treatment of asthma), Frusemide (diuretic), Simvastatin (serum lipid reduction), Enalapril (anti-hypertensive), Ranitidine (peptic ulcer treatment), Budesonide (asthma preventative) and Thyroxine (thyroid hormone). Also high on the list are analgesics such as paracetamol and a range of different antibiotics.

The point of this comparison is to highlight the hazards of predicting the

We cannot, and should not assume that the elderly of tomorrow will be an economic or social burden on society due to poor health. Indeed, the opposite may well be the case.



The pessimistic view of the future that often accompanies evidence of Australia's ageing population reflects a heavy emphasis on cost, with little or no recognition of benefits.

future, particularly beyond the next five or ten years. Even population projections can be subject to substantial error. Twenty years ago, the ABS suggested the number of people aged 65 and over in Australia would be 1.7 million in 1996. This turned out to be 20 per cent short of the actual figure in that year, an error of half a million people (MacDonald 1966).

### 3.4 Recognising the benefits

Fourth, the pessimistic view of the future that often accompanies evidence of Australia's ageing population reflects a heavy emphasis on cost, with little or no recognition of benefits. While it is certainly the case that we can expect technological improvements and medical/ pharmaceutical advances to continue unabated, and for the costs of those innovations to continue to rise, we should not overlook the benefits that these advances bring in terms of better quality of life, extended life expectancy, avoided hospitalisation, early return to work and to

providing a productive contribution to the community, and so on. As Freund and Smeeding (2002) argue in their excellent examination of the many issues involved in estimating the future costs and benefits of healthcare expenditures for and by the aged in the rich nations of the world,

there is much hope, and perhaps not so much despair as some of the literature suggests, when one considers future outlays for health care and their relative costs and benefits in an ageing society. In other words, with some distributional exceptions, the glass is more than half full and we should welcome cost effective medical advances which directly and substantially improve the well being of older generations.

Freund and Smeeding refer in particular to the recent work of Lichtenberg in the United States, who has estimated empirically the impact of medicines on mortality, morbidity, hospital use, medical care utilisation and overall health expenditure. His findings underline the crucial importance of recognising the benefits as well as the costs of innovation. He shows, for example, that a great deal of the increase in life expectancy is due to new drugs, and that life expectancy has increased over time with pharmaceutical innovation. Lichtenberg's analysis of data from the 1996 MEPS (Medical Expenditure Panel Survey) also shows:

- that replacement of older by newer drugs results in a reduction in mortality, morbidity and total health expenditures;
- that while newer drugs cost more, this is more than offset by a lesser frequency of dying, fewer work days lost, less hospital utilisation and an overall reduction in total health care expenditure.

### 3.5 Time until death not age since birth

Fifth, longer life expectancy does not necessarily imply higher health costs. Rather, since severe disability and high health costs tend to be concentrated in the final years of life, the more relevant consideration is *time from death* and not *time from birth*. This certainly holds true if rates of disability remain stable or improve over time. Results from the 1998 ABS Survey of Disability, Ageing and Carers (reported in AIHW 2000) suggest that the proportion of the population with 'a profound or severe core activity restriction' increases with age, with the young-old (those aged 65–69) experiencing low levels of disability—7.8 per cent of men and 9.2 per cent

of women. These proportions increase with age, however. For example, for those aged between 80 and 84 years, 24 per cent of men and 36 per cent of women reported a profound or severe core activity restriction. As to whether there has been a reduction in disability rates among the elderly over time, the results are somewhat equivocal, with recent OECD figures suggesting disability reductions (see Kinnear 2001), while recent Australian data show no such reductions (AIHW 2002).

### 3.6 Other reasons for rising health costs

Finally, it is worth restating that the ageing of the population is but one of a number of factors contributing to the rise in health costs—and a relatively small contributor at that. Analysis by AIHW (1998) suggests that during the period 1983 to 1995, only one-fifth of the real annual increase in health spending was due to Australia's ageing population. Of greater explanatory significance were:

- the increasing use and cost of medical technology;
- the increasing use and cost of pharmaceuticals;
- increasing consumer demand for health services;
- rising per capita income;
- overall population growth; and
- choices (both private and public) about spending on health relative to other products or services.

Others have reached similar conclusions, both in Australia (Richardson and Robertson 2000) and overseas (Williams 1990; Fuchs 1998; Strunk and Ginsburg 2002).

## 4 Managing the future

The previous section has provided argument and evidence as to why we should be sceptical of the crisis outlook for our health system which predicts the health costs of an ageing population will prove unsustainable in the long term. Rather, the challenge is one of proper control and management of future health care costs and the development and implementation of appropriate policy responses. These include policies to encourage sustained economic growth, maintenance of an appropriate public/private balance in our health system, and, perhaps most important of all, maintaining a healthy and productive health workforce.

### 4.1 The importance of sustained economic growth

One of the keys to our ability to afford and manage the future cost of health care is sustained economic growth. The IGR (2002) is somewhat pessimistic on this front. It projects that over the next four decades economic growth will 'slow relative to the outcomes achieved over the past decade, reflecting lower productivity and employment growth rates'. Slower employment growth will flow from lower population growth and a falling rate of overall labour force participation. Treasury predicts real GDP growth will decline from average annual rates of 3.4 per cent in the 1990s to below 2.0 on average in the 2030s.

Productivity growth is central to determining the level of long-term economic growth. The IGR projects productivity to grow at 1.75 per cent per annum, the long-term average for the past 30 years. This is substantially below the average rate of 2.25 per cent experienced in the 1990s, even assuming a rate of 2 per cent into

We should be sceptical of the crisis outlook for our health system ... the challenge is one of proper control and management of future healthcare costs and the development and implementation of appropriate policy responses.



Dowrick and Day, for example, argue against the 'ageing pessimists' who are alarmed at the implications of demographic change ... They argue that the size of the increase in costs associated with ageing is trivial relative to the expected 100 per cent rise in real incomes that will occur by 2040.

the future would add a further 9 per cent to the level of per capita income in Australia. Furthermore, improving labour force participation rates beyond those assumed in the IGR would add further fuel to economic growth, again by as much as an additional 9 per cent in GDP per capita in 2042. Combining the effects of higher growth rates in both these variables would result in GDP per capita being almost 20 per cent higher in 2042 than the base case used in the IGR projections.

It is interesting to note that these revised projections have been generated by Treasury in its 2003/04 Budget Papers (*Statement 4: Sustaining Growth in Australia's Living Standards*) one brief year after the release of the IGR. Also of note are recent pronouncements by both the Treasurer (2003) and the Prime Minister (2003), who stress the importance of productivity improvement and increased labour force participation. The Prime Minister, for example, believes maximising labour force participation, particularly for the elderly, to be Australia's principal economic challenge over the next 40 years.

There are others apart from Treasury who do not share the IGR's pessimistic outlook for Australia's economy. Dowrick and Day (2003), for example, argue against the 'ageing pessimists' who are alarmed at the implications of demographic change. In particular, they challenge the view that the living standards of future generations will be adversely and unfairly affected by the increase in the dependency ratio—the ratio of the dependent elderly population to those of working age, which is expected to double by 2040. Dowrick and Day argue that the size of the increase in costs associated with ageing, which the IGR estimates will require an additional 5 per cent of GDP to be raised in taxes, is trivial relative to the expected 100 per cent rise in real incomes that will occur by 2040. This is due largely to the educational attainment of younger Australians, which will drive strong productivity growth and hence strong economic growth into the future.

#### 4.2 The public/private mix

Managing the transition to an older population is to be preferred to radical short-term policy solutions introduced in response to crisis scenarios. This view is strongly advocated by Kinnear (2001), who suggests policies should be targeted at containing the factors that more heavily influence rising health costs. These include:

- the need for an increasing emphasis on public health and primary care initiatives that recognise the importance of health promotion and illness prevention strategies to the overall health of the population as a whole and to older people in particular; and
- the need for an appropriate balance between public and private health provision which recognises that shifting costs from the public to the private purse is unlikely to control health-related costs of population ageing over the long term.

This latter point is taken up by McAuley (2002) in his critique of the IGR. McAuley is critical of the Commonwealth's move to shift the growing burden of healthcare costs off-budget through, for example, widespread participation in private health insurance and a commitment 'to minimise the tax burden transferred to the next generation'. McAuley argues that the likely consequence of the Commonwealth reducing its involvement in health and aged care funding would be higher overall health care costs in 2042. 'In health care there are tremendous

benefits in concentrating purchasing power in one fund holder, preferably a government agency'. Benefits include more effective cost control and universal and affordable access for all sections of society to quality health services.

An obvious example of this is Australia's Pharmaceutical Benefits Scheme, which provides universal access for all Australians to subsidised prescription medicines. In place for more than 50 years, this scheme has effectively kept a lid on drug prices in Australia to such an extent that the prices of medicines on the scheme are well below world average and less than half those in the United States. Recent research by the Australia Institute (Lokuge and Denniss 2003) has shown that removal of PBS price controls and a resultant move to price levels similar to those in the United States would add an extra \$2.4 billion to the cost of the scheme (presently around \$5 billion).

#### 4.3 Co-ordinated policy response

Another important strategy for handling the growing demands on our health system resulting from an ageing population is the need for co-ordinated policy responses for particular disease states and health issues. This approach is now evident in government thinking, with, for example, the establishment of National Healthcare Priority areas such as diabetes, asthma and mental health.

A good example of a disease state that requires strategic thinking is dementia, management of which Access Economics (2003) identifies as an overwhelming priority for health care in the twenty-first century. Access identifies five pillars for a future national strategy to tackle dementia:

1. A significant investment in research for cause, prevention and care.
2. Early intervention through improvement in diagnosis, and the provision of cost-effective pharmacotherapies.
3. Comprehensive provision of support, education and respite services, in place in the community as far as is optimal.
4. Quality residential care, appropriately financed, that is centred on the person with dementia and their family/carer.
5. Provision for special needs, including people with younger onset dementia, people from culturally and linguistically diverse backgrounds, indigenous Australians and people in rural and remote areas.

With regard to point 2, the report highlights concern about current restricted access to affordable medicines for dementia. The rigid authority restrictions for the three treatments of choice—Aricept, Reminyl and Exelon—prevent early access to these medicines at subsidised PBS prices. They also exclude patients with forms of dementia other than Alzheimer's disease. Other research quoted by Access Economics suggest such cost-cutting measures are counter-productive and rather than reducing overall health costs, have been found to increase them by 30 to 50 per cent. Indeed, one researcher has concluded that 'rising drugs costs are, in general, part of the solution, not part of the problem'.

#### 4.4 A healthy and productive health workforce

We know from population projections that the number of older Australians is

Another important strategy for handling the growing demands on our health system resulting from an ageing population is the need for co-ordinated policy responses for particular disease states and health issues.



The relationship between the future demand for healthcare (as defined by demographic factors such as the ageing population) and supply of health services is a complex one.

set to grow rapidly in the coming decades. Not only do we need policies in place to ensure these people remain healthy and productive for as long as possible, but also we need a skilled and well co-ordinated health workforce, working productively in an effective health system, to service the health needs of an ageing population. This will not be possible if health professionals continue to desert their chosen careers, as they have in the recent past.

Doctors, nurses, pharmacists, physiotherapists, allied health professionals and even volunteers are all signalling with their feet that the personal costs are too high and that the incentives, financial and otherwise, are too weak to keep them in the health industry. Innovative policies are required to prevent:

- expensively trained young people from leaving their chosen profession, discouraged by what they experience;
- older professionals from leaving, forced out by the personal costs and risks of their involvement; and
- decisions being made to restrict the health services being offered and to reduce the risks and costs of participation.

Without a well-trained, well-paid and committed health workforce with access to the latest health technologies, we cannot hope to maintain an effective healthcare system. Absence of an effective healthcare system will inevitably undermine our attempts to maintain a healthy and productive older population.

#### 4.5 Choice in public policy

Finally, it is worth stressing the importance of choice in public policy, a point well made by Gibson and Goss in their 1999 paper on the impact of our ageing population on health spending. They argue that the relationship

between the future demand for healthcare (as defined by demographic factors such as the ageing population) and supply of health services is a complex one. They are critical of models which posit a direct relationship between the two, such that an increase in demand will inevitably result in an increase in supply and hence to an unsustainable level of health spending. They point out that supply in healthcare, and in aged care in particular, is largely determined by public policy, and public policy is determined by societal choices—‘it is not exogenously or technologically determined’. This is an important point, and one which should always be borne in mind when we are attempting to predict the future, a hazardous pastime, as we have seen earlier. It also helps to underline the importance of proper planning as the key to managing our future and the challenges posed by Australia’s ageing population.

October 2003

## References

- Access Economics (2003), *The Dementia Epidemic: Economic Impact and Positive Solutions for Australia*, Canberra, March.
- Australian Bureau of Statistics (2003), *Population Projections, Australia, 2002–2101*, Canberra.
- Australian Institute of Health and Welfare (1998), *Australia's Health 1998*, Canberra, AIHW.
- Australian Institute of Health and Welfare (2000), *Australia's Health 2000*, Canberra, AIHW.
- Australian Institute of Health and Welfare (2002), *Older Australia at a Glance, 2002* Third edition, Canberra, AIHW.
- Australian Institute of Health and Welfare (2003), *Health Expenditure Australia 2001–02*, Canberra, AIHW Health and Welfare Expenditure Series No 17.
- Castles, F. (2001), 'Population Ageing and the Public Purse: Australia in Comparative Perspective' *Australian Journal of Social Issues*, 35.
- Commonwealth of Australia (2002), *Intergenerational Report, 2002–03* Budget Paper No. 5.
- Costello, P. (2003), Address to the Queensland Press Forum, Brisbane, 12 September.
- Dowrick, S. and Day, C. (2003), 'Australian Economic Growth: Why Bill Gates and the Ageing Pessimists are Wrong' National Institute of Economics and Business Public Lecture, 14 May.
- Freund, D. and Smeeding, T. (2002), 'The Future Costs of Health Care in Ageing Societies: Is the Glass Half Full or Half Empty?' prepared for UNSW Seminar on 'Ageing Societies, Responding to the Policy Challenges', April.
- Fuchs, V.R. (1998), 'Health Care for the Elderly: How Much? Who Will Pay For It?' Working Paper No. 6755, National Bureau of Economic Research, Massachusetts.
- Gibson, D. and Goss, J. (1999), 'The Coming Crisis of Australian Aged Care: Fact or Fiction?' *Australian Journal of Ageing*, 18, Supplement.
- Goss, J. (1992), 'Health Care for the Elderly—Costs and Some Institutional Issues' in *Economic and Social Consequences of Australia's Ageing Population*, EPAC Background Paper No. 23.
- Howard, J. (2003), Prime Minister's Address to the Business Council of Australia, Sydney, October.
- Kinnear, P. (2001), 'Population Ageing: Crisis or Transition?' Discussion Paper No 45, The Australia Institute.
- Lokuge, K. and Denniss, R. (2003), 'Trading in our Health System? The Impact of the Australia—US Free Trade Agreement on the PBS', The Australia Institute, Discussion Paper No 55.
- MacDonald (1996), 'Demographic Trends and Their Implications for Social Policy in Australia' Issues in Public Sector Change Lecture Series, Centre for Public Policy, The University of Melbourne, September.
- McAuley, I. (2002), 'Australia in 2042: Here's Where to Send the Nursing Home Bills' *Consuming Interest*, 92, Winter.
- Mathers, C, Penn, R, Carter, R. and Stevenson, C. (1998), *Health System Costs of Diseases and Injury in Australia 1993–94*, Canberra, AIHW, Health and Welfare Expenditure Series, No. 2.
- Richardson, J. and Robertson, I. (2000), 'Ageing and the Cost of Health Services' paper presented to a Productivity Commission Forum on 'The Policy Implications of the Ageing of Australia's Population'.
- Strunk, B.C. and Ginsburg, P.B. (2002), 'Ageing Plays Limited Role in Health Care Cost Trends' Data Bulletin, Centre for Studying Health System Change, 23, September.
- Williams, A. (1990), 'Population Ageing: Burden or Benefit?' Public Health Association of Australia Conference, Hobart.



## 6 State budgetary implications of Australia's ageing population

Ian Little

All levels of government—Commonwealth, state and local—are fiscally challenged by an ageing population. But challenged in different ways. The *Intergenerational Report*, released in 2002, started a process of informed debate on the fiscal challenges facing the Commonwealth Government. I welcome the opportunity to expand the debate by setting out the state budgetary implications of Australia's ageing population.

To stop at the implications, however, would be to stop short. The ageing of the nation is too often regarded as a phenomenon that occurs decades into the future and can, therefore, be left to future generations and governments to address. While the ageing of the nation is a problem for the future, it is also a problem now. Our population has, in fact, been ageing for a century already. But it is the imminent entry of the 'baby boomers' into the post-retirement years that has accelerated the impacts of population ageing, and the impacts of this group are already beginning to be felt. In *Shaping a Prosperous Future*<sup>2</sup> the Victorian Department of Treasury and Finance explored some of the key long-term economic and fiscal issues confronting the state. The material in Box 1, which is derived from this, suggests that initial impacts are only a matter of a few years away. Policies and strategies should be pursued today in order to alleviate the fiscal pressures of tomorrow. We need to begin the process of making a transition towards a more fiscally sustainable and prosperous future.

While the ageing of the nation is a problem for the future, it is also a problem now. Initial impacts are only a matter of a few years away. Policies and strategies should be pursued today in order to alleviate the fiscal pressures of tomorrow.

### 1 Our society is getting older

While the future is inherently unpredictable, one thing we can be sure of is that our low fertility rate and lengthening life span will result in a gradual ageing of our population. Today one in ten Australians is over 65. In 40 years time this will more than double—one in four Australians will be over 65. In Victoria the numbers could well be even greater (depending on fertility rates and migration).

Although the next generation of older Australians will almost certainly be wealthier than the last, there will still be a significant proportion dependent on full or part pensions for basic income support. According to the Commonwealth Department of Family and Community Services,<sup>3</sup> whereas currently 82 per cent of those aged 65 and over receive a pension or other income support, by 2051 this proportion will fall to 75 per cent and the proportions eligible for a full as opposed to part pension will fall from two-thirds to one-third of the total pensioner population. Even so, the number of aged pensioners will increase nationally from 2.1 million to 5.1 million by 2051. Because their sheer numbers will represent a far greater proportion of the population than before, this will drive cost increases at all levels of government.

### 2 And costing more

Burgeoning health expenses will present the greatest age-related budget pressure on future state governments. Health costs accelerate with age. People aged 65 and over are four times more likely to require hospitalisation than those under the age of 65. The health costs of the average 75-year-old are about three times those of the average 25-year-old.

## **Box 6.1 Pressures on the Victorian Budget Over Time**

- **The next ten years**

Pressures on the State Budget in the next ten years are largely driven by factors on the revenue side, particularly lower conveyancing duty revenue as property market activity eases to long-term trends and Commonwealth grants to Victoria struggle to keep up with economic growth. Increased fiscal pressure from expenses is a less significant factor, although building, in both health and aged care. Community expectations of government services grow as private incomes increase. These pressures are partly offset by the relative decline in the number of children of school age.

- **Early 2010s to the late 2020s**

Much of the impact of population ageing occurs in this period as baby boomers reach retirement and pension age. Unless there is a significant change in the pattern of labour force participation of those aged 55 and over between now and the end of the present decade, a sharp reduction in the employment to population ratio will occur from as early as 2011 when the baby boomer generation moves into the retirement age range. At the same time, pressures on the health system will build as a result of the increasing number of elderly persons and the continuing introduction of costly new medical technologies. As retired persons are less likely to move dwellings, and as population growth slows, housing turnover slows, reducing conveyancing duty revenue. Some minor budgetary relief is expected as there will be fewer children placing demands on our education system. This, however, is nowhere near sufficient to offset growth in demand for health and aged-care services.

- **Late 2020s to the early 2040s**

Pressures on the State Budget begin to accelerate. The ‘baby boomers’ have reached their late 70s, the period when they are in most need of hospital and other medical care. At the same time, health costs continue to increase as expensive new medical technologies and treatments become available. State revenues struggle to keep pace with demands of a more wealthy populace.

Age-related growth in demand for health care services will be compounded by the seemingly inexorable growth in general demand for health services as everyone’s appetite for services continues to expand with the increasing availability of new technologies and as our incomes grow. In itself, this is not a bad thing. It does, however, pose a significant fiscal challenge.

Indeed, curtailing growth in health expenses already challenges all state governments. In Victoria, over the last five years, State government expenditure on health has increased by more than a third, despite productivity improvements. In 2002–03 health expenditures accounted for 25 per cent of total Victorian State government expenditure, ranking health a close second behind education (which is at 27 per cent) in terms of size of expenditure. This has occurred despite increasing student participation in our education system. In 1995 the proportion of year 10 to year 12 students retained within the Victorian secondary schooling system was 77 per cent; by 2001 this figure had climbed 5 percentage points to 82 per cent.<sup>4</sup>

In the future, Victorian State government spending on health will command a dominant proportion of the fiscal pie. Assuming no policy change, spending on



health is projected to increase from 3 per cent to 7 per cent of Gross State Product (GSP) between now and 2042. There is not a lot we can or even should do about the ageing of our populations, but we can manage this dynamic by changing our policies.

### 3 When we have proportionally less to spend

Population ageing will also place downward pressure on state revenues.

States are responsible for 45 per cent of total spending by all levels of government, yet they directly raise only 27 per cent of total revenues. The balance is made up of payments from the Commonwealth—around half in the form of ‘untied’ goods and services tax (GST) revenues, and the balance as specific purpose payments, mainly related to health and education programs.

Under the Intergovernmental Agreement on Commonwealth-State Financial Relations (1999), states agreed to abolish some financial transactions taxes in return for receipt of the net revenues from the GST introduced from 1 July 2000. At that time, growth in GST revenues was projected to more than keep pace with growth in the economy. While there is no doubt that the GST provides a more secure and buoyant revenue base for the states than some of the state taxes that it replaces, it may not be sufficiently buoyant to keep pace with growth in the economy, given projected future structural trends. Indeed, more recent projections show GST receipts slowly declining as a proportion of the economy over the longer term. This is largely as a consequence of the decision to exempt certain foods and health expenditures from GST. As the population ages, the pattern of household consumption is likely to shift towards GST exempt or zero-rated items.

States’ taxation revenues are also projected to decline as a proportion of the size of each of our state economies. On current policy settings, future taxation receipts will fail to keep pace with growth in the economy. In Victoria, taxation receipts are projected to decline from 4.8 per cent to 4.2 per cent of GSP, largely due to the influence of population ageing on Victoria’s tax bases.

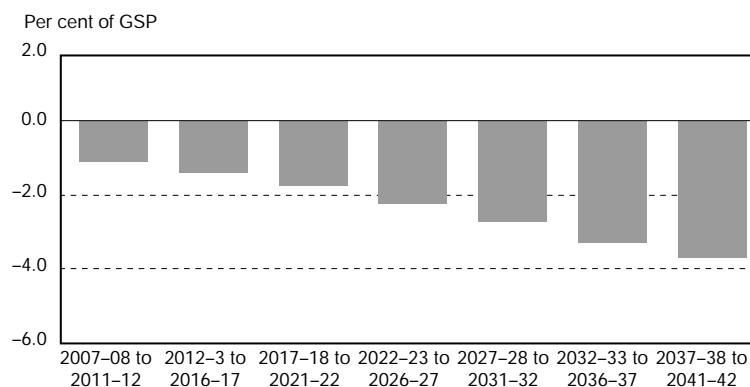
Population ageing is projected to impact significantly on stamp duties collected and payroll taxes paid. As a general rule, the old are less inclined to move house than the young. Fewer financial and capital transactions mean less stamp duties collected. The growth of states’ largest tax, payroll tax, will slow somewhat as the working-aged population shrinks (as the baby boomers retire and less than replacement rates of fertility continue). Offsetting this, however, is the likely increase in wage rates commanded by a shrinking labour force.

Growth in the proportion of the population eligible for pensions and part pensions will further erode future revenues due to the range of concession and tax exemption entitlements attached to eligibility for these pensions.

### 4 Future fiscal sustainability?

The inevitable arithmetic of growing expenditures and falling revenues is a widening fiscal gap. In Victoria the future situation, if it were ever allowed to come to bear, is sobering. Projections undertaken by the Victorian Department of Treasury and Finance, in conjunction with Access Economics, show a projected gap of around 4 per cent of GSP emerging over the next four decades, or about \$15 billion in today’s dollars.

**Figure 6.1: Victoria's projected fiscal gap<sup>a</sup>**



Note: (a) The 'fiscal gap' charted above, as with the Commonwealth *Intergenerational Report*, is the fiscal deficit before net interest costs (as defined in the Australian Bureau of Statistics *Government Finance Statistics*). This differs from the Australian Accounting Standards' concepts and data used in the Victorian Budget Papers. The approach used here enables analysis of the pressures on the budget without the distorting effects of compounding interest costs.

Source: Victorian Department of Treasury and Finance and Access Economics, 2003.

Around half of the fiscal gap is attributable to growth in health costs, while the other half is owed to a projected decline in Commonwealth grants as a proportion of GSP and a slight decline in state-sourced revenues.

While the projected decline in Commonwealth grants is consistent with the intergovernmental financial agreement, in effect it would represent a significant shift in the burden of financing growth in spending—particularly on healthcare—from the Commonwealth to the states. It is unlikely that the states would be able to tolerate such a shift and remain fiscally responsible. States might, therefore, be expected to act collectively—either to transfer responsibility for health funding to the Commonwealth, or to renegotiate intergovernmental financial arrangements to ensure that Commonwealth grants keep pace with growth in demand for key services.

There may be room for argument about the scale of the projected fiscal gap, but there is little doubt that a gap would emerge on current policy settings and such a gap would have to be financed. The cost of financing the gap is the cost of borrowing. Once this is factored in, the projected fiscal gap balloons—by 2041–42 the gap would be over 15 percentage points of GSP, or \$60 billion in current dollar terms. Alternatively, either taxes and charges would need to rise to fund the growth in expenses, or expenses would need to be very substantially curtailed.

Either way, the unchanged policy fiscal outlook is unsustainable.

## 5 Towards a fiscally sustainable, prosperous future

Australia is not alone in facing the challenges of an ageing population.

Overseas countries are similarly challenged, indeed more so in many cases. In Japan, by 2040 one in three Japanese will be over 65. And in Germany the challenges are occurring now and are particularly acute. We can look to the experiences of overseas countries that have implemented policies and strategies to counter the fiscal costs of population ageing and learn from their experiences.



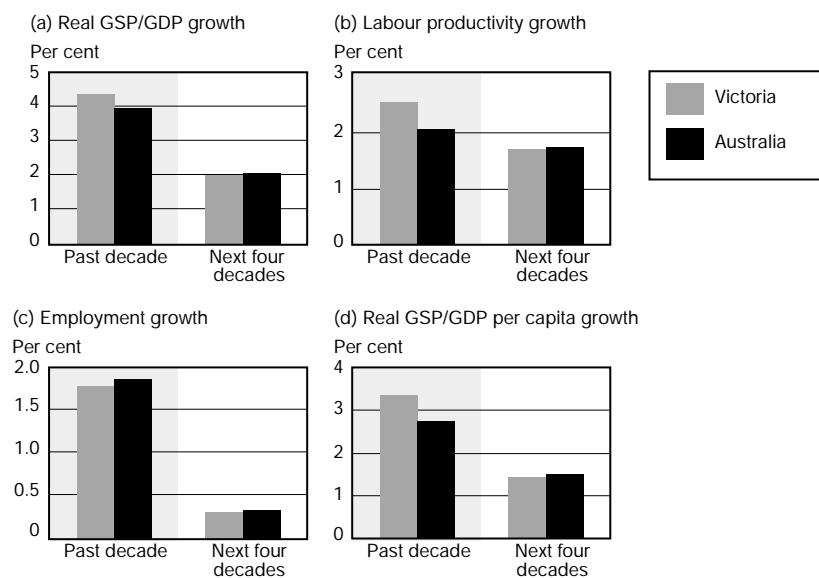
My assessment is that there are three strategies available to the state governments of Australia: they can grow the economy faster, rein in their expenditures, and/or bolster their revenue bases.

#### **Grow the economy faster**

In the long term, changes in population, participation and productivity—the three Ps—determine the capacity of the economy, how fast it grows, and how living standards increase over time. All three factors have been instrumental in turning around growth rates in Victoria from an average of less than 2 per cent in the early 1990s to 4.5 per cent in the late 1990s/early 2000s. We are doing it now. Can we do it again?

The outlook going forward is challenging. Australia and each of the states, including Victoria, are expected to experience weaker population growth over the next four decades. The expected slowdown in Victoria is illustrated in Figure 6.2. This, combined with population ageing, is expected to place downward pressure on overall labour force participation. Exacerbating this situation is the expectation that the growth in productivity of those who remain in active employment will slow to the long-term average of 1.75 per cent (down from a recent 2.25 per cent) per annum. In Victoria, the sum of weaker population growth plus lower labour force participation plus a slowdown in productivity growth is a moderation in economic growth rates to an average of around 2 per cent each year over the next four decades. This is less than half the rate enjoyed in more recent years.

**Figure 6.2 Economic projections—Victoria and Australia<sup>a</sup>**



Note: (a) Average annual growth. Past decade refers to the period 1991–92 to 2001–02. Next four decades refers to the period 2001–02 to 2041–42.

Source: Victorian Department of Treasury and Finance and Access Economics, 2003.

State governments can attempt to influence the elements of this equation—each of the three Ps—in order to grow their economies faster than projected.

The first P—population—lies largely within the sphere of Commonwealth, not state, influence, as immigration is primarily a federal responsibility. However, there remain some things that states could do on the policy front to attract more people and grow their populations. State policymakers can focus on the underlying economic and social factors that drive migration, such as ensuring a strong economy and creating a more open and harmonious place to live, work and invest. Population growth can drive economic growth as more people means more demand for the products we produce and sell. This is likely to hold, regardless of the sources of population growth.

However, while increasing the state's population may boost economic growth, it will not necessarily increase living standards (as measured by GSP per capita). The link is likely to be stronger if population policies also swell the size and advance the productivity of the labour force. For example, attracting people of working age (as has been Victoria's experience in recent years) may be positive if immigrants are skilled in areas where we have labour shortages, and are more skilled on average than the current labour force.

State governments can also introduce policies that encourage greater labour force participation—the second P. While this is an area where the Commonwealth has greater leverage through its income and tax policies, states can, nonetheless, still be influential. They could, for example, consider the introduction of policies to, for example, expand opportunities for lifelong learning, support the return to full- or part-time employment of older workers, or remove regulatory impediments to participation. State government policies should also seek to complement and not impede market forces. As the working-age population shrinks, wage rates may rise and entice older workers and voluntarily unemployed persons back into the labour force.

The third lever P—to grow state economies faster—is through productivity. This lever is very clearly within the domain of state governments. In his speech at the launch of *Shaping a Prosperous Future*, the Victorian Treasurer, John Brumby, identified increasing productivity as a key step to reducing fiscal pressures and the key role that state governments can play in an economic growth situation. The publication<sup>5</sup> illustrated that stronger growth through productivity, if sustained, could go a long way towards swelling the incomes of individuals and, provided consumer expectations are contained, closing the fiscal gap. An extra 0.5 per cent growth each year for the next 40 years would mean that GSP per capita tomorrow (2041–42) would be 116 per cent higher than it is today.

The role of state governments in facilitating the realisation of these gains is to remove the impediments to productivity. Policy effort needs to focus on identifying any impediments and recommending strategies for their removal.

#### **Rein in expenditure**

Strategies to grow the economy faster that centre on the three Ps are all important parts of the solution, but they are not a cure-all. A faster growing economy by itself will not automatically reduce fiscal pressures on governments if consumer expectations rise in line with income growth or if the benefits of growth are not shared equitably.

State governments can introduce policies that encourage greater labour force participation.

They could, for example, consider the introduction of policies to expand opportunities for lifelong learning, support the return to full- or part-time employment of older workers, or remove regulatory impediments to participation.



As spelled out in *Shaping a Prosperous Future*,<sup>6</sup> governments have a series of spending choices between portfolios and within portfolios. They may also temper the scope and standard of the services they deliver. And they may curb demand for those services by seeking a greater out-of-pocket contribution towards non-core services, particularly from those with a greater ability to pay (as is discussed below).

Whatever the suite of policy options employed to rein in expenditure, state governments need to be wary of the implicit social contract that may exist between past, current and future governments and past, current and future generations. It may be, for example, that baby boomers have organised their finances over their lives in the expectation that health and other services currently available to them at low or no cost will continue to be available to them in the future. Since their taxes have contributed towards the cost of services provided to their parents, they may reasonably expect the future taxes paid by their children to meet the costs of future services they require as they age.

The reform process needs to include consideration of how much current and future generations are willing to forego by way of state-subsidised goods and services in order to keep a lid on their contributions to state revenues.

In a population with an even distribution of age cohorts, the terms of a social contract such as this can be sustained over time. In an ageing population, it cannot. This raises issues of intergenerational equity as, if the contract were to be upheld, future generations would be required to pay disproportionately towards the costs of the aged. This is already occurring in other countries with populations older than us, such as Germany.<sup>7</sup>

Rather than a blanket overwriting of the terms of any implicit social contract, a better tactic would be to begin the process of renegotiating and rewriting its terms. The reform process needs to include consideration of how much current and future generations are willing to forego by way of state-subsidised goods and services in order to keep a lid on their contributions to state revenues.

#### Bolster the revenue base

Should we just allow the size and cost of government to increase progressively as a proportion of the economy? And if so, who will pay for this? Is there a risk that the working-age generations will find levels of taxation so high that they become a disincentive to work or live here? The German media,<sup>8</sup> for example, describes a gloomy future in which soaring payroll deductions for social security drive companies and talented people to other shores.

While the economic growth of Australia and each of the states is projected to moderate, it will still be positive. In Victoria, living standards are projected to continue to rise by an average of 1.4 per cent each year for the next four decades. Policies to grow the economy faster, if successful, will mean that future growth will be even more positive. A more affluent society will give future governments greater flexibility in how to address future fiscal pressures.

And, if the past is any guide, a future, more affluent society may well be willing to meet the costs of supporting those who are unable to benefit directly from economic growth, as well as contribute to funding more of their own service delivery needs.

In the medium to longer term, bolstering the revenue base may be a necessary adjunct to policies to grow the economy faster and rein in expenditure. Especially

since policies to contain the projected future growth of spending are unlikely to be immediately acceptable to the community or politicians, rewriting the terms of the implied social contract will take time.

In *Shaping a Prosperous Future*,<sup>9</sup> a number of options were floated for further discussion, including higher taxes, determining the best mix of revenue sources, and questioning to what extent people are prepared to accept different funding options for government services, such as more user charges.

## 6 Complacency is not an option

Australians may like to think that these issues are too far away to have an impact on current policy.

However, the point made at the outset of this article is that the fiscal challenges of an ageing population cannot be ignored, even in the short to medium term, as it is only a few years from now before the fiscal and economic impacts begin to make themselves felt.

Policies and strategies should be pursued today in order to alleviate the fiscal pressures of tomorrow. We need to consider our expectations. We need to begin the process of making a transition towards a more fiscally sustainable and prosperous future.

In the medium to longer term, bolstering the revenue base may be a necessary adjunct to policies to grow the economy faster and rein in expenditure.

### Endnotes

- 1 Those born between 1946 and 1965.
- 2 Victorian Department of Treasury and Finance (2003), *Shaping a Prosperous Future*, Discussion Paper, April.
- 3 Commonwealth Department of Family and Community Services (2003), 'Inquiry into long-term strategies to address the ageing of the Australian population over the next 40 years,' *Occasional Paper Number 8*.
- 4 ABS (2003) Cat. No. 4221.
- 5 Victorian Department of Treasury and Finance, *op cit*, pp. 40–1.
- 6 Victorian Department of Treasury and Finance, *op cit*, pp. 45–6.
- 7 See, for example, Ewing and Rossant (2003), 'In Germany, it's on for young and old', *Australian Financial Review*, 23 October.
- 8 *Ibid.*
- 9 Victorian Department of Treasury and Finance, *op cit*, p. 64.



## 7 The shifting profile of labour supply

Louise Rolland

### Introduction

Population ageing is a demographic trend that has achieved significant focus over recent years. The release of the Australian Government's *Intergenerational Report* in 2002 detailed insights to the potential cost of ageing on health and welfare expenditure. In addition, the Australian Treasury has produced estimates of the impact of the ageing of the population on GDP over the next 50 years. These predict that GDP growth may fall from an average of 3.25 per cent over the past 40 years to 2.33 per cent over the next 50 years.<sup>1</sup>

However, the impact of unprecedented population ageing on business is yet to be fully explored. The critical question for Australian business is: What are the challenges embedded in the shift to a stagnant rate of supply of new, young entrants to the labour market and an unparalleled growth in the proportion of workers aged 45 years and over?

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### Labour force growth

Population ageing is not only challenging the policy considerations of government in relation to the health and welfare of the nation's population, it is also actively changing the age profile of the workforce. This is most evident in the shift in the age profile of the growth in labour supply over the last 20 years.

Over the period 1982 to 1992 people under the age of 45 accounted for 87 per cent of all labour force growth; in comparison, from 2002 to 2012 the age group 45–64 will account for 85 per cent of all labour force growth.<sup>2</sup> The shift in growth indicates the static nature of the supply of new, young entrants to the labour market.

This raises particular questions about the sustainability of traditional labour supply profiles for businesses and industries that have relied on an increasing flow of young people to entry level, unskilled and semi-skilled positions. It also confronts the need for continued vocational skill development across working life as the heavy reliance on young people to bring skill currency to the labour force is challenged.

In 2001 Access Economics projected that workforce growth would fall from its then current rate of 170 000 net per year to just 125 000 for the decade 2020. Although dramatic, the projection risks promoting complacency among today's managers as the urgency to respond may be seen to be some way in the future rather than immediate.<sup>3</sup>

It must be recognised that the nature of the shift in labour supply is dynamic and, as such, the pressure brought about by shifting age demographics will be felt in discreet occupations and industries at different times. Some occupations and industries are already beginning to feel their impact, in particular, those that have traditionally relied on young entrants; those that have an ageing workforce, usually due to either high retention rates of workers or successive periods of poorly targeted redundancies; or those who offer less than optimum working arrangements or conditions.

A range of views exist as to when tightening labour supply will reach a point where attracting and retaining workers will present a general challenge for business. Business, Work and Ageing (BWA) labour force scenarios<sup>4</sup> indicate that at average

GDP rates of 3 per cent this will be towards the end of the decade; Paul Keating suggests that it will be in six years, as 'people in my age group fall out of the labour market in droves'<sup>5</sup> and Treasury<sup>6</sup> predicts it will be towards the middle of next decade. This indicates a range of six to 12 years for business to position itself to ensure that as workers age they are prepared to maintain their connection to work and have the skills to optimally contribute. Considering the significant systemic shift that is required to respond to challenges, including health and wellbeing of an increasingly aged workforce and the changes required in the nature of attachment to work and skill currency of workers as they age, six years may not be long enough.

Questions about the ability of the market to successively integrate the impact of shifting age demographics and the related tightening of labour without pre-emptive action are difficult to address. However, there is little doubt that organisations that develop their capacity to attract and retain workers over the interceding years will be well placed to compete as the labour market tightens.

#### **Comparative contribution of workers aged 55 plus**

Although compulsory retirement was abolished during the 1980s and 1990s, Australians continue to retire early; a trend that has been evident since the 1960s.<sup>7</sup>

Although this trend is a shared experience of most developed countries, many of our OECD partners have achieved significantly higher labour force participation rates among people aged 55 years and over.<sup>8</sup>

As the population ages, younger workers will constitute a diminishing proportion of the total workforce. This is likely to result in increasing levels of competition to attract and retain young workers, particularly those most skilled, not only within Australia but globally. In this environment, increasing the levels of participation in work as people age will be an important component of securing labour supply into the foreseeable future.

In particular, in Australia, those aged 55 years and over have the capacity to significantly contribute to boosting labour supply. The current level of labour-force participation of people in this age group is comparatively low compared to many of our OECD partners, at around 50 per cent.<sup>9</sup>

When comparing the potential contribution to labour supply of people aged 55 and over with that of high migration levels it is apparent that although both will be needed over time, the contribution of those aged 55 years and over exceeds the potential contribution of high rates of migration.

#### **The role of migration**

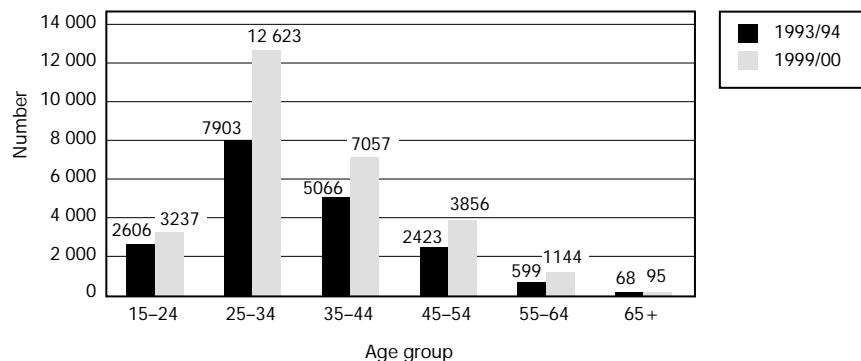
It is interesting to consider the role of migration in securing labour supply from both the perspective of Australia's ability to successfully compete for the preferred pool of available workers internationally and our capacity to retain young professionals who will be highly sought after in an environment of increasing competition for labour across developed countries.

Over the period 1993–94 to 1999–2000 the number of long-term resident departures from Australia for worker related reasons increased by 67 per cent from 18 665 to 28 012.

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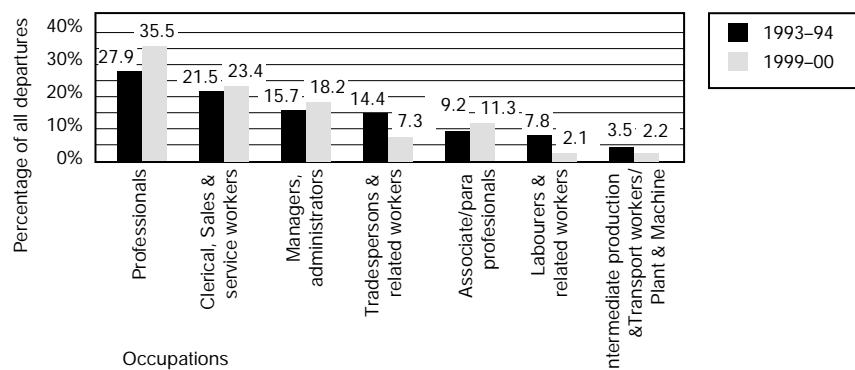
**Figure 7.1: Long-term resident departure by employment-related reasons**



Source: DIMA, 2001

Of those departing in 1999–2000, 45 per cent were aged 25–34 years. Of the total departures for the same period, 22 per cent were from the Professional, Para Professionals and Managers and Administrators occupational groupings, indicating an increasing loss at the highly skilled end of the labour market. This not only represents a loss of potential economic contribution, but a significant loss of investment in education and training.

**Figure 7.2: Permanent departures by occupation**



Source: DIMA, 2001

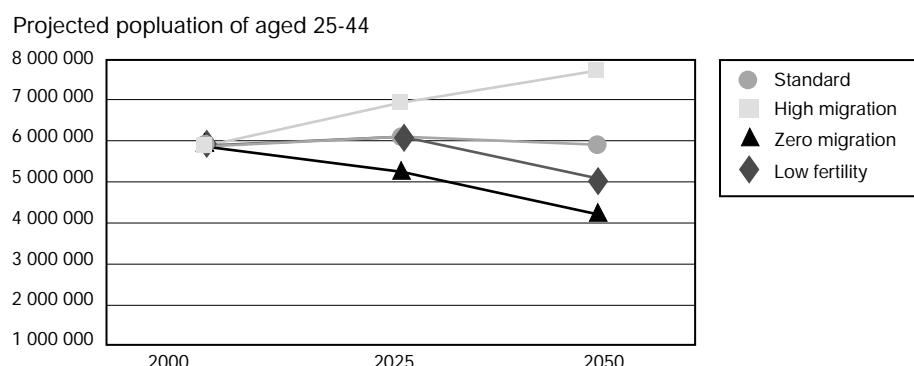
Of interest is that the period 1993–2000 also saw an era of sustained economic growth in the United States. The highest numbers of those departing Australia for work-related reasons were taking up employment in the United States.<sup>10</sup>

As the United States enters the next period of economic growth, coinciding with increasing pressure on labour supply across developed countries, how will Australia not only compete to attract skilled migrants but also retain our skilled younger workers?

## The impact of migration on age

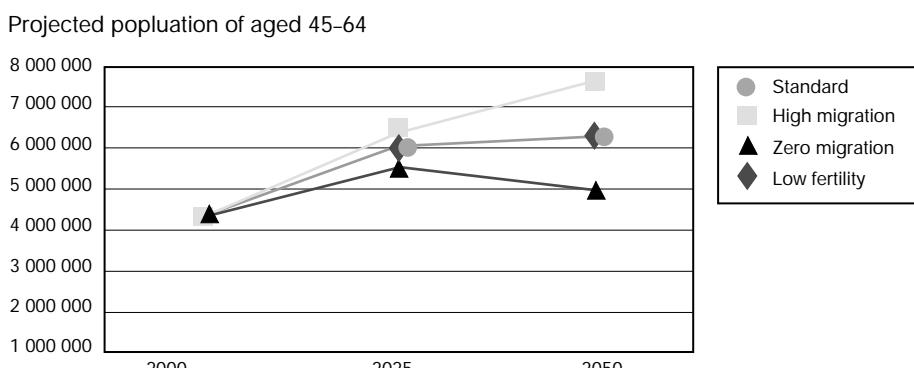
Migration scenarios developed by the Department of Employment and Workplace Relations in 2001 show that although high levels of migration<sup>11</sup> will contribute to the overall size of the population, they do not have an impact on rebalancing the age profile of the population at the younger end. In fact, in a high migration environment to the year 2050, we will see the population aged between 25 and 44 increase by approximately two million compared with approximately 3.3 million for those aged 45–64 over the same period.

**Figure 7.3: Migration scenarios 2000–50**



Source: DEWR, 2001

**Figure 7.4: Migration scenarios 2000–50**



Source: DEWR, 2001

Three key themes emerge for consideration in relation to the future of labour supply in Australia: the nation's ability to attract migrants with suitable skills in an environment of increasing supply pressure across developed countries; effectively managing the retention and deployment of young workers; and increasing the participation in employment and securing the productivity of workers as they age.

## Retention and productivity challenges

The retention of workers beyond current retirement age will require considerable attention to the drivers that encourage early exit from the workforce. These include socially entrenched views of age in relation to the span of working life, the contribution and role of workers at various ages and the shortcomings associated with older age.



While increasing retention will contribute to the resolution of labour supply pressures it does not address questions employers have of the comparative contribution of older and younger workers. Some of these views are born out of reducing skill currency and mobility of workers as they age in a business environment of accelerating change.

#### Drivers of retirement

Analysis of the ABS Survey of Retirement and Retirement Intentions (1997) shows that the vast majority of people nominate that they retired for voluntary rather than involuntary reasons, with only 16 per cent of male retirees and 13 per cent of female retirees considering that their retirement was involuntary. The decomposition of involuntary reasons suggests that reaching 'retirement age' was the main factor inducing retirement.

The retention of workers beyond current retirement age will require considerable attention to the drivers that encourage early exit from the workforce.

Of men who retired in 1997 for involuntary reasons, 48.6 per cent retired due to age-related reasons, which included reaching compulsory retirement age, reaching appropriate age of retirement/too old or receiving an early retirement package. These reasons support the social view of the 'working age' being concentrated in a relatively short period of the life span between 25 and 55 years, as people stay in education longer and retire earlier.<sup>12</sup>

A far smaller, although significant percentage of men retired due to health reasons (32 per cent). This counters the myth that older people retire due to increasing health problems. This is a far greater reason for retirement at younger ages, for example, 56 per cent of those who retired between the ages of 45–54 compared to 7 per cent of those aged 65–69.

The reasons for retirement of women constitutes a different pattern, as only 12 per cent of reasons were age-related while over 52 per cent of reasons are related to the category of 'other', which include terminations due to casual work and unsatisfactory conditions: temporary, seasonal, or holiday job; unsatisfactory work arrangements, pay, and hours; work was part-time; work was too stressful; technological advancements and the nature of job changed; and family reasons.<sup>13</sup>

Factors at the organisational level that contribute to retirement decisions identified by BWA were injury or illness, financial capacity to retire, reducing interest in work and the desire to pursue social and recreational activities.<sup>14</sup>

#### Learning and development

As workers age in Australia they are increasingly less likely to participate in either formal or informal training. Ninety seven per cent of people aged 45–64 did not undertake formal study in 2001.<sup>15</sup> Again, the relationship to mobility raises questions about the incentive for older workers to undertake skill development if the opportunity to deploy newly acquired skills is limited.

Incentive is only one aspect underpinning low levels of participation in training as workers age; others to be considered are cultural attitudes to the work life span and the stage at which training is relevant, the lag in aligning education and training requirements and opportunities for this age group and the corresponding responsiveness of the education and training sector (and the related policy environment) to vocational skilling opportunities across working life.

This lag in responsiveness to vocational skilling across life is related to the immediate past era where young people entering the workforce were viewed as the future. As such, they have and continue to receive high levels of investment in their attraction, development and retention. Conversely, workers over the age of 45 years are traditionally viewed as moving into the last phase of their career and therefore able to draw on their residual skills and experience, with industry and governments investing little in their training and development.

At the organisational level, older workers report an increase in 'just in time' training, related to their immediate function rather than the development of skills to support future employability. This also raises questions about the relevance of the training they are offered. BWA<sup>16</sup> has observed a pattern whereby approval for higher-level training in management or technical areas is more often available to workers under rather than over the age of 45 years.

This reinforces the message that approval to undertake such training is unlikely to be received if you are an older worker. Workers, in turn, learn to apply for training that they are more likely to receive approval to participate in, which, in turn, can translate to a view within an organisation that older workers are not interested in high-level training.

Implicit in the way training is perceived and allocated is the tacit view that training is most appropriate for younger workers who have not yet accrued the experience needed to secure their place in work and are still in the process of laying the foundations of their career path. Although the need for training at younger ages is indisputable, the continuous change in business environments clearly establishes the need for vocational skilling to occur across working life.

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### Progression and mobility

Reducing interest in work, noted as an influence on retirement decisions, may in part be attributed to reducing mobility of workers as they age. On average, a worker aged 50–54 years changes jobs on average every ten years compared with every five years for a worker aged 30–34 years.<sup>17</sup> Workers in the BWA case study companies reported reducing exposure to work variety and new challenges associated with reduced job mobility.

An analysis of a number of companies across Australia also indicates that the prime age for career progression is 25 to 40 years.<sup>18</sup>

At 40 years of age a worker will currently continue to participate in the labour market for 15 to 20 years. Due to reducing mobility this is likely to be with one to two organisations. This raises immediate questions as to the impact of reducing work variety and challenge on productivity and retention. If Australia is successful in extending working life through increasing participation levels of workers to at least age 65, the potential period of immobility is 25 years.

Reducing mobility may also impact on the marketability of workers as they age, with serious consequences if an individual is displaced from employment. The impact of redundancy on workers in this age group is well documented. Once displaced from employment, workers over the age of 45 years experience significantly longer periods of unemployment than their younger counterparts.



Over the period August 1982 to August 2002, long-term unemployment in this age group increased from 56 weeks to 106 weeks compared to a shift from 31.3 weeks to 44.2 weeks for those aged under 45.<sup>19</sup>

Reducing mobility and formal skill development with age, combined with individually and organisationally held stereotypes of age, may compromise the marketability of workers as they get older. The result is a circuitous dynamic where as workers age they stay in a single role for longer, reducing their exposure to work variety and new challenges, in turn reducing the incentive for skill development. Over time, these forces combine to reduce the capacity of many older workers to effectively compete for employment, demonstrated by the increasing length of unemployment experienced by those in this age group who are displaced from work.

#### **Developing an organisational focus on age management**

The current system that skills, promotes and rewards younger rather than older workers, is not sustainable in an era of changing labour supply and business environments. Realigning the skills and attachment of workers as they age to increase productivity and labour supply will require new policies at the organisational level that are supported by broader industry and government policy.

When developing age management policy at the organisational level to accommodate the shifting age profile of the workforce it may be helpful to consider employment as a continuum that moves through recruitment, learning and development, career progression and exit. Each point in the continuum provides a focus from which to consider the organisation's relative position in relation to age management and to review current age profiles against those of the relevant industry sector and the working age population as a whole.

Organisations will also need to consider how age stereotypes impact on the experience of workers as they age within their workforce. Stereotypes of age are active across our daily life; within an organisation there is usually a silent collusion between the individual, their peers and the organisation that often results in the manifestation of the very behaviour described by the stereotypes. An important focus of any age management policy is to understand how perceptions of age manifest in an organisation's practice in relation to the various points on the employment continuum.

The opportunity for the development of a significant competitive advantage exists for those businesses who act now to prepare for a new workforce environment where older rather than younger workers will be in more abundant supply and competitive pressures to secure an adequate supply of workers and skill will potentially

produce a profound tightening in the labour market (that) will probably lead to strong increases in real wages. Unless productivity is there to pay for those increases, it will otherwise be paid for from profits. And if it is paid from profits, profits will be hit and investment will fall.<sup>20</sup>

## **Endnotes**

- 1 Henry, Ken, 2002, 'The Demographic Challenge to our Economic Potential'.
- 2 ABS 1999 Cat 6202.0, Labour Force Australia and Labour Force Projections.
- 3 Access Economics, 2001, Population Ageing and the Economy.
- 4 BWA, 2003, Labour Supply Scenarios.
- 5 Paul, Keating, the Age, 17 October 2003..
- 6 Henry, Ken 2003, Issues in Economic Policy.
- 7 ABS, Cat 6238 Retirement and Retirement Intentions.
- 8 ABS, Jan 2003, Labour Force Australia.
- 9 OECD, 2002, OECD Statistical and Analytical Information on Ageing, Summer 2000
- 10 DIMA, 2002, Australian Immigration Consolidated Statistics Number 21, 2000/1.
- 11 DIMA classifies high migration as 180 00 net per year.
- 12 R.G Gregory. Competing with dad: Changes in the intergenerational distribution of male labour market income. *Australian Social Policy*, 1, 1, 1999 115–32.
- 13 ABS, 1997 Survey of Retirement and Retirement Intentions.
- 14 BWA, 2003 Critical Impact on Business of an Ageing Workforce.
- 15 ABS 2002 Census data .
- 16 BWA is a cross-sectoral, research-based organisation based at Swinburne University of Technology.
- 17 ABS 1998, Cat No.6209.0. Labour Mobility. February.
- 18 BWA, 2003 Case Studies of Age Management in Australian Companies.
- 19 ABS Labour Force Surveys June 1982–2002.
- 20 Paul Keating, the Age, 17 October 2003.



## 8 Increasing labour force participation\*

Michael Keating

Whether Australia's ageing population will in fact lead to an increasing burden on taxpayers depends critically on the future rate of increase in paid employment. Currently, the average number of hours of paid employment per person aged 15–64 is about the same as it was 30 years ago. But this overall measure of per capita employment hides a number of conflicting trends. Over the last 30 or so years male workforce participation has fallen from around 94 per cent to 85 per cent in 2001, while female participation has increased from around 47 per cent to 66 per cent over the same period (Treasury, 2003: Table 2, OECD definitions). The net result is that the proportion of the adult population aged from 15 to 64 *available* for paid employment has increased by around 5 percentage points since 1971. However, not all these people have found employment, with the unemployment rate increasing by 4 percentage points since 1971, while the average hours worked by paid employees

have declined somewhat, as part-time jobs have accounted for a disproportionate share of the employment growth.

The critical question, however, is why have Australian men moved to retire early? ... The choice to retire earlier than age 65 has often not been entirely voluntary. Instead, early retirement has most often reflected a perceived lack of opportunity to keep working in a satisfying job, and has also been influenced by government policies that have facilitated early retirement.

Looking ahead, the most obvious way to increase the average number of hours in paid employment per person aged 15–64 would be to increase the employment of adult males, especially those aged 35 and over. In the 2001 population census these older males accounted for a quarter of total recorded unemployment, and even more significantly, many more older males have stopped looking for work and left the labour force. Thus in 2001 the workforce participation rate for males aged 35–54 was about 7 percentage points less than in 1973, about 16 percentage points less for males aged 55–59, and about 29 percentage points less for males aged 60–64.

The critical question, however, is why have Australian men moved to retire early? In our society the decision about when to retire or whether to keep working is largely a matter of individual choice. However, that choice can be influenced by a number of considerations. For some people, rising living standards have probably led them to reassess the balance between continuing to work and taking more leisure (OECD, 1998:42). Where the decision to retire reflects such a rational calculation of self-interest it will be difficult to change, and many would argue that governments should not interfere with such individual decisions to trade off income for leisure. Indeed, this is one reason why this chapter concentrates on those men aged 55–64, and not those older men aged 65 and over, who are more likely to prefer leisure than to keep working.<sup>1</sup> But a principal theme of the paper is that the choice to retire earlier than age 65 has often not been entirely voluntary. Instead, early retirement has most often reflected a perceived lack of opportunity to keep working in a satisfying job, and has also been influenced by government policies that have facilitated early retirement.

The policy pay-off from reversing the trend to early retirement is that as a society we would then be much better placed to accommodate the projected demands of an ageing society. For example, McDonald and Kippen (1999) have developed a scenario where male participation rates for those aged 35–64 are restored to their 1973 levels by 2018, and female labour force participation continues to increase in

\* This paper has benefited considerably from the comments of Ken Oliver and John Forsey from the Department of Family and Community Services. Naturally the author is solely responsible for the views expressed.

line with cohort trends. Under this scenario, the labour force dependency ratio for all retirees would actually fall until 2018, and it would only return to its current level after another 30 years. In effect, an ageing society would not present a problem for another 50 years if the next cohort of men entering their late 50s kept working a little longer and postponed their retirement for as long as the previous generation did.

Furthermore, a Treasury scenario shows that a (somewhat less ambitious) reversal of the trend to early retirement would go a long way towards financing the fiscal demands from an ageing society. Thus the Treasury (2003:4–11) has estimated that

*if participation rates for each age and gender cohort rose towards the top fifth of the OECD by 2020–21 and remained there, instead of at recent levels, then the overall participation rate in Australia would fall to around 60 per cent rather than 55 per cent. This would lead to a GDP per capita level by 2041–42 that was around 9 per cent higher than projected in the Intergenerational Report.<sup>2</sup>*

Subsequent research (Gruen, 2003) suggests that under this scenario the Commonwealth Government Budget would remain in surplus until the mid-2020s, and in 2041–42 the gap between expenditure and taxation would be only 3 per cent of GDP compared with the projected gap of 5 per cent of GDP in the *Intergenerational Report* (IGR). Moreover, if this projected surplus over the next 20-odd years was siphoned off and invested, it could later be drawn down and would be broadly sufficient to finance the projected deficits in the latter part of the whole 40-year period.<sup>3</sup>

The purpose of this chapter is to consider how best to achieve this proposed reversal of the trend towards early retirement. It first considers the impact of changes in the demand for labour, and policies that might improve the demand for labour, particularly for older men. Then it considers influences on the supply of labour and policies that affect the incentives for older people to continue in employment.

### The availability of jobs

One plausible hypothesis is that a principal reason why Australian men have been retiring early is because of the deterioration in their employment prospects since the 1960s, and especially since the first oil shock in 1973. However, an international comparison of the change in labour force participation rates for men aged 55–64 with the change in unemployment rates suggest at most only a weak correlation (Table 8.1).<sup>4</sup> For example, the percentage increase in unemployment was about the same in Australia, New Zealand, the Netherlands and Sweden, but the decline in workforce participation by older males was significantly greater in Australia, and much greater again in the Netherlands. Instead, what these differences in international experience suggest is that national policies towards early retirement can make a difference.

An ageing society would not present a problem for another 50 years if the next cohort of men entering their late 50s kept working a little longer and postponed their retirement for as long as the previous generation did. Furthermore, a Treasury scenario shows that a reversal of the trend to early retirement would go a long way towards financing the fiscal demands from an ageing society.



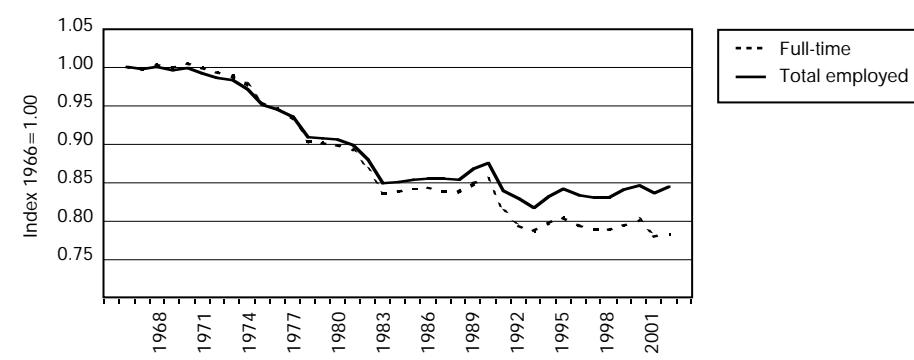
**Table 8.1: Change in labour force participation for men aged 55–64 years compared to change in the rate of unemployment, c.1970–c.1995 (percentage points)**

	Change in labour force participation	Unemployment rate	
		1970 level %	Change
Australia	-23	1.6	+6.6
New Zealand	-13	0.1	+6.2
Canada	-19	5.8	+3.6
United States	-13	5.0	+0.6
Japan	-5	1.2	+1.9
France	-28	2.5	+8.9
Great Britain	-27	2.4	+6.1
Germany	-22	0.6	+7.9
Italy	-14	5.5	+5.2
Netherlands	-39	0.9	+6.2
Spain	-25	2.2	+16.9
Sweden	-11	1.5	+6.2

Sources: Change in labour force participation for men aged 55–64 years from McDonald & Kippen, 2001, Table 3. Change in the unemployment rate from the OECD Economic Outlook database.

Closer examination of Australia's situation, however, shows that for males aged 30–64, the number of jobs relative to that population fell sharply from the beginning of the 1970s until the recovery from the 1982–83 recession, and for male full-time jobs this ratio has only stabilised in the 1990s (Figure 8.1). The failure of male employment to keep pace with population growth, especially in the 1970s, does suggest that the demand for male labour may not have been as strong as would normally be expected. Moreover, this weakness is consistent with the timing of the beginning of the shift to early retirement.

**Figure 8.1: Males aged 35–64, full-time and total employment rates, Australia 1966–2002**



Most significantly, if we unpack this aggregate measure of job creation, we find that the pattern of employment has changed remarkably over the last 30 years. Essentially, Australia has created many skilled professional jobs, but there has been negligible growth in the number of manual and tradesmen's jobs of the traditional 'blue collar' kind. Indeed, over the last 30 years a rough classification of

employment into three types of jobs suggests that most of the increase in male employment is accounted for by job growth in the group comprising administrators, professionals and paraprofessionals (Table 8.2). The only time in this 30-year period when 'blue collar' jobs for males increased at a rate approaching their share of employment was at the beginning and end of the 1980s. Over the whole period from 1971 to 2000 it is roughly estimated that the number of 'blue collar' jobs increased at an average annual rate of less than 0.5 per cent per annum, and it was probably slower than this in the 1970s. Moreover, the apparently somewhat better performance in the 1990s was entirely due to increases in part-time employment and the number of men who were self-employed. The number of jobs for full-time 'blue collar' male employees fell by 5 per cent between 1989 and 2000, and these full-time jobs were probably also falling before the 1990s, but the data are not available to confirm this probability.

**Table 8.2: Contribution to the growth in male employment 1971–2000<sup>5</sup>**  
(percentage points)

	1971–1986	1987–1989	1989–2000
Managers & Professional Group	64	38	66
Clerks & Services Group	32	9	17
Blue Collar Group	3	53	17

Source: ABS, *Labour Force, Australia* (Cat. No. 6203) with the groupings by the author.

Thirty years ago nearly two-thirds of male jobs were in the 'blue collar' group, and those males aged 55–64 who retired early would almost certainly have come disproportionately from full-time employees in this group. First, these men have experienced declining job opportunities, with more than half of the men aged 45–64 who have retired doing so involuntarily, and many of the 'voluntary' retirements would be in response to employer pressure when firms are restructuring. Second, these men are less likely to have the necessary skills to enable them to adapt to change than those who continue working. Thus, for the key target group of males aged 55–64, those men who continue in employment are significantly more likely to report a post-school qualification than those who have left the workforce. Indeed, those men who are still looking for work, but who are presently unemployed, are more likely to declare a qualification than those who have taken early retirement (Table 8.3).

**Table 8.3: Proportion of males aged 55–64 declaring a qualification (per cent)**

	1971	1991	2001
Employed	28.2	40.3	53.7
Unemployed	25.0	31.0	44.4
Not in the labour force	18.8	31.0	39.6

Source: Derived by the author from special tabulations provided by the ABS from the Censuses of Population and Housing.

If the next cohort of men aged 55–64 is to be neither persuaded nor pressured to retire early then it will be critical that the demand for their labour improves. To some extent this change in employment opportunities will occur automatically as the projected increase in the age-dependency ratio implies that the demand for labour will rise relative to its supply and that labour will become scarcer. Also,



Arguably, a better alternative to reduce the cost of labour, which can be targeted to those who are most susceptible to early retirement, is to improve labour productivity by increasing the opportunities for lifetime learning.

future cohorts of older men are more likely to have received an education and training that will better enable them to adjust to the changing needs of the labour market. For example, in May 2002 only 33 per cent of males aged 45–54 reported Year 10 or below as their highest qualification, compared with 47 per cent of those males aged 55–59. Nevertheless, many of these people in the next cohort may well need retraining. Thus the real message is that over time this retraining can be expected to become more productive because future cohorts of older workers will be more adaptable and better able to learn new ‘tricks’. But for these various reasons, it would be imprudent to rely on market forces alone to produce a new and desirable increase in the job opportunities for older men. Instead, an active employment policy will be necessary to increase the demand for older men’s labour.

#### Policies to increase the demand for labour

How best to increase the demand for labour is a contentious issue. Many people attribute the decline in the number of ‘blue collar’ jobs to the effects of economic restructuring and the opening up of the economy to competition. On that view, early retirement might be slowed or even reversed if those policies were abandoned, and traditional industries—especially in manufacturing—were protected from competition. However, the evidence is that the stagnation and decline in traditional ‘blue collar’ jobs and the shift towards early retirement commenced well before the policies of ‘economic reform’. Indeed, this loss of jobs has affected all developed countries and mainly reflects the impact of technological change (Keating, 2000:101–5 and the references cited therein). In short, any reversal of the hard won gains from economic reform by legislating to protect jobs is likely to reduce productivity and economic growth, rather than create more jobs.

Instead, economic growth represents the main way to increase the number of jobs. But especially in a situation where the pattern of job creation has been so lopsided, it will help if there is an increase in the demand for labour relative to the growth in GDP, and this will require a reduction in real unit labour costs. Consistent with this goal, a policy that the Government seems to favour would be to promote labour market flexibility by reducing award conditions. For example, the Government has drawn attention to the high level of minimum wages in Australia relative to the median wage (Treasury, 2003:4–12),<sup>6</sup> and it has also proposed reductions in employment protection legislation as a way of lowering the cost of employment and increasing the demand for labour. One problem with these proposals, however, is that they are unlikely to make much difference to labour costs, and therefore to demand, unless the terms and conditions of employment are changed very substantially, and probably beyond what would be socially acceptable to most people. Thus the necessary reduction in the minimum wage to create the desired number of jobs would in turn threaten pension levels, unless low-paid workers were at the same time granted some form of earnings credit.<sup>7</sup> However, any such earnings credit would come at a further net cost to the taxpayer, and therefore to other workers, at least over the first few years.

Arguably, a better alternative to reduce the cost of labour, which can be targeted to those who are most susceptible to early retirement, is to improve labour productivity by increasing the opportunities for lifetime learning. If we are to reverse the trend to early retirement it needs to become more widely recognised that it is unlikely many people in the future will experience the same job for the rest of their lives. Rather, the pace and nature of technological change means most

people will need to have more than one career during the course of their working lives. People accordingly need to be prepared for the probability that they will have to change their jobs and their skills.

A pro-active approach to lifetime learning, that emphasises the skill base that workers will need as they enter the later stages of their careers, holds more promise than heavy reliance on remedial training of older workers after they encounter employment difficulties (OECD, 1998:89). Accordingly, employers need to adjust training and the career structures at *all* ages, in order to maximise the opportunities for lifetime learning. Although much of the responsibility for making these changes occurs in the workplace, employers are naturally most interested in highly job-specific training, whereas much of the training will need to be transferable to assist workers to access the new—and different—jobs that are being created.

Governments will necessarily have the main responsibility for this type of training, and to ensure that it leads to readily transferable skills. In addition, governments can also help by gathering and disseminating information, including about best practice, job and training opportunities, and counteracting any unwarranted stereotypes regarding the capacities of older workers. For example, the Australian Government is developing a strategy to increase the employment opportunities for mature-age workers, in consultation with business and community groups, and the Job Network has developed services that are targeted to meet the specific needs of older workers. It is questionable, however, whether present government efforts will make a significant impact relative to the scale of the task.

A critical issue will be the financing of increased training. Consistent with much of the training occurring through the workplace, there will be increased demands upon employers and employees. But off-the-job training will more likely make demands upon government budgets, both for the training and possibly also to recompense employees for part of any loss of earnings while being trained—an issue that will be considered further under incentives below.

Finally, a more flexible labour force where people change their career paths from time to time will not only require changes in workplace arrangements for education and training, and for their financing, but it will also require changes in social attitudes. The widely inherited presumption that a person's last job should be the most highly paid will not apply for most people if they are to continue working in their late 50s and early 60s in what can be satisfying jobs. Instead, more people need to be able to accept a situation where older workers take a reduction in responsibility and pay while they continue to work at somewhat less intensity. Furthermore, both employers and employees must accept this change in attitudes if we are to succeed in increasing the proportion of men aged 55–64 who will continue working.

### Incentives and the supply of older workers

Cross-country comparisons by Gruber and Wise (1997) suggest that early retirement by men has been closely related to the incentive policies built into the retirement policies of each country. Typically, the incentive to retire increases: (a) the earlier the minimum age at which people can access a pension; (b) the higher the replacement rate (the value of the pension relative to the value of wages); (c) the lower the accrued pension benefits from additional years of work; and (d) if there is access to state allowances below the normal retirement age (cited by McDonald and Kippen, 2001:7).

A more flexible labour force where people change their career paths from time to time will not only require changes in workplace arrangements for education and training, and for their financing, but it will also require changes in social attitudes.



In Australia, the Government's main focus has been on the last of these factors affecting retirement incentives, and there have been a number of policy changes intended to reduce the chances of people continuing in long-term non-employment, possibly as a prelude to retirement. In particular, the Government has been concerned by the rapid growth in the number of people receiving the Disability Support Pension (DSP). Between 1990 and 2000, the number of male recipients of the DSP aged 50–59 increased by over 60 per cent, while the number of men in this age group grew by only 40 per cent (Treasury, 2003:4–10). And since 1972 male DSP recipients increased by over 400 per cent, while the male population increased by only 45 per cent. Moreover, at least some of this increase in the DSP probably reflects the easing of its eligibility conditions, when unemployment rose rapidly in the early 1980s and again in the early 1990s. In addition, in the early 1990s a Mature Age Allowance was introduced for unemployed men aged between 60 and 65, which in June 2001 effectively gave 36 536 men early access to the age pension.

Another option to improve the incentives for later retirement, which could be introduced earlier, would be to require the major part or all of any lump sum superannuation benefit to be taken as an allocated pension, as a condition of preserving the tax benefits that are provided with this form of saving.

The Australian Government has recently closed entrance to the Mature Age Allowance, and it has sought to require recipients on DSP to pursue more actively opportunities for work and training, although the Senate has not agreed the necessary legislation. The Government has similarly insisted that younger people who are unemployed have a mutual obligation to pursue work and training, but to date these requirements do not extend to older workers aged 46 and over.

Looking ahead, it seems unlikely that any government would readily seek to reduce the level of pensions as an inducement to keep working. Already the opportunity cost of not working is quite high for most people in Australia, and evidence cited by the OECD (1998:45) suggests that 'there is no clear relationship between the evolution of the replacement rate and that of the retirement age'.

However, over time private superannuation benefits will become a much more important source of retirement income, and at present it is possible to access these benefits as early as age 55. The Government has already legislated to increase this preservation age to age 60, but this change will only be progressively introduced between 1 July 2015 and 2025. Another option to improve the incentives for later retirement, which could be introduced earlier, would be to require the major part or all of any lump sum superannuation benefit to be taken as an allocated pension, as a condition of preserving the tax benefits that are provided with this form of saving. Such a policy would reduce the attractiveness of retiring before becoming eligible for an age pension, while it would increase the income of people who do continue working until at least the standard retirement age. However, if this option were considered to be politically unacceptable, an alternative would be to deem an income for the purpose of the age pension means-test, where that 'deemed' income would be consistent with taking superannuation as an allocated pension. Again, this policy change would reduce the expenditure on age pensions, and it would mean that people who retired early and spent their superannuation benefits would suffer a reduced income later on in a way that they can presently largely avoid.

In addition, some other less significant changes could be made to superannuation arrangements with a view to encouraging older people to continue working. One

such change would be to remove the present disincentive in many defined benefit schemes, whereby there is little extra return for keeping on working after, say, 20 years in the scheme.<sup>8</sup> Another change would be to increase the attractiveness of saving through superannuation by allowing people to borrow from their superannuation account for certain defined purposes. In particular, the loss of earnings while retraining or upgrading qualifications can effectively prevent some people from undertaking such training unless they can access funds to cover their living costs. Superannuation offers one such possibility. Another possibility is that the Government would provide everybody with a post-school education a training entitlement. Some people would exercise their entitlement soon after leaving school by continuing straight on into higher education. However, those who left school early with less qualifications, and who are most likely to need retraining later on in life, would then have a better opportunity to obtain the desired retraining and thereby be able to continue working.

### Conclusion

This chapter has argued that it is clearly desirable to lift the rate of workforce participation in Australia back towards where it used to be for males. This higher workforce participation would largely ensure that there would be no increase in the aged-dependency ratio in the future. It is unlikely, however, that there is any single solution to increasing the employment/population ratio, and a successful strategy will be based on a package of policies that complement each other.

At present, government policy is focusing almost exclusively on measures to improve the supply side of the labour market. Unemployed people are being encouraged, and often required, to maximise their efforts to find a job. Alternatively, they can participate in work experience or training that it is hoped will lead to a job. Arguably, however, the main problem is the lack of jobs for people with inappropriate skills, even if enhancements to various forms of income support have allowed many of these people to drop out of the active labour market and effectively retire early. For that reason, if people are going to be pressed to find a job or are inhibited from early access to their superannuation, then the government should also make every effort to ensure that sufficient jobs are available that *all* non-employed people can reasonably be expected to take.

Looking ahead, it will be difficult to guarantee jobs for all the older males that we would like to get back into paid employment. The present mismatch between the experience and aptitudes of many older males and the jobs that are being created could well continue without positive intervention by government. But reversion to former employment structures is unlikely and unjustified. Instead, much greater efforts need to be made to assist people to meet the emerging demands in the labour market. Education and training policies that involve lifelong learning will not only help accommodate the demands from an ageing society, but are also the key to preserving a more egalitarian structure of earnings (Keating, 2003).

It is clearly desirable to lift the rate of workforce participation in Australia back towards where it used to be for males. This higher workforce participation would largely ensure that there would be no increase in the aged-dependency ratio in the future. A successful strategy will be based on a package of policies that complement each other.



## Endnotes

- 1 In fact, a bonus has been introduced for those who would be eligible for the age pension but who elect to keep working for up to five years. This bonus can amount to as much as \$46 000 for a pensioner couple, but between its introduction in July 1998 and September 2003 only 58 000 people had registered for it.
- 2 It has been objected that this scenario overestimates the impact on per capita GDP because of the assumption that the additional workers would have the same productivity as the average worker, whereas the marginal productivity would be less. However, as will be argued below, most of these additional workers are unlikely to find employment without retraining that would raise their productivity above that of the marginal worker.
- 3 New Zealand has reorganised its public finances to provide for this sort of smoothing of the fiscal impact from its ageing population.
- 4 Arguably, if the labour market is segmented, it would be better to compare changes in older males' workforce participation with changes in their unemployment, but age-specific unemployment rates are not available for all these countries over time. In addition, similar international comparisons were done comparing the change in older males' workforce participation against the change in each country's ratio of employment to population, and, if anything, this comparison suggested even less of a correlation.
- 5 The different periods shown here reflect changes in the ABS Classification of Occupations that could not be exactly linked, and that is the only reason for showing the short period from 1987 to 1989. The more serious consequence of these changes in classification is that the groupings of occupations shown in Table 8.2 are not exactly comparable between the periods shown. However, for these very broad groupings of occupations it is considered that the overall conclusions of where the job growth occurred are reasonably robust.
- 6 In Australia the minimum wage is 57.9 per cent of the median wage, which is the second highest ratio among OECD countries, after France.
- 7 A wage-tax trade-off along these lines has in fact been proposed by the Five Economists group (Dawkins 1999, Dawkins 2001, Dawkins & Keating 2002).
- 8 This sort of disincentive applies for the Commonwealth Superannuation Scheme that used to cover all federal public servants, but this scheme has been closed to new members for more than a decade.

## References

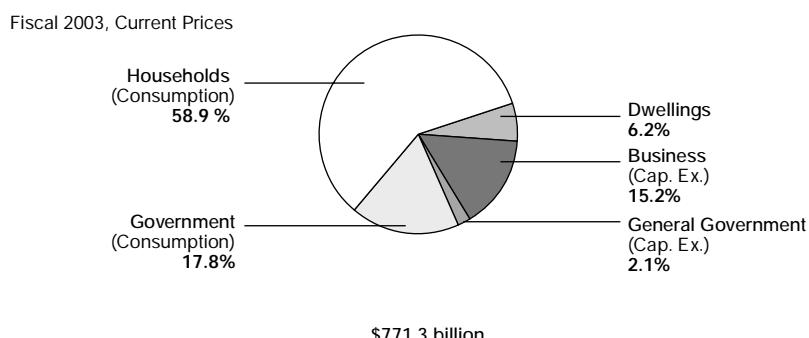
- Commonwealth Treasury (2002), Budget Paper No. 5, *Intergenerational Report, 2002-03*.
- Commonwealth Treasury (2003), Budget Paper No. 1, *Fiscal and Economic Strategy, Statement 4: Sustaining Growth in Australia's Living Standards*.
- Dawkins, P. (1999), 'A Plan to Cut Unemployment in Australia: An Elaboration of the "Five Economists" Letter to the Prime Minister, 28th October 1998', *Mercer-Melbourne Institute Quarterly Bulletin of Economic Trends*, 1, 99.
- Dawkins, P. (2001), 'The Five Economists' Plan: The Original Ideas and Further Development', Paper for Conference on Creating Jobs: The Role of Government, 6-7 September, ANU, mimeo.
- Dawkins, P. and Keating, M. (2002), 'Full Employment: "The Five Economists" Plan' Revisited', Paper for Conference 'Towards Opportunity and Prosperity', Melbourne University, April, mimeo.
- Gruen, D. (2003), 'Longer-Term Fiscal Projections' paper presented to Fiscal Policy and Financial Markets Conference, ANU, 28 October, mimeo.
- Keating, M. (2000), 'Realising people's potential: labour market policies', in Davis, G. and Keating, M., eds. *The Future of Governance: Policy Choices*, Allen & Unwin, Sydney.
- Keating, M. (2003), 'The Labour Market and Inequality', *The Australian Economic Review*, 36(4), forthcoming.
- McDonald, P and Kippen, R. (1999), 'Ageing: the social and demographic dimensions', in Productivity Commission and Melbourne Institute of Applied Economic and Social Research, *Policy Implications of the Ageing of Australia's Population*, Conference Proceedings, AusInfo, Canberra.
- McDonald, P and Kippen, R. (2001), 'Labor Supply Prospects in 16 Developed Countries, 2000-2050', *Population and Development Review*, 27(1):1-32.
- OECD (1998), *Maintaining Prosperity in an Ageing Society*, Paris.

## 9 The Impact of current demographic trends on evolving consumption patterns

Phil Ruthven

Over three-quarters (77 per cent) of the nation's expenditure in fiscal 2003 was consumed by households or by government for their benefit and that of businesses. Some 59 per cent was paid directly by households and the remainder provided to households and businesses through the provision of government benefits and services, via personal and business taxes.

Figure 9.1: Australian consumption and investment 2003



The remaining 23 per cent of the nation's expenditure was invested by households in dwellings (6 per cent), and by general government (21 per cent) and business (15 per cent), in buildings, equipment, intellectual property and inventories.

In this chapter, the emphasis is placed on consumption rather than investment (capital expenditure), although some reference to *household* capital expenditure (dwellings) is considered relevant.

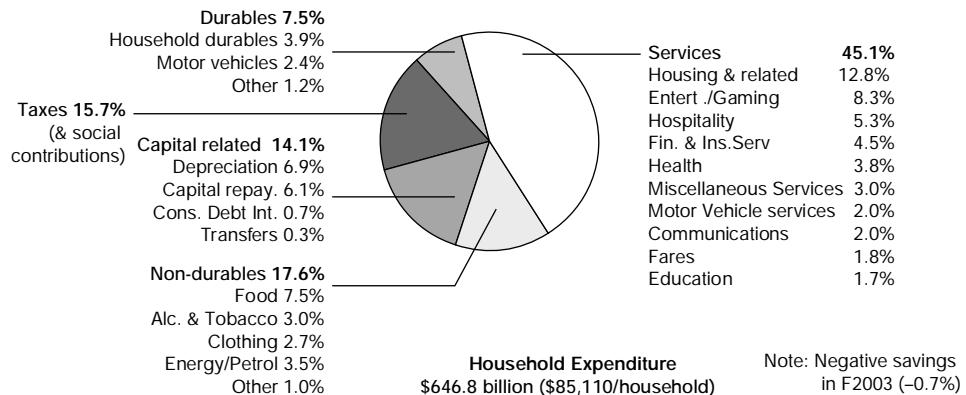
It is pertinent to point out that consumption has increased over the four decades since 1963, from 70.9 per cent of gross national expenditure (GNE) to 76.5 per cent in 2003. Over that period, the increased share has been solely due to government consumption for our benefit, rising as it has from 11.9 per cent of GNE in 1963 to 17.8 per cent in 2003 (peaking in the Hawke/Keating government years at over 19 per cent of GNE). Household consumption has remained within a narrow band, averaging 58–59 per cent of GNE.

The only aggregate in Figure 9.1 where direct household expenditure has increased has been via capital expenditure on dwellings, where the proportion has risen from 3.7 per cent of GNE in 1963 to 5.5 per cent in the early years of the 21st century (although over-trend at 6.2 per cent of GNE in fiscal 2003).

Turning to household expenditure, the disposition of spending in 2003 is shown in Figure 9.2.



**Figure 9.2: Household expenditure 2003**



The most significant changes among these categories are:

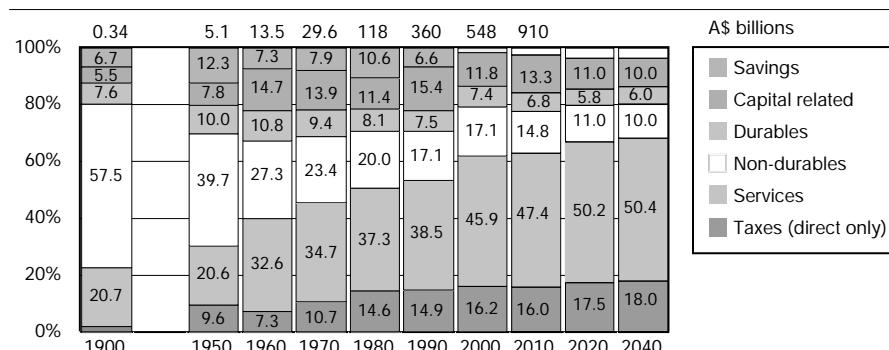
- the increased importance of services (45 per cent in F2003 versus 27 per cent in F1963);
- the increased importance of taxes (16 per cent in F2003 versus 7 per cent in F1963);
- concomitant decreases in proportionate spending on goods;
- a reduction in savings from 7 per cent of household income in F1963 to a dissaving of 1 per cent in F2003.

Within household services, expenditure on health has climbed from 2.5 per cent of total expenditure in 1963 to 3.8 per cent in 2003, most of which occurred over recent years. Education has climbed from 0.5 per cent of expenditure in 1963 to 1.7 per cent in 2003. Clearly, however, the government has picked up most of the tab for the rising demand for health and education, as we will explore shortly.

It is ironic that Australian households are spending 13.6 per cent of expenditure on gambling, entertainment and hospitality—some four times more than on health—yet see health as an inalienable right to be heavily subsidised via the tax system. Self-reliance, self-insurance and user-pays principles are hard to sell to Australians in matters of education and health.

Figure 9.3 traces the changing importance of expenditure categories from 1900 to 2000 and includes IBISWorld's provisional forecasts to 2040.

**Figure 9.3: Household expenditure (per cent of total basis)**



Source: ABS and IBISWorld 1/11/03

The consumption of services has come to predominate, and indeed services are likely to account for over 50 per cent of all household expenditure as we enter the second decade of the 21st century.

The key changes over the 40-year period to the year 2040 are:

- services consumption to rise from 45 per cent of total expenditure to over 50 per cent in 2040;
- non-durables expenditure to fall from 17.6 per cent in 2003 to 11.8 per cent in 2040, due partly to consumer saturation, but mainly lower prices from rising productivity and cheap imports;
- durables expenditure to continue to fall (from 7.5 per cent of expenditure to 6.0 per cent in 2040) due to ever-lower real prices, the result of high productivity and cheap imports;
- savings to recover modestly from -0.7 per cent of household income in 2003 to 3.5 per cent in 2040, but superannuation via rising employer levies to grow;
- direct taxes to rise slowly from 15.7 per cent in F2003 to 18 per cent by 2040, with indirect taxes (GST) also expected to rise from the present rate of 10 per cent.

The services category, having been a minor one in the first half of the 20th century (less than 21 per cent of all expenditure), and now the major category, warrants further dissection, as Table 9.1 reveals.

**Table 9.1: Household expenditure on services (per cent of total household expenditure)**

	1950	1960	1970	1980	1990	2000
Housing & related	5.0	6.0	7.9	10.1	11.2	12.9
Entert./gambling	3.9	7.1	6.5	6.3	6.6	8.4
Hospitality	3.4	6.7	5.9	5.1	4.4	5.2
Financial & Insurance Services	2.5	3.9	5.1	6.0	6.5	6.7
Health	2.4	2.5	2.8	2.9	2.4	2.9
Miscellaneous Services	1.2	1.0	1.2	1.4	1.9	2.9
Motor Vehicle services	1.7	1.8	2.1	2.3	2.0	2.0
Communication	0.4	0.5	0.6	0.8	0.9	1.6
Fares	2.0	2.4	2.1	1.7	1.5	1.7
Education	0.4	0.5	0.6	0.6	1.1	1.6
<b>Sub total</b>	<b>20.6%</b>	<b>32.6%</b>	<b>34.7%</b>	<b>38.5%</b>	<b>45.9%</b>	<b>47.4%</b>

Source: ABS 5206

Has ageing had much to do with these changing patterns? The immediate answer is no, and nor is ageing likely to be significant in the changing patterns of the next 40 years to 2043. It could be thought that ageing brings the likelihood of greater consumption of health services, be they user-pays or government provided. It does, of course, but the general population these days wants wellness *all through life*. Education, while also nowadays considered to be a lifelong commitment, is nevertheless concentrated into the 5–25-year age group and unlikely to constitute as serious a challenge to governments as health.



Yet health and education constitute minority components of overall household consumption, be they user-pays or government provided. It is the constant pressure for them to be government provided that raises them to prominence in parliaments and the media. As said previously, they are currently promoted as inalienable rights and resistant to user-pays principles.

So what demographics and other factors are impacting on evolving consumption patterns?

Table 9.2 is a salutary reminder of the sorts of changes taking place in the new age, which began in the mid-1960s and is due to be replaced in turn by yet another new age around the mid-2040s as this forecast period expires.

**Table 9.2: Our changing society**

- |   |  |
|---|--|
| <ul style="list-style-type: none"><li>● Living longer</li><li>● Multiple income households</li><li>● Outsourcing tasks and chores</li><li>● Smaller households</li><li>● More generations co-existing</li><li>● Living elsewhere</li><li>● Rising divorce rate</li><li>● Changing household structures</li><li>● Fast rising incomes and wealth</li><li>● Changing ethnic mix (Eurasian)</li><li>● Living differently</li><li>● Home leasing on the rise</li><li>● New tribalism</li><li>● Spending differently</li></ul> | <ul style="list-style-type: none"><li>● Rise of virtual shopping</li><li>● Living with leisure</li><li>● New entertainment and sports</li><li>● Increasing knowledge</li><li>● Increasing financial literacy</li><li>● Living with IC&amp;T</li><li>● Electronic 'guardian angels'</li><li>● Working differently</li><li>● New industries and occupations</li><li>● Changing spirituality</li><li>● Outlawing discrimination</li><li>● Changing politics (ideologies)</li><li>● Ecological sensitivity</li></ul> |
|---|--|

Space dictates that only a handful of these be developed in the interest of understanding evolving consumption patterns. The *living longer* change has already been covered, but it is important to reiterate that this does not necessarily imply constricting income and consumption patterns; and it does not imply that dramatic changes to the mix of consumption products—be they goods or services—are due to ageing.

One of the very significant changes centres on *outsourcing household tasks and chores*, arising in response to multiple income households that had become cash rich/time poor.

Table 9.3 reminds us of the sorts of household functions that are being increasingly outsourced and that represent increasing consumption of service products.

**Table 9.3: Household outsourcing in the new age**

<b>Meals</b>	<b>Finance &amp; Investment</b>
<ul style="list-style-type: none"> <li>• Fast food outlets</li> <li>• Theme restaurants</li> <li>• Home delivery (of fast food)</li> </ul>	<ul style="list-style-type: none"> <li>• Investment advice and management</li> <li>• Tax planning and returns</li> </ul>
<b>Gardening</b>	<b>Health</b>
<ul style="list-style-type: none"> <li>• Landscaping, clean-ups</li> <li>• Lawn mowing</li> <li>• Pool maintenance</li> </ul>	<ul style="list-style-type: none"> <li>• Wellness</li> <li>• Home nursing, aged care at home</li> <li>• Home masseur treatment</li> </ul>
<b>Painting</b>	<b>Childminding</b>
<ul style="list-style-type: none"> <li>• Room/house painting</li> </ul>	<ul style="list-style-type: none"> <li>• Nanny services, child-minding centres</li> </ul>
<b>Home repairs</b>	<b>Education</b>
<ul style="list-style-type: none"> <li>• Electric</li> <li>• Plumbing, etc</li> </ul>	<ul style="list-style-type: none"> <li>• Tutoring services</li> <li>• Pay TV, online education</li> </ul>
<b>Car Maintenance</b>	<b>Entertainment</b>
<ul style="list-style-type: none"> <li>• Oil changes, brakes, etc</li> </ul>	<ul style="list-style-type: none"> <li>• Gambling</li> <li>• Spectator sports</li> <li>• Musical entertainment</li> </ul>
<b>Cleaning</b>	<b>Tourism</b>
<ul style="list-style-type: none"> <li>• Internal cleaning</li> <li>• External cleaning</li> </ul>	<ul style="list-style-type: none"> <li>• Hotels, motels, guesthouses, lodges, backpack lodgings, etc</li> <li>• Entertainment centres, theme parks, etc</li> </ul>
<b>Laundry and dry cleaning</b>	
<ul style="list-style-type: none"> <li>• Pick up and delivery of laundry, dry cleaning services</li> </ul>	<ul style="list-style-type: none"> <li>• Air travel, boat travel, car rental</li> </ul>
<b>Shopping</b>	
<ul style="list-style-type: none"> <li>• Shop from home (internet, catalogues, telephone)</li> </ul>	

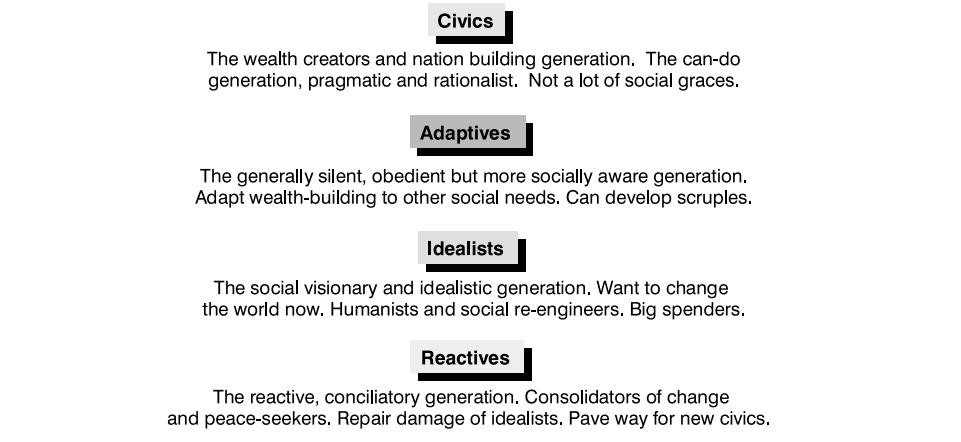
Clearly each new generation impacts on the prevailing consumption patterns of a society, and it has been the baby boomers and Generation Xers that have had the most impact over the past four decades, especially but not only with regard to outsourcing.

In looking out four decades into the future, it is very important to understand the impact of emerging generations.

As Strauss and Howe<sup>1</sup> have uncovered, there are four types of generations in societies that are in constant rotation. Figure 9.4 identifies these types of generations.



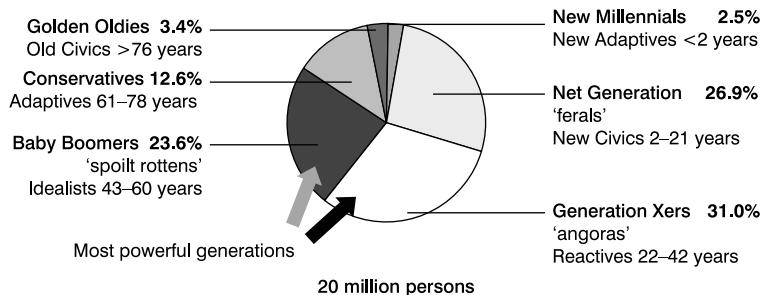
**Figure 9.4: Four types of generations**



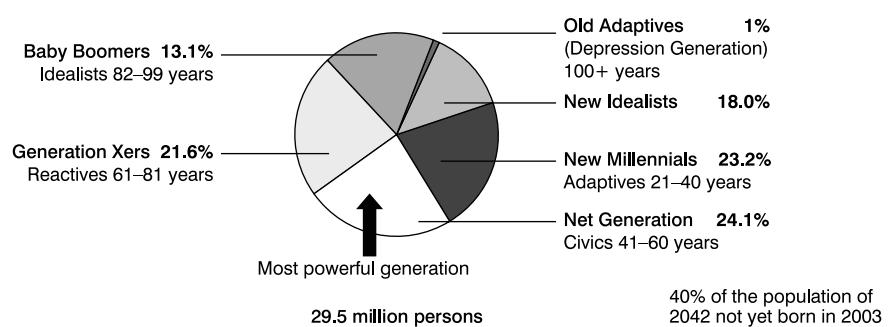
Source: Strauss & Howe, Generations; IBISWorld

Applied to the years 2003 and 2042, the following two figures (9.5 and 9.6) identify the 'power' generations or cohorts.

**Figure 9.5: Generations in 2003**



**Figure 9.6: Generations in 2042**



So what are the implications?

- The last three decades have seen the Depression Generation (the socially aware adaptives) and the baby boomers (idealists), in particular, in the ascendancy.

- They have made radical changes that have resulted in a fairer, more caring, welfare-oriented and less discriminatory society. This has occasionally bordered on the ‘bleeding heart’ syndrome, and occasionally the cures have been worse than the complaints.
- Massive debts were built up during this period (now reduced via privatisation and balanced budgeting), due to the growing list of ‘inalienable rights’, and now half the population is on some form of welfare.
- The next three decades are seeing Generation X (the reactives) and the Net Generation (the civics) rise to ascendancy: the ‘get real’ cohorts.
- These generations will search for better and more practical solutions to social problems. They will of course, be far better educated, more financially savvy and more worldly wise.
- They will be very interested in wealth creation (which helps solve a lot of social problems), self-reliance and user-pays principles.
- They will slowly bring society back to a ‘we’ focus after nearly four decades of a ‘me, me, me’ focus.

There are many other demographic changes that are changing consumption patterns, albeit at a glacial pace. These include faster growth in states where costs are cheaper (Queensland and Western Australia), and faster growth in coastal cities where costs are lower than capital cities; but incomes tend to be lower as well.

We now turn to changes in government consumption on behalf of households.

In the *Intergenerational Report 2002–03* (IGR), the main concerns in terms of pressure on governments to spend more (and therefore tax more) were:

- health (government spending up from 4.3 per cent in F2001 to 8.1 per cent in F2042);
- ageing (2.9 per cent of GDP to 4.6 per cent of GDP).

However, notwithstanding the rising ageing outlays (pensions etc), overall social security and welfare is expected to rise only 0.5 per cent from 6.9 per cent of GDP to 7.4 per cent of GDP.

Government expenditure on education (in the IGR) is expected to ease from 1.8 per cent of GDP to 1.6 per cent, and government superannuation from 0.6 per cent to 0.3 per cent of GDP. Defence spending was an unknown quantity.

The rising health and welfare costs to government, while offset by other relatively falling outlay, amount to some 4.3 per cent of GDP by 2042. In Table 9.1 on projected household expenditures, an additional 2.3 per cent of household income has been built in for taxes, not including the suggested rise in the GST rates imbedded in the goods and services items listed in the table. In other words, we have assumed that user-pays/self-reliance principles will not be enough to stem a somewhat inevitable rise in taxes over the coming decades, especially from the 2010s onwards.

In this regard, it is interesting to note that there have been three cycles in Commonwealth Government taxation from 1901 onwards, with a fourth cycle expected to begin around 2009.

User-pays/self-reliance principles will not be enough to stem a somewhat inevitable rise in taxes over the coming decades, especially from the 2010s onwards.

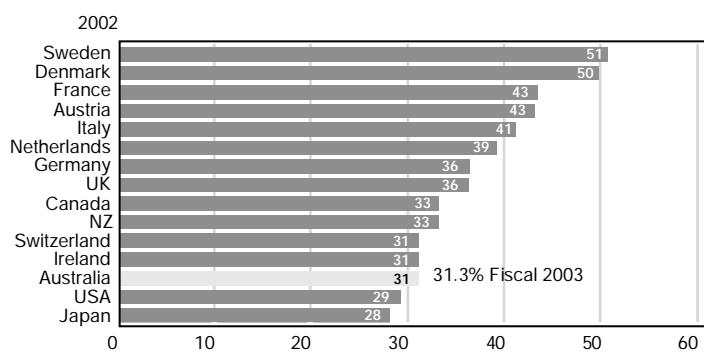


- 1st cycle: 1901–1936
- 2nd cycle: 1937–1964
- 3rd cycle: 1965–2008
- 4th cycle: 2009–2042 (forecast)

Is there the room and the stomach for a fourth cycle and for more taxes?

A comparison of tax imposts across the OECD would suggest there are, as Figure 9.7 suggests.

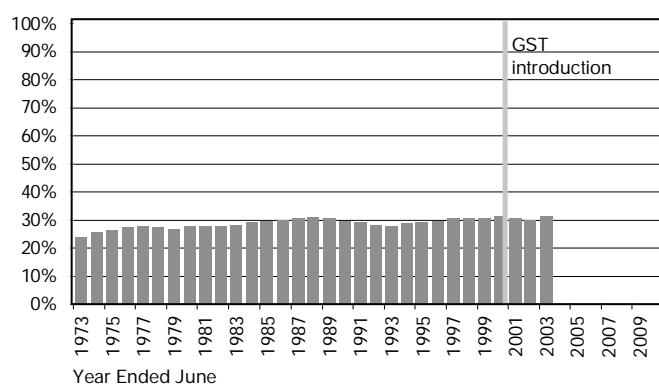
**Figure 9.7: World tax perspective (total tax revenues per cent GDP)**



Source: The Economist, 3/11/03

In 2003, Australia sits some 5 per cent of GDP below the OECD average, and Figure 9.8 points to the struggle to keep overall taxation levels down.

**Figure 9.8: All taxes—All government taxes, per cent of GDP**

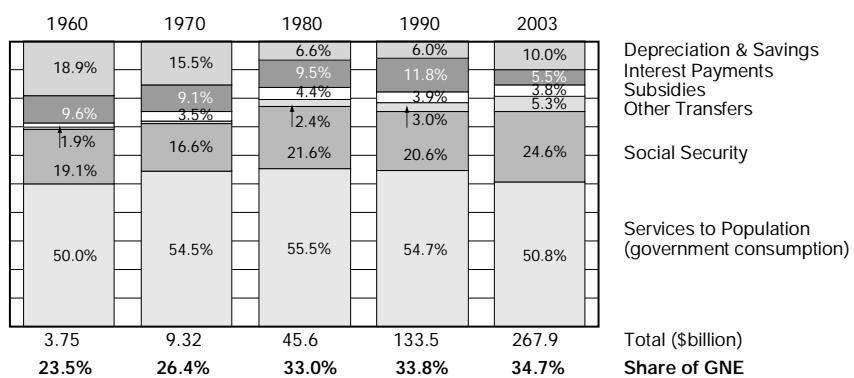


Source: ABS cat no. 5206.3722

We would suggest that a rise in the overall level to around 34–35 per cent of GDP in the 2040s, made up of marginally higher direct and indirect rates.

The all-government expenditure pattern over the past 43 years is illuminating, as Figure 9.9 reveals.

**Figure 9.9: All government\* expenditure by type (per cent of total)**

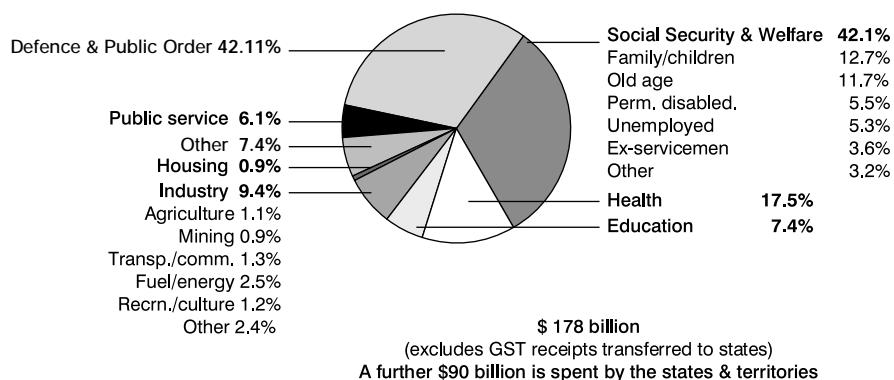


\*Note: National, state and local

Expenditure has risen from 23.5 per cent of GNE in 1960 to 34.7 per cent in 2003, or just under 0.3 per cent of GDP per year on average. We do not expect a similar rise over the next 40 years, however; and neither does the current federal government.

A breakdown of the federal government's expenditure for 2004 (budgeted) shows the significance of social security and welfare, and health, being the two categories of most concern in the IGR.

**Figure 9.10: National general government expenditure 2004 (Budget)**

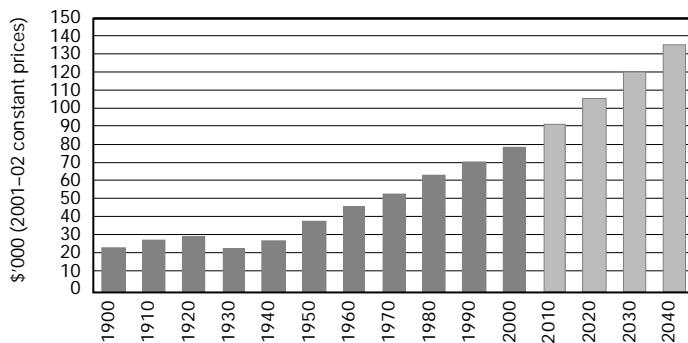


Source: *Federal Government Budget Paper 2003*

Our suggestion that taxes are not likely to bear all of the load of rising demand for health, ageing and other expenditures implies that average household incomes are likely to rise quite strongly over this period to the 2040s. We suggest they will, as Figure 9.11 forecasts.



**Figure 9.11: Real household income—Average income per household in 2002 prices**



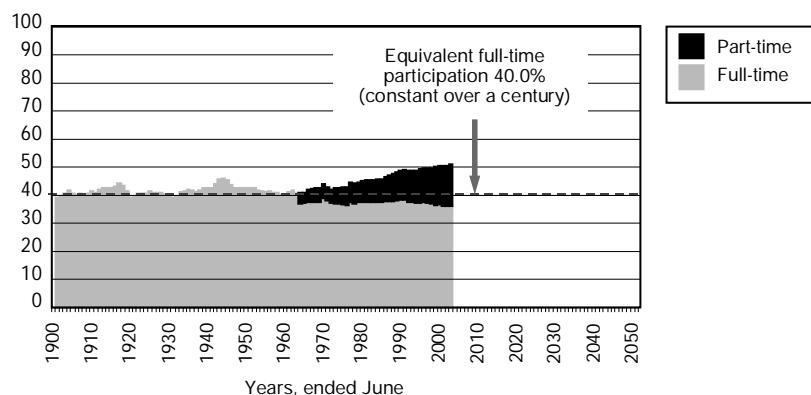
Source: IBISWorld 22/01/02

The rise in standard of living (GDP per capita) is expected to grow faster than average household incomes. This is due to the falling density of our dwellings: from 5.1 persons per dwelling in 1901, to 3.8 in 1960, to 2.6 currently, on the way to just under 2.3 in the 2040s; at which level there are already seven OECD countries today, including Sweden, Germany and the Netherlands.

The reasons for this optimism, with regard to rising household incomes, are centred on Australia maintaining a high level of participation in the labour force and a continuing high level of annual productivity gains.

Figure 9.12 traces Australia's labour force participation over the past 103 years.

**Figure 9.12: Australian labour force participation—part-time vs full-time labour force as percentage of total population, 1901–2003**



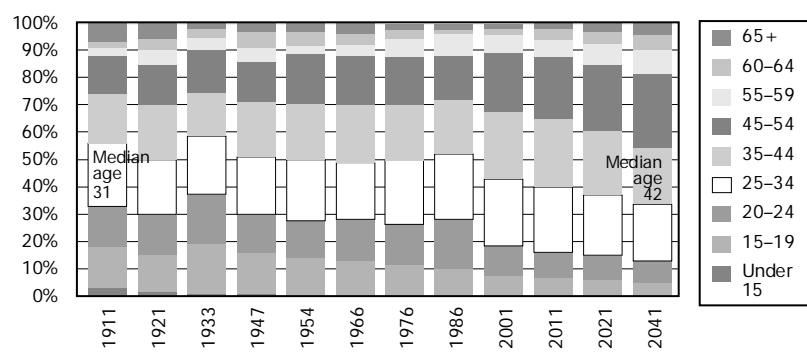
For many years, commentators at home and abroad have warned of falling participation rates with the ageing pattern of developed economies and rising taxes for the shrinking proportion of workers. There is no real evidence supporting this pessimism.

Australia has *always* maintained a full-time equivalent participation rate of 40 per cent of the population, at least over a century or more. The actual participation rate has indeed risen to 50 per cent in recent times due to the rising propensity for part-time/casual employees, now 28 per cent of the total labour force. The Netherlands is currently around 33 per cent, suggesting this new age trend from the mid-1960s has not yet run its course in Australia. We see no reason for the rate to fall below

40 per cent (on a full-time equivalent basis) over the forecast period to the 2040s.

Figure 9.13 on the age distribution of the workforce provides much of the justification for this optimism.

**Figure 9.13: Workforce, by age group (per cent of total basis)**



Source: ABS and IBISWorld

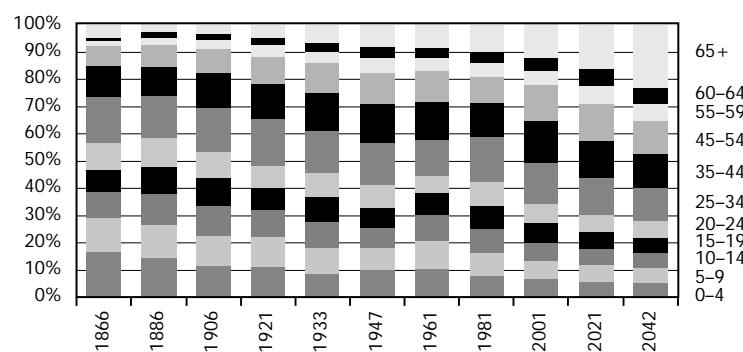
It is thought reasonable that a rising participation rate for the 55+ age groups could be expected in the light of:

- longer life expectancy (who wants to be a retiree for 20–30 years?);
- increasing availability of part-time/casual work;
- propensity to start one's own business late in life (or become a franchisee);
- relative absence of hard physical work in over 90 per cent of jobs in a modern economy;
- the growing desire for a yin–yang balance between work and leisure, even in later years.

The opinion is more optimistic than that suggested in the IGR.

It is tempting to look at an age distribution chart on the population at large (see Figure 9.14) and too quickly draw conclusions of a greying and increasingly infirm society.

**Figure 9.14: Australia's age distribution, 1866–2042**



Source: ABS

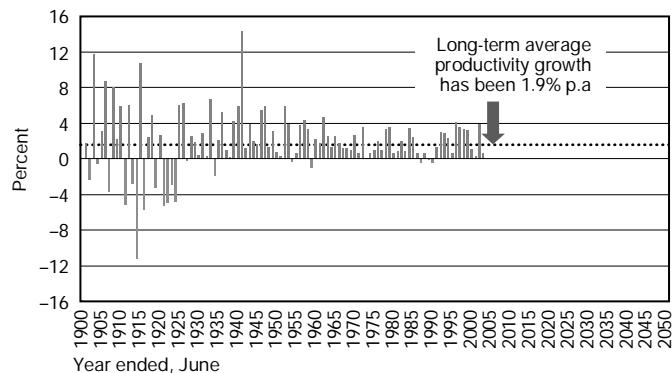


However, we need always to redefine the term ‘old’, given rising life expectancy. At 65 years of age, the average person:

- in 1800 had been dead for 27 years;
- in 1900 had been dead for 12 years;
- in 2000 had 12–15 years to go;
- in 2042 will have over 20 years to go (more if female).

The second reason for optimism about rising household incomes is continuing productivity gains. Figure 9.15 shows the nation’s history of productivity from 1901 to 2003.

**Figure 9.15: Productivity—GDP (A) per hour worked, 1901–2003**

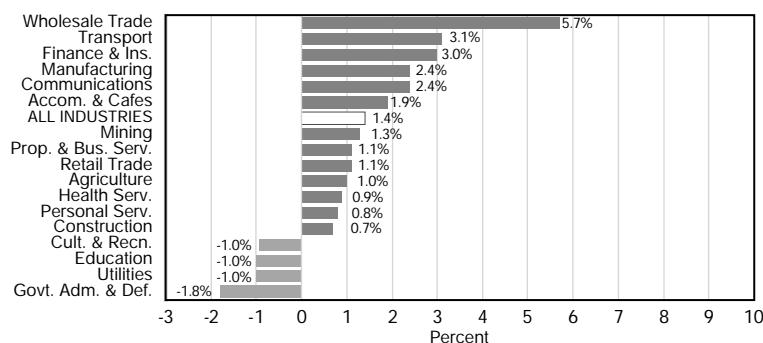


The long-term average over this period has been 1.8 per cent per annum. The choppy pattern of the first three decades was due entirely to the fact that agriculture dominated our economy and—with oscillating booms and busts due to weather and commodity prices—therefore created the violent swings.

Again, we see no reason to suggest this average will not continue, due to the continuing gains to be generated from IC&T and new industry-specific systems and technologies.

That said, the productivity gains across the nation’s 17 industry divisions over the past five years are polarised.

**Figure 9.16: Australian industries’ productivity growth—past five year growth to June 2003 (GPP/employee at 2001–02 prices), per cent p.a.**



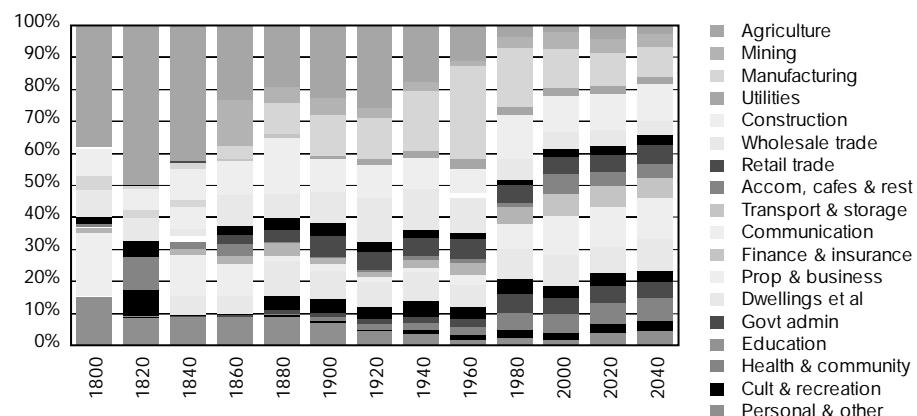
Source: ABS cat no. 5206.26

Given our forecast that it will be services that will grow the fastest in household spending, it is encouraging to see service industries such as transport, finance and insurance, and accommodation and cafes all doing better than the all-industries average.

The real challenge lies in the four industry divisions, for which there is huge future demand, yet poor productivity gains: health; personal and other services; cultural and recreational services; and education and training. These require the equivalent of the ‘industrial revolution’ style productivity gains via innovation and general left-field thinking. Signs are that such a renaissance is prospective, if not already beginning to emerge.

Of useful perspective is the current and future mix of industry divisions in the economy, shown in Figure 9.17.

**Figure 9.17: Changing importance of industry divisions  
(share of GDP\* by industry division)**



Note: At market prices to 1940, at factor cost thereafter  
Source N.G. Bulletin, ABS & IBISWorld 23/04/02

The four aforementioned industry divisions are forecast by IBISWorld to increase their share of GDP from 14.7 per cent in 2000 to 19.6 per cent in 2040, reflecting the changing consumption patterns indicated earlier in this chapter; and favouring services, of course.

So where does all the foregoing analyses and forecasts take us?

Evolving consumption patterns are the result of many factors, many of which are demographically based, but many are not.

The prime demographic factors are believed to be in:

- types of generations, as distinct from ageing (e.g. impact of baby-boomer idealists and the Generation X reactives) and *their* consumer priorities;
- dual income households and the outsourcing response to cash-rich/time-poor circumstances (favouring services).



The prime non-demographic factors are believed to be:

- high productivity in goods-based industries which lowers prices in real terms in addition to the near-saturation consumption levels;
- emergence of cheaper imports of goods via freer trade and the greater economies of scale of emerging nations (e.g. China in the 21st century);
- emerging innovation, productivity growth and lower real prices of services that help accelerate consumption growth of traditional and new services;
- government responses to debate about user-pays versus subsidised or government-provided services in the community, and the tax implications of such outcomes.

Perhaps the *Intergenerational Report* of 2001–02 made its greatest contribution in helping the community debate the issue of user-pays versus inexorable higher taxes for rising consumption pressures, most particularly health and ageing.

#### **Endnote**

1 Generations: (William Morrow), 1991

# 10 Australia's ageing population: Implications for saving and retirement income

Vince Fitzgerald

## 1 Introduction

### Overview

The large 'baby boom' cohort will pass out of the working age range into retirement over the next few decades. One of the major economic consequences will be a substantial decline in the proportion of the population working and deriving labour income. The effects on workforce growth, earned incomes and the income tax base will be quite marked.

If burdens on the future working age population to support the aged—felt either through taxes or through informal transfers between generations within families—are not to rise unduly, a greater proportion of national income will need to be drawn from accumulated savings, i.e. from investments, primarily in business capital.

Building up an adequate savings pool will clearly require increased saving (i.e. diversion of income from consumption into saving, and hence investment) in the more immediate future.

From a macroeconomic perspective, it is of secondary importance whether increased savings are private or public. However, that mix will have major implications for individual Australians, particularly for the retired. The higher the proportion of *private* savings in the mix, the greater will be their options for how they spend their retirement—how actively and with what choices in their lives. Arguably also, if we over-rely on increased *public* saving to pay for future public services, there is a risk that along the way, through the political process, other needs may at times pre-empt those resources.

This chapter examines implications of the ageing of the Australian population for saving and retirement incomes, including:

- the increases in saving required to meet increased future needs associated with ageing—including retirement income, health and aged care;
- Australia's actual recent performance on saving;
- the adequacy of that saving performance having regard to the future needs associated with ageing;
- changes in saving behaviour and in activities positively related to saving—most importantly, participation in work until later in life—that we may expect to see as the baby boom cohort approaches and progressively moves into retirement; and
- what policy responses, and responses by others (such as business and employee organisations), appear to be required.

Building up an adequate savings pool will clearly require increased saving. From a macroeconomic perspective, it is of secondary importance whether increased savings are private or public. However, that mix will have major implications for individual Australians.

## 2 Ageing-related requirements for increased saving

### Retirement income provision

The facts about Australia's demographic outlook are increasingly well known and need not be revisited in detail here. In brief, according to the standard Australian Bureau of Statistics (ABS) mid-range population projection, the ratio of numbers of people aged 65 and over to the numbers aged 15–64 (the aged dependency ratio)



will rise from approximately 18 per cent now to 44 per cent in 2051, and will be close to the latter figure over the decade of the 2040s, i.e. will rise by a factor of about 2.5.

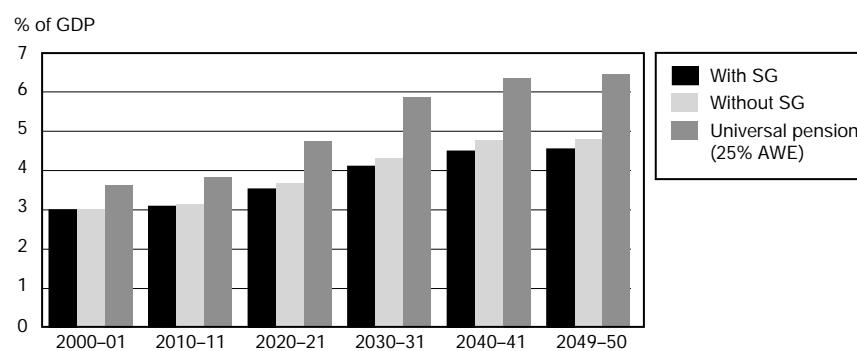
Compared to now, there will be much larger numbers of older people who are not deriving labour income (i.e. who are retired). Their needs for goods and services must be able to be met without imposing excessive taxes on younger Australians, and there will need to be sufficient accumulated savings to achieve that.

Australia's system of retirement income provision relies on a combination of a taxpayer-funded age pension, which is tightly means-tested, and superannuation accumulated under the *Superannuation Guarantee* system, which requires that employers make contributions of at least 9 per cent of salary for all employees.<sup>1</sup> Also, most Australians retire with at least some non-superannuation financial savings and non-financial wealth, particularly owner-occupied dwellings.

#### The age pension

The fact that retirement income provision in Australia is increasingly funded means that paying for the age pension, viewed in isolation, does not pose a major problem for future budgets. As Figure 10.1 shows, the combination of substantial coverage of the workforce by occupational superannuation before compulsory superannuation was introduced, plus the extension of coverage through the Superannuation Guarantee, have reduced the projected increased cost of the age pension over future decades, relative to now (in percentage of GDP terms) to somewhere in the order of 1.25 to 1.5 per cent of GDP.

Figure 10.1: Projected cost of the age pension (per cent of GDP)



Note: Age plus Veteran Pensions.

Source: Retirement Income Modelling Unit

The age pension in Australia provides (for a single person) an income of just over one-quarter of average weekly earnings; just enough (at least for pensioners who own their own homes) for a basic standard of living, but well below that which most would have enjoyed when working. The relationship between retirement income and income in later working life is termed the *replacement ratio*. In most OECD countries the established retirement income arrangements produce relatively high rates of replacement—in most cases well over half (see below)—and Australians want that too. Clearly our age pension on its own will not meet those aspirations.

### **OECD benchmarks for income replacement**

In 2001 the OECD undertook a study of financial resources and retirement in nine OECD countries, not including Australia but including major countries we like to compare ourselves with—the United States, United Kingdom, Canada, Japan and the larger European countries.<sup>2</sup> The study found that, despite great differences in retirement systems among the countries, the systems on average produced disposable incomes in retirement of around 70–80 per cent of incomes of comparable groups in late working life.

Retired people typically have lower expenses, so 70–80 per cent disposable income replacement implies a higher percentage of replacement of spending power on personal needs, or of the ability to maintain a standard of living. That is, most OECD countries' retirement income systems, despite great structural differences, produce close to full maintenance of living standards in retirement.

There is good evidence that Australians' aspirations for their standards of living in retirement are no different to those in other advanced societies,<sup>3</sup> but current arrangements unchanged will *not* produce that result for most Australians.

### **Health and aged care needs**

Needs for savings relate not only to increased future needs for retirement income per se, but to the funding of services which will be increasingly required as the population ages, and which are currently funded by a combination of taxpayer funding and private contributions—notably health and aged care. It is well known that expenditure on healthcare tends to be concentrated in old age, implying that healthcare costs will rise significantly over coming decades on the basis of demography alone.

There is considerable debate about the importance of demography as a driver of healthcare costs, compared to other factors such as increased utilisation of services per capita by younger and older people, and the increasing cost of pharmaceuticals and other technology-intensive healthcare components. Those other factors have been more important than demography over recent years—indeed demography has not been an important driver of health costs over the past few decades. Essentially that is because the 'baby boom' cohort has been within the working age range over that time period.

Looking forward, however, the baby boomers will retire in increasing numbers over the current decade and the following one, and virtually all will have retired by around 2025. The cohort will then progress through older ages, moving into and through the 75+ age range (over which the use of health and aged care services approaches its maximum) over the decades of the 2020s, 2030s and 2040s.

In the projections of future budget costs presented in the *Intergenerational Report* (IGR),<sup>4</sup> increased costs of health and aged care services account for nearly all of the projected 5.3 per cent of GDP increase (to 2040–41) in demographically-driven Commonwealth spending.

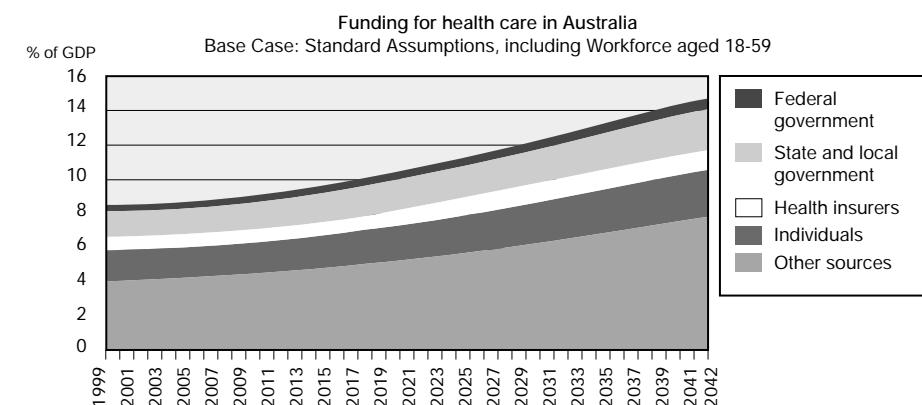
Modelling undertaken independently by the Allen Consulting Group and Stafford Mackenzie produces a lower increase, 3.5 per cent of GDP, in Commonwealth expenditure on health and aged care,<sup>5</sup> but extends the analysis to costs met by parties other than the Commonwealth. The base case results on standard

In the projections of future budget costs presented in the *Intergenerational Report*, increased costs of health and aged care services account for nearly all of the projected 5.3 per cent of GDP increase (to 2040–41) in demographically-driven Commonwealth spending.



assumptions about the drivers of future GDP growth are presented in Figure 10.2, showing the breakdown by source of funding. Projected increases in costs borne by all others are smaller but comparable—around 2.5 per cent of GDP compared with the Commonwealth's 3.5 per cent.

**Figure 10.2: Future health and aged care costs by source of funding**



Source: V.W. Fitzgerald and W. Haebich, *The Future Costs of Health and Aged Care in Australia*, Paper presented to Health Reform Discussion Group Forum, Melbourne, 2002.

Even in a more optimistic scenario for future GDP growth, based on extended participation in work at older ages, increased health costs would still rise from under 9 per cent to well over 13 per cent of GDP (compared with 14.7 per cent in the base case) by the early 2040s, i.e. at least 4 per cent of GDP more than now—about equal to the revenue from the GST.

One implication is clear: a substantial part of the funding for the increased need for public services will have to come from previously accumulated savings if large increases in taxes on younger Australians are to be avoided.

The following section examines whether Australians are saving enough now or are likely to choose to save sufficiently more.

### 3 Australians' recent saving performance

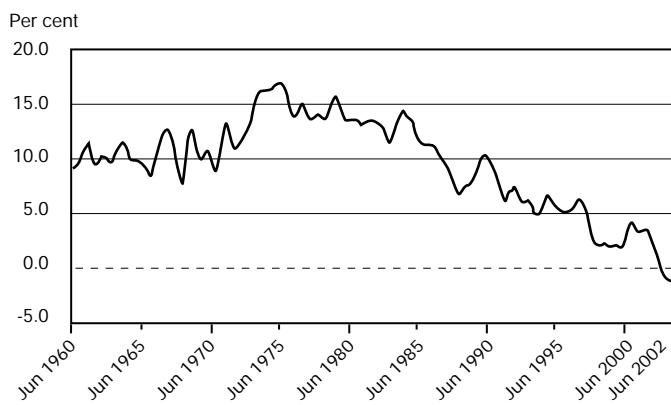
#### Household saving

Saving by Australian households has continued to plumb new lows in the early years of the new century. Over the last financial year, 2002–03, pending any significant revision of the Australian National Accounts, the household saving ratio averaged negative 1 per cent of disposable income during the December, March and June quarters, after being barely above zero in the September quarter. As can be seen in Figure 10.3, Australia's household saving ratio has declined steadily since the peak in the mid-1970s of over 15 per cent of disposable income.

The household saving ratio comprehends compulsory superannuation contributions, implying that while employed Australians are having 9 per cent employer contributions made on their behalf, they are drawing funds from other savings or acquiring debt to allow them to spend on consumption at levels even above their disposable incomes.

This can be viewed to some extent as a one-off adjustment to the increased availability of credit to households following financial deregulation, although this ‘spending spree’ cannot be sustained indefinitely, particularly with interest rates rising again. Demographic factors should, in theory, also dispose towards greater saving—with baby boomers accelerating their efforts to save as their horizon to retirement shortens.

**Figure 10.3: Household saving ratio**



Source: ABS, Australian National Accounts

Nevertheless, there is clearly a substantial gap between the rate of saving required to produce acceptable levels of income replacement in retirement and the level of saving now or in prospect.

#### 4 The retirement savings gap

There is also other evidence of disparities between Australians’ retirement income aspirations and what current levels of superannuation provision will actually achieve for retirees.

Certainly the gaps are large for current retirees. Table 10.1, drawn from the 1999 ABS survey *Retirement and Retirement Intentions*, shows that of those Australians intending to retire within the following ten years, the most common *expected* main source of income was an income stream funded by a superannuation lump sum—44 per cent of respondents in the survey expected that would be their mainstay. Only 18 per cent expected to be reliant on the aged pension as their main source of retirement income.

However, according to the same ABS survey, only about one-quarter of actual retirees were in a position to draw their main income source from superannuation, and fully two-thirds were in receipt of a full-rate age pension as their main source of income.

**Table 10.1: Main source of income at retirement as expected by pre-retirees**

Income source	%
Pension/annuity purchased with superannuation payment	43.9
Age or service pensions	18.0



Business, property, investments	11.2
Other/don't know	11.2
Part-time work	5.6
Savings, sale of assets	3.2
Pension/annuity purchased with money other than superannuation payment	1.7
Disability support or sickness allowance	1.7
Unemployment benefits	1.4
Someone else's income	1.4
Accumulated leave/compensation	0.5
Special benefit, e.g. carer's	0.1

Source ABS, *Retirement and Retirement Intentions*, Catalogue No. 6238.0, November 1997.

Only in the most favourable of circumstances will people relying solely on the 9 per cent Superannuation Guarantee enjoy in retirement a standard of living close to what they enjoyed while working.

#### Deficiency of superannuation provision

A recent NATSEM report<sup>6</sup> concluded that only in the most favourable of circumstances will people relying solely on the 9 per cent Superannuation Guarantee enjoy in retirement a standard of living close to what they enjoyed while working. To achieve about that standard of living in retirement a person on an income (while working) broadly around the average would need to:

- work on until age 65, spending 40 years in the workforce—an unusually long career by current standards;
- achieve a minimum return on their superannuation funds after expenses of 5.5 per cent per annum in real terms; and
- take their superannuation benefit evenly divided between lump sum and a pension.

As the authors of the study observe, all three of those provisos represent a 'best case'. Among the very many Australians who came into superannuation only in the past 15 years or so, while in mid-career, most will clearly not achieve such an outcome. Even those who are starting their working careers now (with the 9 per cent rate fully phased in) may not achieve an adequate retirement income. Only a minority now spend even 35 years in the workforce, males on average retiring at around age 58. Careers of 30–35 years are more common, both for males and for the increasing numbers of females who have (relatively) unbroken careers. Obviously those many women who take time out for parenting will have significantly less time in full-time work.

#### How big is the retirement saving gap?

A recent study commissioned by the Investment and Financial Services Association (IFSA)<sup>7</sup> looked at what superannuation savings would be required to fund an income stream of 62.5 per cent of gross working age earnings from age 65 onwards in retirement. This figure of 62.5 per cent is the middle of the range of 60–65 per cent *gross* income replacement suggested by the Senate Select Committee on Superannuation and Financial Services, which in a recent report suggested that this range would correspond to 75–80 per cent *net* disposable income replacement and represented an appropriate target for retirement income policy.

The IFSA study took into account both currently accumulated savings in superannuation funds (of almost \$550 billion now)<sup>8</sup> and the superannuation benefits of government employees in unfunded schemes. The results were expressed as lump sums in today's dollars, while the authors stressed that these lump sums were not

amounts that were required immediately but in essence were the present value of additional savings to be accumulated over the medium to long term to fund the posited income requirement, for the current workforce. The calculations take a scenario of continuing contributions at the current rates as the base against which the gap is calculated. The calculated gap on that basis is as follows (Table 10.2).

**Table 10.2: Superannuation savings gap**

	\$ billion
Males	198
Females	548
Total	746

Source: Rice Walker Actuaries, Report to IFSA, 2003.

If the future additional savings, say over the next 20 years, that this gap represents are assumed to be a flow rising in line with GDP, then the aggregate sum (\$746 billion) translates into annual additional savings in the broad order of 5–7 per cent of GDP.

That level of additional saving would increase gross national saving (presently just over 19 per cent of GDP) to about 25 per cent of GDP. That level was routinely achieved in past decades, up to the 1970s, before the decline over the past three decades. Nevertheless, it is clearly a daunting challenge to contemplate lifting savings by such amounts in the current economic and social environment.

#### The gap translated to additional superannuation contributions

Based on the modelling presented in the statement published in 2001 by a group of experts including myself, dubbed the 'Retirement Futures Forum', Table 10.3 shows the required rate of contribution for a person on a final salary of around average weekly earnings, depending on the number of years of work. The contributions are those calculated to attain gross income replacement at the minimum of the Senate Committee's range, i.e. at around 60 per cent gross income replacement, corresponding to disposable income replacement of around 75 per cent (after allowing for a part age pension and tax).

Among the very many Australians who came into superannuation only in the past 15 years or so, while in mid-career, most will clearly not achieve an adequate retirement income. Even those who are starting their working careers now (with the 9 per cent rate fully phased in) may not achieve such an outcome.

**Table 10.3: Employer contributions (incl. 9 per cent SG) for person on AWE to achieve 75–80 per cent disposable income replacement<sup>9</sup>**

	Years of work		
	40	35	30
Contribution rate	12%	14%	17%

Table 10.4 shows the additional contributions needed to achieve the same approximate level of disposable income replacement at two-thirds and 1.5 times average weekly earnings.

**Table 10.4: Employer contributions (incl. 9 per cent SG) over 35 years for person on AWE to achieve 75–80 per cent disposable income replacement**

	Final income (% of AWE)		
	67	100	150
Contribution rate	9	14	15



Together, the two tables suggest that for lower-income working people there is not a very large gap in retirement provision. But this is not so for people on middle incomes. They would need to contribute, or have contributed for them, an additional 5–6 per cent of salary if they are to achieve the desired retirement income result over a 35-year working career.

The issue is heightened in significance when some additional factors are taken into account. Longevity is steadily increasing and advances in healthcare already in train and expected to continue, allowing people to live both more actively and longer. These factors clearly widen the savings gap, increasing income needs through both a longer period of requirement and the higher spending of a more active lifestyle.

The gap will pose both policy and political issues, with younger future taxpayers not likely to quietly accept high tax burdens to fund the needs of people who could reasonably have been expected to provide more for themselves before retiring.

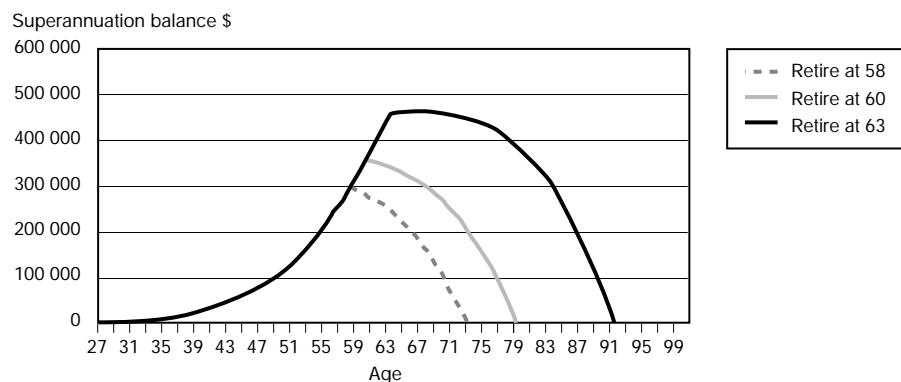
## 5. Will the savings gap Close?

### Working and saving longer

Later retirement could help close the gap—extending the period of adding to accumulated savings via contributions, while also building up interest and other returns. An additional effect, of course, would be to shorten the post-retirement period of dependency on savings.

Consider the case of an employee who would otherwise have retired from full-time work at age 58 but instead is given the option of continuing full-time for one year and then going to permanent half-time status from age 59 onwards. At that stage, suppose that the employee ceases making salary sacrifice contributions to superannuation, bringing pre-tax pay to about 60 per cent of former full-time pay, which is also the level aimed for in retirement. The employee is assumed to have an income around the average over his working life, but rising to somewhat above it, say \$50 000 p.a. by late in working life.

**Figure 10.4: Benefits of delaying retirement—staying on half-time**



Note: The lines show the build-up and draw-down of a hypothetical person's superannuation balances under three assumptions about age of retirement. See text for details.

Source: National Australia Bank and ACG Analysis.

Figure 10.4 shows that the subsequent adequacy of the person's superannuation savings is very considerably improved, indeed by not much less than if he had continued working full-time. If he continues part-time and then retires at age 60, his superannuation savings will last until he turns 78, only a year less than if he had continued with full-time work. But if he continues to work part-time until age 63, his superannuation will last until he turns 90, giving him 18 years more of availability of savings for retirement income for just five extra years of work, four being half-time!

It is fairly widely understood now that the majority of males who retire early do so involuntarily—either through retrenchment or for other involuntary reasons such as disability or illness which prevent them from continuing to work, even though they would like to. While many mature-age people would like to have some continued involvement in work, however, they would also like to be able to enjoy increased leisure as well.

If having the option to continue to work for a few more years would be of such benefit to so many people in both financial and lifestyle terms, the focus shifts to employers. Why do employers appear to be biased in their recruiting towards younger workers, and to 'push out' older workers prematurely?

This is not true everywhere in the economy, fortunately. In the professions there are increasingly widespread examples of skilled people changing their roles and the proportion of their week or year spent in work as they move from their 50s through their 60s and into their 70s. For example, an article titled 'The Retirement Myth' by D. Macken in the *Australian Financial Review* Magazine a few years ago<sup>10</sup> gave examples from the law, management consulting, financial planning and education and educational consulting. In each case the real-life subject of the example had changed to a part-time and flexible working arrangement—often with a different role and less executive responsibility than he or she had had previously.

The challenge for the Australian community is to extend the same option across the broad middle of the workforce. This is not merely a matter of improving the work/leisure choices and the retirement income provision of individuals. It is also immensely important in both macroeconomic and fiscal terms. Figure 10.5 shows the outlook for future GDP if current retirement practices continue, plus two illustrative scenarios in which the typical retirement age phases up to 65 or 67, at one year per five years. (In each case, productivity per employed person is assumed to increase at 1.5 per cent per annum.)

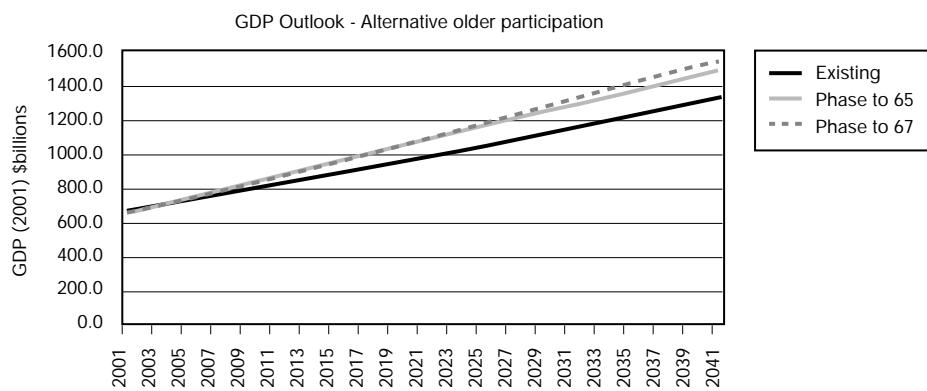
The figure shows that by 2041, the end year of the *Intergenerational Report* projections, GDP is one-eighth and one-sixth higher, respectively, than it would be if there were no increase in mature-age participation in work.

The substantially higher levels of GDP obviously imply higher levels of real resources able to be gathered as public revenues and used to pay for public services. Also, the depicted extended participation in work implies increased gross saving and reduced dissaving, just as displayed for an individual in Figure 10.4. There are few more powerful ways for the savings gap to be closed than by coupling efforts to promote increased saving with efforts to extend older participation in work.

There are increasingly widespread examples of skilled people changing their roles and the proportion of their week or year spent in work as they move from their 50s through their 60s and into their 70s. .... The challenge for the Australian community is to extend the same option across the broad middle of the workforce.



Figure 10.5: Future GDP for alternative participation/retirement scenarios



Source: The Allen Consulting Group, Illustrative projections

#### Economic necessity

Why do employers display negative attitudes to retaining or hiring those of mature age, in the face of much evidence that older workers are still very productive, albeit in different ways to the young? One powerful factor that will gradually increase its influence over the next two to three decades is the prospect of increasing scarcity of younger workers. Compared to average labour market growth in the late 1990s of between 150 000 and 200 000 *per year*, standard economic forecasts, such as those of Access Economics, forecast labour force growth of only 100–150 000 over the whole *decade* of the 2020s. In fact, many companies are already beginning to shift their hiring focus to retraining and retaining workers over 40. Examples include the following:

- Hertz Car Rentals have for some years had a focus on ‘45+ hands’ to bring experience to their workforce and transfer experience and perspectives to younger staff; and
- a number of large-scale employers, e.g. Australia Post, have begun to implement career planning and retraining strategies for older workers, especially in fast changing areas of work such as IT.

Thus economic necessity seems very likely to be a strong influence, on the supply side, in making available on a much more widespread basis the option for older workers to continue in work, ideally on a part-time and/or flexible basis. The strong evidence of much earlier retirement being involuntary suggests that there will be no shortage of recruits. What is not so clear is *how far* economic necessity will work on the behaviour of Australians *through the middle of their working careers*, particularly in their *saving* behaviour.

Experience gives little comfort on this score—particularly the experience of the past five to ten years, over which many Australians seem to have abandoned thrift and embraced debt as kind of magic pudding source of finance for levels of consumption exceeding their disposable incomes. Such experience suggests that only *compulsion* is likely to be effective in raising levels of savings significantly for the great bulk of people.<sup>11</sup>

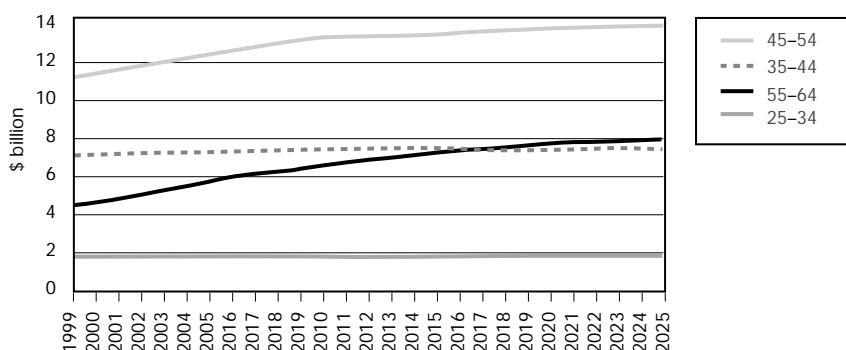
One positive factor that economic necessity will no doubt bring more into play is earlier and more flexible access to the wealth locked up in Australians' dwellings. However, this will require significant changes in attitudes on the part of retirees and in lending philosophies and structures on the part of financial institutions. Government too may have a role to play in creating a conducive environment.

#### Some direct influences on saving

As noted earlier, it is not possible for households to continue indefinitely to spend on consumption more than their disposable incomes, even if they have considerable assets. Many households have an effective income constraint within which they must fit their consumption spending *and* service their debt, both mortgage debt and revolving credit. Financial institutions' lending limits will preclude the option of simply allowing interest on debt to compound, so that rising debt service must eventually force restriction of consumption spending, i.e. increased saving, especially as the interest rate cycle turns up.

Further ahead, the underlying demographic influence will increase, as the baby boomers are now moving from mid working life into later working life—not yet into retirement. The age groups that are currently increasing most in numbers are the 45–54 age group (the highest saving age group of all) and the 55–64 age group. If rough estimates of saving propensity are overlaid on the projected numbers of people in each age cohort, the implied outlook, as presented in Figure 10.6, is for slowly rising saving rates.

**Figure 10.6: Projected saving by age group (\$ billions p.a.)**



Source: Author's analysis and ABS Cat. No.3222.1, *Population Projections*.

## 6 Policy responses

The preceding discussion suggests that there are at least some 'natural' forces at work that will tend to increase saving, but on their own they may not produce sufficiently increased saving. There is a need for a strategy which couples responses to the twin issues of raising both mature-age participation in work and household saving, particularly through superannuation.

There are five major elements that should be encompassed within such a strategy:

- 1 Promoting *extended participation* in work at older ages.
- 2 Directly addressing the issue of *inadequacy of superannuation* provision by phasing in an additional tranche of compulsory superannuation contribution of at least 3 per cent of salaries, preferably as employee contributions.



Shifting tax on superannuation from the contribution stage back to the benefit stage would greatly improve incentives and make strong long-term fiscal sense as well.

- 3 Improving *incentives for saving*, both through superannuation and in other forms. Co-contributions and other matched saving schemes relying on incentives are well justified when targeted at lower income groups for whom the alternative is greater future reliance on welfare payments. For the community more generally, the focus will be the main long-term savings vehicle, superannuation. Shifting tax from the contribution stage back to the benefit stage would greatly improve incentives and make strong long-term fiscal sense as well.
- 4 Promoting the *unlocking of housing wealth*. At present, reverse mortgage products and other products for drawing upon the equity in dwellings post-retirement are crude and restrictive compared to the products available overseas, e.g. in the United Kingdom. What is needed are initiatives to promote increased diversity of product, higher loan valuation ratios and flexible combinations with risk management products such as longevity insurance. Government can help, but much of the initiative here must come from financial institutions.
- 5 Last, but at least equally important, it is critical that *the balance sheet of Australian governments*, particularly the Commonwealth, is grown substantially over the medium to long term so that the resources thereby built up can supplement government's ability to fund ageing-related needs from future taxation.

A few elaborating comments are made below on each of these elements in turn.

#### Promoting extended involvement in work

It is pleasing to observe that extended workforce involvement has recently been taken up as a major issue by both leading business organisations and government. These are indeed the two institutions in the Australian community best placed to promote the rethinking of attitudes—particularly among employers—that have restricted the option to continue to work on a part-time and/or flexible basis at older ages. Government can, for example:

- promote best practice and celebrate and promulgate good examples of employers utilising retraining and new roles for older workers, particularly cases of win-win for both employers and employees.
- review all rules, restrictions and barriers to extended workforce involvement at older ages, e.g.
  - classifying people in black and white terms such as 'retired' or 'non-retired', for superannuation, social security or other purposes; or
  - impeding people from phasing out of full-time work, for example, prohibitions on part-time employment in some industrial legislation or awards.
- reform the age pension system to accommodate the model of partial involvement in work and partial retirement, without the imposition of excessive effective marginal tax rates; and
- work with service sectors such as health and aged care to expand the involvement of mature aged people in their workforces—having regard to both increasing availability of workers in those age groups and the people skills, judgement and experience that they are likely to bring.

### Lifting superannuation adequacy

After much debate over the last five to ten years, there is a widespread consensus that the adequacy of Australians' retirement provision cannot be significantly improved other than by some combination of measures including lifting the rate of compulsory contribution. There is equally widespread consensus that employees be required to make the *additional superannuation contributions*, alongside their employer, of at least 3 per cent of income.

The *co-contribution scheme* for which the government has now secured legislative passage is a positive advance in terms of improving the provision for retirement for many low to middle-income earners.

The main option open for improving incentives for the middle income group in the community is to reduce the up-front taxation on superannuation contributions, which presents a powerful disincentive to save, being levied at the point of making the decision to save or not. It is widely agreed that a far better model for the taxation of superannuation (from the point of view of long-term fiscal capacity, as well as in terms of immediate incentive) would be to tax at the benefit stage rather than at the contribution stage. This could be phased in over a period. It is also a good model for encouraging non-superannuation saving, e.g. for mid-life cycle purposes.

There are other ways in which the incentive to save via superannuation could be improved—most obviously by reducing complexity, e.g. by phasing out the grandfathering which is a major cause of it. Practical ways to do this have been worked out.

### Unlocking housing wealth

Although advances have been made in products allowing people to access their housing wealth in old age—while not being obliged to move out earlier than they would otherwise choose and leaving at least a minimum proportion of the house value for a bequest—these products are still at an early stage of development in Australia. They are significantly deficient in a number of respects compared to leading edge products that have developed overseas in countries such as the United Kingdom.

- For example, leading providers of these products impose an absolute dollar limit on drawings which can be as little as \$100 000—even if this represents a very small proportion of the valuation of the dwelling in question (as it would in, say, Sydney or Melbourne).
- In addition, typical loan-to-valuation ratios for these products are very low—acting as a supplementary restriction in addition to the restriction on absolute loan value. Again, this makes it hardly worthwhile for many, given that interest rates tend to be higher than other market interest rates, and considerable complexities are faced by the borrower.

What is needed is some stimulus to promote products that meet the requirements of lenders, including by:

- developing arrangements for them to transfer risks (such as longevity risk) to other institutions better able to manage those risks;

There is a widespread consensus that the adequacy of Australians' retirement provision cannot be significantly improved, other than by some combination of measures including lifting the rate of compulsory contribution.



- to understand the requirements of retirees in contemplating such funding; and
- education campaigns to assist retirees to understand the options and to make appropriate choices.

#### **Increasing public net worth**

Australia now has extraordinarily low public debt despite the availability of many high-yielding infrastructure projects and other opportunities for investment in assets of a type that require government involvement in the investment. With a rethinking of policy towards such asset accumulation, it would be possible to significantly build up both the public balance sheet and net worth and—through the economic benefits that such infrastructure would provide—lift governments' own revenue flows in the future.

#### **Conclusion**

Without some combination of the above types of actions, we are drifting towards a future in which many older Australians will be disappointed and resentful about the restricted lifestyle options open to them, and younger Australians will be equally resentful about high taxes and fiscal priorities biased to the needs of the old.

That is not an inevitable future, however. There are actions open to us, and time for them to have significant effects. But time is the scarcest resource of all. No more of it should be wasted before effective steps are initiated.

#### **Endnotes**

- 1 With an exemption for those on low rates of pay.
- 2 *Ageing and Income: Financial Resources and Retirement in 9 OECD Countries*, OECD, 2001.
- 3 See, for example, research for ASFA by ANOP Research Services, cited in a paper by Phillipa Smith to the FPA Conference, November 2001.
- 4 Circulated by the Federal Treasurer Peter Costello, as Budget Paper No. 5, 2002–03 Budget Papers.
- 5 The main difference between our results and those presented in the IGR is that the IGR projects that very high rates of increase in pharmaceutical prices will continue unabated over four decades, whereas we assume that there will be some moderation of recently seen rates of increase.
- 6 Commissioned and published in 2002 by the accounting body CPA Australia, entitled *Superannuation—the Right Balance?*
- 7 The study examined the size of the retirement savings shortfall in aggregate and was published in August 2003 by Rice Walker Actuaries.
- 8 At September 2003: a little less at the time of the study.
- 9 Based on modelling presented in a statement published by a group of experts, the 'Retirement Futures Forum' early last year. The statement was released by D. Chessell, V. Fitzgerald, B. Fraser, S. Grant, D. Knox, M. Robertson, S. Ryan, I. Silk, P. Smith and G. Weaven, on 19 March 2001 (via the office of Industry Fund Services).
- 10 September 1999.
- 11 This is not to say that incentives do not work, so long as they are powerful enough. There is considerable evidence that very strong incentives, such as dollar for dollar matching of savings, can be very effective in encouraging people to save more – even at low income levels – at which levels there is a good public policy case for such schemes. However, it is not practical, nor is there a compelling case, for extending such costly schemes to people well up the income scale.

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