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Addressing extreme disadvantage through investment in capability development

Keynote Address to the Australian Institute of Health and Welfare Conference on 'Australia's Welfare 2007', Canberra, 6 December 2007

Ken Henry, Secretary to the Treasury¹

Indigenous Australians are the most disadvantaged of our citizens. In addressing this blight on our society, it is necessary to take a broader view of wellbeing than just income inequalities and consider opportunities and capabilities. Improved education and health will be necessary for Indigenous Australians to have the life choices available to other Australians.

Increasing wellbeing will require a reduced role for passive forms of welfare, which do little to encourage Indigenous Australians to invest in education and to participate in employment. Improving education requires seven development platforms: a secure environment, action at an early age, a conducive home environment, ready access to health care, appropriate welfare incentives, realistic job prospects and local engagement in policy development. To achieve these outcomes, program delivery must be targeted to local needs, integrated and delivered in a cost-effective and non-threatening way.

1 I would like to thank a number of my Treasury colleagues, especially Meredith Baker and Peter Robinson, for their help in the drafting of this paper.

Introduction

Foreshadowing the content of my speech this afternoon, I would like to begin by acknowledging the traditional owners of the country on which we meet— and I pay my respect to their elders and ancestors.

Thank you to the Australian Institute of Health and Welfare (AIHW), and to Dr Penny Allbon in particular, for organising this conference and inviting me to speak. The AIHW's report *Australia's welfare 2007* is the eighth in a long-standing biennial series published by the AIHW but is the first under the stewardship of Dr Allbon.

Reflecting the conference theme 'diversity and disadvantage', I want to take the opportunity today to talk to you about how policy advisers might conceptualise disadvantage and the means of addressing it. In particular, today I would like to look at the situation of Indigenous people because, without doubt, this is the group of Australians who have experienced the highest levels of disadvantage, however measured, over the longest period of time.

I note that to commemorate the 40-year anniversary of the 1967 referendum, each chapter in *Australia's welfare 2007* provides Indigenous statistics, where available, which illustrate the depth of disadvantage. I am sure these statistics have been highlighted in your discussions throughout the course of today, so I will not repeat them here.

Sharing prosperity and wellbeing

If I were to identify two fundamental roles for government they would be these; first, to provide sustainable macroeconomic growth, with low and stable inflation and unemployment, through sound macroeconomic frameworks and the maintenance of well-functioning markets; and second, to ensure that all Australians share in the nation's prosperity.

From the Treasury perspective, there is far more to sharing prosperity than simply ensuring that income is redistributed in a way that avoids inequality widening over time beyond some arbitrary level. To our minds, the distributional goals of government must relate to a much broader concept of prosperity, or wellbeing; one that goes well beyond standard inequality measures, or poverty line constructs, based on crude statistical measures of dispersion around mean or median income. These traditional income-based measures of poverty and disadvantage are just too simplistic for the task. The dispersion of money income is of consequence, to be sure, but it is not enough.

Some of you would know that I am generally quite favourably disposed to Amartya Sen's concept of disadvantage as *capability deprivation*.² Sen (1999) emphasises what he refers to as 'substantive freedoms' — including political and civil liberty, social inclusion, literacy and economic security — that, of themselves, form 'constituent components' of development. Among the capabilities of importance to poverty analysis, Sen (1983) identifies one subset including such things as the capability 'to meet nutritional requirements, to escape avoidable disease, to be sheltered, to be clothed, to be able to travel, and to be educated'. Poverty lines, defined in income terms for example, that captured these capabilities would not vary much from one community to another and would not, for the same reason, vary much over time. In other words, they might provide the basis for an absolute poverty line measure.

But Sen also notes that a second subset of other relevant capabilities of considerable interest to the classical economists — such as the capability to live without shame, the capability to participate in the activities of the community, and the capability of enjoying self-respect — provides a basis for relative poverty comparisons.

Of course, including all of these elements in an all-encompassing measure of poverty (or disadvantage) — built on a person's endowment of capabilities, rather than their command over commodities — would be quite a challenge. It's not surprising that, despite an increasing interest in such a broad measure of disadvantage, no universally accepted measure has been developed. There are, however, many examples of broad conceptualisations of wellbeing and disadvantage being used for various analytical purposes.

For example, we in the Treasury have developed a wellbeing framework as a descriptive tool to provide context for public policy advice; Treasury (2004). It is built on elements of Sen's capabilities framework within the context of a generalised-utilitarian framework. This quite broad conceptual framework anchors the objective and thorough analysis of policy options that is central to the Treasury's role.

Another pertinent example is the material contained in the final chapter of AIHW's *Australia's welfare 2007*. While acknowledging that welfare, in its broadest sense, refers to the wellbeing of people and society, AIHW's primary focus in its *Australia's welfare* series is concerned with the system of welfare services and assistance (including specific targeted cash transfers) now operating in Australia, and the people who receive those services and assistance. To give context to the discussion on specific welfare services sectors, summary indicators of wellbeing have been added in recent

2 Henry and O'Brien (2003).

volumes of the series.³ The conceptual framework underpinning these indicators has three components: healthy living; autonomy and participation; and social cohesion.

The Australian Bureau of Statistics (ABS) has been moving along a similar path, especially with their 2001 publication *Measuring wellbeing: Frameworks for social statistics* and the series entitled *Measuring Australia's progress*.

And several social policy analysts have also expanded the traditional focus on poverty measurement to develop indicators of deprivation and social exclusion.⁴

Some quite recent work has served to remind us that most measures of disadvantage that are based either at a point in time or on a time-series of cross-sectional data suffer from not being capable of revealing who remains in a situation of disadvantage over time. Nor, generally speaking, do these measures identify the factors that determine whether somebody exits from, or remains in, a position of disadvantage. Increasingly, longitudinal (or panel) data are being used to examine the extent of intra-generational mobility out of poverty.

Significantly, the findings from the first four waves of the Household, Income and Labour Dynamics in Australia (HILDA) survey show that, despite there being consistent levels of income poverty across all households in each year, observing the same households over time shows that income poverty persisted in only a small percentage of households.⁵ These findings are consistent with results from other high-income countries: the majority of households enter income poverty only temporarily and are able to improve their standard of living over time, while a smaller number of households are at risk of long-term income poverty. As more HILDA data become available we will be able to develop a clearer picture of the determinants of those at risk of long-term poverty, as well as the effects on those who experience shorter durations of poverty.

In addition, inter-generational analyses on the transmission of disadvantage, measured in a number of dimensions, are also being undertaken.⁶ The general theme that appears to be emerging from these types of studies is that caution is warranted before assuming that income transfers might be an effective means of breaking the generational cycle of disadvantage. Instead, the evidence points toward the need to design income support programs and policies in a way that encourages, or at least does not discourage, active labour market participation; and, in addition, to the

3 See chapter 8 in the volume.

4 See, for example, Daly (2006) and Saunders and Adelman (2006).

5 See Buddelmey and Verick (2007), which defines a household as being in poverty if the equivalised household income is below 50 per cent of the median.

6 See for example, Corak (2006) and d'Addio (2007).

importance of a human capital investment strategy, broadly defined to include not only education but also physical and mental health and social development. The focus on human capital development is particularly important for disadvantaged children early in life — a point that justifies a public policy focus on equality of access to capability development opportunities.

Miles Corak has argued, persuasively, that ‘the capacity of children to become self-sufficient and successful adults is compromised not only by monetary poverty, but by poverty of experience, influence and expectation’.⁷ In other words, there are important, though often subtle, non-monetary factors that determine the outcomes of children within families as well as, arguably, the outcomes of adults within communities. These non-monetary factors include the influence of dysfunctional cultural norms; the demoralising impact of passive welfare and labour market exclusion; and the influence on the cognitive development of children of maternal smoking, alcohol abuse and poor nutrition during pregnancy.⁸

Several of the multiple causes of disadvantage draw policy makers into difficult areas of social and labour market policy.

Nobody imagines that social policy interventions should seek equality of outcomes. That is just as well, because social policy couldn’t hope to have such potency. No matter how expansive, and expensive, the policy interventions, we will always observe a considerable dispersion in the ‘wellbeing’ outcomes for individuals, both at a point in time and over time, including across generations. Individuals may be provided with true equality of access to materially rewarding opportunities but might choose not to access those opportunities and to live their lives in what would be considered by others in society as a condition of relative poverty, at least in terms of income.⁹ In my (normative) judgment, policy makers shouldn’t be too concerned by that. Instead, policy makers should be concerned with opportunities. Specifically, they should be concerned to ensure that individuals are endowed with capabilities that allow them the *freedom* to choose to live their lives in ways that have real meaning and real value.

I endorse strongly Amartya Sen’s view that people who are deprived of such capability endowments may be described as impoverished; as being in poverty.

7 Corak (2006, p 171).

8 See also Waldfogel (2006) and d’Addio (2007, chapter 2).

9 See Corak (2006) and d’Addio (2007) for some other reasons.

Addressing Indigenous disadvantage

Measuring the policy effort against that benchmark, Indigenous Australians are entitled to feel especially disadvantaged.

In June this year, in an address to the Cape York Policy Institute's Strong Foundations conference, I argued there were three key interdependent foundations to Indigenous disadvantage: poor economic and social incentives; the underdevelopment of human capital and capability in general; and an absence of the effective engagement of Indigenous Australians in the design of policy frameworks that might improve those incentives and capabilities.¹⁰

In relation to poor economic and social incentives, I argued that perverse incentives — those that encourage undesirable behaviours — are having a negative impact on many Indigenous communities; reducing self-reliance, self-development, aspiration and responsibility, including — in some cases — the commitment to caring for families and communities. In particular, I noted the deleterious effect of the combined incentives in the welfare system, which have resulted in disengagement in some cases and, in many cases, a passive reliance on welfare payments; and which have also done little to encourage Indigenous Australians to invest in education and to participate in employment. And I noted also the resultant breakdown of foundational social norms in many Indigenous communities, as the effects of passive welfare have become entrenched.

Indigenous disadvantage is a regrettable example of income enhancement, in the form of combined welfare payments, not having led to material gains in wellbeing.

Not all welfare is passive. But some is. If we are to make progress, passive welfare, in all its forms, must be addressed.

While incentives are important, they will not be effective in the absence of the human capital — in particular, good health and education — that is needed to take advantage of positive incentives; and to place Indigenous Australians in a position of being able to opt for, indeed demand, the life choices open to non-Indigenous Australians. So a second key component of addressing Indigenous disadvantage involves human capital development.

In my Cape York Policy Institute speech I argued that the third major reason for continuing Indigenous disadvantage has been the limited engagement of, and opportunities for, Indigenous people to shape policies that affect their destiny. A considerable body of international literature suggests that Indigenous engagement in

¹⁰ Henry (2007).

policy development is key to achieving better results — in itself, it reduces the ‘passivity’ of solutions, creating ownership of both the problem and the solution. And it is fundamental to Indigenous self-esteem. Active participation in the decision-making that affects one’s community can be a powerful source of identity, even of pride.¹¹ And it is an obvious means of recognising inspirational role models. Indigenous engagement at the grass roots level has to become the norm.

For all who are engaged in Indigenous policy development, it is not a question of choosing which of these three foundations of disadvantage should be the focus — they must all be addressed, and at the same time.

And yet, as a practical matter, one has to start somewhere. Where should that be?

Today I want to float an idea that addresses specifically the second of these foundations: the underdevelopment of human capital and of capability in general. You will see that, even with that focus, we will quickly get into considerations affecting economic and social incentives and Indigenous engagement in policy development.

Human capital development and the key role of education

Human capital is a term economists talk about quite a bit. Essentially, it refers to the intangible knowledge-based assets people develop that help them become productive members of society. High levels of education and physical and mental health are the hallmarks of strong human capital.

Education can help transform social and economic opportunities, with particularly strong gains for those from disadvantaged backgrounds. People who are better educated are better placed to participate in the labour market and earn higher incomes. Higher levels of education are also associated with lower rates of incarceration and increased engagement in civic life. In short, education is the key to better life opportunities and choices.

As highlighted in chapter 8 (pp 373-4) of *Australia’s welfare 2007*, the proportion of Indigenous students meeting the benchmarks for reading, writing and numeracy in 2005 were significantly lower than the national rates, in each grade. Moreover, the gap between Indigenous and non-Indigenous students appears to have remained static between 2001 and 2005. The latest OECD Programme for International Student

11 The link between identity and behaviour has been explored by many researchers. In the present context, the work of Dr Michael Chandler of the University of British Columbia is especially relevant.

Addressing extreme disadvantage through investment in capability development

Assessment (PISA) survey results for 2006 confirm there has been virtually no change in Indigenous students' performance across a range of outcomes since 2000.¹²

Indigenous education is an important 'means' of securing individual and community development. It links so fundamentally to other aspects of community life that educational gains stand a very good chance of leading to improvements in other areas that are also hallmarks of disadvantage.

But, as Sen has suggested, education is not only an instrumental freedom — that is, a means to an end; it is also a substantive freedom — a constituent component of development. People who are educated have greater freedom to choose lives of real meaning and real value. Indigenous education is, therefore, important for its own sake; a valuable 'end' in itself. It should be seen as a key component of Indigenous development.

This dual role that is played by education warrants an explicit policy focus on a sustained increase in educational attainment by Indigenous Australians. And in this context, I note the Government has a number of specific targets it has set out to achieve for Indigenous people, including a halving of the gap in reading, writing and numeracy achievement within a decade.

But there is another reason for focussing on Indigenous education — a reason that is both strategic and pragmatic: it provides a clear focus for multiple interventions.

Australian public service leaders have given some thought to the value in approaching Indigenous development in precisely these terms.¹³ They have come to the view that enhanced Indigenous educational attainment is unlikely to be achieved without seven development platforms being in place.

First, and fundamentally, there must be basic protective security from violence for Indigenous parents and children. Incidentally, Amartya Sen also stresses that the removal of major sources of 'unfreedom' — and he specifically instances the lack of effective institutions to deal with crime and violence — are a fundamental pre-condition for development.

Second, there is strong international evidence, to which I referred earlier, that early childhood development interventions, coupled with parental support to develop appropriate at-home learning environments, provide a critical foundational base for

12 OECD (2007).

13 Secretaries Group on Indigenous Affairs, chaired by the Secretary of the Department of the Prime Minister and Cabinet, Dr Peter Shergold. The work was initiated and supported by the Treasury and the Department of Families, Community Services and Indigenous Affairs.

young children — especially those from disadvantaged backgrounds — from pre-birth to school.

Third, the home environment needs to be conducive to regular patterns of sleep and study, free from overcrowding and distraction.

Fourth, there needs to be ready access to suitable primary health service infrastructure. In Sen's terminology, the avoidance of deprivations like starvation and premature mortality are 'substantive' freedoms and constituent components of development. But they also play an instrumental role: healthier individuals are physically and mentally more energetic and robust and, as a result, more likely to be active in all areas of life. Healthier children, in particular, are more likely to attend school, and are better able to learn once they are there. Importantly, the instrumental relationship between education and health runs in both directions: better educated mothers are less likely to engage in behaviours that cause low birth weight, putting their babies at greater lifetime risk of a range of diseases, including type II diabetes.

Fifth, particularly in an environment where real jobs are not currently the norm, incentives in the welfare system cannot be allowed to work against the promotion of investment in human capital, particularly of children through the provision of safe and healthy living environments and their attendance at school. Nor can those incentives be allowed to work against the active participation of parents and other role models in communities.

Sixth, there must be a realistic prospect of an educated Indigenous person securing a real job, with the support of appropriate employment services. It is worth observing that almost three-quarters of Indigenous Australians live in cities and regional centres, the vast bulk of which have thriving labour markets. In other places, there is scope for modest and incremental steps towards developing opportunities based on retail and service activities in the local community and, in some places, much bolder steps that would harness genuine commercial opportunities in art, mining, agriculture and tourism, for example. In yet other places it is difficult to avoid confronting the need for mobility. Where remote locations simply cannot produce sufficient job opportunities for local people, there is no point in relying on miracles. A better strategy is to ensure that people have the opportunity to move to take up work if that is what they want to do.

Seventh, governance systems have to support the 'political freedom' and 'social opportunities' of local Indigenous people (both men and women) to be engaged in policy development.

These seven platforms necessary to support the goal of a sustained increase in educational attainment shouldn't surprise anyone; they dovetail quite closely with the

strategic areas for action and associated indicators contained in the well-known *Overcoming Indigenous Disadvantage* indicator framework.¹⁴

The first four platforms recognise the importance of tackling problems at source and of thinking in causal pathways; points that have been made eloquently, for many years now, by Professor Fiona Stanley.

I am emphasising here the instrumental role played by each of the seven platforms in supporting decent educational outcomes. But it is also the case that each of these platforms, in its own right, tackles an element of disadvantage that we see in many Indigenous communities. So a focus on education would mean addressing the many sources of Indigenous disadvantage. And, as I have noted on the way through, several of the platforms can be viewed as being constitutive components of development; that is, being of more than instrumental significance.

Targeting educational outcomes, therefore, means embracing a holistic Indigenous development strategy.

Policy strategies are one thing; their delivery, on the ground, is another. In recent years we've learned quite a lot about models of Indigenous program delivery. No doubt, we have a lot more to learn. However, I reckon we do know this much: that program delivery must be targeted to local needs, integrated and delivered in a cost-effective and non-threatening way. This is important for the proper functioning of government; but it is equally vital for those people for whom the programs exist — Indigenous people themselves. As policy makers and administrators, we understand this at a conceptual level. But we haven't been very good at allowing that understanding to affect the way in which we implement things. Critically, in our understandable focus on compliance and accountability we have a tendency to insist on paperwork of Himalayan grandeur. And to what end? I have witnessed first hand, in several Indigenous communities, how the mountains of red tape simply bury the limited administrative resources available at the local level.

Concluding remarks

The thought on which I would like to conclude — more by way of a question than an answer — is whether the framework I have outlined as an approach to Indigenous disadvantage has value when considering disadvantage more broadly in Australian society.

¹⁴ See Steering Committee for the Review of Government Service Provision (2007), especially figure 2.2.1 in chapter 2.

I suspect that it does.

Education and the seven platforms required to support it should be seen as capabilities that are critical to development; several of them in a constitutive way.

An individual deprived of these capabilities experiences poverty in a very real and meaningful sense. Certainly, we can say that such an individual is severely disadvantaged. And hopefully, we can agree that such severe disadvantage is unacceptable — whether it manifests itself in a remote Indigenous community, or on the streets of one of our major cities.

Disadvantage is more obvious in remote Australia where it can pervade entire Indigenous communities. In some remote communities, not one of the seven platforms exists. In the cities, if we look hard enough, we see pockets of disadvantage; several of the seven platforms may be mostly in place, with others less developed. There is disadvantage nonetheless.

I have argued here that while poverty assessments based on crude statistical measures of dispersion around mean or median levels of money income are not overly useful, especially because such measures lack a temporal dimension, poverty should, nevertheless, be conceptualised in terms of disadvantage; and, in particular, in terms of capability deprivation. Disadvantage and capability deprivation are concepts that have both absolute and relative meanings. I have argued that education should be accorded special status by policy makers concerned to build capability, and have outlined seven platforms of development that will need to be constructed to support that work. Some of those platforms will be susceptible to measurement; others not so. But whether they can ever be reduced to meaningful quantifiable indicators or not, policy makers cannot be permitted the view that the task of constructing these platforms is too great a challenge. The development of Australia depends upon it.

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Challenges confronting economic policy advisers

Address to the Curtin Public Policy Forum, Perth, 4 September 2007

Ken Henry, Secretary to the Treasury¹

Economic policy advisers must provide ministers with advice which is analytically sound, strategically focussed and above all else compelling. Strategic policy advice looks beyond short-term preoccupations, focussing instead on medium-term challenges and opportunities from a whole-of-economy perspective. The important economic issues about which today's policy advisers need to think include: the consequences of a full employment economy; the increasing global economic weight of China, India and other emerging economies; the economic implications of new technologies; global migration; climate change; loss of biodiversity and Indigenous disengagement.

Strategic policy advice can contribute to the development of broader narratives that provide context and foster support for desirable reforms. Economic narratives have played a significant role in Australian public life. The most important and enduring economic narrative of the past quarter century is the proposition that Australia had to open its economy to the world to achieve sustainable growth and higher living standards. This narrative has underpinned a range of economic reforms and continues to inform policy development today. A possible narrative that might support the next phase of Australia's economic development could be one that reconciles the concepts of opportunity and sustainability.

1 I would like to thank Treasury colleagues, especially David Pearl, for assistance in the drafting of this speech. This paper is published in *Public Policy* as: Henry, K (2007) 'Challenges Confronting Economic Policy Advisers' *Public Policy*, vol. 2, no. 2.

Introduction

For the most part, the work of the public service involves the implementation of government policy decisions and the administration of programmes. But the public service also provides policy advice to governments.

This morning, I am going to talk to you about the role of the economic policy adviser in the public service. I will be discussing the importance of evidence, analytical rigour and strategic focus. I will emphasise the importance, above all else, of policy advice being compelling; explaining its relationship to the development of broader narratives about economic opportunities and vulnerabilities. I will discuss the role that such narratives can play in fostering support for necessary reforms; and in providing depth, focus and context for policy debate. Along the way, I will touch on some of the more important strategic, medium-term policy challenges confronting today's economic policy advisers.

The challenge for policy advisers

The policy advising function is not well understood by the public, academics or commentators. In large part, I suspect, that is because of the complexity of the relationship between the public service adviser and the government decision maker.

In providing policy advice, public servants are seeking to have influence. They are telling governments the course of action they consider should be followed on an issue. This is what governments expect of public service advisers. Of course, it is for government and, in most cases, the Parliament, not unelected officials, to take the decision; to determine whether, and in what way, things should change. And it is, for the most part, the special privilege, and responsibility, of the elected government to decide just what matters the Parliament should be asked to consider. Thus, public service advisers who want to change things have first to convince their minister of the need for such change; in turn, their minister must convince his or her senior ministerial colleagues, and at a minimum the Prime Minister; and, in most cases, the government then has to convince the Parliament.

Nothing is as important to the adviser's effectiveness as having the confidence, or trust, of his or her minister. Maintaining such confidence depends, in large measure, upon the adviser consistently demonstrating the following set of attributes whatever his or her level of seniority: first, a commitment to technical excellence; second, hard-headed, hard-working professionalism; third, the courage to give advice fearlessly; fourth, being both politically aware and apolitical; and fifth, and most importantly, protecting the confidentiality of the relationship.

These days you will hear a lot about the need for public servants to be ‘responsive’ to the government of the day. Responsiveness is critically important to the effectiveness of our system of government. It includes, though is not limited to, accepting that it is the job of the public service to implement government policy, to the best of its ability, no matter what view it might have had on the particular issue. Clearly, this is not going to be a job for everyone; many people would have great difficulty implementing a decision that has not followed their advice.

Perhaps it is the occasional observation of public servants behaving in this way — that is, implementing government decisions that they are assumed, perhaps known, to consider sub-optimal — that leads some commentators to lament the loss of the ‘frank and fearless’, seeing its replacement by the ‘weak and malleable’ or ‘politicised’. Such conclusions are, generally, misplaced. Far from demonstrating weakness, what is usually being demonstrated is strength of character.

‘Responsiveness’ also demands that advice is provided when it is sought and in a timely fashion. There is a risk that the responsive public servant will misunderstand this point, and provide advice only when it is called for; only on those things about which the minister has indicated that he or she ‘wants’ to be informed. In extreme cases, where the minister ‘wants’ advice on something, but doesn’t ‘need’ such advice, the risk presents as obsequiousness. But there is also a risk, at the other end of the spectrum, of the responsive public service adviser ignoring those things which, while not being at the forefront of the minister’s mind on any particular day, are nevertheless things about which the minister has a need to know. Good public policy advisers understand both of these risks. Their behaviour is both ‘responsive’ and ‘responsible’. Judging whether and when to initiate a conversation with a minister on something about which he or she has a need to know, but on which advice has not been requested, is among the most difficult parts of the public servant’s job. It is also among the most important capabilities of highly performing advisers.

Effective public policy advisers, then, will have the trust of their political masters, and they will be both responsive and responsible. But what makes for effective policy advice?

Effective policy advice must have three qualities. It must embody the highest standards of evidence-based analytical rigour; it must have a clear strategic perspective; and it must be compelling.

Analytical rigour demands soundness of empirical methods, analytical tools, models and frameworks. Analytical rigour should be the foundation upon which all advice is based; the ultimate assurance of its quality and credibility.

This part of the policy advising challenge is relatively well understood, if not always fully met. Yet it would be difficult not to share the view expressed recently by Terry Moran (2007), Secretary of the Victorian Department of Premier and Cabinet: 'For the civil service, a capacity to analyse problems rationally and empirically and to express options for action by governments is a basic ethical duty'.

The notion of a sound strategic perspective is more difficult to define neatly. Strategic advice, at its best, has depth, looking beneath immediate events and preoccupations, to underlying drivers and trends; it has breadth, adopting a systemic rather than partial focus; and it has reach, identifying and addressing medium-term risks and opportunities. In the next part of the speech I will speak in more detail about this kind of advice and identify some of the strategic risks and opportunities today's policy advisers should be thinking about.

Public service advisers are not the only people trying to influence policy decision making. Numerous sectional, or stakeholder, interest groups have the same goal; and so too some sections of the media. This observation — that we are but one player among many — is usually summarised in the caution that we operate in a contestable environment. Our ministers also operate in a contestable environment.

To be effective in a contestable environment, policy advice has to be persuasive. Good policy advice is compelling. It is embraced by ministers, even if not immediately, and is impervious to the assaults of other players in the game, including those motivated by vested interest.

Public policy advisers who appreciate this point pay as much attention to the construction and presentation of an argument as they do the quality of its analytical content and the soundness of its strategic perspective.

Something that can, in principle, make advice more compelling could be called 'environmental management'. There are degrees of this activity. None of them is without risk.

Advisers do have a role, always to be played in close consultation with the government of the day, in helping to inform public debate on important policy issues. There is the opportunity to do this through consultations — both public and confidential — publications and speeches. For example, the *Intergenerational Report* and follow-up work on the drivers of growth — what we have labelled the '3 Ps' of population, productivity and participation — has had a significant impact on public debate about the implications of population ageing. That impact makes it easier for governments, now and into the future, to take the policy decisions that will be required if we are to deal effectively with the demographic challenge. Without such

'environmental management' there would be a risk of policy responses being delayed until a time when the range of feasible responses could be much more limited.

However, advisers have to be careful. Any official who enters into the public policy debate must bear in mind that the objective is to make it easier for the government of the day to do what needs to be done. The objective is not to make the minister's life more difficult. As I noted earlier, nothing is as important to the adviser's effectiveness as having the confidence, or trust, of the minister.

The strategic perspective

I have spoken about the need for policy advisers to be both responsive and responsible. They must also have a strategic focus. Policy advisers must not allow what Owen Harries (2003) has called 'the parochialism of the present' to limit and distort their perspective.

Strategic policy advice draws attention to medium-term ('over the horizon') opportunities and vulnerabilities, often from a whole-of-economy perspective, and provides accessible frameworks (or road maps) for managing these, based on a sound understanding of underlying drivers and trends.

Strategic policy advice should be distinguished from long-term projections, like those contained in the Intergenerational Reports. Such projections can be a powerful motivator for strategic thinking. Scenario analysis can also be used to foster and focus strategic thinking, if done well.

Some might draw a distinction between strategic advice and hard-headed pragmatism, or argue that strategic advice is 'optional' or a 'luxury' for public service leaders occupied with the demands of the day. I do not share these views. At its best, strategic advice is firmly grounded in the practical, and there have been many instances of strategic thinking emerging from the midst of crises. The economic transformation programme embarked upon in New Zealand in the mid-1980s is a frequently cited example. A somewhat more controversial example is the twin deficits proposition influential in Australia in the second half of the 1980s.

The need for strategic thinking is best illustrated by the fact that the most important policy challenges facing Australia are complex, cross-cutting and have systemic implications. These challenges cannot be addressed through short-term, reactive and incremental decision making. Moreover, in the absence of a strategic policy perspective, there is a risk that debate will focus on partial questions, short-term considerations, and the demands of special interest groups.

Strategic, impartial policy advice is a core responsibility of public servants, especially those in central policy agencies. No other actors in public life — academics, private sector analysts and consultants, journalists and commentators — can be expected to perform this role. More importantly, the knowledge that senior public servants take this responsibility seriously underpins confidence in the quality of our representational model of democratic governance. Public sector advisers who are unable, or unprepared, to think and marshal advice in strategic terms are letting down their political masters; and they are letting down the public.

Among the numerous medium-term challenges that today's economic policy advisers should be thinking about, I would draw attention to the following: first, the implications of the Australian economy operating at close to full employment and experiencing its highest terms of trade in more than half a century; second, the transformation of Australia's international environment, marked especially by the re-emergence of China and India, and the shift in global economic weight to the developing world; third, the globalising impact of the information and communications technology revolution; fourth, demographic change, not only here in Australia, but also in our near Pacific neighbours, and in Europe, India and China; fifth, and partly related to demographic change, global migration flows; sixth, increasingly challenging issues in the inter-relationships between energy, climate change and water; seventh, some deeply entrenched failures in environmental management, including loss of biodiversity, partly due to a history of exploitation of the 'commons'; and eighth, the opportunity to address instances of entrenched disadvantage, especially Indigenous disengagement.

Addressing these challenges will demand strategic policy interventions in labour force participation and productivity, and will have important implications for the future of the Federation. Market mechanisms will have to be used to do more, not less, of the allocation task, but with more attention paid to the role of government in defining property rights, pricing for externalities, and representing the interests of future generations. And if all of that isn't sufficiently challenging, public policy advisers are going to have to find ways of reducing the complexity of the interactions between governments and citizens and ensuring that we have the tools that permit risk to be allocated to those in society best equipped to manage it.

The strategic policy adviser has a bit to do.

From strategic advice to economic narratives

I have argued that economic policy advisers must provide ministers with advice that is analytically sound, strategically focussed and compelling. When advisers do this, they

furnish ministers with a set of themes, priorities and strategies that can be woven into compelling economic narratives which, if told well, powerfully shape policy debate.

Narratives are stories, in whatever form they take — oral, written or visual. Conventional narratives in literature, the theatre or the cinema have a beginning, middle and end. Good ones provide drama, arising from a predicament that ensnares the principal character; they have plenty of action — the steps the character takes to escape the predicament — with unexpected plot twists and complications thrown in; and there is a resolution, culminating in the achievement of a visionary aspiration or objective.

Economic narratives have some similarities. They are stories about our economic development: they describe a context of economic opportunities and risks confronting us; they set down, in broad terms, the policy actions that will respond to these; and they talk about the goals and aspirations we can realise, if we are successful.

Economic narratives have played a significant role in Australian public policy. Each phase of Australia's economic development — the Federation of the Australian colonies in 1901, the Great Depression, post-World War II expansion, the period of stagflation in the 1970s and early 1980s, and the subsequent internationalisation of the Australian economy, continuing to this day — has been accompanied by its particular economic narrative. These narratives have drawn on deeply held community values and, sometimes, fears; they have been invoked in support of policy reform and institutional change; and they have given meaning and coherence to events as they have unfolded.

Narratives are a powerful, but perhaps poorly understood, leadership tool. They can have many authors, including political leaders and opinion leaders in academia, the media and the private sector. They provide depth, focus and context for policy debate, furnishing advocates with persuasive arguments in favour of, and sometimes against, policy reform. They can be a force for good or ill. Good narratives are grounded in sound economic thinking and policy analysis. They foster support for reforms that strengthen market frameworks, improve the allocation of resources and, over time, increase the wellbeing of the Australian people. Dysfunctional narratives, on the other hand, are often associated with narrow interests and misguided policies — they can be invoked to resist necessary reforms, to the detriment of the community; they can stimulate fears and anxieties, without offering solutions.

Public debate often involves a contest between alternative, overlapping and conflicting narratives. One of the enduring benefits of an open society is the opportunity it provides for this contest to be played out. It is quite significant that the contest is not always played out between the major political parties. On many issues, the government and opposition of the day find themselves in broad agreement. Yet there

is still a contest. In a pragmatic, somewhat sceptical, and empirically motivated society like Australia, narrative contests often turn on practical results and commonsense. But they also turn on values — the capacity of a narrative to ‘speak to’, or ‘connect with’, the average person’s experiences and aspirations. I’ll return to this point.

While good narratives can be very powerful motivators, it’s worth bearing in mind that they can also become dysfunctional over time. A good story isn’t necessarily based on assumptions and propositions of enduring relevance, and it can take one down paths of unintended, perhaps even perverse, consequences.

I’ve been speaking at a rather abstract level. Let me make things more concrete by referring to the most important, and arguably enduring, Australian economic narrative in the past quarter-century. This narrative concerns the proposition that Australia had to open its economy to the world to achieve sustainable growth and rising living standards. To put it slightly differently, it is a story of a successful quest to find harmony between the necessity of international engagement and the desire for economic security.

The narrative’s action is evident in the broad sweep of economic reforms that started in the early 1980s, were deepened and broadened in the 1990s and have been added to in this decade. Indeed, the same economic narrative continues to drive policy development today. You are all familiar with the main elements of the story, but the bits I’d highlight include: the floating of the currency in 1983 and the liberalisation of the capital account, the liberalisation of the domestic financial sector, the progressive dismantling of industry protection, competition-enhancing product market reforms and greater labour market flexibility. Supporting the narrative has been a credible economic proposition that the aggregate gains from policy reform will be large enough to permit those adversely affected to be ‘looked after’, and a social commitment that they will, in fact, be looked after.

Market liberalising measures exposed sheltered parts of the economy to competitive forces, both external and internal, making the economy more flexible, and ultimately more resilient and productive. They drove access to cheaper, better and a wider range of inputs and final goods and services; a more efficient allocation of labour and capital, supporting specialisation in areas of comparative advantage; access to international financial markets, enabling the financing of investment, smoothing of consumption, and management of risk; transfer of technology and skills; and enhanced competition in domestic markets, promoting innovation and competitive pricing. And they were complemented by a wider range of reforms designed to enhance the efficiency of resource allocation and support macroeconomic stability, including: tax reform; strong medium-term frameworks for monetary and fiscal policy; a clearer articulation of the operational independence of the Reserve Bank of Australia; and measures to boost national savings, including through superannuation, and reduce public sector debt.

These reforms interacted in powerful, mutually reinforcing ways, fundamentally transforming Australia's system of economic governance. They took us from a highly protected and over-regulated economy with a short-term and reactive macroeconomic policy focus, to an open, flexible and dynamic economy, with expectations anchored by credible macroeconomic policy frameworks.

The results of the economic transformation have been well documented. Australia is experiencing its 16th consecutive year of growth; our living standards, measured by real GDP per capita, are now well above the OECD average; unemployment is at 32-year lows; workforce participation is at a record high; and inflation has been well contained, the headline rate averaging just 2.5 per cent a year since the economy emerged from the recession of the early 1990s. Just as importantly, our more flexible economy has proven extraordinarily resilient in the face of major shocks, including the Asian financial crisis of 1997-98; the bursting of the tech-bubble in 2000; the United States recession in 2001; a very severe drought; and, in recent years, the global commodities boom that has given us terms of trade that, at other times in our history, would have sparked damaging inflation breakouts and macroeconomic policy crisis.

The policy reforms and economic outcomes of the last quarter-century have been well documented, but it is important not to lose sight of the powerful narrative which underpinned, gave direction to, and marshalled support for these changes: the proposition that Australia had to open its economy to achieve sustained growth and rising living standards.

The ultimate mark of this narrative's success is that it is, today, taken for granted. When it was first articulated, however, it challenged a long-established conventional wisdom. This was the view, held by many policy makers and opinion leaders throughout Australia's history, that economic security — that is, both prosperity and stability — could be achieved only by insulating the economy from market forces, both international and domestic. The new narrative did not overturn this protectionist belief system overnight, but in the course of the 1980s increasingly it set the tone for national debate on economic policy. A small number of academics, policy makers and political figures had always championed its insights, but it was eventually accepted, grudgingly in some cases, by a much wider array of opinion leaders and interest groups, including unions and protected industry sectors. Ultimately, it won the support of a large section of the Australian community. It told them a story about Australia's place in the world, and the changes we needed to make to secure our economy, that was both credible and compelling.

Some might argue that the market-opening reforms of the past quarter-century could have taken place without any supporting narrative. They might point out that by the early 1980s it was obvious to all that Australia's pre-reform economic model was not working. And they might add that once the initial reforms were in place — those that

exposed the economy to the discipline of international markets — the pressure for subsequent measures, especially to increase the flexibility of product and labour markets, was unavoidable. There is something in these observations, but they are overstated. Moreover, even if the observations are correct, it doesn't follow that the narrative I have been talking about played no role. By the early 1980s it should have been obvious to all that the inward-focussed, heavily regulated, protectionist model was failing. But it was far from obvious to all that the market-liberalising initiatives of late 1983 and 1984 were necessary. They were, in fact, quite controversial. One reason for their being so controversial was the fact that, at the time, the compelling narrative I have been talking about had not been clearly articulated. Indeed, it wasn't until after then Treasurer Paul Keating's famous 'banana republic' statement in the middle of 1986 that the narrative started to gain traction.

Further support for the power of the narrative comes from noting that when governments in other countries have introduced ambitious reforms without persuasive narratives that could be understood and accepted by their citizens, the reforms have met with strong resistance; in most cases, reforming governments have lost office. Australia's dominant, market-opening economic narrative, in contrast, has proved remarkably resilient. Its core promise — to bring international engagement and economic security into harmony — took some time to realise. In the early years, there were some dramatic setbacks. The early steps to open the economy exposed it more directly to the harsh judgments and vagaries of international capital markets. In the course of the 1980s, we experienced dramatic swings in the value of the currency, our current account blew out and our foreign indebtedness escalated. Yet throughout this period of instability and turmoil, mainstream political and community support for the market-opening narrative did not seriously falter. Even in the midst of the recession of the early 1990s, with the unemployment rate climbing to 10.9 per cent, the narrative wasn't seriously damaged. While there certainly was some vigorous debate, as one would expect in an open society, the reform imperative had developed sufficient momentum to sustain forward progress in those difficult years. Nothing better makes that point than the fact that in 1992 and 1993, with unemployment hovering above 10 per cent, tariffs were cut.

It's worth considering why the dominant economic narrative of the past quarter-century has proved so remarkably resilient and influential. I would highlight three things. First, the narrative articulated clearly an embarrassing failure — our standard of living was falling relative to that of an increasingly integrated developed world. Second, the narrative appealed to deeply held community values and aspirations — our nation's enduring quest for economic stability and prosperity, and, at the individual level, the high value we place on opportunity. And third, the narrative provided a clear statement of the reform strategy, grounded in well-reasoned

economic principles — setting out what we needed to do, and why, to respond to the challenge.

Ultimately, as I have said, the particular power of this narrative was its ability to reconcile, to bring into harmony, two seemingly contradictory realities, our desire for economic security, on the one hand, and the necessity of international engagement, on the other.

I have noted that the dominant narrative of the past 25 years is no less relevant today. The Government's wide-ranging international policy agenda attests to that — our hosting of the G-20 forum of finance ministers and central bankers last year, our hosting of APEC this year, our commitment to institution-building in the Pacific, the effective partnership we are building with Indonesia, and our close ties with other key regional powers. Important parts of the continuing domestic reform agenda should also be seen as part of that dominant narrative.

But I wonder whether the very success of the narrative — reflected in the fact that Australia's economy is now open, flexible and resilient, with low inflation and low unemployment — won't have some people wondering about a broader narrative that might support the next phase of our economic development.

I don't have such a narrative in my top drawer; and even if I did, it would be presumptuous of me to start reading from it. But if I were to sit down and write one, I reckon I would start by observing that most of the big policy issues we talk about today concern attempts to reconcile, or bring into harmony, the ideas of opportunity and sustainability. These are broader concepts than international engagement and economic security — the two key elements of our current narrative — and they have been with us for centuries, not decades.

The concepts of opportunity and sustainability underpin a range of economic, environmental and social policy debates. Some of their economic policy dimensions are well understood. The Government's two Intergenerational Reports, issued in 2002 and 2007, have highlighted a number of these. Those reports have drawn attention to the fiscal and broader economic pressures associated with our ageing population and provided a framework for thinking about how best to respond to them. This framework is summed up in the '3 Ps' — the truism that our ability to satisfy the material aspirations of future generations of Australians depends upon our population, labour force participation, and productivity. The central message of the two Intergenerational Reports has been that our ability to satisfy those aspirations, and also to secure the long-term sustainability of the budget, depends on the pursuit of further productivity- and participation-enhancing reforms.

Labour force participation relates to a broader notion of economic opportunity. Policies that lift labour force participation — including vocational education and training, tax and welfare changes to reduce disincentives to work, retraining of the structurally unemployed and employment initiatives for Indigenous Australians — also enhance economic opportunities. As does anything that governments might be able to do to ensure, in Noel Pearson's (2005) compelling words, that Indigenous people 'have the capabilities to choose a life that they have reason to value'.

The enhancement of economic opportunity, based on positive incentives and robust capabilities, remains the most practical thing governments can do to advance the development of their citizens.

But what about sustainability? Many Australians would see development as being unsustainable, almost by definition, and they would view the enhancement of economic opportunity as being antithetical to sustainability. Because so much of our past expression of economic opportunity appears to have been associated with environmental degradation, they might appear to have a strong argument — being able to point to the destruction of about 99 per cent of our temperate native grasslands and the biodiversity they used to contain; extensive weed infestation, soil erosion and salinity; the extermination, in recent times, of 61 species of flora and 54 species of fauna; and the fact that another 1,551 species of flora and fauna are regarded by the Department of Environment and Water Resources as either 'critically endangered', 'endangered', 'vulnerable' or 'conservation dependent'.

But this view, understandable as it is, is based on a misunderstanding of economic opportunity and, indeed, of development. Economists see opportunity and sustainability as being very closely related concepts: unless I can sustain past achievements am I not denying myself the opportunity of further development?

Indeed, many economists would agree that our improved living standards have not always been consistent with sustainable development, given that, unlike the people from Europe who came to this continent 220 years ago, we do not have the opportunity to appreciate the existence of species like the thylacine and 114 others. Few of us will ever see a yellow-footed rock wallaby or a hairy-nosed wombat. Those who went before us have denied us these opportunities. And in that loss of opportunity there has been, in the language of Nobel Laureate Amartya Sen (2004), a loss of freedom — a loss of 'freedom to have — or safeguard — what [we] value and to which [we] have reason to attach importance'. That freedom should be seen as constitutive of development.

A concern with sustainability, then, can be viewed as safeguarding a fundamental component of development.

In recent years, we have been thinking about the impact on the sustainability of our relatively strong recent economic performance of an imminent ageing of the population, brought on by the collapse in the birth rate that occurred in the late 1960s and 1970s. Population ageing is going to affect the opportunities of citizens in virtually all developed countries.

But Australians have more reasons than most for thinking about opportunity and sustainability. Ours is the driest inhabited continent on earth and, if the climate change science proves right, the inhabited parts of the continent are only going to get a lot drier. The energy intensity of Australian production is well above the OECD average, and climate change mitigation efforts will make energy more expensive over time. Much of our increasingly valuable mineral wealth is to be found in pristine, but fragile, ecosystems — including in the Kimberley and the Top End — some of it world heritage-listed. We have the most geographically dispersed population among OECD countries and a land transport system that is operating under considerable pressure. Several of our neighbours in the Pacific are becoming increasingly fragile, with increasing expectations on us to address deep-seated governance and development challenges. And we have our own governance challenges, with three levels of government operating in an increasingly complex environment reflective of a distinct lack of coherence in accountabilities.

In the articulation of these challenges I can discern the raw materials for a powerful narrative to guide future economic development; a narrative that would appeal to strong community values and aspirations, to sustain what we have and to enhance economic opportunity; a narrative that would be both relevant and compelling.

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Conceptual challenges on the road to the second Intergenerational Report

David Gruen and Jim Thomson¹

Address to the 36th Australian Conference of Economists, Hobart, 25 September 2007.

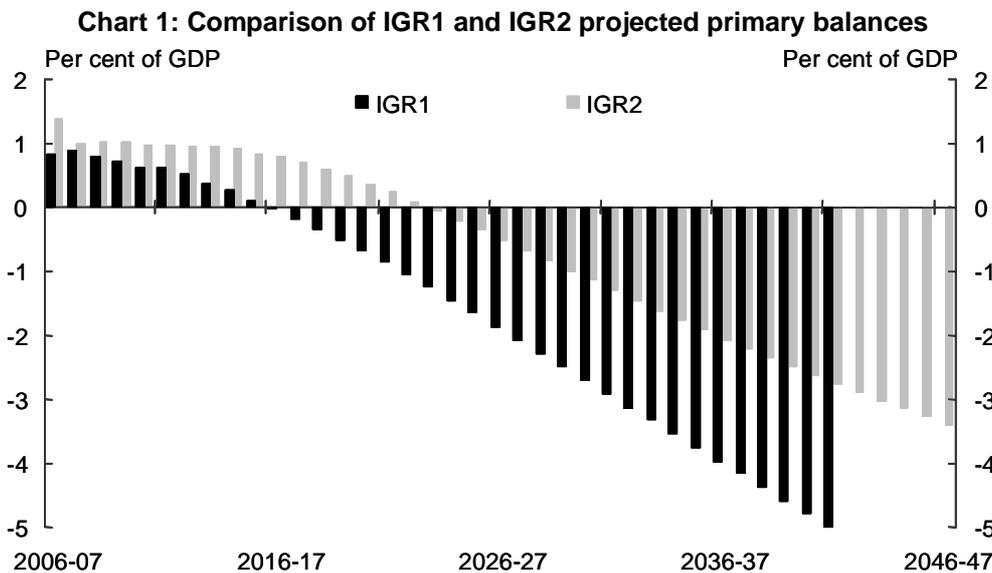
The second Intergenerational Report on the Australian Government's long-term fiscal outlook and the sustainability of current government policies (IGR2) was released on 2 April 2007. This talk discusses three factors that have contributed to the more favourable outcomes in IGR2 than in the first Intergenerational Report released in 2002, and uses them to illustrate the challenges involved in making long-term projections.

The first factor is migration, where increases in numbers and in the proportion of younger, skilled migrants are projected to lead to faster growth of both real GDP and real GDP per person. The second factor is higher labour force participation, particularly by older workers. This is the main non-demographic source of improvement in projections of real GDP per person. The third factor is spending on pharmaceutical benefits, which is a major source of projected increases in government spending, but which is particularly difficult to model.

1 The authors are from Macroeconomic Group, the Australian Treasury. They are grateful to Steven Kennedy, Paul Roe, Julie Tinnion and David Tune for helpful comments. The views expressed are those of the authors and not necessarily those of the Australian Government or Australian Treasury.

Introduction

On 2 April this year, the Treasurer released IGR2 — the second Intergenerational Report on the Australian Government’s long-term fiscal outlook and the sustainability of current government policies.² It is now quite well known that IGR2 projects that, under current policies, the government’s primary balance, which at present is positive, will become negative in the early 2020s, and that the deficit will continue to grow, reaching 3½ per cent of GDP by 2046-47. It is also well known that the projected fiscal gap is considerably smaller than in the first Intergenerational Report, released back in 2002 (Chart 1).



It is not our purpose in this talk to take you through the IGR results — that has been done several times before. Instead, we want to look more closely at three factors that have led to the more favourable outcomes in IGR2, and use them to illustrate the challenges involved in making long-term projections.

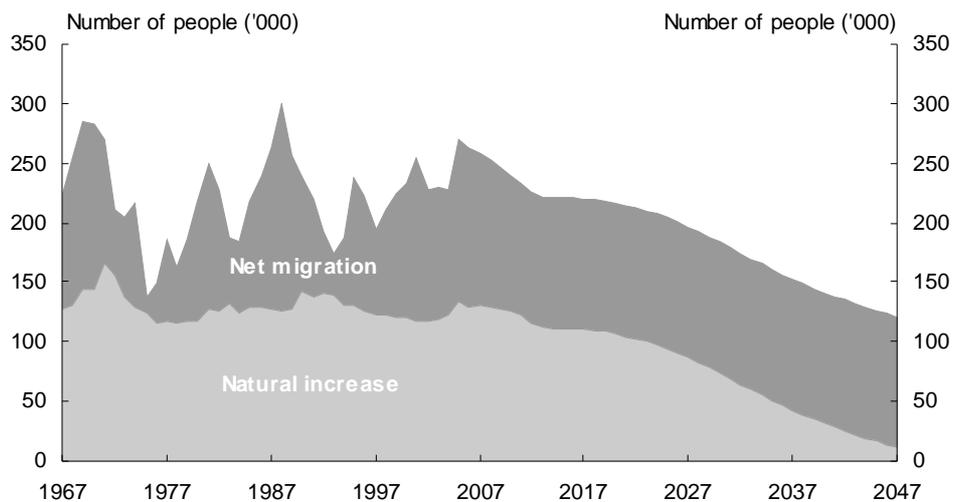
The first factor is migration, where increases in numbers and in the proportion of younger, skilled migrants are projected to lead to faster growth of real GDP and, more interestingly, real GDP per person. The second factor is higher labour force participation, particularly by older workers. And finally, since rising health spending by the Australian government plays such a significant role in the longer term projected fiscal deterioration, we’ll look at the projections of the fastest growing component of that spending — spending on pharmaceutical benefits.

² The Intergenerational Report 2007; available at www.treasury.gov.au/igr.

Migration

Let's start with migration. Net overseas migration — foreigners coming to live in Australia less Australians going overseas to live — currently accounts for about half the increase in Australia's population each year. By 2047, however, it is projected to account for almost all of the increase (Chart 2).

Chart 2: Net migration and natural increase in population



We often point out that IGR projections are just that — projections — not predictions — and migration is a good example of this. It is very difficult to know what net migration levels will be 40 years from now. Even if we take policy about the number of immigrants as given, the number of emigrants is not under policy control. Nor is the age or gender composition of migration, although migration policy can favour particular groups.³

IGR projections of net migration are based on average numbers of migrants in recent history and the age and gender composition in the most recent year for which data are available. In the IGR1 projections, we assumed net annual migration of 90,000 people over the 40-year projection period out to 2041-42, and an age distribution with a much higher proportion of young adults than in the resident population. Net migration since IGR1 was published has risen substantially, and IGR2 projects an annual rate of

³ Even immigrant numbers are only partly determined by policy. For example, the number of foreign students coming to Australia is not controlled under current policy settings, and there is generally no restriction on New Zealanders entering and leaving Australia (subject to them meeting health and character requirements).

110,000. Much of the increase has been among young men, and so this group has a higher weight in the IGR2 age/gender distribution than in the IGR1 distribution.⁴

We should mention that the charts we are showing you today are based on the data used in the two IGRs. Since the release of IGR2, the ABS has released new demographic data with some significant changes. One change is that the latest population estimates now include information from the 2006 Census. This reveals that Australia's estimated resident population is a little bigger and a little younger than was thought at the time of IGR2. Overall, there were 96,000 more people at 30 June 2006 than previously estimated — around 65,000 more children under 15 and 90,000 more people between 15 and 54, but 60,000 fewer people aged 55 and older.⁵

The second change relates to the introduction by the ABS of an improved methodology for calculating net overseas migration. Previously, someone coming to Australia was counted as a 'migrant' and included in the resident population, rather than being treated as a short-term visitor, if they spent at least 12 consecutive months in Australia. In future, anyone in Australia for 12 months in a 16-month period is counted as a migrant. A similar change applies to people leaving Australia. The new definition will apply to published demographic data from September 2006, but the ABS has estimated that it would have raised net overseas migration by around 19,000 in 2004-05 and 29,000 in 2005-06. It would also have changed the age-and-gender distribution of migration.⁶

4 Net migration numbers in IGR2 are based on a 10-year average to 2006, and the age-and-gender distribution matches the one for 2004-05.

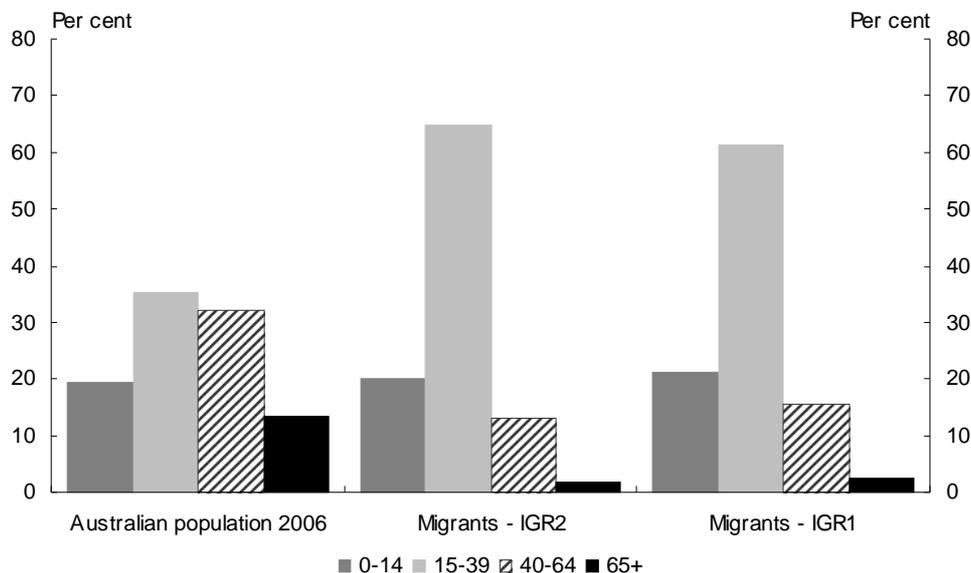
5 Updated estimates based on the 2006 Census are included in the December quarter 2006 issue of Australian Demographic Statistics (ABS cat no. 3101.0), which was released on 5 June 2007.

6 The current procedures for measuring net overseas migration date back to 1 July 1998, when changes were made to the information collected in the passenger cards filled in by travellers entering and leaving Australia. Time spent in Australia (or overseas) is calculated by matching incoming and outgoing passenger cards. Under the criteria adopted in 1998, people coming to Australia were classified as migrants if they remained in Australia for at least the next 12 months (the 12/12 month rule). Subsequent analysis by the ABS suggested problems with this rule, in particular in relation to the increasing numbers of overseas students and temporary long-term business migrants. Conceptually, these people are part of the resident population but, because they frequently travel overseas for short periods during the year, many were classified as short-term visitors under the 12/12 month rule. In response to the problem, the ABS introduced an interim 'migration adjustment' in late 2003, and undertook a detailed methodological review in 2004 and 2005. This review has resulted in a number of improvements in methodology, the most significant of which is the switch to the 12/16 month rule. ABS analysis suggests that the new rule correctly classifies most overseas students and long-term business migrants as residents, while still classifying backpackers and working holiday makers as short-term visitors. Details of the changes in methodology are given in Information Paper: Improved Methods for Estimating Net Overseas Migration,

Of course, these sorts of data and methodological changes just add to the difficulties in projecting migration.

A major reason why migration is important for economic growth (and, particularly, economic growth per person) is that the age-and-gender distribution of net migration is strikingly different from that of the resident population (Chart 3).⁷ There is a much higher proportion of 15- to 39-year-old young adults among migrants in the IGR2 projections (65 per cent) than in the 2006 resident population (35 per cent), and a correspondingly lower proportion of people aged 40 years and older. Also, men account for a slightly greater proportion of net migrants (just over 54 per cent) than of the resident population (just under 50 per cent).

Chart 3: Age distribution of Australian population and migrants



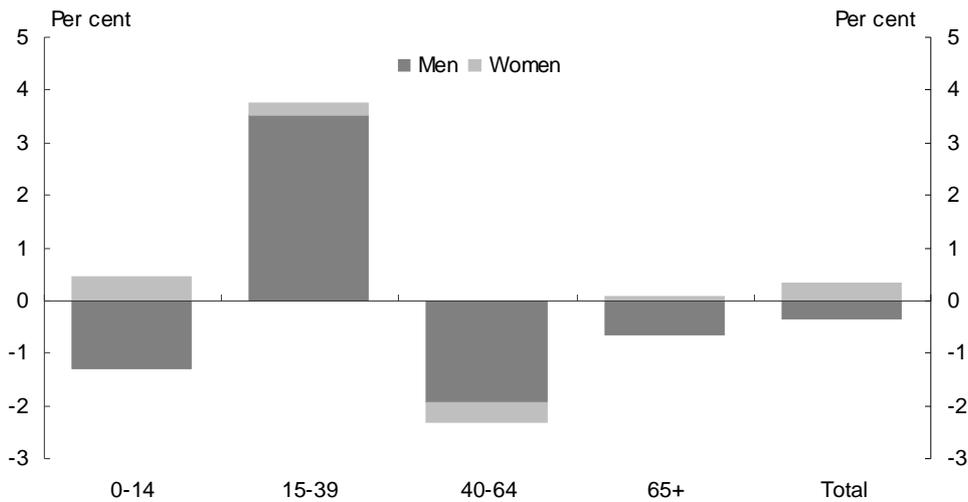
The proportions of men and women migrants have not changed much between the IGR1 and IGR2 projections, but the proportion of young adults is higher than it was before — up from 61 per cent to 65 per cent.

Australia, 2006 (ABS cat no. 3107.0.55.003). Details of the impact of the changes on estimates of net overseas migration are given in the technical note on measuring net overseas migration in Australian Demographic Statistics, December 2006, and Information Paper: Statistical Implications of Improved Methods for Estimating Net Overseas Migration, Australia, 2007 (ABS cat. no. 3107.0.55.005).

7 For ease of exposition, we will sometimes refer to ‘migrants’ rather than the more precise ‘net migrants’.

There are some more subtle changes between IGR1 and IGR2 within the migrant age/gender distribution, and these turn out to be surprisingly important. Chart 4 shows the changes in the proportions of net migrants of different ages and gender from IGR1 to IGR2. While there are only small changes in the proportions of women in each age group, the proportion of men between 15 and 39 is about 3½ percentage points higher in IGR2 than in IGR1, with correspondingly fewer boys and older men.

Chart 4: Change in migrant age distribution from IGR1 to IGR2



What are the implications of these changes for population and real GDP per person? Let's start with population.

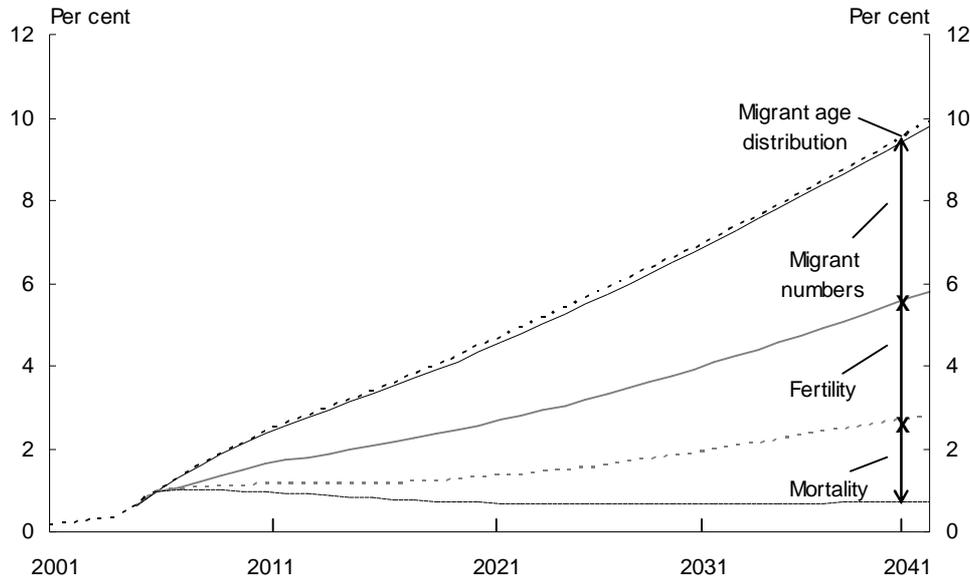
In IGR1, Australia's population was projected to grow to 25.3 million in 2042; in IGR2 it is projected to grow to 27.8 million by that date — around 2½ million or 10 per cent more. As Chart 5 shows, some of this is due to changes that have already happened, some is due to a significantly faster increase in life expectancy than anticipated in IGR1, and some is due to a partial recovery in fertility rates.

Around 4 percentage points of the extra population, about 1 million people, is due to the increase in projected migrant numbers between 2006 and 2042. An extra 20,000 migrants each year for 36 years is 720,000 people. Abstracting from the small number of these extra migrants who are projected to have died over this time, the remaining ¼ million of the increase are the children the migrants are projected to have after settling in Australia. This high number reflects the large proportion of migrants who are women of child-bearing age.

While migrant numbers are important, changes in the age-and-gender distribution of migrants between IGR1 and IGR2 make little difference to population projections. Migrant women are assumed to have the same fertility rates as women in the resident

population of the same age, and there is very little change in the proportion of women migrants of child-bearing age between IGR1 and IGR2.⁸

Chart 5: Population projections: Change from IGR1 to IGR2



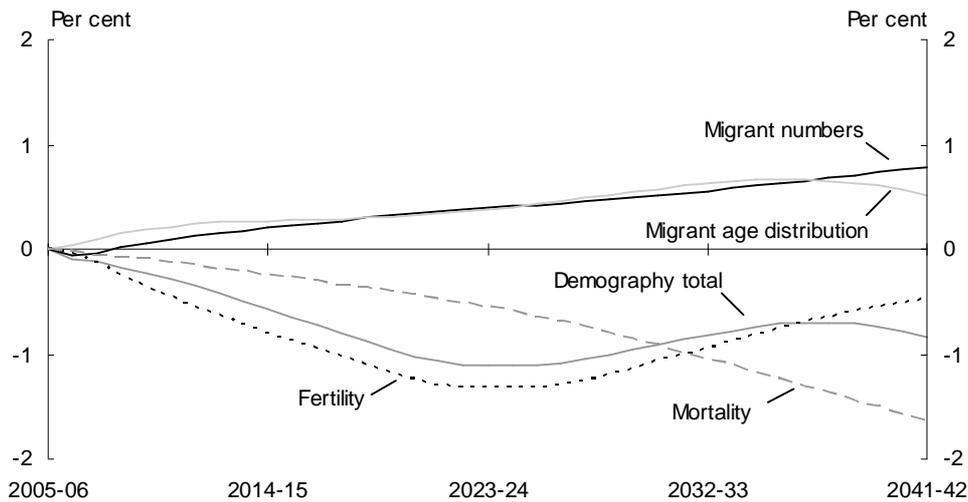
The age-and-gender distribution is, however, important for projections of GDP per person. The implications of demographic change for GDP per person depend on whether the change affects GDP more or less than population. In the IGR framework, the impact on GDP depends on the change in hours worked (since productivity is assumed to be the same for all workers). Having a higher proportion of children or older people in the population reduces GDP per person because these groups have little or no participation in the labour force. By contrast, people aged between 20 and 54 tend to have high labour force participation and therefore add to GDP per person.

Changes in mortality and fertility assumptions between IGR1 and IGR2 both reduce GDP per person (Chart 6). Lower mortality — which is undoubtedly looked upon favourably by those whose life spans have been extended — is not good for GDP per

⁸ The number of children born in any year (current or future) is estimated in the IGR using (current or future projections of) women's age-specific fertility rates and the age distribution of the female population. This is the standard (and obvious) way to model the number of births in the population. Nevertheless, it has the implication that adding an extra young male migrant to the population leads to no extra children, whereas adding an extra young female leads to about 1.8 extra children (assuming a total fertility rate of about 1.8). Presumably, however, adding an extra young male adds somewhat to the number of child-bearing couples in the population, and hence would be expected to add somewhat to the number of children born. Needless to say, this subtlety is not modelled in the IGR.

person because it largely raises the number of older people. Higher fertility obviously raises the number of children, who take time to reach working age and enter the labour force.

Chart 6: Demographic contributions to real GDP per person
Change from IGR1 to IGR2



Partly, but not fully, offsetting the effects of fertility and mortality are those of migrant numbers and the migrant age distribution. If the age-and-gender distribution of migrants was the same as for the resident population, having more migrants would not change GDP per person — at least not in the IGR simulations, which assume that migrants have the same labour force characteristics as residents of the same age and gender.⁹ But a higher proportion of migrants are of working age, so the increase in projected migrant numbers between IGR1 and IGR2 raises GDP per person.

The change in the age distribution between IGR1 and IGR2 also raises GDP per person because a higher proportion of IGR2 migrants are of working age. The impact is particularly strong because the change is towards younger men (see Chart 4) — men have higher participation rates than women, so they add more to GDP on average, and they have minimal impact on population because, in the IGR modelling framework, births depend solely on the number and age distribution of women.

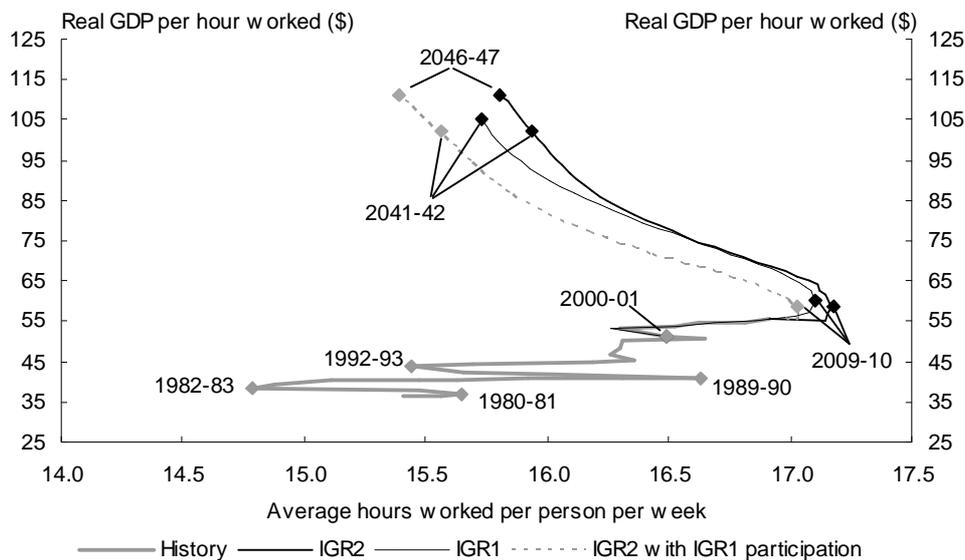
⁹ Labour force characteristics vary across migrant categories, but skilled migrants, who make up an increasing proportion of Australia’s migrant intake, are likely to have higher labour productivity and age-specific labour force attachment than residents on average. (See Hsieh and Kohler (2007) for data showing high participation rates of recent migrants, although these data show high aggregate, rather than age-specific, participation.) However, the same is probably true of emigrants, which complicates the task of, and the data requirements involved in, distinguishing the characteristics of ‘net’ migrants from those of residents.

Participation

Changes in assumptions about migration between IGR1 and IGR2 lead to higher GDP per person because they increase the proportion of the population in the age groups with the highest participation rates. Since IGR1, however, there have also been unanticipated increases in participation rates for given age groups, and this is the second topic we want to discuss today.

An instructive way to summarise the contributions of labour utilisation and productivity to the growth of GDP per person is in a chart like Chart 7. In the earliest versions of this chart, the time-path of labour utilisation and productivity combinations looked rather like a seahorse. The version we're using today, from page 42 of IGR2, no longer looks much like a seahorse, but the name has stuck.

Chart 7: Productivity and labour utilisation



In the seahorse chart, labour productivity — that is, GDP per hour worked — is on the vertical axis. Labour utilisation — average hours worked per week — is on the horizontal axis. Note that average hours in the chart are total hours worked in the economy divided by the total population, not the number employed. So this average is affected by changes in the proportion of the population of working age, as well as by changes in the age-and-gender composition of the working-age population, and by changes in age-and-gender-specific participation rates.

Except during recessions, labour utilisation has increased over the past 30 years as the large baby boom generation (born between 1946 and 1964) has reached working age and labour force participation by women has risen strongly. In coming years,

demographic factors will gradually reduce labour utilisation. Ageing, along with falling mortality rates, will raise the proportion of the population aged 65 and over, and the baby boomers have started to retire — the oldest of them, those born in 1946, will reach 65 in 2011. Because of this, IGR1 projected that labour utilisation would fall from the second half of this decade.

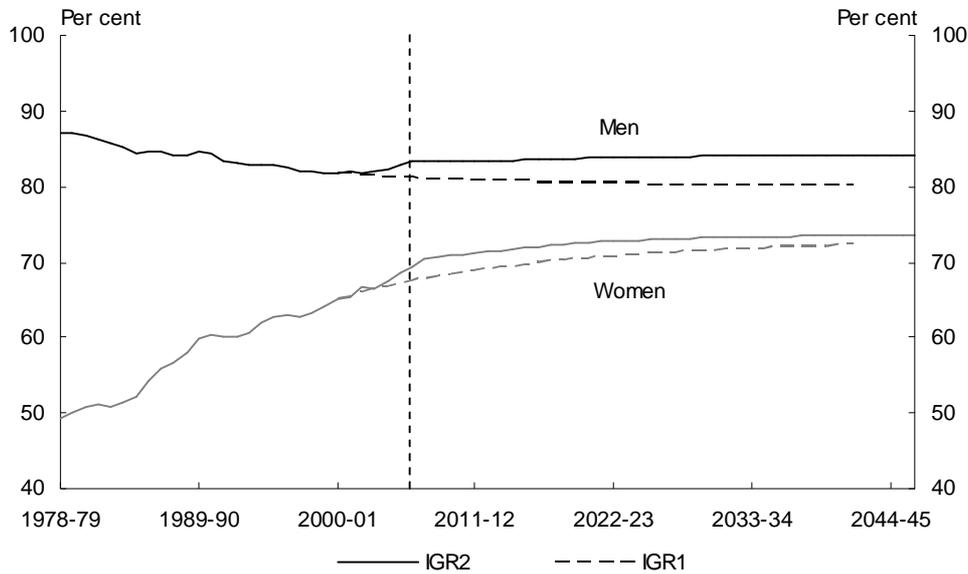
We have already seen that changes in demographic assumptions between IGR1 and IGR2 reduce GDP per person overall, despite higher levels of migration and a greater proportion of young migrants. These changes work through labour utilisation since IGR modelling does not vary productivity by the attributes of workers. If only demographic factors were at work, projected labour utilisation would have been lower in IGR2 than in IGR1, as shown by the 'IGR2 with IGR1 participation' line in Chart 7. But projected labour utilisation is actually higher in IGR2, largely because of rises in age-and-gender-specific participation rates, particularly among older workers.

Over the past 30 years, there has been considerable variation in the movements of participation rates across age groups but, at the time of IGR1, those for men had on average been trending down and those for women had been trending up, though at a decreasing rate (Chart 8).¹⁰ The IGR1 projections assumed those trends would broadly continue. Men's average participation rates adjusted for demographic change were projected to fall by a further 1½ percentage points and women's to rise by a further 7 percentage points between 2000-01 and 2041-42.

Subsequent experience highlights another of the challenges in making projections — trends have a nasty habit of changing. Since IGR1, the long-run downward trend in men's participation rates has been reversed — indeed men's participation rates adjusted for demographic change rose by about 1 percentage point between 2000-01 and 2005-06. Also the rate of increase of women's participation rates has picked up substantially.

10 For IGR2, the participation rates for men and women shown in Chart 8 are weighted averages of the age-specific participation rates of the 10 five-year age groups from 15-19 through 60-64. Data up to 2005-06 are history; data from 2006-07 to 2046-47 are projections. For IGR1, data from 2001-02 to 2041-42 are projections calculated as weighted averages of 4 five-year age groups (15-19, 20-24, 55-59 and 59-64) and 3 ten-year age groups (25-34, 35-44 and 45-54). Weights for history and both the IGR projections are based on 30 June 2006 population. IGR1 projections are rescaled to match IGR2 history in 2000-01.

Chart 8: Participation rates age 15-64, adjusted for demographic change



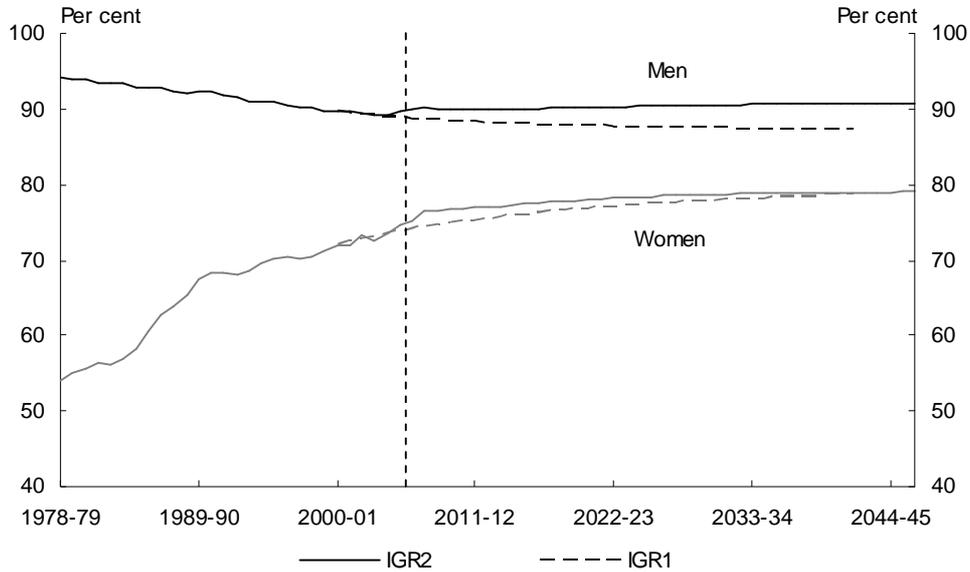
Not surprisingly, these *new* trends have been incorporated in the IGR2 projections. Men’s participation rates are projected to increase by a further 1½ percentage points by 2046-47, to be about 4 percentage points higher than in IGR1. Women’s participation rates have been revised somewhat less. They are now projected to increase by about 5 percentage points by 2046-47, to be around 1½ percentage points higher than in IGR1. (In each case, these numbers are projections of participation rates for 15- to 64-year-olds in the absence of further demographic change.)

A natural question is whether the new trends will be more robust than the previous ones. Before addressing it, however, we want to look a little closer at the changes that have been occurring.

The participation improvements we have seen have not been evenly distributed across age groups. Indeed, for men and women aged 20 to 54 (Chart 9) — IGR2 refers to these as ‘prime ages’ — participation rates over the past five years have been only slightly higher than projected in IGR1 and projections in IGR2 differ only modestly (and indeed, much of the improvement has been due to those aged 50 to 54).¹¹ For men in these age groups, IGR2 projects that average participation rates will rise a little rather than fall a little. For women, IGR2 projections are noticeably stronger in the short run than those in IGR1, but only marginally so in the longer run.

11 Participation rates in Chart 9 are calculated in an analogous manner to those in Chart 8. See footnote 10 above.

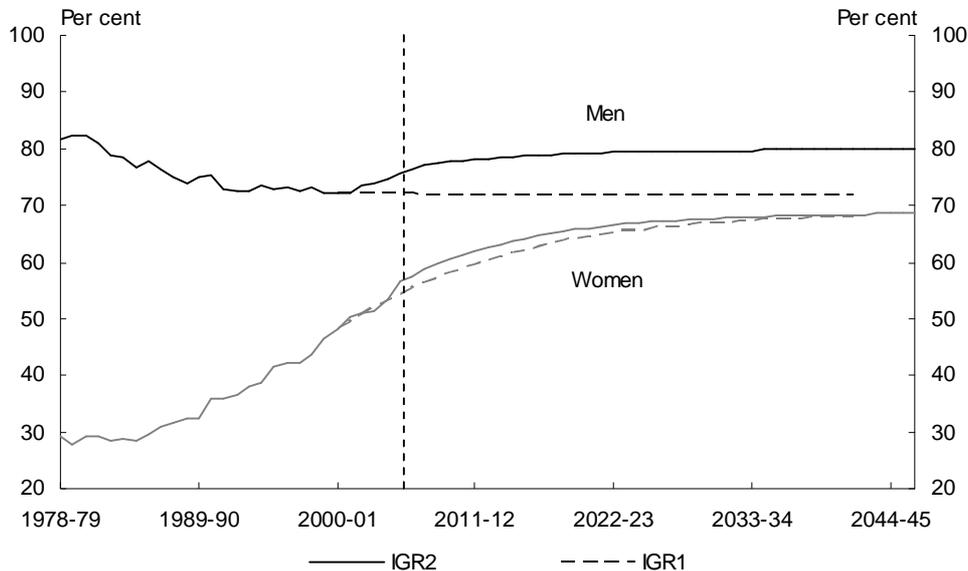
Chart 9: Participation rates age 20-54, adjusted for demographic change



The most dramatic differences between IGR1 and IGR2 (and history) are for older age groups. This starts to be true for 50- to 54-year-olds, as explained above. For example, participation rates for 50- to 54-year-old men have risen by 2 percentage points since 1996-97, reversing a long downward trend. However, this age group was not modelled separately in IGR1 (there was instead a 45-54 age group), so we cannot directly compare IGR1 and IGR2 projections.

We *can* make a comparison for people aged 55-59 (Chart 10). For women, the picture is quite similar to the one for ‘prime-age’ women. Participation rates have been rising steadily since at least the mid-1980s. The rise continued over the past five years, but pretty much in line with the projections in IGR1. In IGR2, participation rates are projected to continue rising, but eventually flatten out. The IGR2 projections are stronger than those in IGR1 in the short run, but quite similar in the long run.

Chart 10: Participation rates age 55-59: History and projections

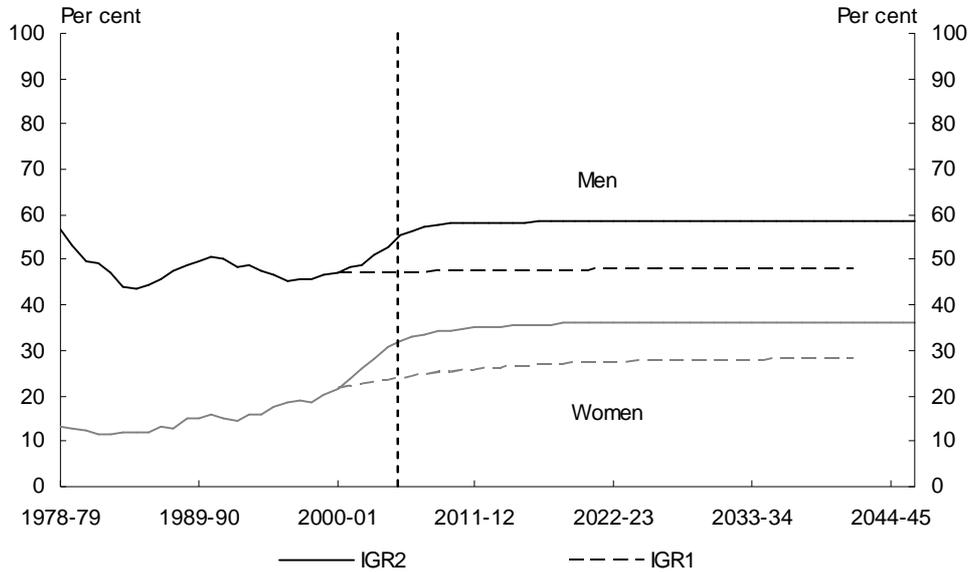


For men, the story is much more dramatic. The participation rates for men aged 55-59 fell steadily in the 1980s, but were more stable in the 1990s, and IGR1 projected little change. In fact, the participation rates almost immediately turned upward and were 3½ percentage points higher in 2005-06 than in 2000-01. IGR2 projects some further increase — another 4 percentage points by 2046-47 — but to a rate that remains a little lower than in the late 1970s.

Comparisons are even more interesting for people aged 60-64 (Chart 11). Participation rates for women aged 60-64 were growing at a modest rate at the time of IGR1, and were projected to continue doing so. The actual increase has been quite dramatic — by more than 10 percentage points between 2000-01 and 2005-06. It seems likely that at least some of the increase has been due to changes in the qualifying age for the Age Pension, which is gradually being raised from 60 to 65.¹² This increase in the qualifying age is unlikely to be the whole story, however, since the pension age started rising well before IGR1. IGR2 projects that the participation rate for women aged 60-64 will rise further, but only by around 4 percentage points.

12 This process began in 1995 and will be completed by 2014 — we are currently in the transition between qualifying ages 63 and 63½. A woman born on 30 June 1944 became eligible for the Age Pension when she reached 63 on 30 June 2007. A woman born the next day, on 1 July 1944, will become eligible when she reaches 63½ on 1 January 2008. For more details, see the Centrelink website: http://www.centrelink.gov.au/internet/internet.nsf/payments/qual_how_agepens.htm.

Chart 11: Participation rates age 60-64: History and projections



In history, the participation rate for men aged 60–64 has been strongly influenced by the state of the labour market. It fell in the recession at the start of 1980s and recovered in the subsequent expansion (although increased entitlements to war service pensions also contributed significantly to this temporary decline — see Merrilees (1982)). It fell again in the first half of the 1990s, but was then stable for the rest of the decade. These cyclical movements make it difficult to discern longer term trends, but IGR1 projected a small increase in the participation rate. In fact, the participation rate for men aged 60-64 rose by more than 8 percentage points between 2000-01 and 2005-06, a rise only a little less than that for women. As for women, IGR2 projects further increases in the participation rate for men, and again they are quite modest — a little less than 3 percentage points by 2046-47.

To summarise, the upward trends in participation rates we have seen in recent years are mainly among older workers. So, the question of whether overall participation rates will continue to rise, at least when we adjust for demographic change, is largely a question of whether participation rates for older workers will continue to rise.

The strong labour market of recent years is likely to have played a significant role in the rising participation rates we have seen. Older workers are more likely than younger ones to drop out of the labour market when they lose jobs, so participation rates fall less with age when workers have continuity of employment. Nevertheless, there are at least three reasons to suspect that the recent increases in participation rates are not just temporary phenomena, and that the increases projected in IGR2 may be conservative.

First, rising life expectancy will encourage longer working lives, especially as more people derive a large part of their retirement income from (superannuation) savings rather than the Age Pension. Working longer allows a higher income after retirement. Of course, choosing to work longer depends on health outcomes, but longer lives seem to be associated with more years of good health.

Second, a range of government policy measures are also likely to encourage participation by older workers. We have already mentioned the rises in the qualifying age for women for the Age Pension, but a number of other policy initiatives will make staying in work, or looking for work, more attractive for both men and women. These include the Welfare to Work package, the introduction of the Mature Age Worker Offset, as well as tax cuts and the recent superannuation reform.

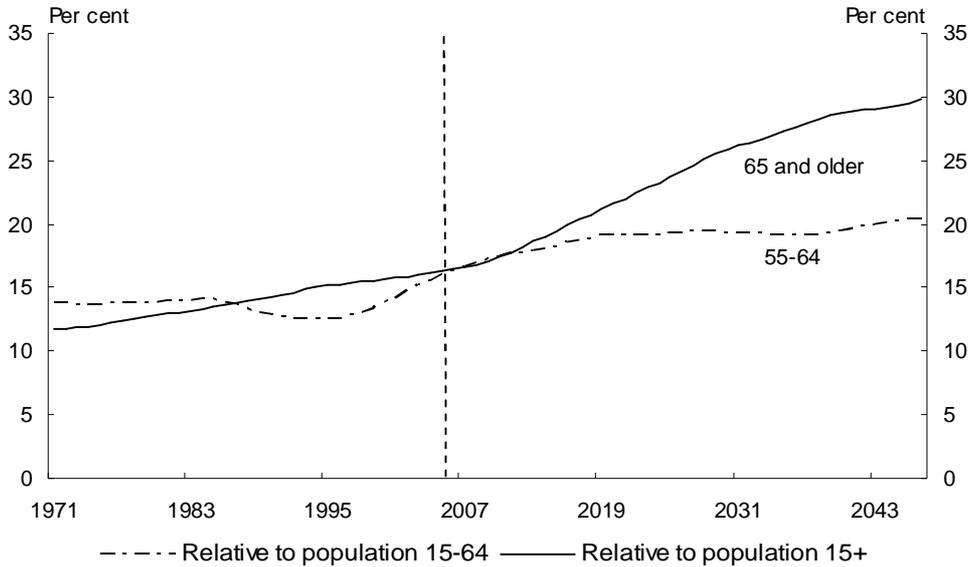
And third, both historical and international comparisons suggest there is considerable scope for higher participation. Projected participation rates for most age groups of men are below the levels of the late 1970s, and projected rates for older men and women are not exceptional by international standards. For example, New Zealand participation rates for men age 55-64 are already around 80 per cent, considerably above the 70 per cent projected for Australia by 2046-47. For women, New Zealand participation rates are over 60 per cent, some 10 percentage points higher than projected for Australian women aged 55-64 in 2046-47.¹³

A final point to note is that the increases in participation rates of older people are quite important for GDP projections.

The population, of course, is ageing. The proportion of people 65 and older in the population of working age — those 15 years and older — has been rising steadily, from around 12 per cent in 1971 to 16 per cent in 2006 (Chart 12). This past increase has been due largely to falling mortality rates. From the start of the 2010s, however, the rate of increase will accelerate as the baby boomers reach 65, and the proportion is projected to reach almost 30 per cent by 2047. This is the major reason for the projected fall in labour utilisation in the seahorse chart (Chart 7).

13 See Box 2.2 on pp 24-5 of IGR2 for more details on international comparisons of participation rates of older workers. See also Kennedy and Da Costa (2006) for a more general discussion of recent trends in labour force participation by older men.

Chart 12: Working-age population proportions: History and IGR2 projections



The population of traditional working age, 15-64, is also ageing, however, and it is this that makes the participation rates of older people important.

To get a feel for what is happening, note that if there were the same number of people of each age in the population, then exactly 20 per cent of people of traditional working age (that is, aged 15-64) would be between 55 and 64. With a population growing predominantly as a consequence of above-replacement fertility, this percentage is lower — for example, in the 1970s around 14 per cent of people 15-64 were in the 55-64 age group.

Starting in the late 1980s and continuing through the 1990s, the proportion in the 55-64 age range drops noticeably. This is a long-lived echo from the Great Depression of the 1930s when birth rates were unusually low. Demography casts a long shadow.

The proportion in the 55-64 age range starts rising again, however, as the baby boomers reach 55 — the oldest baby boomers reached 55 in the early 2000s. The proportion is projected to continue rising as more baby boomers reach this age range, and then to stabilise as the younger baby boomers pass 65.

Another rise in the proportion aged 55-64 is projected for the late 2030s, which will push it slightly above 20 per cent. We have not done a detailed analysis of the cause of this increase, but suspect that it reflects a bulge in the number of births in the 1980s, when baby boomer women passed through the main child-bearing years, and is reinforced by the higher migration and increasing proportion of young adults among

migrants that we are currently experiencing — a 20-year-old migrant now will reach 55 in the early 2040s.

Spending on pharmaceutical benefits

So far, we have looked at factors that affect real GDP and real GDP per person (and hence also revenue, since revenue is assumed to be a constant share of GDP in the IGR projections). The third topic we want to discuss is on the expenditure side — and it is particularly challenging.

In the IGR1 projections, health spending was the fastest growing component of Australian Government expenditure — rising from 4 per cent of GDP in 2001-02 to over 8 per cent in 2041-42 (Table 1). A large part of this rise was due to spending on the Pharmaceutical Benefits Scheme — the PBS — under which the Australian Government subsidises a wide range of pharmaceuticals.¹⁴ In IGR1, spending on the PBS was projected to rise from a quite small percentage of GDP in 2001-02 — 0.6 per cent — to 3.4 per cent in 2041-42. This was after allowing for a range of measures in the 2002-03 Budget designed to reduce the rate of growth of PBS spending.¹⁵

In IGR2, health spending is projected to grow to 6.8 per cent of GDP in 2041-42 — some 1.3 percentage points less than in IGR1. Most of this change is due to the PBS component, which is now projected to grow to 2.2 per cent of GDP in 2041-42. This is 1.2 percentage points less than in IGR1, but still represents a trebling of its share in GDP in the 35 years from 2006-07 to 2041-42.

So, why is PBS spending projected to grow so fast? Why have estimates been reduced in IGR2? And why is projecting PBS spending so challenging?

The first reason spending is likely to rise faster than GDP is demography. PBS spending, like most categories of Commonwealth health spending, is higher on average for older people (Chart 13). For example, PBS spending per person in 2005-06 averaged around \$1500 for people aged 75-84, but less than \$200 for people aged 35-44, and \$50 or less for people under 25. With more rapid population ageing in coming years, this age profile for spending will take on increasing significance in future.

14 In IGR2 modelling, the PBS includes the Highly Specialised Drug Program and the Repatriation Pharmaceutical Benefits Scheme.

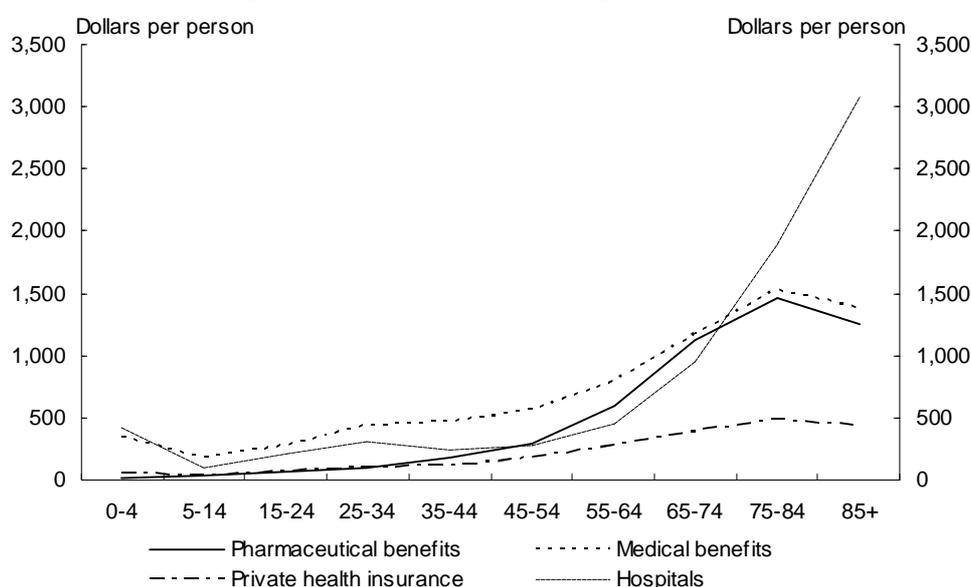
15 These included increases in patient co-payments and safety net thresholds and a range of other measures including ones designed to facilitate the use of less expensive generic drugs. Though introduced in the 2002-03 Budget, the legislation was not passed until 2004. The Government has recently announced further reforms that are estimated to save \$3 billion over 10 years. See IGR1, p 37, and IGR2, p 51.

Table 1: Projections of health spending (per cent of GDP)

	2001-02	2006-07	2041-42	2046-47
IGR1				
Total health	4.0	4.0	8.1	
Pharmaceutical Benefits Scheme	0.6	0.6	3.4	
IGR2				
Total health		3.8	6.8	7.3
Pharmaceutical Benefits Scheme		0.7	2.2	2.5

Source: Tables A1 and A2 in IGR2 and Table A1 in IGR1.

Chart 13: Age profile of health spending per person (2005-06)

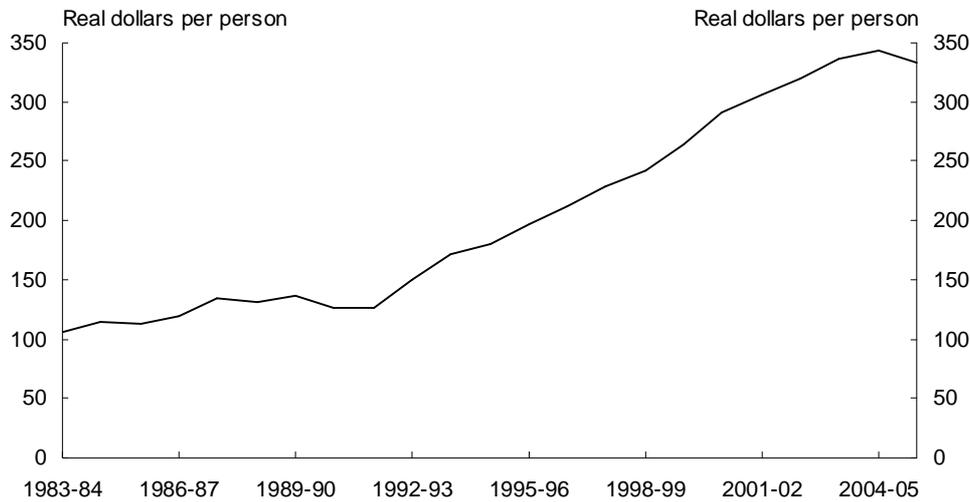


Fortunately, our population projections give us a good general idea of how the age and gender shares of the population will change over time, and this gives us a good start in projecting demographic impacts on PBS spending. There are still uncertainties, however. For example, while increasing longevity seems to be associated with better health, it is not clear whether this reduces the quantity of health spending or is, at least in part, a consequence of increased health spending.

Whatever the uncertainties about demographic factors, the second reason spending is likely to rise faster than GDP produces much greater modelling challenges. This second reason is technological change, particularly the development of new drugs. Over the past 20 years, real pharmaceutical spending per person after adjusting for demographic change has grown at an average annual rate of 6.3 per cent (Chart 14).

This non-demographic increase in real spending per person is likely to continue to generate the greatest cost pressures in future.¹⁶

Chart 14: Pharmaceutical spending adjusted for demographic change



The trends in PBS spending illustrate a major difficulty in making projections for all types of health care. Overall health spending has been growing faster than GDP, at rates that cannot be sustained indefinitely — otherwise health spending would eventually exceed GDP. But while these high growth rates cannot be sustained indefinitely, they may well be sustained for a long time. Health spending is clearly a luxury good — that is, one for which spending rises faster than income. For example, Robert Hall and Charles Jones (2004, 2007) have modelled the relationship between health spending and life expectancy as people's incomes rise. They conclude that people's utility maximising behaviour might lead to a rise in US health spending from around 15 per cent of GDP in 2000 to over 30 per cent of GDP in 2050. Of course, this assumes that increased demand for health care translates to increased spending, and governments have a say in how this translation occurs.

It would be nice to use sophisticated approaches like the one of Hall and Jones to project health care spending, but these approaches are still largely in the research

¹⁶ It is worth digressing, briefly, to make the point that rising spending on health, and especially on pharmaceuticals, should not be thought of as an increase in the price of health services, but rather as an increase in the quantity of health services provided. For example, the listing of a new, more expensive drug on the Pharmaceutical Benefits Schedule may lead to a rise in spending per person on the PBS. But, in general, this new drug provides a health service that was not previously available, or was not available with the same efficacy, and hence provides an increase in the quantity of health services, properly measured.

stage. And, of course, no conceivable modelling approach can do justice to the cost implications of technological advances that have yet to occur.

Fiscal projections of health care costs continue to be based on much simpler approaches — although there remains some variation in the approaches adopted. For example, the Congressional Budget Office, in projecting long-term US spending on Medicare and Medicaid, including the new ‘Medicare Part D’ prescription drug benefit programme, assumes that spending per enrollee grows at a fixed number of percentage points faster than GDP per person. The New Zealand Treasury, in its recent modelling in *New Zealand’s Long-Term Fiscal Position*, allows for an income elasticity greater than one on health care spending, in addition to a residual growth factor. By contrast, the projections of UK health spending by HM Treasury in its *Long-term public finance report* ignore possible non-demographic influences beyond the medium term.¹⁷

In IGR1, the approach adopted for PBS spending was to fit an exponential trend to actual and forecast real non-demographic spending per person from 1983-84 to 2005-06, and to assume that the average real growth rate over this period — 5.64 per cent — would continue over the remainder of the projection period.

This approach has been criticised, for example, by Ross Guest and Ian McDonald (2003), who pointed out the long-run implication mentioned above — that PBS spending would eventually overtake GDP.

The Productivity Commission in its 2005 research report on the *Economic Implications of an Ageing Australia* were more concerned about the consequences for the balance between PBS spending and other health spending. This was partly because of developments since the release of IGR1 and partly because the much higher growth rate projected for PBS spending than for other health spending would imply a fundamental change in their relationship with one another. The PC also preferred to model non-demographic growth in health spending as a premium over the growth in GDP per person rather than as an absolute number.¹⁸

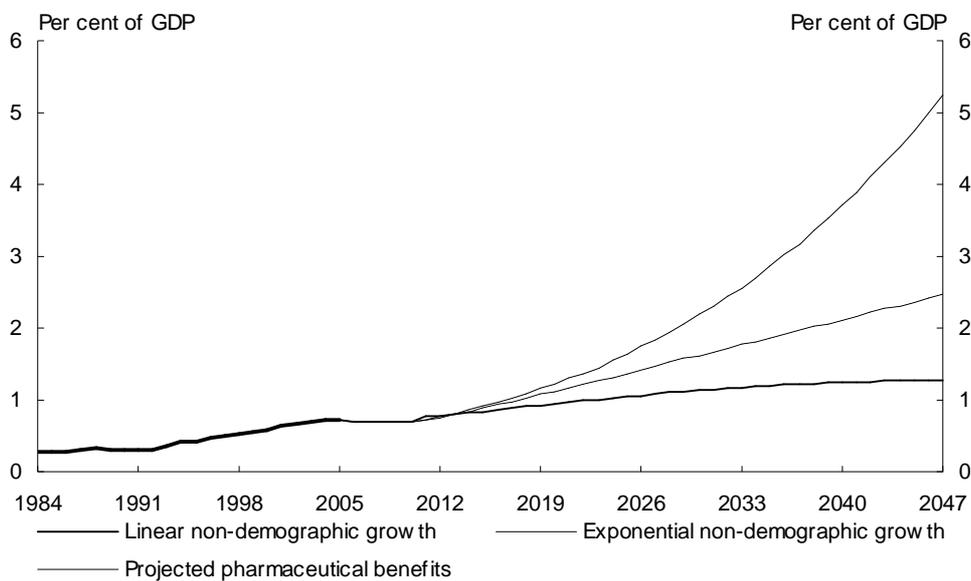
As a result, the PC projected PBS spending by assuming that non-demographic growth started out 4 percentage points above growth in GDP per person, a little less than the premium of 4.9 per cent in history, and gradually fell to 0.6 percentage points above growth in GDP per person, the premium for other components of health spending. The transition was captured by an ‘arbitrary’ logistic function.

17 Congressional Budget Office (2005), Chapter 3; New Zealand Treasury (2006), Chapter 6 (see, in particular, pp 63-5); and HM Treasury (2006) (see, in particular, paras 4.27-4.29 and 5.11, and Box 5.2).

18 Productivity Commission (2005). Health spending is discussed in Chapter 6 and Appendix D. The modelling of non-demographic influences on PBS spending is explained on pp 373-5.

The modelling of non-demographic growth in PBS spending in IGR2 starts by comparing extrapolations of history using exponential and linear trends for non-demographic real spending per person (Chart 15). As is abundantly clear from the chart, the choice of functional form is not an innocuous one — it makes an enormous difference to projected PBS spending, especially towards the end of the projection. In 2046-47, there is a 4 per cent of GDP difference between the PBS spending projection based on exponential non-demographic growth and the one based on linear growth. Nor can history help much in deciding which approach to choose. The empirical fit of the two trends to the aggregate data is quite similar over history but, even if it were not, it is hard to have much confidence that one trend's better fit over history would provide a reliable guide to the future.

Chart 15: Pharmaceutical spending: History and projections



Given this state of affairs, an intermediate projection assumption was chosen, following a methodology similar to that used by the PC. IGR2 assumes that growth in PBS spending will reflect the overall growth in health spending in the long term. The non-demographic annual real growth rate per person is projected to decline gradually from 6.3 per cent (its exponential growth rate over the history shown in Charts 14 and 15) to 3.4 per cent, the growth rate for total Australian Government health spending. As in the PC modelling, the decline is captured using an 'arbitrary' logistic curve. The outcome is that PBS spending is projected to increase to 2½ per cent of GDP by 2046-47 — about 1¼ per cent of GDP more than would be implied by a linear non-demographic trend, but about 2¾ per cent of GDP less than implied by an exponential trend.

It would be nice to claim that the assumption we have chosen is the most realistic of the options available. However, as mentioned earlier, that will ultimately depend on the cost implications of technological advances (particularly the invention of new drugs) that have yet to occur.

A possible response to the uncertainty inherent in the PBS projections would be to provide error bounds or confidence intervals around the preferred projection. The problem with that response is that we have no way of assigning probabilities to the various possible projection assumptions other than to make them up. If we were to do so it would, in our opinion, simply add another layer of arbitrariness to the projections, without adding much of value.

Conclusions

So, what should we conclude from this discussion of the subtleties of migration, the unexpected but welcome increases in labour force participation, and the enigma of health care spending projections?

It is worth keeping in mind that perhaps the most important role for long-term fiscal projections, such as those in the IGRs, is to help identify pressures that are likely to appear beyond the much shorter horizons of annual budgets, so as to be able to design appropriate responses in plenty of time. But, as the examples we have talked about show, there are substantial practical and conceptual challenges involved in making projections over such long periods of time. And, while there have been clear advances in methodology between IGR1 and IGR2, many challenges remain.

Hopefully, our comments today have whetted your appetite, and will encourage you and others to join in what we are willing to forecast ultimately will be a rewarding search for answers to these challenges.

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Transparency and sustainability of the public balance sheet: perspectives from APEC

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This article is based on the paper prepared for the 2007 APEC Finance Ministers' Process. Good fiscal risk management is identified as a policy priority in the Hanoi Medium Term Agenda, agreed by APEC Finance Ministers in 2006. The article raises issues for discussion and provides an overview of emerging practices in the area of fiscal sustainability. The paper concludes by summarising key principles drawn from these practices.²

Achieving economic and social objectives depends on managing risks to fiscal sustainability. This paper aims to facilitate discussion on appropriate ways to enhance fiscal transparency and sustainability by managing key risks from off-balance sheet government activities.

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- 1** The authors are members of Macroeconomic Group in the Treasury. This article has benefited from comments and suggestions from Michael Bath, Gordon de Brouwer, Hugh Hartigan, John Hawkins, Jason McDonald, Murray Petrie, Neil Richardson, Kim Salisbury, Allen Schick, Luke Yeaman, and selected APEC economies. The views in this article are those of the authors and not necessarily those of the Australian Treasury or the Australian Government.
 - 2** The APEC fiscal sustainability principles outlined in this paper were elaborated and endorsed in August at the 2007 APEC Finance Ministers' Meeting, Coolum, Queensland. http://www.apec.org/content/apec/ministerial_statements/sectoral_ministerial/finance/2007_finance.html.

Introduction

Fiscal sustainability is recognised as a key requirement for economic development, stability and resilience among APEC economies. Sustainable fiscal policy enhances economies' resilience to shocks, which in turn enables governments to continue focusing on broader economic and social priorities.

Governments are exposed to a number of risks, and it is the interplay of these risks that can magnify the effects of relatively small events. Financial liberalisation and integration and increased trade have encouraged an expansion in private capital flows. Sudden fiscal instability can expose weaknesses in debt management, macroeconomic frameworks, the financial system, regulatory and supervisory systems, as well as damage economic growth, wealth and economic development.

Off-balance sheet activities of governments are receiving greater attention due to their observed effects on fiscal stability and economic activity. Activities such as public-private partnerships, state-owned enterprises, public pensions, sub-national levels of government, and government guarantees (explicit or implicit) can lead to potential claims on the central government. These risks are often not identified in traditional government accounting, and accrual accounting balance sheets may only capture a small proportion of them.

Where governments have significant risk exposures, a range of factors such as an external shock, a change in market sentiment or a business collapse can quickly crystallise these obligations. Depending on the magnitude of these obligations they can have a significant impact on the budget balance, government indebtedness and fiscal sustainability.

By managing fiscal risks appropriately, governments can avoid the need to spend unbudgeted resources or raise debt and taxes unexpectedly to pay for obligations that may have been foreseeable but against which provisions were not made. Good fiscal risk management does not isolate an economy from shocks, but equips governments with the capacity to absorb the consequences of shocks without compromising other economic and social objectives.

Traditional measures of fiscal performance such as low budget deficits and debt levels are not sufficient indicators for fiscal discipline or medium-term sustainability. Increasingly, investors, credit rating agencies, multilateral institutions and commentators are looking behind the public sector balance sheet at the underlying exposures generated by government activities (Polackova 1998, p 3).

Developing new strategies to manage risks to fiscal sustainability is becoming more important as economies are increasingly characterised by greater use of sophisticated

and complex fiscal arrangements and a focus on longer-term fiscal pressures, such as infrastructure, health care and pensions (Brix and Schick 2002).

An underlying pressure contributing to this trend may be the need for governments, especially in developing economies, to present sound public finances. The desire to demonstrate fiscal prudence (such as achieving deficit targets, reducing debts and balancing budgets) combined with structural reform and satisfying infrastructure requirements are encouraging governments to consider financing mechanisms that may entail higher degrees of risk.

There may be serious consequences if off-balance sheet risks are realised, however, even if risks are not realised, off-balance sheet activities of governments can change economic behaviour. This highlights the need to discuss principles that could guide good practice and that are suitable for all APEC economies in light of different stages of development and institutional capacity.

APEC finance ministers identified good fiscal risk management as a priority in the 2006 *Hanoi Medium-Term Agenda*. In particular, finance ministers recognised that further work was needed on managing off-balance sheet risks and this was a focus of discussion at their 14th annual meeting in Coolumb, Queensland.

The theme complements the work undertaken in Viet Nam's host year in 2006 on the importance of fiscal risks arising from revenue management. It also builds on related work done in Chile in 2004 and two APEC fiscal risk management workshops last year on: 'Addressing Fiscal Risks in Public Finance Systems' Hanoi, Viet Nam and 'Fiscal Risk Management' Lombok, Indonesia.

Identifying off-balance sheet risks

Identifying fiscal risks is the first step towards understanding their possible consequences and formulating an appropriate risk management response. Fiscal analysis is moving beyond conventional approaches to identifying risks which only account for direct revenue and expenditure. Economies are developing more holistic approaches to assessing fiscal performance based on concepts of fiscal sustainability, which includes contingent liabilities and longer-term pressures. The matrix below provides a framework for understanding and identifying off-balance sheet risks.

Table 1: Categorisation of fiscal risk

	Direct An obligation in any event	Contingent An obligation if a particular event occurs
Explicit Government liability as recognised by a law or contract	Sovereign debt Budgetary expenditures (including legally binding long-term expenditures such as public/civil servant salaries and pensions)	State guarantees State insurance schemes Guarantees agreed in public-private partnerships Financial system failure
Implicit An obligation of government that reflects public expectations	Future public pensions, if not required by law Social security schemes, if not required by law	Financial system failure Default of non-guaranteed state-owned enterprise or sub-national level of government Disaster relief

Sources: Adapted from Polackova (1998) and Brixi and Irwin (2004).

The matrix illustrates the importance of looking beyond the balance sheet, which typically only reports on direct explicit liabilities (the non-shaded cell). Off-balance sheet risks include explicit and implicit contingent liabilities, as well as implicit direct liabilities (the dark-shaded cells above). Examples where this framework has been applied to examine contingent liabilities include new member states of the European Union (Brixi 2004), East Asia and the Pacific (Brixi and Irwin 2004), and the Czech Republic (Czech Republic 2007).

First steps towards identifying risk

Fiscal risks are relevant when they threaten economic and social policy objectives. Risks are easier to identify if policy objectives are clearly articulated and understood. Common objectives include stable, effective and efficient government spending and tax arrangements that: meet stated government policy objectives for particular initiatives; minimise behavioural distortions; generate benefits that are greater than costs; and meet overarching economic and social priorities.

A first step in identifying fiscal risks can involve an explicit commitment to fiscal objectives. Examples include Australia's *Charter of Budget Honesty Act 1998*, New Zealand's *Fiscal Responsibility Act 1994*, the Russian Federation's Budget Code (see Appendix A) and Chile's *Fiscal Responsibility Law 2006* (see Appendix A). In New Zealand's case, the law requires fiscal policy to comply with general principles of responsible fiscal management. Flexibility in the New Zealand model enables governments to temporarily depart from these principles (which are broadly defined in the legislation), provided the public receives an explanation why this is necessary and the path to compliance (New Zealand Treasury 2007).

Building capacity to identify risks

Once fiscal policy objectives have been established, governments are in a position to identify risks. While it is usual for a central government agency such as the Treasury or Ministry of Finance to be responsible for meeting fiscal objectives, implementation is often undertaken by other government departments with responsibilities for service or programme delivery.

This creates a role within the Treasury or Finance Ministry for identifying and managing fiscal risks across all government operations. Allocating the responsibility for actively reporting and managing contingent liabilities to heads of departments can be a useful starting point for identifying fiscal risks across government. However, a lack of appropriate resources, including training and support, can make enforcement problematic and limits the degree to which risk identification and management can be comprehensive and robust.

One way of overcoming these capacity issues is to establish a central unit or agency to assist government departments and enterprises to identify and manage risks. Centralisation has been a path followed by New Zealand, Sweden and the Czech Republic to assist with managing debt, but with an expanded role to cover other forms of risks including contingent liabilities.

Measuring off-balance sheet risks

Supplementing traditional measures of fiscal performance

Government budgets are useful tools for assessing the fiscal position when considering the annual balance between revenues and expenditures. However, the objectives of sustainable fiscal policy also require governments to provide the capacity to meet future obligations, enable sustainable economic growth and foster intergenerational equity.

This medium and longer-term perspective is not fully reflected in traditional budgets or balance sheets. Cash budgets often lack clarity on the distinction between current and capital expenditure, ignore public assets, and do not reflect depreciation from inadequate maintenance of public assets (Brix and Irwin 2004). Many governments have adopted or are in transition towards reporting fiscal performance according to the IMF's Government Financial Statistics Manual 2001 (GFS) or variants of accrual budgeting such as the International Public Sector Accounting Standards; (Irwin 2006b, p 14).

The trend towards accrual budgeting has improved the way liabilities are reflected in measures of fiscal performance, particularly for pension liabilities. Even so, accrual

accounting is neither necessary nor sufficient for managing contingent liabilities (Athukorala 2003). Contingencies such as loan guarantees and long-term purchasing contracts, which can have important economic influences on the general economy, do not result in transactions or other economic flows recorded in accrual budgets until they are realised (IMF GFS Manual, p 10). Generally, provision is only made for recording contingencies as memorandum items, which enhances transparency but only to a limited extent.

This highlights the potential for a 'hidden deficit' which is the difference between the reported budget deficit and the actual budget deficit when estimates of total public debt, including contingent liabilities, are included. Kharas and Mishra (2001) estimate that the average hidden deficit of 15 selected developing countries range from 0.3 per cent of GDP (Tunisia) up to 7.9 per cent of GDP (Czech Republic).

In light of the limitations inherent in traditional fiscal performance measures, standard-setting bodies are looking at developing frameworks for measuring and reporting in order to accurately account for contingent liabilities. Improving and adopting new accounting standards is a lengthy process, but there are measures that enable governments to move beyond the minimum standards to improve measurements of fiscal performance (some at a relatively lower cost). For example, governments can decide that:

- departments must report contingent liabilities to a central agency such as the Treasury or Ministry of Finance;
- as far as is practicable, budgets should, when approving a contingent liability (such as guarantees), reflect the expected costs of those liabilities;
- significant contingent liabilities, defined in terms of the type of liability and/or its potential consequences, should be considered for approval in the same way as other forms of expenditure risk in order to enable governments to weigh the cost of the liability against other competing claims on public resources; and/or
- reserves (either notionally or through real-money funds) might be set aside based on the expected cost of contingent liabilities (Brixi and Irwin 2004, p 20).

Methodologies used to measure and prioritise off-balance sheet risks

Information on the probability and consequences of risks enables governments to prioritise actions that may be required to address these risks (Schick 2002).

Subjective approaches are useful for prioritising risks that are not easily quantifiable yet still significant. For example, risks may entail small fiscal costs but generate significant strategic, political or operational consequences that should be accounted for

when formulating an overall risk management strategy. Risks could be rated as high, medium or low to determine priorities for risk mitigation (see Table 2).

Table 2: Evaluating risks

		Probability		
		Low	Medium	High
Consequence	Low	Take the risk	Take risk, but monitor and record	Record, manage and monitor
	Moderate	Take risk, but monitor and record	Management effort worthwhile	Management effort required
	High	Management effort required	Considerable management required	Extensive management essential

Source: Adapted from Australian and New Zealand Standard AS/NZS 4360.

In this framework, risk managers have the flexibility to define what low, moderate and high consequences mean. For example, a low consequence might mean that the risk would not require the involvement of the Minister or executive management in determining a response. A high consequence could mean that the government may be less effective or the economy could enter into a recession.

Risk managers may decide that a low probability could mean that the risk may occur once in 10 years, while a high probability could mean that the event is likely to occur often. By allowing flexibility in how the government defines consequences and probabilities, the framework can match the effort on risk mitigation to a government's risk preference.

Quantifying risks involves estimating the expected or, in some instances, the worst-case impacts³. The value of contingent liabilities can be estimated in various ways including actuarial techniques, econometric and financial models and contingent claims analysis (Currie and Velandia 2002, p 14). Many of these focus on the concept of estimating the future pattern of losses based on historical tendencies. Where historical data are not available, some APEC economies can estimate the value of contingent liabilities using Monte Carlo simulations (Mody 2000; Chilean Ministry of Finance 2007).

³ Au-Yeung, McDonald and Sayegh (2006b) provide an overview of the economic consequences associated with government risk bearing.

Transparency of off-balance sheet risks

The benefits and costs of transparency

The IMF's Code of Good Practices on Fiscal Transparency was developed in response to a broad consensus that good governance is of central importance in achieving macroeconomic stability and high-quality growth, and that fiscal transparency is a key aspect of good governance. Greater transparency can improve the credibility of fiscal policy and, in turn, create greater public support, more favourable access to domestic and international capital markets, and lower the incidence and severity of crises.

Measures to improve transparency recognise that effective economic management depends on the relationship between the government and its stakeholders (both domestic and international). For example, transparency can foster confidence and credibility in the eyes of financial markets which can generate real economic and financial benefits in the form of greater investment and lower borrowing costs for the government.

The risks that domestic and foreign investors take in providing capital are intensified in markets that are characterised by a limited history and inadequate disclosure of accurate information (Polackova 1998, p 10). In the absence of credible information, more weight may be attached to rumours about the credibility of a government's fiscal position, and these doubts may encourage investors and creditors to question the robustness of other government operations (Dornbusch 2002). These factors can explain a sudden exit of capital from an economy with unsustainable fiscal risk exposures.

Transparency can play a strategic role for governments in galvanising support for changes in policy direction, demonstrating long-term planning, communicating the trade-offs and resource limits that governments face, and empowering the public to assess and plan for risks to which they are exposed through the government's fiscal position. The way risks are reported to the public — for example, through the use of longer-term projections — influences public debate and support for policy action by illustrating the potential long-term benefits from changes in current policy settings or the challenges of sustaining current policy. In New Zealand, long-term projections are credited with empowering individuals to make informed choices about personal financial and saving decisions by raising public awareness of funding limitations and fiscal pressures which the government faces (New Zealand Treasury 2007).

Care should be taken when publicising liabilities as it could encourage moral hazard. In the case of implicit contingent liabilities, a government's exposure increases as a result of moral hazard if publicly released cost estimates are interpreted as a commitment by the government to underwrite these risks or a statement of the

financial resources available to potential claimants. That said, making contingent liabilities explicit could also make it clear that some expectations are poorly founded.

Chile addresses moral hazard issues related to revealing the estimated cost of pending litigation against the state by only publishing the total value of awards and costs incurred from actual disbursements in the case of claims supported by the courts (Chilean Ministry of Finance 2007).

Assessing transparency

Economies can assess their fiscal transparency by applying the fiscal module of the Reports on Observance of Standards and Codes (ROSCs). To date, 86 countries, including Australia, have voluntarily undertaken a fiscal transparency ROSC. ROSCs have been well received by governments from economies at various stages of economic development, and they are an effective tool for communicating areas for improving fiscal transparency (IMF 2007).

The ROSC process helps economies evaluate their practices relative to the Code of Good Practice on Fiscal Transparency. Generally, the assessments include suggestions on ways that fiscal transparency can be improved. It aims at good practice, not necessarily best practice and recognises that countries differ widely. In this context, for example, the code asks that a government's accounting system be capable of generating reports on arrears, rather than advocating accrual basis accounting for all countries (IMF 2007). This flexibility suggests that all economies with an interest in improving fiscal transparency can benefit from assessments. The code is also accompanied by a manual which provides guidance on ways in which good practices can be met.

The IMF code of good practice is built on four principles:

- **Clarity of Roles and Responsibilities** — specifying the structure and functions of government, responsibilities within government, and relations between government and the rest of the economy.
- **Public Availability of Information** — emphasizes the importance of publishing comprehensive fiscal information at clearly specified times.
- **Open Budget Preparation, Execution, and Reporting** — covers the type of information that is made available about the budget process.
- **Assurances of Integrity** — deals with the quality of fiscal data and the need for independent scrutiny of fiscal information.

A summary of low cost, straightforward actions that governments can undertake to improve transparency can be found in Appendix B: An IMF Summary of Fiscal Transparency Assessments.

Measures to enhance transparency of off-balance sheet risks

Fiscal transparency and economic credibility is enhanced through the disclosure of fiscal risks, contingent liabilities and other off-balance sheet commitments and can complement other existing budget-related reports. Examples include: reports such as a statement of fiscal risks that focuses on contingent liabilities; an evaluation of sub-national levels of government and public enterprises; and licence details and contract summaries related to public-private partnerships. The Victorian Government, for example, is required to publish all contracts valued over \$10 million (subject to some information which can be withheld under their Freedom of Information Act for commercial reasons).

The trend towards focusing on fiscal sustainability is leading some governments to publish longer-term projections of their capacity to finance programmes and service debt obligations (OECD 2006).⁴ Long-run projections generally focus on the possible fiscal consequences of key pressures to illustrate the need for changes in policy. The projections are not considered to be forecasts or targets, since the projections are made under explicit assumptions that are designed to exclude the impact of any remedial actions by government (Irwin 2006b). The New Zealand Treasury's projections highlighted the need to either raise taxes or change policies and spending patterns to meet the sustainability challenges raised by population ageing. However, an important conclusion of this analysis is that only very small changes in the near-term are needed in order to generate a very large improvement in the long-term fiscal position (New Zealand Treasury 2007). See Appendix A on long-term projections in relation to China's pension expenditure.

Measures to enhance transparency can be undertaken at varying levels of detail and tailored to suit the capacity of governments to gather, analyse and evaluate risk, produce estimates and produce reports. Where resource constraints limit the quantification of risks, governments could consider providing a list of contingent liabilities and a summary of anticipated future pressures.

4 These include: Australia's Intergenerational Report; New Zealand's Long-Term Fiscal Position; United Kingdom's Economic and Fiscal Strategy Report; the European Union's Projections for Stability and Convergence Programme; and the United States' Long-term Projections of the Congressional Budget Office.

Table 3: Public reports for off-balance sheet risks

Type	Reporting options	Frequency
Public-private partnerships	Contract summaries – particularly for significant contracts (subject to information disclosure laws)	On agreement
	Licensing details	On issue
	Methodologies underpinning cost/benefit estimates	On agreement
State-owned enterprises and sub-national levels of government	Statement of risks for state enterprises and sub-national levels of government	Annual
	Ad hoc reports on matters that have arisen any may affect solvency	Ad hoc
Guarantees	Statement of risks	Annual
Longer-term fiscal pressures (for example, pensions)	Long-term fiscal reports containing 30-40 year projections	Ad hoc or regularly (for example every 4-5 years)

In light of the many methodologies available for estimating fiscal costs arising from contingent liabilities outlined in the previous section, the integrity of the published estimates relies on also publishing the methodologies underpinning the calculations. Independent auditing has a role in this regard, by providing an objective assessment of governments' methodologies and adherence to standards on fiscal reporting. Audits conducted by independent agencies with sufficient authority and resources add credibility to a government's economic management and its measures of fiscal performance.

Managing off-balance sheet risks

General approaches to reducing exposure from fiscal risks

Approaches to managing risk can be general, whereby risks are collectively managed through overall economic management, or targeted, whereby each risk is addressed individually.

General approaches to risk management are based on market-oriented economic policies that foster sustainable economic growth, competition and investment. This approach addresses some of the underlying fiscal pressures — for example through privatisation of state-owned enterprises or by fostering robust financial systems that can insure the private sector against risks.

In economies characterised by well-functioning markets and a strong investment climate, governments experience less need to pursue financing options that may entail higher degrees of risk. For example, well-functioning financial systems can foster private-sector involvement in infrastructure, health insurance, pensions and other social services with less need for fiscal measures such as guarantees (Brix 2004, p 13). Some recent privatisations have been accompanied by guarantees to encourage

private-sector participation (Mody 2000), and this has highlighted the need to support movement towards market-oriented policies with well-developed regulatory and public-disclosure systems (Polackova 1998, p 18).

Creating fiscal space also reduces fiscal pressure by enhancing the government's capacity to maintain socially important programmes and broader economic objectives while accommodating fiscal pressures (World Bank 2007). Financial and debt management plays a key role in providing 'room to move', particularly in relation to contingent liabilities, by limiting the total debt exposure of the government, ensuring there are sufficient funds to meet obligations and maintaining a low cost of borrowing through adherence to fiscal discipline.

Kharas and Mishra (2001) note that many hidden deficits are incurred during financial crises, which means they are often initially paid by domestic and external borrowings, and finally by temporarily raising taxes or shrinking government expenditures, or both. These sudden temporary increases in tax rates and cuts in government expenditures are likely to be associated with large deadweight losses. This has led some governments to improve the efficiency of their budget processes by allocating funds to meet future contingent claims and capital gains and losses (Brixi 2004, p 13).

Soon after taking office in March 2000, the Chilean Government aimed to improve fiscal discipline by committing to maintain an annual surplus of 1 per cent of GDP. The rule was designed to set aside funds for future generations; help the government face future contingent liabilities rather than accounting for losses when they occur; compensate for the central banks operational deficit; and maintain the Government's capacity to save (Chilean Ministry of Finance 2007).

While establishing a contingent liability fund can ensure the government meets its future obligations it may not always be appropriate, especially if retiring debt can provide greater fiscal relief. Contingent liability funds tend to operate effectively when sufficient time is provided to establish the guidelines and accountabilities required. Otherwise, there are risks that the fund may be used for other purposes not originally intended, and may have little impact on a government's credibility.

Targeted approaches to reducing exposure from key off-balance sheet risks

A targeted approach to off-balance sheet risks complements the measures outlined throughout this paper relating to identification, measurement (including accounting treatments) and transparency. A targeted approach to reducing government exposure from off-balance sheet risks involves three complementary tasks: addressing the underlying sources of risk; transferring the risk to parties best able to bear the risk; and

managing and monitoring any residual risk that cannot be mitigated or transferred in case there is a sudden call on government funds.

Measures for key off-balance sheet risks are presented in this framework in Table 5 below. Each measure entails costs and benefits which are important to consider in the context of a government's tolerance for risk. While a government's risk preference may not always be easily identifiable, it can sometimes be revealed through accountability structures, such as requiring ministerial approvals before issuing guarantees.

Requesting ministers to compare alternatives for each guarantee can help identify risk preferences, but this process can be an impost on ministers with other higher priority responsibilities. Therefore, gaining an explicit understanding of risk preferences, through the establishment of departmental objectives, administrative guidelines and accountability structures can be a more effective method of balancing controls with timely and considered decision making (Lewis and Mody 1998, p 3).

Table 5: Risk management approach for key risks

	Addressing the source	Transfer or share risk	Manage residual risk
State-owned enterprises	Privatisation (NB, this entails its own set of risks that would need to be managed) Full accrual reporting (audited)	Risk sharing with creditors Charge commercial prices	Surveillance of authorities' debt and guarantee provisions Strengthen reporting, review subsidies and conduct financial audits Report quasi fiscal activities on the balance sheet SOE deposit mechanism (for on-lending)
Sub-national levels of government	Adjust inter-governmental financing arrangements to balance resources and responsibilities	Controls on borrowing and issuing of guarantees	Surveillance of authorities' debt and guarantee provisions
Pensions and social security systems	Improve regulatory frameworks within the financial system to facilitate private retirement savings and pension funds Encourage participation in the labour force	Move from government supported defined-benefit pensions to private plans based on voluntary or mandatory contributions	Provisioning in the budget or a contingent liability fund Long-term reporting

Table 5: Risk management approach for key risks (continued)

	Addressing the source	Transfer or share risk	Manage residual risk
Guarantees — explicit	<p>Consider other forms of support for projects or entities that are not viable without government assistance.</p> <p>Caps and other controls to limit the issue of guarantees</p> <p>Integrate into the budget process</p> <p>Clear and credible fiscal management</p>	<p>Reinsurance</p> <p>Charge a risk premium</p> <p>Identifying the various risks associated with a guarantee, and wherever possible only accept risks that can be controlled or managed</p> <p>Co-insurance</p>	<p>Contingent liability funds</p> <p>Standby credit arrangements</p> <p>Continual monitoring for default</p> <p>Report approved guarantees in the budget</p> <p>Incorporate fiscal sustainability analysis</p> <p>Budget where appropriate and feasible</p>
Guarantees - implicit	<p>Sound economic and financial management</p> <p>Cap the maximum payout for relief programs</p> <p>Encourage direct access to international insurance</p> <p>Statement of policy to manage expectations</p>	<p>Credible announcements on the limitations of government to minimise expectations of bailout</p>	<p>Insurance (for example, weather risks)</p>
Public-private partnerships	<p>Correcting for market failures that reduce access of investors to adequate risk protection mechanisms.</p> <p>Limits and controls on PPP commitments</p> <p>Improved risk identification and measurement to adequately cost and compare PPPs to public provision.</p>	<p>Improve negotiation capacity to achieve an optimal sharing of risks among investors and creditors</p> <p>Encourage private investors to obtain insurance in the markets</p>	<p>Strengthening procedural controls and disclosure requirements on PPP commitments</p> <p>Continually monitor against key performance indicators (including solvency and quality of output)</p> <p>Place on budget balance sheet, i.e. account PPPs as a government investment</p>

Sources: Schick (2002); Magnusson and Bergström (2000); Brixi and Mody (2000) and (2002); Brixi and Irwin (2004), Brixi (1998); Irwin (2006).

State-owned enterprises and sub-national levels of government

The off-balance sheet risks arising from the borrowing activities of state-owned enterprises (SOEs) and sub-national levels of government can often be attributed to imbalances between their responsibilities and their resources, which creates a preference for off-budget forms of support (Brixi and Irwin 2004, p 24). These forms of support include guarantees, letters of comfort and other commitments to absorb risks.

SOEs and sub-national levels of government are also characterised by the principal-agent problem, which creates difficulties for fiscal surveillance. Building capacity to enhance fiscal surveillance by central agencies would be assisted by greater

transparency in the way sub-national governments report their risk exposures. Selected jurisdictions in Australia, Canada, India and the United Kingdom address some of these issues by requiring agencies to produce a statement of risks (Brixl 2004, p 19) and by encouraging consistent accounting practices. Brixl (2004, p 20) proposes that these measures can be supplemented with rewards for enhanced transparency and penalties (such as public statements of disappointment) for opacity and excessive risk taking at a relatively low cost.

Measures such as capping the cost of budgetary and off-budgetary support for public enterprises and considering this support among competing expenditures through the budget process can also limit the exposure of governments (Brixl 2004, p 19). However, implementing these limits can be complicated by the nature of many public enterprises, since public and political pressures often keep prices below costs, thereby strengthening the call for subsidies in the form of guarantees with a high probability of default to maintain services levels.

Pensions

Future pension obligations already accrued for government employees are direct explicit liabilities, yet cash-based accounting ignores their future cost. This partly explains why some governments may not have realised a growing gap between their pension liabilities and their capacity to pay. Government commitments (either explicit or implicit) to provide public pensions are also challenging economies characterised by aging populations. These fiscal pressures come from projections that suggest pension liabilities and other age-related costs will rise at the same time as revenues are projected to fall because there are fewer people of a working age to contribute to government revenues.

The need to address these imbalances has led governments to reform their pension systems, which in many cases has also lifted national saving, promoted the development of the domestic financial market, and removed significant barriers to growth in the economy (OECD 2004). Reforms can include developing financial markets by improving regulatory framework for pension funds and fostering the development of private insurance markets to provide social insurance, especially for health care and unemployment.

In 2006, the Australian Government established the Future Fund, a dedicated asset fund to offset unfunded public sector superannuation — the largest liability on the Government's balance sheet (Au-Yeung, McDonald and Sayegh 2006a). By building up assets in the Future Fund, the Government aims to increase national savings and ensure that the current generation, rather than future generations, meet these costs. Contributions to the Fund have been made from budget surpluses and proceeds from

asset sales. Currently, the Fund has a balance of over \$50 billion and it is well placed to achieve its target of offsetting the unfunded superannuation liability by 2020.

In the early 1980s, Chile introduced a fully-funded pension system based on individual capital accounts, managed by private companies, to replace a traditional pay-as-you-go regime (IMF 2005). Under the system, individuals are required to deposit 10 per cent of their wages into these accounts, and to make an additional contribution of 2-3 per cent of wages as a premium for disability and term life insurance as well as to cover administrative costs (OECD 2004).

Governments that have recently implemented pension reforms have also provided minimum pension guarantees to ensure that retirees do not outlive their pensions (OECD 2004; Brixi 2004, p 5). To fully harness the efficiency and equity benefits of this approach, it is necessary to treat these guarantees as risks and manage them accordingly. Appendix A provides an overview of Chile's Pension Reserve Fund which was introduced in 2006 to address these risks.

Explicit guarantees

Explicit government guarantees include obligations to pay outstanding debts (that is, the government acts as a loan guarantor) or amounts to maintain the solvency of other public or private entities (for example, development banks or sub-national levels of government and exchange rate guarantees) (Magnasson and Bergström 2000, p 19; Polackova 1998, p 5).

Experience suggests guarantees are more likely to support government priorities if there is: a framework for judging when a guarantee is likely to improve a project; the capacity to estimate the costs of guarantees; and rules that require the careful consideration of a guarantee's costs and benefits (Irwin 2006, p 11).

Governments can limit their risk exposures by avoiding obligations that are contingent on factors outside their control, and instead bear the risks associated with changes to, and the implementation of, its own laws and regulations (such as with most private infrastructure projects). For example, governments are more likely to experience sudden fiscal pressures when they agree to cover other risks, such as uncertainty over construction costs, future demand for the project's services, whether the firm will repay its debt, and currency risks (Brixi 2004, p 11).

There is high uncertainty about outcomes. For example, the New South Wales Government provided guarantees to a private company for a privately constructed, owned and operated tollway to improve traffic flows through central Sydney. The guarantees were based on estimates of traffic volumes which did not eventuate (even when the toll was halved, traffic volumes only increased to approximately one third of their originally estimated values) (NSW 2006). Malaysia also experienced a lower than

expected demand for light rail projects which triggered payments to project sponsors under contractual guarantee clauses (Mody 2000).

While there are difficulties in monitoring and controlling guarantees due to their balance sheet treatment, governments can ensure they have sufficient cash on hand to make guarantee payments when they fall due through a combination of:

- provisioning in the budget (for example, Sweden notionally transfers funds via the ministry issuing the guarantee to the government's main account);
- reserving in a contingent liability fund — for example, the United States (Currie and Velandia 2002, p 23), New Zealand's Natural Disaster Fund and superannuation funds (New Zealand Treasury 2007), Chile's pension fund (Chilean Ministry of Finance 2007) and Australia's Future Fund;
- placing limits on the total expected value of all guarantees (for example the Netherlands) (Currie and Velandia 2002, p 24);
- reducing debt based on the expectation of funding liabilities from future borrowing or other sources such as tax revenue (this can be a by-product of provisioning in the budget); and/or
- entering a standby credit arrangement to borrow funds if required (Brix and Irwin 2004).

The Swedish Government makes provisions for contingent liabilities using a notional fund. In Sweden, the National Debt Office assesses the risks involved in issuing guarantees on behalf of the Swedish Government and charges an annual premium for these guarantees; Magnasson (1999). This charge is reflected in their budget and facilitates the same kind of scrutiny that is applied to direct grants or other form of government expenditure; Bath (2007). In Sweden, guarantee premia are pooled in a notional accounting reserve fund as opposed to a 'real money' fund. It is created to provide transparency of outcomes when contingent liabilities are triggered. In other words, if the notional reserve fund were consistently in deficit, it would signal that the premium setting process was consistently underestimating the risk associated with contingent liabilities (Magnasson 1999). This delivers many of the transparency benefits associated with contingent liability funds, with reserving opportunities in the form of lower debt until such time a claim is made.

Once a guarantee is issued, prudent management involves monitoring for circumstances that will create a call on government. To assist with this process, governments can oblige creditors to provide information through regular annual and

interim reports, and exceptions based reporting or meetings on matters that may precipitate a default.

The Swedish example illustrates how some countries are using debt management offices to monitor and manage contingent liabilities such as guarantees. This is partly due to similarities in the skills and techniques applied to debt management and risk management — for example, in relation to calculating market and credit risks and knowledge of financial markets. Therefore, countries tend to leverage from the competence of the staff in these roles. In addition, some debt management offices have a direct role in granting guarantees to sub-national governments and other government entities, and so debt management agencies can obtain a holistic perspective on the entire debt portfolio, including contingent liabilities (Magnasson and Bergström 2000).

Implicit guarantees

Provisioning for implicit guarantees through contingency funds or other forms of reserving can create the moral hazard problems discussed earlier. Provisioning for certain types of implicit guarantees will generate behaviour changes by the public that may exacerbate the risks and subsequent costs to government. However, natural disaster contingency funds, such as New Zealand's, or Chinese Taipei's Residential Earthquake Insurance Pool (Chinese Taipei Ministry of Finance 2007) are examples where this moral hazard effect is not likely to be an issue.

Public-private partnerships

A growing number of infrastructure projects are now undertaken as public-private partnerships (PPPs). Under PPP arrangements, governments contract the private sector to finance, build and operate a project over a substantial period of the infrastructure's economic life (Katz 2006).

In some cases, PPPs may not represent value for money, bypass expenditure controls that enable the government to track its fiscal position, and grow to a point where they jeopardise the government's fiscal stability (Irwin 2006, p 6). Despite these concerns, there are solid grounds for entering into PPP arrangements, and in many cases the risks are not from the nature of PPP obligations, but whether they are undertaken for the right reasons and are well managed.

Governments may find that market-based pricing for infrastructure has more public support if it delivered through a PPP arrangement. However, a poor public perception of PPPs as a result of past experiences may constrain a government's ability to use this mechanism in future. A track record of success can be built by engaging in PPP projects characterised by value for money and public benefits.

Economies can benefit from experience which suggests that the fiscal savings from PPPs come from efficiency gains from how the businesses are run — not from up-front investment costs or from replacing explicit subsidies with off-balance sheet support (Brixi 2004, p 9).

PPPs are more likely to deliver longer-term benefits when there is a framework for comparing the cost of public and private financing options, a system for incorporating PPP commitments into fiscal monitoring, standards for reporting these obligations to the public, and rules that create incentives to make good decisions (Irwin 2006, p 18).

Measures such as a ‘public sector comparator’ help make judgements about whether a PPP project will delivery value for money, but overall outcomes depend on higher quality and better maintained infrastructure over the longer term. Factors including price, quality of service delivery to the community, design amenity and the sustainability of the financial arrangements are all important considerations (VDTF 2007, p 2).

As a short-run precaution for governments that make extensive use of PPPs, limits on the total volume of outstanding PPP commitments as a percentage of: total expenditure (for example, Hungary), total revenue (for example, Brazil) or GDP may help control and discipline the growth of PPPs. Where the conditions for making PPP decisions provide value for money compared to other forms of delivery, these limits can be replaced with rules and incentive structures that safeguard the public interest. For example, the Victorian Government, ensures PPPs compete for budget funding with all other capital projects. Full capital budget funding is set aside for non-self funding projects before seeking expressions of interest from the market, allowing projects to proceed by traditional delivery should private bidders not offer value for money (VDTF 2007, p 3).

Governments can establish rules that only allow PPPs when the circumstances are likely to generate long-term fiscal benefits and are in the public interest (Katz 2006). These circumstances are likely to arise when the government can:

- specify project outcomes in service level terms (for example, defining the outcomes and performance standards the government is seeking rather than the inputs to be used), thereby leaving scope for the service providers to innovate and optimise;
- specify outcomes in a way that performance can be measured objectively and with rewards and penalties being applied;
- decide on objectives that will be long lasting, given the length of the contract;

Transparency and sustainability of the public balance sheet

- **match the private sector's negotiating skill; and**
- **limit the risks it bears wherever possible to those directly associated with its own policies.**

Governments have strengthened their capacity to manage PPPs by establishing specialised agencies or units. Examples include Partnerships Victoria, established by the Victorian Government in 2000 and Indonesia's Risk Management Unit established in 2006. These entities could examine the merits of using PPPs for infrastructure and other services and tend to operate most effectively when there are clear objectives, well-defined accountabilities, comprehensive guidelines and public disclosure to enable robust evaluations that are not impaired by conflicts of interest.

Concluding remarks: The APEC fiscal sustainability principles

While the preceding discussion has identified a number of challenges and issues in relation to addressing off-balance sheet risks, several principles have emerged which economies may find useful in addressing key off-balance sheet risks. The APEC fiscal sustainability principles include:

- **fostering well-functioning markets to reduce fiscal pressures on governments;**
- **establishing a clear framework of accountability and responsibility for addressing fiscal risks;**
- **collecting and reporting information about on and off-balance sheet risks across the whole of government;**
- **assessing the potential consequences of current and emerging fiscal risks or long-term pressures to determine the best ways to manage these risks;**
- **including risk in government measures of fiscal performance to help governments understand the true nature of their fiscal position;**
- **improving transparency and accountability to the public through appropriate means; and**
- **creating fiscal space or provisioning — even notionally — for expected future payments, especially for liabilities with a high probability of realisation in the near to medium-term.**

At the 14th APEC Finance Ministers' Meeting, ministers highlighted the importance of these principles to guide further progress, recognising that the form of implementation was dependent on the individual needs of each economy. Ministers also identified a need for further guidance to support continued fiscal sustainability. In this context, they noted that the IMF and World Bank may provide further practical insights into best practices in managing fiscal risks.

Overall, ministers welcomed the steps being taken by APEC economies, agreeing that small changes made now can generate large improvements in the long-term fiscal position (APEC 2007).

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APPENDIX A

Selected economies' experience in fiscal transparency and sustainability

Chile's contingent liabilities

Chile's Ministry of Finance and Budget Office has emphasised the growing importance of contingent liabilities as a potential source of financial instability. As the government gradually changed from direct financing and provision of services to private provision with minimum revenue guarantees in some contracts, the size of contingent liabilities has grown. Such liabilities are not adequately accounted for in the budget and balance sheet, so measures have been introduced to reduce their risk to the sustainability of public finances in the medium and long-term.

Since 2000, the budget report to Congress has included a section on contingent liabilities and Chile's budget office (DIPRES) is developing instruments that allow for determining and quantifying contingent liabilities. The Fiscal Responsibility Law of 2006 represents a major milestone regarding the conduct of fiscal policy and management of fiscal finances in Chile. Under this law, the Budget Office must provide information annually on the commitments it has taken through the granting of fiscal guarantees, including an estimate of the legal and contractual financial commitments that lead to contingent liabilities.

The law also provides for the management of the minimum pension guarantee (a guarantee to cover private pensions that fall below a guaranteed minimum amount) and the payment of assistance pensions. Specifically, the law creates the Pension Reserve Fund, in which the effective fiscal surplus of the previous year must be deposited but without exceeding the equivalent of 0.5 per cent of GDP and a floor of 0.2 per cent. During the first ten years, the fund only accumulates resources, and there are no withdrawals. The funds can be accumulated in domestic or foreign currency and can be invested domestically or abroad. The management of the portfolio will be allocated on the basis of public bidding.

Source: Chilean Ministry of Finance, 2007.

China's long-term projections for pensions

China's long-term projections show that its ageing population is creating fiscal pressure in the form of higher pension expenditure. Government spending on pensions is forecast to increase from approximately 24 billion yuan in 2007 to over 40 billion yuan in 2030. While these projections highlight the potential consequences of maintaining current policies, the projections also demonstrate the benefits of potential solutions. For example, increasing the retirement age could reduce total estimated pension expenditure by over 24 billion Yuan between 2007 and 2030.

The key findings of China's analysis can be applied to other longer-term fiscal risks and include the importance of: addressing long-term fiscal risks, such as pension liabilities; identifying risks to financial stability early in order to investigate and implement appropriate solutions before any problems emerge; and ensuring sufficient funds are available to meet significant liabilities.

Source: Chinese Ministry of Finance, 2007.

Fiscal transparency and sustainability in the Russian Federation

The Russian Federation adopted a number of measures to improve fiscal sustainability following the 1998 financial crisis. These include the introduction of controls on new government borrowing in foreign capital markets. The Russian Federation also adopted a number of budget rules which were incorporated into the Russian Budget Code. These rules regulated the preparation and execution of budgets at all levels of government, established controls for budget deficits and borrowing, and provided contingency plans in case budget revenues were lower or higher than planned. More recently, the Russian Federation is transitioning towards medium-term budget planning.

Russia also recently introduced a Register of Expenditure Commitments to enhance transparency and improve reporting. This register reflects budget obligations approved by laws and regulatory and legislative Acts, and may be used in the future to include the full value of obligations related to approved long-term programmes and investment projects. These measures, including favourable oil prices have helped reduce public debt from over 100 per cent of GDP in 1999 to around 9 per cent of GDP at the end of 2006.

Source: Russian Ministry of Finance, 2007.

APPENDIX B

IMF summary of fiscal transparency assessments

Although substantial improvements in transparency may require further capacity building, some possible quick and straightforward actions include:

- clearly specifying in the budget presentation any new policies and how they fit into existing policies, together with appropriate costing information;
- presenting at least annually — to the legislature and public — a statement regarding the results achieved for major budget programmes.
- making available information on government activities financed through extra-budgetary funds, and how these activities are consistent with broader policy objectives and ensuring that these accounts are audited;
- including information in the budget documentation on new and outstanding loan guarantees, including their purpose and likelihood of being called;
- enhancing budget documentation to include outturn data from past years and realistic projections, and including functional and economic classifications;
- including a discussion of fiscal risks as part of the budget documentation;
- explaining the policy purpose, incidence and costs related to tax expenditures and quasi-fiscal activities, as part of budget documentation;
- clarifying legislation related to taxation with the specification of appropriate implementing regulations that curtail the room for discretion;
- strengthening internal and external audit functions; and
- implementing a medium-term framework (which may start in a fairly modest way with macroeconomic and fiscal policy projections).

Source: IMF (2007, p 12-13).

The role of education in enhancing intergenerational income mobility

Joann Wilkie¹

How income is transmitted from generation to generation is important to understanding the distributional impacts of policy. Compared with other OECD countries, labour income in Australia is relatively mobile across generations and Australia also has a moderate level of inequality, based on current household disposable income. OECD countries, with the exception of Canada, have either high inequality and low mobility or low inequality and high mobility. Education is an important factor influencing the extent to which income is transmitted from parent to child. The relatively high standard of minimum education outcomes in Australia and Canada, as reflected in the OECD's Programme for International Student Assessment scores, are likely to play an important role in explaining Australia and Canada's experience. Education outcomes alone, however, do not fully explain this combination of relatively high intergenerational income mobility and moderate income inequality.

1 The author is from Macroeconomic Policy Division, the Australian Treasury. This article has benefited from comments and suggestions provided by Meredith Baker, Greg Coombs, Graeme Davis, Liam Findlay, Jyothi Gali, Steve Kennedy, Kruno Kukoc, Tony McDonald and Gene Tunny. The views in this article are those of the author and not necessarily those of the Australian Treasury.

Introduction

The distribution of consumption possibilities across different groups in society, geographic regions and generations is a marker of a society's wellbeing. It is one of five elements taken into consideration in framing the Australian Treasury's policy advice to Government. The aim of this policy advice is to enhance the wellbeing of Australians.²

The focus of this paper is on the intergenerational mobility of income from work. It explores some of the mechanisms which reinforce the influence of parental income on children's income in adulthood, as well as those that offset parental income.

Understanding how income is transmitted from generation to generation is important when analysing the impact of policy on the intergenerational distribution of consumption possibilities.

The following sections of this paper outline how intergenerational income mobility is measured, its level in Australia and selected OECD countries, and the mechanisms by which income is transmitted across generations. The paper will also discuss the relationship between mobility and current disposable household income inequality.

Intergenerational mobility of income from work

If an individual's earning capacity was wholly randomly determined, then over time and across generations, labour income would regress to the mean. In a society like this parents would have no influence over their children's earning capacity.

On the other hand, if jobs are inherited (as in the case of serfdom) rather than allocated according to merit, then a child's earning capacity will be solely determined by the parents' socio-economic position and it will remain unchanged from generation to generation. This would result in a suboptimal allocation of talent.

Such societies are characteristically stagnant, with rigid economic rules. Resources do not tend to be allocated to where they will be most productive. And, there are few incentives for individuals to invest in their human capital, let alone their children's.

2 The Treasury wellbeing framework consists of the following five elements: (i) the level of opportunity and freedom that people enjoy; (ii) the level of consumption possibilities; (iii) the distribution of consumption possibilities; (iv) the level of risk that people are required to bear; and (v) the level of complexity that people are required to deal with (Henry 2006).

There are few societies today that exhibit either of these extremes. Increasing their children's earning capacity may be a form of consumption for parents that adds to their own wellbeing.

A range of factors impact, to some extent or another, on an individual's earning capacity. These include education, health status, cognitive abilities and migrant status. And economic growth has enhanced the opportunities for people to improve their social and economic standing relative to those of their parents.

Social and economic characteristics, such as income, education, and occupations, may be transmitted across generations in varying degrees. Where low income and social isolation are transmitted from parent to child there is cause for concern as it limits the opportunity for these children to develop their potential.

Welfare income, as opposed to income from work or assets, can have negative effects on a number of outcomes for children, including reducing their chances of graduating from high school, reducing test scores, and reducing earnings and hours worked (Havemann and Wolfe 1994; Corcoran 1995; and Lefebvre and Merrigan 1998).

In Australia, Pech and McCoull (2000) have shown that children whose parents relied heavily on income support were more likely than other children to rely on it.³ In Canada, Corak et al (2004) show that there is a 10 percentage point difference in the use of unemployment insurance between people whose fathers received unemployment insurance and those whose fathers did not.

However, the effects of unemployment benefits on children's outcomes appear to be different from those linked to child support, which is generally associated with an improvement in educational attainment and test scores (Mayer 2002).

Intergenerational welfare dependency may be as much a function of the parent's participation in the welfare system and lack of education as the role model provided by the parent (Lewis 1998; Ludwig and Mayer 2006; and Mulligan 1997). The Cape York Institute has recognised the importance of behaviours and attitudes in its work to improve the wellbeing of Indigenous Australians (Pearson 2005).

Understanding the extent to which a child's opportunity to develop its potential is affected by parental circumstances and behaviours is important. If we can reduce the degree to which disadvantage is entrenched across generations, then the abilities of

3 The *Youth in Focus* project, jointly run by academic researchers and the Australian Government Department of Families, Community Services and Indigenous Affairs, is investigating the persistence of welfare across generations using a 'trans-generational' database (Cobb-Clark et al 2006).

everyone in society are more likely to be used efficiently. It will also improve opportunities for individuals to develop their potential.

Reducing the negative effects of adverse parental backgrounds on child outcomes is desirable. But it would be inappropriate to have a society in which the circumstances and behaviours of parents have no effect on their children's outcomes. As a general rule, parents want to do the best they can for their children, investing time, emotional commitment and money in them. There are many ways in which parents have a positive effect on their children's outcomes, for example, encouraging children to read.

How income is transmitted across generations

Parents influence the earnings capacity of their children by investing resources, including time and money, in their children's future. This can be done directly by transferring money to the child, or indirectly, for example, by investing in the child's development, including their education, health, and socialisation.

High-income earning parents may be able to purchase or produce better 'inputs' for their children's development. Low-income earning parents cannot offer their children the same quantity or quality of inputs. Studies have shown that children from low-income backgrounds are more likely to have lower educational attainment (Duncan et al 1998) and earnings in adulthood (Sigle-Rushton 2004) than those from high-income households.

The degree to which parents choose to invest in the future earnings capacity of their children is dependent on preferences, monetary constraints, and the rates of return, broadly defined.

In addition to parental income, education is also a major contributor to the intergenerational mobility of labour income (d'Addio 2007). An individual who acquires education is typically rewarded with returns in the form of increased productivity and therefore higher wages.

Educational differences tend to persist across generations. Differential education levels, as measured by years of schooling, explain between 35 and 50 per cent of intergenerational income correlations across countries (Blanden 2005).

Other factors also contribute to the intergenerational mobility of income. Health is an important element of human capital and health outcomes are often transmitted across generations. Poor health may limit earnings capacity in both generations (d'Addio 2007).

According to Corak (2006) high-income earning parents may also transfer more subtle advantages to their children in the form of social skills, beliefs, attitudes, and motivations, which may expand the child's earning capacity as an adult.

However, the child's adult income is not solely determined by parental characteristics. Some part of genetic ability is not dependent on parental characteristics. Nor are the market and social institutions that determine the extent to which education impacts on earnings (d'Addio 2007).

Measuring intergenerational earnings elasticity

The framework used in the literature to measure the intergenerational income mobility is relatively simple (Corak 2006). The adult income of the child is expressed as the average income of the children's generation plus two factors determining deviation from this average: (i) a fraction of parental income; and, (ii) other influences not associated with parental income. The intergenerational income mobility is measured by intergenerational earnings elasticity. This is the fraction of income that is, on average, transmitted from parent to child.

An intergenerational earnings elasticity of zero implies that differences in income do not persist across generations and income is completely mobile. An intergenerational earnings elasticity of one implies that differences in parental income are transmitted to children in full and there is complete immobility.

Leigh (2006) has estimated the intergenerational earnings elasticity for Australia as being between 0.14 and 0.19. That is, if the income of two sets of parents differed by 100 per cent then, on average, the children's labour income would differ by between 14 and 19 per cent.

Leigh's estimates indicate that the intergenerational earnings elasticity in Australia has not changed over the past 40 years.

The methodology used by Leigh to estimate Australia's intergenerational earnings elasticity conforms to best practice and the estimate has subsequently been used in cross-country comparisons (for example, d'Addio 2007).

However, there are a number of caveats relating to the availability of Australian data. In particular, suitable long-run panel surveys and samples of social security earnings are not available for Australia. Instead, Leigh used the average earnings of the father's occupation when the son was aged 14 as a proxy for actual father's earnings (Leigh 2006).

The role of education in enhancing intergenerational income mobility

Although intergenerational income mobility can be expressed as a single number, its level is not an appropriate target for policy. There is no optimal value for intergenerational income mobility, making it difficult to determine the magnitude and direction of change required. In addition, the measurement difficulties outlined below mean it is difficult to make judgements about small movements.

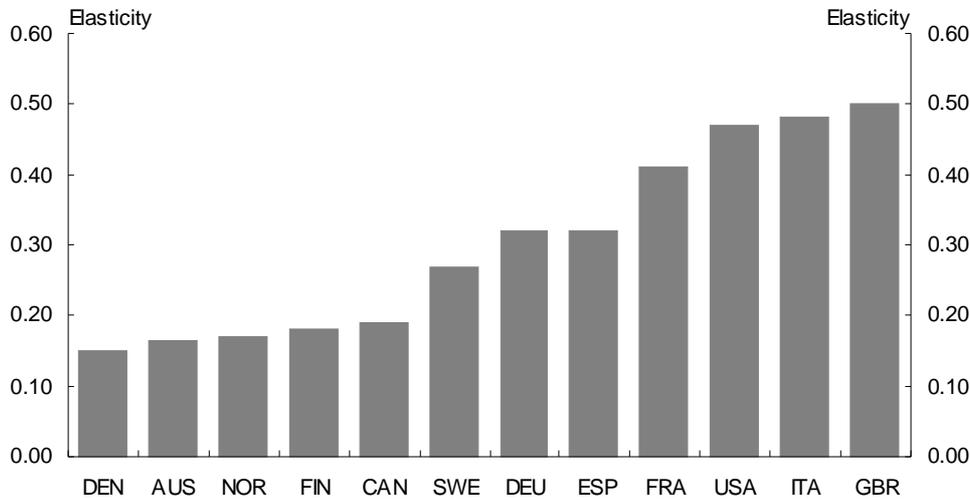
There are many measurement difficulties associated with estimating intergenerational elasticities. These include the period of time over which income is measured and the ages at which parental income and the child's adult income are measured, whether family, father's or mother's income is used as a proxy for parental income and which child's income is used.

Data and data collection methods, changes in the earnings distribution across groups of individuals and different labour force participation rates for men and women may lead to different elasticity estimates. These issues make cross-country comparisons particularly fraught.

Intergenerational income mobility in international context

A comparison of estimates of intergenerational earnings elasticities shows large cross-country differences between OECD countries. Denmark, Australia, Norway, Finland and Canada have intergenerational earnings elasticities of less than 0.2, implying a high degree of income mobility across generations (Chart 1). Sweden, Germany and Spain have elasticities around 0.3. France, the United States, the United Kingdom and Italy have intergenerational earnings elasticities greater than 0.4, implying a lower degree of intergenerational income mobility.

Chart 1: Intergenerational earnings elasticities estimates



Source: Based on Corak (2006) for all countries except Australia, Italy and Spain. For these countries, estimates are from Leigh (2006), Hugalde (2004), and Piraino (2006).

Note 1: Comparable data are available for 12 OECD countries. The height of each bar represents the best point estimate of the intergenerational earnings elasticity determined by Corak (2006).

Note 2: The point estimate for Australia is the mid-point of the range estimated by Leigh (2006).

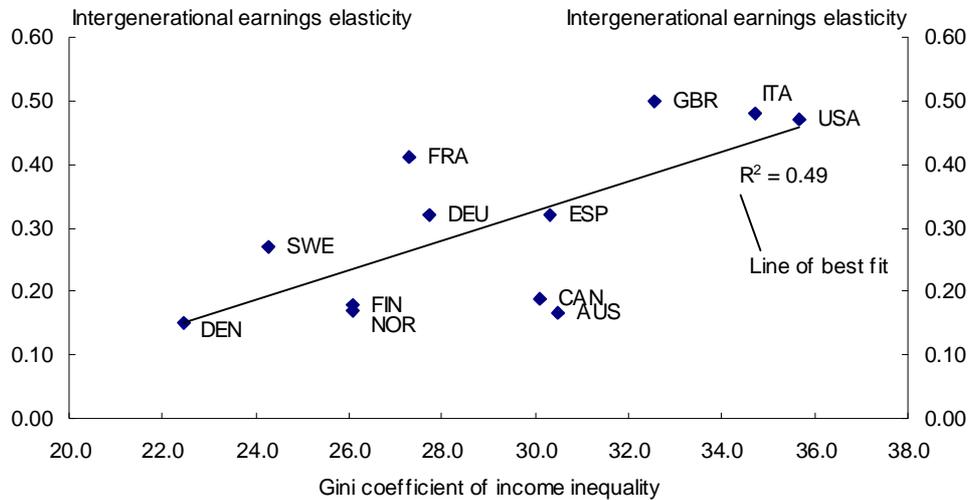
In the OECD, a relationship appears to exist between intergenerational income mobility and income inequality, with high intergenerational income mobility (as shown by low intergenerational earnings elasticity) associated with low income inequality (Chart 2).⁴

However, Australia and Canada do not appear to fit the pattern, experiencing moderate income inequality and high intergenerational income mobility.

⁴ The Gini coefficient is a commonly used measure of household disposable income inequality. Australia has a Gini coefficient of 30.5. Canada's is 30.1. These are both slightly below the OECD average of 30.8. However, Mexico and Turkey have extremely high Gini coefficients and are often excluded from comparisons. The OECD average excluding Mexico and Turkey falls to 29.4. As this adjusted average is less than Australia and Canada's Gini coefficients, Australia and Canada are said to have moderate inequality (OECD 2005b).

The role of education in enhancing intergenerational income mobility

Chart 2: Income inequality and intergenerational income elasticity



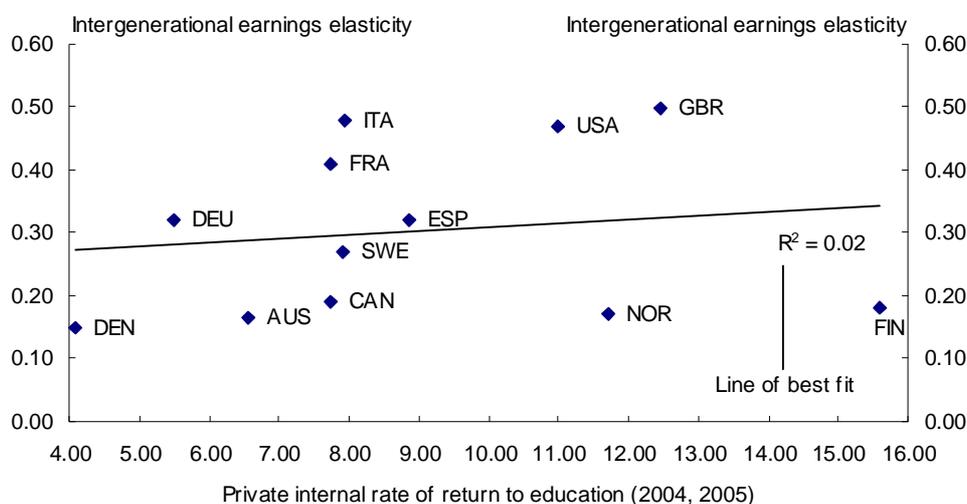
Source: Corak (2006) and OECD (2005b), Data chart EQ2.1, p 55.
Note: p-value for line of best fit is 0.01.

On the other hand, there appears to be virtually no association between intergenerational income mobility and the private rates of return to tertiary education in the OECD (Chart 3).⁵

It is notable that Australia, Canada, Denmark, Norway and Finland, which are all high mobility countries, experience a broad range of private rates of returns to education, from 4.1 per cent (Denmark) to 15.6 per cent (Finland). Finland's high private rates of return to education may be due to its small size, outstanding scholastic performance and the presence of the high-technology firm Nokia.

5 Attaining higher levels of education can be viewed as an investment, with costs paid by an individual that result in higher earnings over his lifetime.

Chart 3: Intergenerational income elasticity and returns to education



Source: Corak (2006) and OECD (2004, 2005a, 2006a), Tables A11.5, A9.6 and A9.6.
 Note: p-value for line of best fit is 0.64.

Where education is publicly funded children from high-income families may not access education at a substantially higher level than children from low-income families. In this case, high private rates of return to education may not necessarily impact on intergenerational income mobility.

Even if there were a strong negative relationship between rates of return to education and intergenerational income mobility, actively seeking to reduce the rate of return of education as way of improving mobility would be inappropriate. Reducing the rate of return to education would reduce the incentives to acquire education and to participate in the labour force, which may have negative effects on the sustainability of economic prosperity.

How then can we explain Australia and Canada's experience of high intergenerational income mobility and moderate inequality? The OECD suggests that the answer may lie in early education, immigration, or assistance for the disadvantaged.

Each of these possible explanations is considered in the following section.

Explaining intergenerational income mobility and income inequality in Australia and Canada

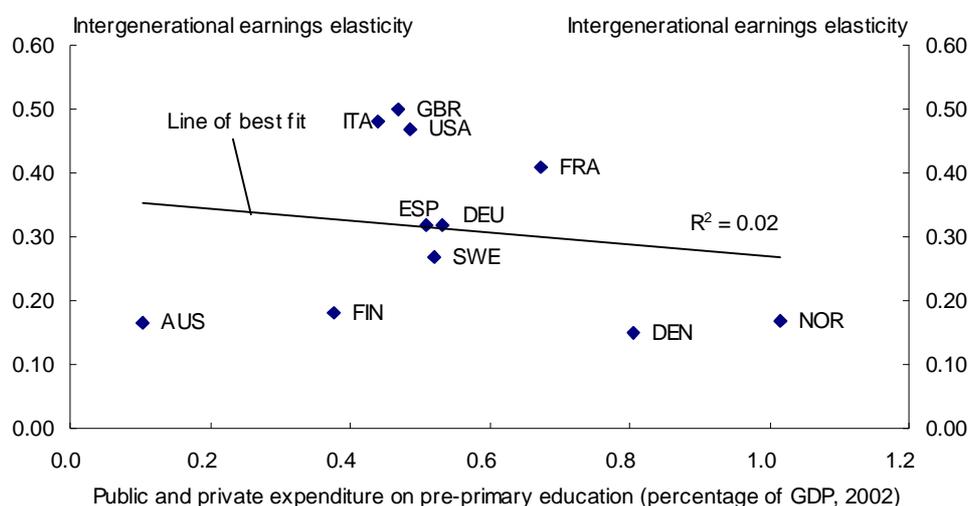
This section examines a number of possible explanations for Australia's and Canada's experience of moderate income inequality and high intergenerational mobility of income. This experience does not appear to fit the pattern of other OECD countries for which data are available.

Pre-primary education

Education is one of the key mechanisms through which income is transmitted across generations. As discussed above, using private rates of return to education to explain the link between inequality and intergenerational income mobility does not adequately account for Australia's and Canada's experience.

The OECD has suggested that the explanation could lie in intervention in early childhood education. However, Chart 4 does not show any association between expenditure on pre-primary education per pupil and intergenerational income mobility. Australia has a low level of public spending and high mobility.⁶

Chart 4: Intergenerational income elasticity and public and private pre-primary education spending



Source: Corak (2006) and OECD (2005a), Table B2.1c, p 186.

Note: p-value for line of best fit is 0.65.

Similarly, there does not appear to be any relationship between the enrolment rates of 3 to 4 year olds and intergenerational income mobility. Although Australia, Finland, Norway and Denmark have a similar level of mobility, enrolment rates are low in Australia and Finland and high in Norway and Denmark.

However, public spending on pre-primary education and enrolment rates for 3 to 4 year olds are only partial measures of the investment in early childhood development. They do not taken into account the full range of investments made by parents, which include investments in health, socialisation and the home learning environment. Nor do these measures take into account the quality of the education.

⁶ Comparable data for Canada are not available.

The United Kingdom's Effective Provision of Pre-School Education project showed that the development of all children is promoted by parents actively engaging with children in the home. While child outcomes are related to socio-economic background, the quality of the home learning environment is more important and this environment is only moderately associated with socio-economic background. This suggests that good quality interventions by government in early childhood development may have positive results for disadvantaged children, relative to what can be provided at home. (OECD 2006d)

Minimum education outcomes

Much of the focus of education is on inputs, such as the level of education spending, but what really matters is the education outcomes of all students. Good education outcomes may explain Australia's and Canada's experience of high intergenerational income mobility and moderate income inequality.

If all students get a relatively high minimum standard of education outcome, regardless of their socio-economic background, then high parental income will not necessarily mean that their child gets a better education than those from a less advantaged background. Since higher educational attainment is usually associated with higher incomes, intergenerational income mobility may be higher.

It should be noted that if access to good quality education is associated with high intergenerational income mobility, then we would not necessarily expect a negative relationship between inequality and intergenerational income mobility. For any given level of income inequality good educational outcomes, regardless of socio-economic background, will mean higher intergenerational income mobility.

In addition, where there are no financial barriers to accessing more education, the relative level of educational outcomes may help explain the level of intergenerational income mobility. That is, good educational outcomes may lead to higher attainment, higher incomes and, therefore, higher intergenerational income mobility.

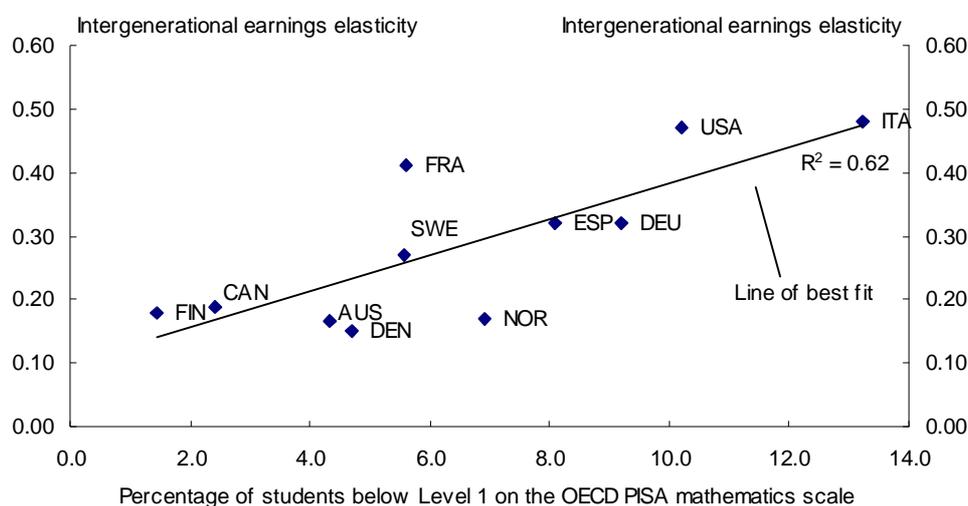
A higher percentage of low performing students in mathematics is associated with low intergenerational mobility of income (Chart 5). The relationship here is strong and statistically significant. Similarly, a high percentage of high performing students is associated with high mobility. And, a high median score for mathematics, reading and science in the 2003 OECD's Programme for International Student Assessment (PISA) is associated with high intergenerational mobility (results not shown).

This implies that, regardless of a country's current level of inequality, if children tend to perform better at school then they will have a better opportunity of getting higher

The role of education in enhancing intergenerational income mobility

paid employment as an adult. This would explain Australia's and Canada's experience.

Chart 5: Intergenerational income elasticity and low performing students, 2003



Source: Corak (2006) and OECD (2006a), Table A4.1, p 70.

Note 1: PISA data for the United Kingdom are not available.

Note 2: p-value for line of best fit is 0.004.

Improving disadvantaged students' education outcomes may lead to an increase in mobility. Given the evidence of the importance of starting early, improving the early childhood development of disadvantaged children, including access to education, may be particularly useful, as long as this is followed through into primary and secondary education (Heckman 2007).

Immigration

Immigration may increase both current income inequality and intergenerational income mobility.

In moving to a new country, migrants may sacrifice income for the opportunity for a better life. Their ability to earn a high income in their new country may be restricted due to language and cultural differences. However, their children, brought up in their new country, have the opportunity to earn higher incomes than their parents.

Australia and Canada both have relatively high levels of immigration (24 per cent and 18 per cent of their populations are foreign-born) and this may have led to the combination of moderate inequality and high intergenerational income mobility.

However, the Productivity Commission has found that, all other things being equal, increased immigration leads to a only small negative impact on domestic wages, but

this is dependent on the substitutability of foreign labour for domestic (Productivity Commission 2006). Therefore, the extent to which immigration impacts on the wages of resident workers varies across occupations.

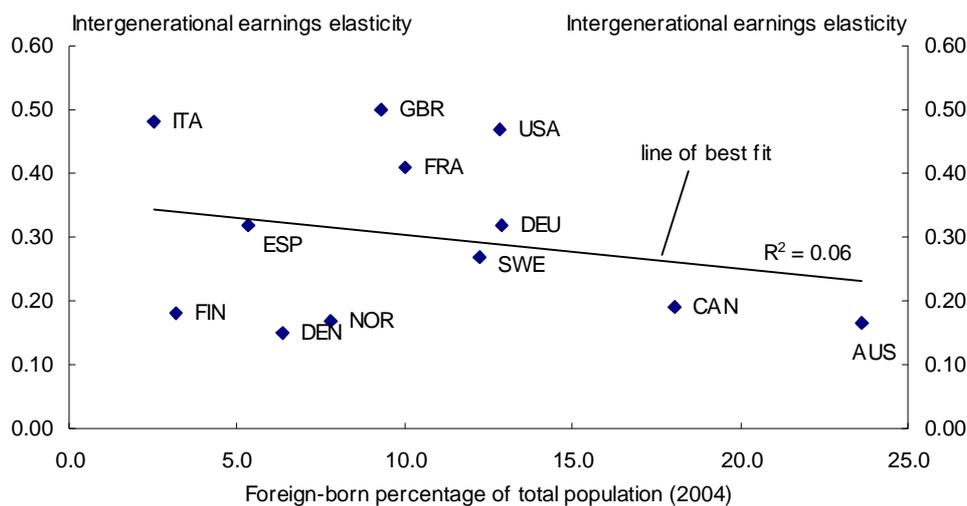
Australia and Canada also both have a very high proportion of skilled migrants. In Australia, 27 per cent of people with tertiary attainment are foreign-born, in Canada it is 20 per cent. This compares to an OECD average of 3 per cent.

A Productivity Commission (2006) study shows that an increase in skilled migration has a positive, but small, effect on average living standards. It is also likely that most of the benefits accrue to the immigrants themselves. This suggests that skilled migrants would not be systematically poorer than the resident community.

In addition, there is no association between intergenerational income mobility and immigration (Chart 6). Again, the high mobility countries of Australia, Canada, Denmark, Finland and Norway show a broad range of immigration levels. It seems that immigration explains little of Australia and Canada's experience.

Immigration may not explain the variation in mobility across countries because once migrants integrate into society the transmission of income between generations is dominated by the country's institutions rather than by country of birth of the parent. If all children are able to access good quality education, regardless of whether their parents are migrants or native-born, then they will have the opportunity to attain a high level of education and earn high income as an adult.

Chart 6: Intergenerational income elasticity and migration



Source: Corak (2006) and OECD (2006c), Table A.1.4., p 262.

Note 1: Migrant data refers to 2004, except for Germany (2003), Spain and Italy (2001) and France (1999).

Note 2: p-value for line of best fit is 0.45.

There may be supporting evidence for this in Australia and Canada where the mean PISA score for mathematics for first-generation, second-generation, and native students are higher than the OECD average each for these groups in 2003 (Table 1).⁷ For example, in Australia, first-generation students score 525 on average in mathematics, compared to an OECD average of 475 for first-generation students. Second-generation students score 522, compared to the OECD average for this group of 483. And, native students score 527, compared to an OECD average of 523.

In comparison, United States' first-generation, second-generation, and native students all score lower than the OECD average for these groups.

Table 1: Average scores for mathematics by immigrant status of student, 2003

	First-generation students	Second-generation students	Native students
Australia	525	522	527
Canada	530	543	537
Denmark	455	449	520
France	448	472	520
Germany	454	432	525
Norway	438	460	499
Sweden	425	483	517
Switzerland	453	484	543
United States	453	468	490
OECD average	475	483	523

Source: OECD 2006e, Table 2.3a, p 186.

Income re-distribution policies

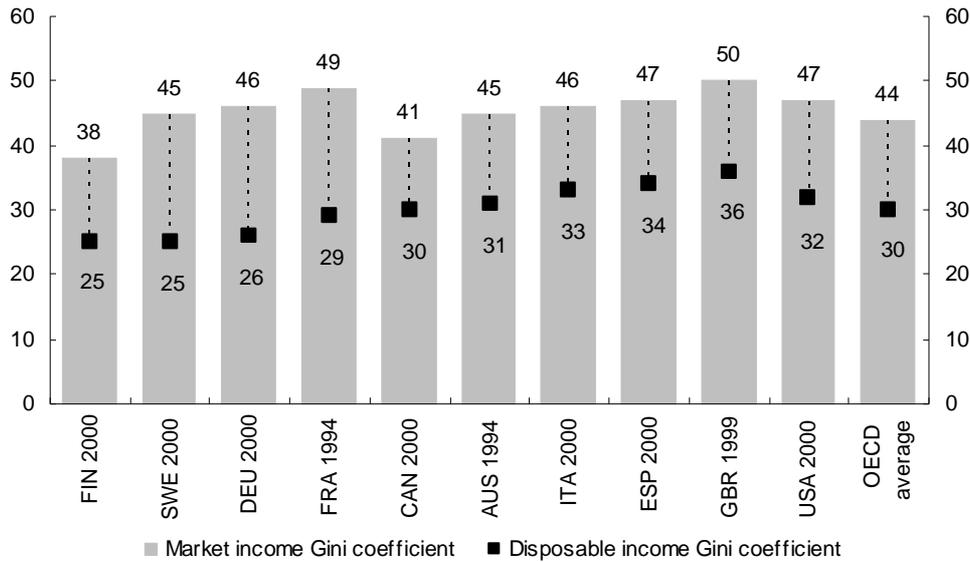
Re-distributional policies can be very effective in reducing the inequalities of market incomes. If such policies are successful at reducing inequality and if low inequality is associated with high intergenerational income mobility then a high degree of re-distribution may be associated with high mobility of income across generations.

Australia's tax and transfer system is relatively effective at reducing inequality household disposable incomes (see Chart 7). Australia's re-distribution policies reduce its market income Gini coefficient by 14 percentage points, compared to a fall of 11 percentage points in Canada and an average of 14 percentage points across 16 OECD countries (Brandolini and Smeeding 2006).

⁷ First-generation students are foreign-born with parents who are also foreign-born. Second-generation students are born in the country with foreign-born parents. Native students have at least one parent born in the country.

However, re-distribution policies are not costless. Policymakers face an ongoing challenge to balance the desire to reduce inequality with the need for incentives to ensure income increases. Policies that seek to reduce inequality, such as highly progressive income tax systems, can discourage participation in the workforce.

Chart 7: Inequality of market income and disposable income
Gini coefficients before and after taxes and benefits

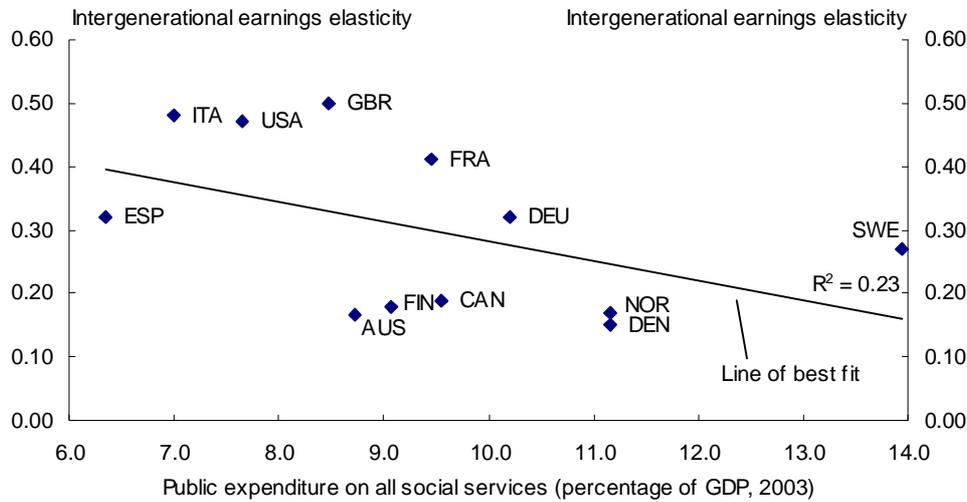


Source: Brandolini and Smeeding (2006).

On the basis of a scatter plot similar to Chart 8, cash benefits, such as unemployment benefits, are not associated with mobility. On the other hand, benefits in kind, such as public expenditure on education and health, have a weak negative association with intergenerational income elasticity (Chart 8).

However, we can see again that the high intergenerational income mobility countries, including Australia and Canada, have very different levels of social services expenditure. Income re-distribution policies would not appear to explain Australia's and Canada's experience.

Chart 8: Intergenerational income elasticity and benefits in kind



Source: Corak (2006) and OECD (2006c), Data chart EQ5.1.
 Note: p-value for line of best fit is 0.11.

Conclusion

Australia has a high level of intergenerational income mobility compared with other OECD countries for which comparable data are available. That is, the incomes that Australian children earn as adults are less dictated by the income level of their parents than in other countries. On average, disadvantage is not transmitted across generations and children have the freedom and opportunity to reach their full potential.

Income inequality in Australia is slightly higher than the OECD average (when Mexico and Turkey are excluded), but Australia's tax and transfer system is effective at redistributing income from high to low income households. Moderate income inequality reflects a relatively better matching of reward and effort.

Australia's and Canada's experience of high intergenerational income mobility and moderate inequality is unusual in the OECD.

Good minimum education outcomes appear to be a key factor explaining this experience. On the basis of the 2003 OECD PISA scores, Australian and Canadian children are receiving a good quality education relative to their peers in many other OECD countries, and therefore have a better opportunity to earn high incomes as adults.

However, Australia has a higher percentage of low performing students than Canada, which may have future implications for intergenerational income mobility. Focusing on reducing the size of the low performing tail may be appropriate.

Disadvantaged students in Australian and Canada are three times more likely to be low performers in mathematics than students from a high socio-economic background. While this is lower than the OECD average, improvements to the Australian and Canadian education systems to reduce the likelihood of disadvantaged students being low performers could be worthwhile. This may include a focus on the early childhood development of disadvantaged children.

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Comparing the net foreign liability dynamics of Australia and the United States

Phil Garton¹

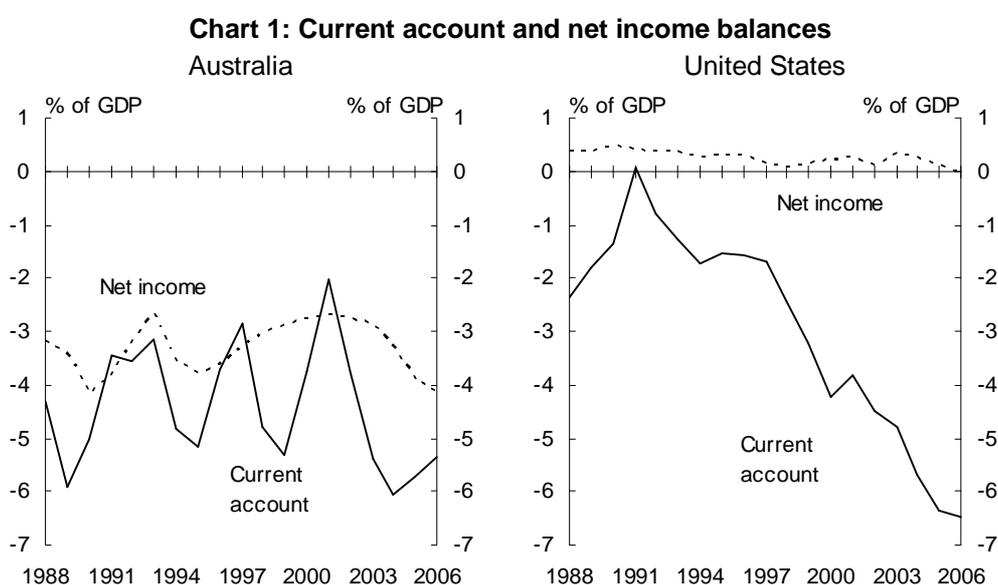
This article examines the evolution of net foreign liabilities as a share of GDP in Australia and the United States. The two countries have been running similarly large current account deficits in recent years. But while net foreign liabilities have been growing steadily as a share of GDP in Australia they have, remarkably, been falling in the US.

Changes in the net foreign liability share of GDP are influenced by differences between rates of return on gross foreign assets and liabilities. The US and, to a lesser extent, Australia have benefited over time from rates of return on their gross foreign assets that have been higher than on their gross foreign liabilities. This has been partly because both countries' gross foreign assets include a higher share of equities (with a higher average rate of return than debt) than their foreign liabilities. The striking difference between the evolution of net foreign liabilities in the two countries in recent years is due to relative returns having been unusually favourable to the US and unfavourable to Australia, compared to historical experience. For plausible differences between future rates of return, the external adjustment required to stabilise net foreign liabilities as a share of GDP in each country is significantly smaller than conventional analysis suggests.

1 The author is from Domestic Economy Division, the Australian Treasury. This article has benefited from comments and suggestions provided by David Gruen and Steven Kennedy. The views in this article are those of the author and not necessarily those of the Australian Treasury.

Introduction

Australia and the United States are often mentioned together in discussions of advanced economies running persistent large current account deficits (CADs). Both countries have had CADs exceeding 5 per cent of GDP over the past four years, although the composition is very different, with the net income deficit accounting for most of Australia's CAD but none of the US CAD (Chart 1).² This partly reflects Australia's longer history of CADs and, hence, larger accumulation of net foreign liabilities (NFLs). But it also reflects differences in relative investment income yields on foreign assets and liabilities, which have allowed the US to remain in net income surplus, despite its rising NFL position.

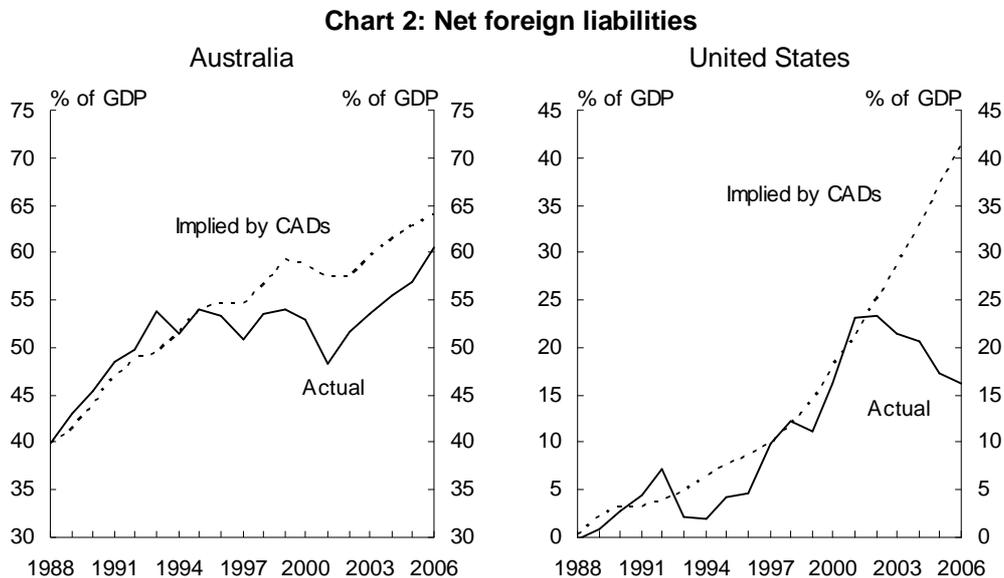


Source: ABS cat. no. 5302.0, BEA.

There have also been differences between the two economies in the dynamics of NFLs. As Chart 2 shows, valuation changes arising from asset price and exchange rate movements can cause the evolution of NFLs to diverge significantly from that implied by CADs. This is illustrated most notably by the recent US experience, where NFLs have fallen by 7 per cent of GDP over the past four years, even though the size of CADs would have implied a rise of 16 per cent of GDP. Similarly, Australia's NFLs fell by 6 per cent of GDP between 1993 and 2001, when ongoing CADs would have

² The difference between the current account and net income is equal to the trade balance plus net current transfers. For Australia, net current transfers are very small, but the US consistently runs a deficit on net transfers of around 0.5 to 0.7 per cent of GDP. For simplicity, this article will define the trade deficit as including net current transfers.

implied a rise of 8 per cent of GDP. Since 2001, Australia's NFLs have grown by 12 per cent of GDP, when CADs would have implied an increase of 7 per cent of GDP.



These dynamics matter because they affect the need for future external adjustment. NFLs cannot grow indefinitely at a faster rate than GDP, otherwise eventually they could not be serviced. Adjustment will be needed if the present balance of payments position is not consistent with NFLs stabilising as a share of GDP.

The likelihood that an adjustment will be needed at some point need not imply that it must happen immediately. Gradual adjustments over a number of years are far easier to manage than rapid adjustments. External adjustments are less likely to be disruptive in economies like Australia and the US, which have flexible economies and exchange rate regimes, credible macroeconomic policy, strong financial systems and foreign liabilities largely denominated in their own currency. These attributes increase the economy's capacity to smoothly manage any adjustment while reducing the likelihood of a rapid adjustment forced by a sharp fall in capital inflows.

Understanding the factors that underpin the evolution of NFLs, and their likely persistence into the future, is important for assessing how much future external adjustment might be needed. A key theme of this article is that relative rates of return on gross foreign assets and liabilities — including both income flows, such as dividends and interest, and capital gains or losses — have a substantial influence on this evolution. For plausible differences between rates of return, the adjustment required to stabilise NFLs as a share of GDP in each country is significantly smaller than conventional analysis suggests.

Another key theme is that these issues cannot be considered solely in terms of the CAD. First, an important limitation of the current account in this regard is that net capital gains are excluded. This matters particularly as equity investments (in contrast to debt) tend to provide most of their returns in the form of capital gains, and both countries hold more of their foreign assets in equities than their foreign liabilities.

Second, external adjustment is better considered in terms of the trade balance. This is partly because CAD adjustment must occur largely through the trade balance, but also because the CAD can give a misleading indication of the size of adjustment.³ For example, a constant CAD of 6 per cent of GDP would see Australian NFLs eventually stabilise at 100 per cent of GDP (assuming nominal GDP growth of 6 per cent), a rise of nearly 40 per cent of GDP from the current level. Assuming a 6 per cent rate of return, this would imply a rise in net income deficit of 2½ per cent of GDP, requiring an equivalent improvement in the trade deficit. Adjustment would not be avoided, even if a CAD of this size was sustained indefinitely.

Past evolution of net foreign liabilities as a share of GDP

The evolution of NFLs as a share of GDP can be described by the identity:

$$(1) \quad nfl_t - nfl_{t-1} = td_t + nid_t - \left(\frac{g_t}{1 + g_t} \right) nfl_{t-1} - v_t$$

where *nfl* is net foreign liabilities at the end of the year, *td* is the trade deficit, *nid* is the net income deficit, *v* is net valuation gains to the international investment position — all as shares of nominal GDP — and *g* is the nominal GDP growth rate.

Equation (1) can be used to decompose changes in the NFL to GDP ratio into four components. Table 1 shows a decomposition for Australia and the US of cumulative changes since 1988, which is the earliest year for which Australian data are published. While the two countries have had reasonably similar increases in NFLs as a share of GDP, the composition of these increases has been quite different.

3 Some adjustment to the net income deficit could occur through valuation effects of currency depreciation, which would increase income credits from foreign assets, denominated in foreign currency (net of increases in debits on foreign currency-denominated debt). However, Australian income credits are only 3 per cent of GDP (and net foreign currency-denominated flows somewhat smaller), whereas combined exports and imports are 42 per cent of GDP. For the US, income credits are 5 per cent of GDP, while total exports and imports are 28 per cent of GDP.

Table 1: Contributions to increases in net foreign liabilities as a share of GDP since 1988

	Australia 1988-2006	United States 1988-2006
Cumulated trade deficits	20.0	57.7
Cumulated net income deficits	59.9	-4.4
Nominal GDP growth	-53.1	-9.1
Net valuation gains	-3.6	-26.4
Discrepancy	-2.6	-1.4
Increase in net foreign liabilities/GDP	20.7	16.4

Source: ABS cat. no. 5302.0, BEA, Treasury.

For Australia, the increase in the NFL to GDP ratio closely matches the accumulation of trade deficits. Cumulated net income deficits, which account for three-quarters of cumulated CADs over this period, have been largely offset by the effects of nominal GDP growth in reducing the burden of existing NFLs. A modest offset has also come from cumulated net valuation gains. This is despite the fact that foreign assets have been only 40 to 60 per cent as large as foreign liabilities over this period, implying that the rate of valuation gain on assets has been significantly higher than that on liabilities.

The US has had a much larger accumulation of trade deficits over time. About 70 per cent of this has been offset, however, by a combination of other factors. In contrast to Australia, the US has cumulated net income surpluses, while valuation gains have been much larger. The gain to the US from nominal GDP growth has been much smaller, largely because its NFLs have been a much smaller share of GDP.

In order to draw implications about the future adjustment that may be needed to stabilise NFLs as a share of GDP, it is useful to express the net income deficit and net valuation changes in terms of total rates of return on foreign assets and liabilities. This gives an alternative expression, which is algebraically equivalent to equation (1):

$$(2) \quad nfl_t - nfl_{t-1} = td_t + \left(\frac{r_t^L - g_t}{1 + g_t} \right) nfl_{t-1} - \left(\frac{r_t^A - r_t^L}{1 + g_t} \right) gfa_{t-1}$$

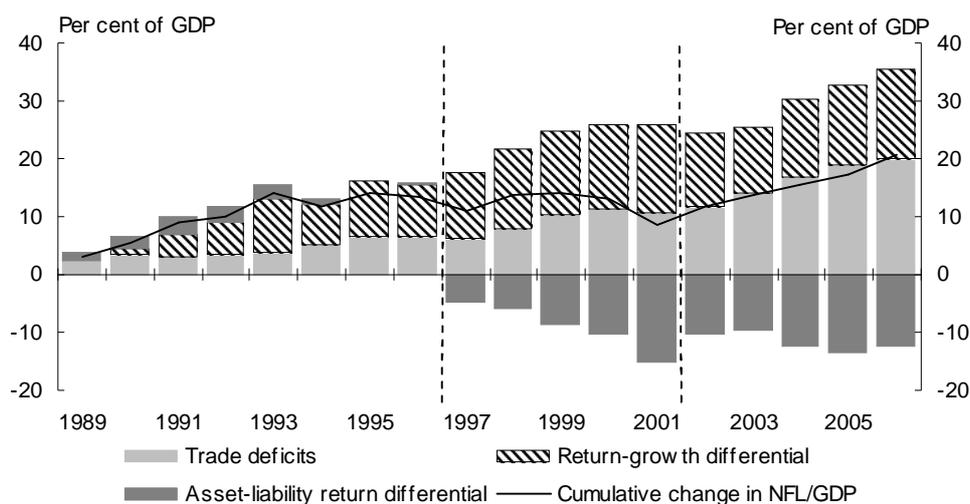
where gfa is gross foreign assets as a share of GDP and r^L and r^A are nominal rates of return (including valuation gains) on foreign liabilities and assets.⁴

4 This expression is derived by substituting $nid_t - v_t = \left(\frac{r_t^L}{1 + g_t} \right) gfl_{t-1} - \left(\frac{r_t^A}{1 + g_t} \right) gfa_{t-1}$ into equation (1), and then substituting $gfl_{t-1} = gfa_{t-1} + nfl_{t-1}$ and rearranging terms.

The three terms in equation (2) allow us to identify contributions to the change in NFLs as a share of GDP coming from three sources: cumulated trade deficits, the effect of differences between the rate of return on foreign liabilities and GDP growth, and the effect of differences between rates of return on foreign assets and liabilities. For a given level of trade deficits, a positive differential between the rate of return on foreign liabilities and nominal GDP growth will cause NFLs to grow faster as a share of GDP, while a positive differential between the rates of return on foreign assets and liabilities will cause NFLs to grow more slowly as a share of GDP.

Cumulative contributions over a period of time are of greater interest than contributions to year-to-year changes, which fluctuate due to volatility in asset prices. Chart 3 shows the decomposition of cumulative changes in Australia's NFL to GDP ratio relative to the position in 1988. We can divide this into three periods, which are characterised by differences in the dynamic behaviour of the NFL to GDP ratio.

Chart 3: Contributions to cumulative changes in Australian net foreign liabilities as a share of GDP since 1988

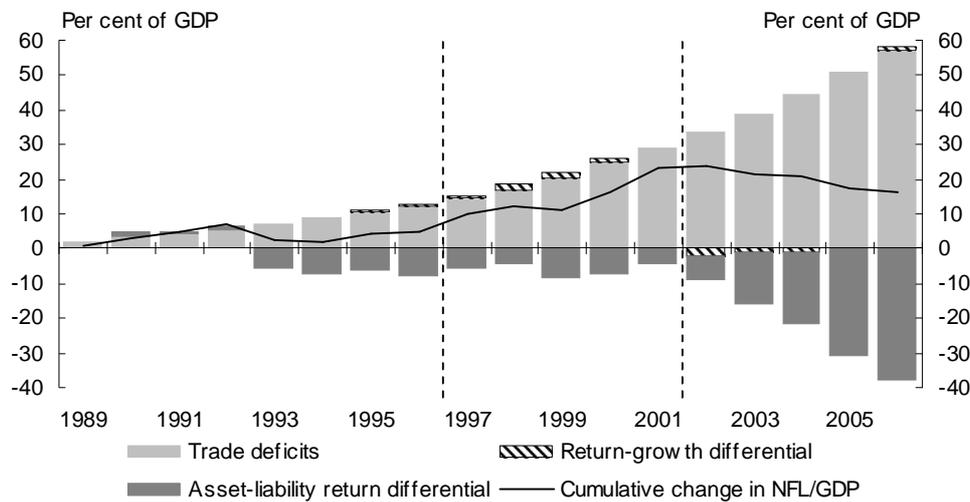


Source: ABS cat. no. 5302.0, Treasury.

Up to 1996, growth in NFLs as a share of GDP was driven by trade deficits and a positive return-growth differential. In the period 1997 to 2001, further growth in these two factors was offset by the effect of positive differentials between asset and liability returns, which kept the NFL to GDP ratio roughly stable. Since 2001, the NFL to GDP ratio has again resumed an upward path. The effects of return-growth and asset-liability return differentials have been broadly offsetting in the recent period, so that growth in Australia's NFLs as a share of GDP has reflected the accumulation of trade deficits.

Chart 4 shows the same decomposition for the United States, which can also be divided into the same three periods. In the period to 1996, NFLs were relatively stable as share of GDP, with trade deficits being substantially offset by the effect of positive differentials between asset and liability returns. In the period 1997 to 2001, NFLs grew in line with cumulated trade deficits. Since 2001, however, continued accumulation of trade deficits has been more than offset by a dramatic rise in the effect of the positive asset-liability return differential. Over the whole period, this has offset nearly three-quarters of the increase in the ratio of NFLs to GDP that would otherwise have occurred. In contrast to Australia, the effect of return-growth differentials has been close to neutral for the US.

Chart 4: Contributions to cumulative changes in US net foreign liabilities as a share of GDP since 1988



Source: BEA, Treasury.

In order to understand what has been driving these different trends, we need to examine the behaviour of the individual components of equation (2) over the three periods (Table 1). Looking at the first component, it is notable that US trade deficits have been steadily increasing over time as a share of GDP. Australia's trade deficits have been much smaller, though they have also increased recently.

In relation to the second component, returns on Australia's foreign liabilities until recently exceeded nominal GDP growth by a significant margin. This return-growth differential has closed recently as terms of trade increases have boosted nominal GDP growth. The US has also had a substantial decline in the return-growth differential over time, although the impact of this differential has been limited because US NFLs have been relatively small as a share of GDP.

Comparing the net foreign liability dynamics of Australia and the United States

Table 2: Contributions to changes in net foreign liabilities as a share of GDP (annual averages, per cent)

	Australia			United States		
	1989-96	1997-01	2002-06	1989-96	1997-01	2002-06
(1) <i>Trade deficit/GDP</i>	0.8	0.8	1.9	1.6	3.2	5.7
(2) <i>Return-growth differential</i>	2.5	2.5	-0.1	3.4	1.4	0.7
Net foreign liabilities/GDP	50	52	56	4	15	20
<i>Impact on NFL/GDP</i>	1.1	1.2	0.0	0.1	0.0	0.1
(3) <i>Asset-liability return differential</i>	-0.4	6.4	-0.7	1.7	-1.0	8.9
Of which:						
Income yields	-2.5	-1.1	-1.4	0.8	0.6	0.7
Valuation changes	2.1	7.5	0.7	0.9	-1.7	8.2
Exchange rate	-0.3	3.3	-1.1	-0.5	-2.2	2.4
Price & other	2.4	4.2	1.8	1.4	0.5	5.7
Gross foreign assets/GDP	33	60	77	48	72	89
<i>Impact on NFL/GDP</i>	0.0	-3.1	0.5	-0.6	0.7	-6.7
<i>Total change in NFL/GDP</i>	1.7	-1.0	2.4	1.1	3.7	-1.4
Memo items:						
Nominal GDP growth	5.8	5.9	7.1	5.6	5.3	5.4
Real return on foreign assets	4.2	12.6	3.4	7.2	3.2	12.4
Income yields	0.1	1.4	0.2	2.3	2.0	1.4
Valuation gains	4.1	11.1	3.1	4.9	1.2	11.0
Real return on foreign liabilities	4.6	6.2	4.1	5.5	4.3	3.5
Income yields	2.6	2.5	1.7	1.5	1.4	0.6
Valuation gains	2.0	3.6	2.4	4.0	2.9	2.8

There has been considerable variation over time in the third component. For Australia, the differential between asset and liability returns has been moderately negative in the early and recent periods, interspersed by a period of strong positive differentials from 1997 to 2001. The US has experienced the opposite pattern, with a particularly favourable return differential since 2001. The effects of these differentials have been increased over time by strong growth in gross foreign assets relative to GDP.

The asset-liability return differential can be further decomposed into contributions from income yields and valuation changes. It is notable that yields on Australia's foreign liabilities from interest, dividends and other income flows have consistently exceeded those on its assets. This has contributed to the relatively high net income deficit noted earlier, but has been offset by a tendency to make proportionally higher valuation gains on foreign assets relative to liabilities. The negative income yield differential has fallen over the past decade, reflecting a decline in the risk premium on Australian interest rates: for instance, the spread between Australian and US 10-year bond yields averaged 0.8 per cent over the past decade compared to 2.8 per cent over period 1989-1996.

The US, in contrast, has consistently earned higher income yields on its foreign assets than on its liabilities. This has kept its net income in surplus until very recently, despite

a growing NFL position. The US has also generally received valuation gains in its favour, except for the period 1997 to 2001.

It is apparent from Table 2 that asset-liability return differentials for Australia and the US have tended to be negatively correlated. This reflects cycles in the behaviour of exchange rates and asset prices that have affected the two countries differently. This is shown by the contributions that exchange rate and price valuation changes have made to return differentials.

The US dollar appreciated significantly over the period 1997-2001, but has since depreciated, whereas the Australian dollar (partly as a consequence) has moved in the opposite direction. Both Australia and the US achieve valuation gains from depreciation of their currencies, and valuation losses from appreciation.⁵ This is because both countries' foreign liabilities are mostly denominated in their own currencies, while foreign assets are largely denominated in foreign currencies (so their value in terms of domestic currency increases when the currency depreciates). As a result, Australia had exchange rate valuation gains in the period 1997-2001, followed by losses in the period since, while the US experienced the reverse.

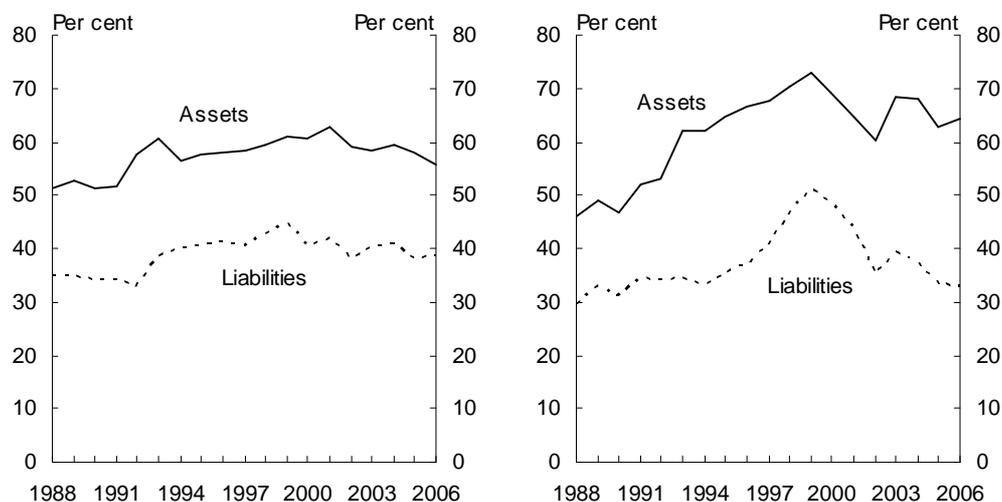
The other major influence on relative rates of return has been the behaviour of equity prices. Over the period 1997-2001, the global equity market boom increased foreign equity prices much more than Australian prices. This meant that price valuation changes boosted returns on foreign assets more than those on liabilities. In the recent period this differential has been eliminated by the global equity market correction early this decade and the impacts of the resources boom on share prices of Australian companies. For the US, these equity market cycles have had the opposite effects on relative rates of return on assets and liabilities.

One reason why both countries have consistently gained a positive return advantage from price valuation changes is that equities (both direct investment and portfolio) have comprised a significantly larger share of their foreign assets than of their foreign liabilities (Chart 5). Compared to debt, equities tend to provide a larger share of their returns in the form of capital gains, since companies rarely distribute all of their earnings as dividends. A substantial share of earnings is generally retained for reinvestment, increasing the market value of the firm and providing capital gains to investors.

5 The Reserve Bank of Australia (2006) estimates that a uniform 10 per cent depreciation of the Australian dollar reduces NFLs by around 3 per cent of GDP. Cline (2005) arrives at a similar estimate for the US. Actual effects will depend on how the distribution of exchange rate movements across currencies interacts with the currency composition of assets and liabilities.

Comparing the net foreign liability dynamics of Australia and the United States

Chart 5: Equity share of foreign assets and liabilities
Australia United States



Source: ABS cat. no. 5302.0, BEA.

Why do rates of return on foreign assets and liabilities differ?

Before considering what this analysis implies for the need for future external adjustment, we need to understand why differences in rates of return arise. The basic tenet of efficient financial markets is that differences in *ex ante* (expected) rates of return should reflect differences in risk.⁶ Differences in *ex post* rates of return will also reflect exchange rate or asset price adjustments in response to unanticipated developments, or 'news'.

These 'news' effects should have no implications for future returns. Rather, they should reflect valuation changes that occur in order to equalise *ex ante* risk-adjusted rates of return across different assets. For example, if an increase in commodity prices raises expectations of future returns on Australian assets then the foreign currency value of these assets must increase through a combination of asset price increases and Australian dollar appreciation until the *ex ante* excess rate of return is eliminated. The fact that *ex post* returns during this phase are unusually high does not mean they will continue to be high if commodity prices are sustained. Such returns reflect the adjustment to past 'news', and should only be repeated if new information leads to a further upgrading of expectations.

⁶ Whilst it is arguable that financial markets are not efficient, it may be reasonable to assume that this premise holds on average, with periods of excessive optimism/pessimism cancelling out over the longer term.

This means that, in considering what past returns imply for future returns, we want to factor in differences due to risk but exclude those due to unanticipated ‘news’. There are two ways in which differences in risk may lead to *ex ante* differentials between returns on foreign assets and liabilities.

First, there are differences in risk across countries. Advanced economies such as Australia and the US are seen as relatively safe investment destinations. While most of these countries’ foreign investments are held in similarly advanced economies, around 15 to 20 per cent are in emerging economies, where risk premia are higher.

This might be expected to contribute to a higher average rate of return on foreign assets relative to liabilities. This advantage should be smaller for Australia than for the US, which has additional advantages in attracting cheap finance because of the US dollar’s global reserve currency role and the depth of its financial markets. Over 70 per cent of Australia’s foreign assets are held in the US and the European Union, which shares some of these US advantages.

The second source of *ex ante* differentials is differences in risk between different types of asset, in particular between equities and debt. As equities are generally more risky investments than debt, they provide a higher rate of return on average. As noted above, both countries have a higher share of equities on the asset side than on the liabilities side. This compositional difference could be expected to contribute to a positive differential between rates of return across all assets and liabilities.

Implications for future external adjustment

Equation (2) can be rearranged to obtain the trade surplus needed to stabilise NFLs at a given share of GDP:

$$(3) \quad ts = \left(\frac{r^L - g}{1 + g} \right) nfl - \left(\frac{r^A - r^L}{1 + g} \right) gfa$$

This implies that the required trade surplus depends on the average future differentials $(r^L - g)$ and $(r^A - r^L)$ as well as on the future level of gross foreign assets.⁷

7 A more commonly-used condition excludes the last term, implicitly assuming that foreign assets and liabilities provide the same rate of return. If we ignore valuation changes this

reduces to a simple condition for the current account: $cad = \left(\frac{g}{1 + g} \right) nfl$.

Past differentials may provide a guide to likely future differentials, provided we take average differentials over a sufficiently long period.⁸ The effects of news should average to zero in the long-run; otherwise markets would be making systematic errors. Hence, longer-term averages should tend to net out the effects of past 'news'.

The choice of period involves a trade-off, however, as averages over longer periods may miss structural shifts in relative risk premia. As noted earlier, there has clearly been a reduction in the risk premium on Australian interest rates over the past decade, most likely due to increased credibility of macroeconomic policy as expectations of low inflation became embedded. There has also been a more general decline in risk perceptions in global financial markets, which has tended to reduce interest rates relative to GDP growth.

This suggests there may be a case for using average differentials for the post-1996 period rather than over the full post-1988 period for which data are available. Using the shorter period may, however, entail a greater risk that the averages have been influenced by unanticipated 'news' over the past decade. Hence, it may be advisable to consider both sets of period averages.

Table 3: Return-growth and asset-liability return differentials (annual averages, per cent)

	Australia		United States	
	1989-2006	1997-2006	1989-2006	1997-2006
Return-growth differential	1.8	1.2	1.8	1.0
Asset-liability return differential	1.4	2.8	3.3	3.9
Of which:				
Income yields	-1.8	-1.3	0.8	0.7
Exchange rate valuation changes	0.5	1.1	0.0	0.1
Price and other valuation changes	2.4	2.9	2.4	3.1
Memo items:				
Nominal GDP growth	6.2	6.5	5.4	5.4
Real return on foreign assets (a)	6.3	8.0	7.5	7.8
Income yields	0.5	0.8	1.9	1.7
Valuation gains	5.8	7.1	5.5	6.1
Real return on foreign liabilities (a)	4.9	5.1	4.2	3.9
Income yields	2.3	2.1	1.2	1.0
Valuation gains	2.6	3.0	3.1	2.9

Source: Treasury.

(a) Real returns calculated using CPI inflation.

⁸ In principle, *ex ante* returns might be identified directly using data from forward or futures markets. However, undertaking such an analysis across a large number of different assets would be a formidable task and suitable markets may not exist for all assets.

Table 3 shows that, for both countries, return-growth differentials have been lower and asset-liability return differentials higher on average over the past decade than over the full 18-year period. Both factors imply a higher sustainable trade deficit if 10-year averages are used rather than 18-year averages.

Comparing the two countries, it is notable that average rates of return on foreign liabilities have exceeded nominal GDP growth by a similar margin over time, but the differential between rates of return on foreign assets and liabilities has remained significantly higher for the US. This is due to the lower rate of return on US foreign liabilities, consistent with the factors noted above.

It is also notable that Australia has benefited from exchange rate valuation gains over time — reflecting depreciation of the Australian dollar — whereas this has been a neutral factor for the US. These gains are mainly reflected in the high rate of valuation gain on foreign assets. But depreciation only provides net gains when is unforeseen. If the risk of depreciation had been anticipated by financial markets, valuation gains would have been offset by higher yields on Australian liabilities. The negative differential on income yields might, to some extent, reflect this.

Table 4 compares current trade deficits in Australia and the US to those needed to stabilise NFLs at either the current share of GDP or a higher share. These deficits are calculated under alternative scenarios where future asset-liability return and return-growth differentials are assumed to reflect either their post-1988 or post-1996 averages. In each case, results are presented for both the current gross foreign assets share of GDP and a share that is 50 per cent higher, which could be reached in 10 to 15 years if the trend increase over past 15 years is maintained.

Table 4: Trade deficits consistent with stabilising the net foreign liability share of GDP (per cent of GDP)^(a)

	Australia		United States	
Actual trade deficit in 2006	1.2		6.4	
NFL share of GDP	61	80	16	50
Required trade deficit assuming:				
(1) Average post-1988 differentials				
(i) Current GFA/GDP	0.1	-0.2	2.8	2.3
(ii) GFA/GDP 50% higher	0.7	0.4	4.4	3.9
(2) Average post-1996 differentials				
(i) Current GFA/GDP	1.6	1.4	3.6	3.3
(ii) GFA/GDP 50% higher	2.7	2.5	5.5	5.2

Source: Treasury.

(a) A negative deficit means a trade surplus is required.

These figures suggest that only a moderate external adjustment may be needed to stabilise Australia's NFLs at either their current share of GDP or a somewhat higher share. Indeed, if average differentials of the past decade were to apply in future then

the sustainable trade deficit would be larger than its recent level and no adjustment may be required.

It is worth contrasting these results with a more conventional analysis which assumes identical rates of return on assets and liabilities. For instance, Gruen and Sayegh (2005) calculated that a trade surplus of $\frac{1}{2}$ to $\frac{3}{4}$ per cent of GDP would be needed to stabilise Australia's NFLs at 60 per cent of GDP, assuming a rate of return on foreign liabilities around 1 percentage point above nominal GDP growth. Allowing for the favourable return differential, as done here, reduces the required adjustment to the trade balance by between 1 and $2\frac{1}{4}$ per cent of GDP for Australia, depending on the period average used. For the US, the effect is between 3 and $3\frac{3}{4}$ per cent of GDP. A higher gross foreign assets share of GDP would increase these effects.

For the US, trade deficits consistent with a stable NFL to GDP ratio are significantly higher than for Australia, mainly due to the larger differential between asset and liability returns. Despite this advantage, the adjustment eventually needed to stabilise the NFL to GDP ratio seems likely to be larger for the US because its trade deficit is currently much larger. This does not mean that the adjustment must necessarily occur soon, particularly as US NFLs are still a relatively low share of GDP.

The required adjustments are slightly larger if NFLs are allowed to increase further as a share of GDP, although this would also allow the adjustment to be deferred for some time. As equation (3) indicates, as long as the rate of return on liabilities exceeds GDP growth, a growing ratio of NFLs to GDP must imply a higher trade surplus (or lower deficit) in the long run.

On the other hand, the need for adjustment might be reduced by further growth in the gross foreign assets share of GDP, which is likely given that foreign shares of asset portfolios are still well below those that might be expected in a 'borderless' world. As equation (3) implies, this would reduce the trade surplus required to stabilise the NFL share of GDP, all other things equal.

A key limitation of this analysis is that, while it is clear that NFLs must eventually stabilise at some share of GDP, it is impossible to be definitive about what this share might be for any individual economy. Whether adjustment is likely to be needed soon or can be deferred for some time obviously matters. Nonetheless, it is important to recognise that external adjustment cannot be indefinitely avoided, and that deferral is likely to increase the size of the adjustment.

Further, if financial markets are forward-looking they should recognise that if external adjustment needs to occur eventually then it might be expected to require a real depreciation, which implies currency losses for foreign investors. This prospect could be expected to lead them to demand a higher rate of return now than would be the

case if trade deficits were already consistent with stabilising NFLs as a share of GDP. Hence, this issue can have implications for the near term, even if adjustment can be deferred for some time.

Conclusion

Australia and the United States have been running similarly large current account deficits in recent years. While this has been associated with a steadily rising net foreign liability share of GDP in Australia, it is remarkable that the US share has been falling since 2002. A key issue in relation to the need for future external adjustment is how deficits might translate into future changes in net foreign liabilities as a share of GDP. From this perspective, focussing on the current account has two key limitations. First, it is the trade deficit that is key to the size of future adjustment. Second, valuation changes to foreign asset and liability positions, which are excluded from the current account, can significantly influence the evolution of net foreign liabilities as a share of GDP.

Comparing the net foreign liability dynamics of Australia and the United States

Over the longer term, both the United States and, to a lesser extent, Australia have benefited from rates of return on foreign assets exceeding those on foreign liabilities, with much of this coming from proportionately higher valuation gains on foreign assets. If past experience continues to apply in future, this would provide some scope to sustain trade deficits without net foreign liabilities growing as a share of GDP. On this basis, the future external adjustment needed to stabilise this share is likely to be much smaller for Australia than for the United States, given the latter's currently much higher trade deficit as a share of GDP.

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A few sovereigns more: the rise of sovereign wealth funds

Will Devlin and Bill Brummitt¹

One of the most striking developments in international financial markets over recent years has been the emergence of dedicated government investment vehicles as an important investor class. These so-called 'sovereign wealth funds' (SWFs) have grown rapidly both in size and number, fuelled by a sharp and sustained rise in energy and commodity prices and by large current account surpluses among the export-oriented economies of East Asia.

With particular focus on the recent growth of sovereign wealth funds in East Asia, this paper finds that while these funds may not pose a direct threat to financial stability, concerns over a lack of transparency and non-commercial investment motives may give rise to an increase in 'financial protectionism'. The establishment (and adoption) of international standards of 'best practice' SWF management would help to offset these pressures. Other risks from SWFs, such as the potential for inappropriate fiscal loosening and resource allocation distortions, are likely to be magnified if governance structures are poor.

1 The authors are from Macroeconomic Group, the Australian Treasury. Box 1 was prepared by Mitchell Pirie, also from Macroeconomic Group. This article has benefited from comments and suggestions provided by Ian Beckett, Andrew Blackman Patrick Colmer, Gordon de Brouwer, Laura Doherty, Simon Duggan, Paul Gardiner, David Gruen, Kurt Hockey, Chris Legg, Jason McDonald, Tony McDonald, Simon Nash, Neil Richardson and Andrew Thomas. The views in this article are those of the authors and not necessarily those of the Australian Treasury.

Introduction

Sovereign wealth funds (SWFs) have grown rapidly over recent years, both in size and number. Initially popularised by oil-exporting nations (oil stabilisation funds), a number of East Asian economies have since established their own SWFs, while others have expressed an interest in establishing one over the coming years.

With SWFs becoming increasingly important players in global financial markets this paper examines what this phenomenon means for the stability of the international financial system and also associated concerns over the risks posed by ‘financial protectionism’ and poor governance structures. We do not seek to compare establishment of SWFs with alternative uses of public funds, although such opportunity costs always exist.

While the paper finds that SWFs pose few direct threats to financial system stability, a strong case can be made for developing international guidelines on ‘best practice’ SWF management. The establishment (and adoption) of such guidelines, by institutions such as the IMF, would help to temper concerns over the politicisation of global capital flows and threats to financial stability.

What is a sovereign wealth fund?

At its broadest level, the term *sovereign wealth fund* (SWF) refers to any government-controlled fund that manages and invests government savings, regardless of the revenue source.² A narrower definition focuses on government investment vehicles which are funded by foreign exchange assets, but which manage those assets separately from official reserves.³ These foreign exchange-based SWFs generally fall into two categories based on the source of the foreign exchange assets:

- *commodity funds* are established from the proceeds from commodity exports, either owned or taxed by the government; and
- *non-commodity funds* are typically established through transfers of assets from official foreign exchange reserves.

Although some SWFs have been around for decades, recent growth in both the size and number of funds in existence has sparked a great deal of interest in the scope and scale of their activities. As the proportion of cross-border capital flows directed via

² According to this definition, Australia’s Future Fund can be considered a SWF.

³ This definition is consistent with that suggested by the US Department of the Treasury (see Lowery 2007).

these funds continues to grow they are also becoming an important part of the debate over broader global saving and investment imbalances.

Why are SWFs being created?

Many of the commodity-based SWFs — such as the Abu Dhabi Investment Authority, the Norwegian Government Pension Fund-Global and the Kuwait Investment Authority — have been in existence for many years. They were originally created for the purposes of stabilising fiscal revenues, intergenerational wealth transfers, or for balance of payments sterilisation. However, given the sharp and sustained rise in commodity prices over recent years, many funds initially established for fiscal stabilisation or balance of payments sterilisation purposes have evolved into intergenerational savings funds.

Three important drivers of the recent growth in East Asian SWFs can be identified:

- the accumulation of ‘excess’ foreign exchange reserves in the course of defending hard (or soft) currency pegs;
- the desire to seek higher returns on reserves to cushion actual and anticipated increases in reserve funding costs; and
- the quantity of outstanding mature market bonds is increasingly insufficient to meet demand from official reserve investors, including SWFs.

The accumulation of ‘excess’ foreign exchange reserves

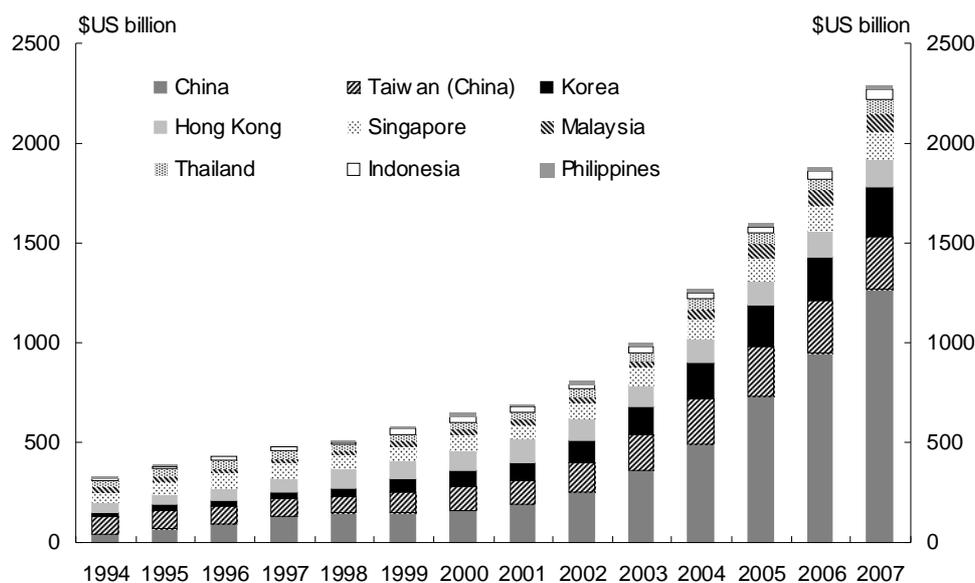
Driven by large balance of payments surpluses, East Asian economies have been accumulating foreign exchange reserves on an unprecedented scale over recent years (see Chart 1). In order to maintain hard (or soft) exchange rate pegs, central banks have intervened in foreign exchange markets, buying assets denominated in foreign exchange with local currency. In addition, central banks have often issued bonds in their domestic markets in order to absorb resulting increases in domestic liquidity (sterilisation bonds).⁴ Foreign exchange-based SWFs thus have matching liabilities for their foreign exchange assets, making these East Asian SWFs fundamentally different from their counterpart commodity-based SWFs (which essentially just convert a finite physical asset into a financial asset and, thus, have no corresponding liabilities).

4 In this case, the domestic bond issuance simply replaces local currency on issue on the liability side of the central banks’ balance sheet.

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While this build-up of reserves has provided an insurance policy against future capital market crises and large unexpected outflows of capital, it appears to have gone well beyond what would seem sufficient for self-insurance purposes — by most measures reserves have grown to levels that surpass, by several multiples, benchmarks of precautionary reserve adequacy (such as months of import cover).

Chart 1: Foreign reserves — selected East Asian economies^(a)



(a) Data for 2007 are calculated as an average over the eight months to August.

Source: IMF International Financial Statistics

While the vast majority of official East Asian reserves have been used to purchase highly liquid foreign government securities, particularly US Treasury bonds, reserve managers of the region are increasingly channelling these ‘excess’ reserves into dedicated investment vehicles (SWFs) with explicit mandates to earn higher returns on their invested funds.⁵

Increases in reserve funding costs

While the push to earn higher returns on reserve assets may simply reflect an increase in sovereign investor risk appetite, actual and anticipated increases in reserve funding costs may also be important. The most usual channel through which an increase in reserve funding costs can occur is via an increase in the rate of interest demanded on domestically issued sterilisation bonds. Expectations of eventual exchange rate

⁵ To be considered reserves, foreign currency generally must be invested in liquid and marketable instruments that are readily available to the monetary authorities to meet a balance of payments need (Lowery 2007).

appreciation, which would erode returns earned on the funds' international investments (in domestic currency terms), may provide an additional incentive to seek investment opportunities with higher expected returns.

Constraint on supply of mature market bonds

With the pace of official reserve accumulation outpacing the net issuance of the most traditional reserve assets — US Treasuries, US agency debt, euro area government securities and UK Treasuries — increased diversification may be, to some extent, inescapable.

The US Treasury Department has estimated that even if official reserve and SWF managers had purchased the total net issuance of these traditional reserve assets in 2006, they would still have had some US\$720 billion in funds left over to invest (Lowery 2007). While the remainder could be invested in the existing stock of these securities (on the secondary market), it is perhaps not surprising that a portion is finding its way into other markets and asset classes.

Other motivations

In some cases, motivations other than those identified above may also be important. In addition to explicit mandates to earn higher returns on government savings or official foreign exchange reserves, for example, the Singaporean and Korean SWFs aim to use their asset allocation decisions to nurture the development of their domestic financial sectors (for a description of the Singapore SWF models, see Box 1 on the following page).⁶

The Australian Future Fund, meanwhile, has been established by the Australian Government to specifically address a known legal liability (that is, its unfunded public sector superannuation liability).

6 The Korean Investment Corporation aims to attract foreign financial institutions to South Korea to accelerate the transfer of global financial knowledge to South Korea's domestic asset management industry (KIC 2007).

Box 1: The Singapore SWF models

The Singaporean Government has two SWFs, Temasek Holdings and the Government of Singapore Investment Corporation (GIC), both with a mandate to manage Singapore's government savings. The two funds, through their asset allocation approaches, also attempt to nurture domestic industries identified as being of strategic importance.

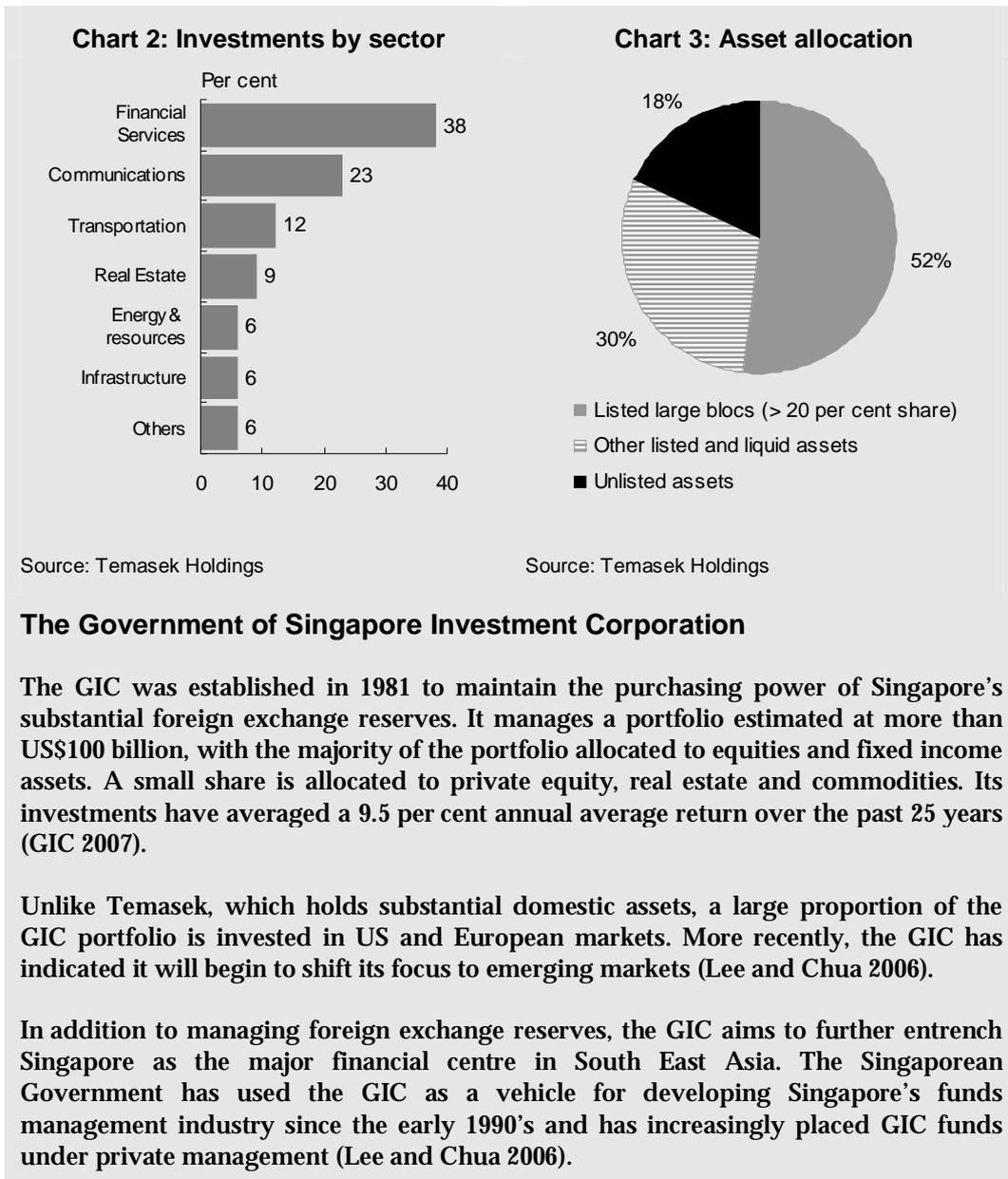
Temasek Holdings

Temasek Holdings was established in 1974 to better manage investments and assets previously held by the Singapore Ministry of Finance. The fund is accountable to the Singaporean Government for its overall performance. As the only shareholder, the Government's role is to ensure that a competent board is in place, while investment decisions are the responsibility of management (Temasek Holdings 2007).

The majority of Temasek's assets are located in Asia, accounting for around 80 per cent of the fund's total portfolio value. Around half of its Asian portfolio is invested within the Singaporean domestic market. Temasek adopts a long-term approach to investment, with a focus on both listed and private equity, and real estate investments. Over the past three decades it has reported an annual average return of around 18 per cent (Temasek Holdings 2007).

In addition to maximising returns to its shareholder, Temasek's investment strategy has also focused on developing expertise in particular domestic industries. For example, around 60 per cent of Temasek's investments are in the financial and communication sectors (see Chart 1), reflecting the Singaporean Government's aim to enhance Singapore's role as a regional financial centre (Temasek Holdings 2007).

Temasek manages a portfolio of more than US\$100 billion and has tended to take reasonably large stakes in the companies in which it invests — around 50 per cent of Temasek's portfolio comprises holdings in companies in which it has a stake of greater than 20 per cent (see Chart 2). Moreover, it has a controlling interest in a significant number of these companies (Temasek Holdings 2007).



How important are SWFs?

Most SWFs in existence today have either been established by oil-exporting countries or by East Asian countries with large current account surpluses (see Table 1). At present, SWFs derived from oil and gas exports are estimated to hold more than half of total SWF assets under management, with another third estimated to be held by Asian and Pacific countries, including China and Singapore (Johnson 2007). In the future, East Asian SWFs are expected to become increasingly important, with private sector projections suggesting that China's SWF could overtake the Abu Dhabi Investment Authority as the world's largest SWF by around 2009 (Jen 2007).

Table 1: Largest sovereign wealth funds (assets under management)

Country	Fund name	Assets (\$US bn)	Inception year	Source of funds
UAE	Abu Dhabi Investment Authority	250 to 875	1976	Oil
Norway	Government Pension Fund	300	1996	Oil
Saudi Arabia	Saudi Arabian funds (various)	250+	n/a	Oil
Kuwait	Kuwait Investment Authority	160 to 250	1953	Oil
China	China Investment Corp.	200	2007	Non-commodity
Russia	Stabilisation Fund of Russ Fed.	120	2004	Oil
Singapore	Government Investment Corp.	100+	1981	Non-commodity
Singapore	Temasek Holdings	100+	1974	Non-commodity
Australia	Australian Future Fund	54	2006	Non-commodity
Qatar	Qatar Investment Authority	50	2005	Oil
Algeria	Revenue Regulation Fund	40	2000	Oil
US (Alaska)	Permanent Fund Corporation	35	1976	Oil
Brunei	Brunei General Reserve Fund	30	1983	Oil
South Korea	Korea Investment Corporation	20	2005	Non-commodity
Malaysia	Khazanah Nasional	18	1993	Non-commodity
Kazakhstan	Kazakhstan National Fund	18	2000	Oil
Canada	Alberta Heritage Fund	15	1976	Oil
Venezuela	National Development Fund	15	2005	Oil
Iran	Oil Stabilisation Fund	13	1999	Oil
New Zealand	Superannuation Fund	11	2001	Non-commodity

Source: IMF GFSR (Sep 2007), The Economist, Truman (2007), futurefund.gov.au, nzsuperfund.co.nz.

In aggregate, SWFs are estimated to currently control anywhere from US\$1.9 trillion to US\$2.9 trillion in assets worldwide.⁷ This is greater than the asset pool managed by the global hedge fund industry (US\$1-1.5 trillion), but it represents less than 2 per cent of total global financial assets or around ten times less than the assets under management of mature market institutional investors (US\$53 trillion).⁸ There is no doubt, though, that these funds are currently growing very rapidly — Jen (2007) estimates that SWFs

⁷ The International Monetary Fund (IMF) estimates that in 1990, SWFs probably had no more than US\$500 billion in assets under management (Johnson 2007).

⁸ IMF Global Financial Stability Report, September 2007 (Chapter I, p 45).

could be as large as official reserves in five or six years' time, and could control as much as US\$12 trillion by 2015.⁹

There has been some debate over what the growing importance of SWFs may mean for the prices of various asset classes. While SWFs are generally thought to pursue relatively conservative asset allocation strategies, any shift in assets from official reserves to SWFs is likely to lead to a net increase in investment in risky assets. Private estimates have suggested that these portfolio shifts may put some upward pressure on the prices of riskier asset classes, such as equities, and downward pressure on bond prices (and, thus, upward pressure on yields).¹⁰ However, actual price outcomes will occur in the context of a highly dynamic international financial system where overall demand for financial assets, including fixed interest securities, will be expanding. Furthermore, the rise of the East Asian SWFs is symptomatic of broader imbalances in the global economy — if these imbalances are reduced through, for example, increased investment in emerging Asia (excluding China) and/or an unwinding of the US current account deficit, then growth in assets controlled by East Asian SWFs will be moderated and asset price effects diluted.

Financial stability implications

'Analysing changes in the international investor base and investment allocation behaviour is fundamental to understanding the build-up of strengths and weaknesses in international financial markets' (International Monetary Fund *Global Financial Stability Report*, April 2007).

As has occurred with the emergence of other large investor groups — such as hedge funds — questions are being asked about what the emergence of SWFs as an important investor class will mean for global financial markets. Given the sheer volume of capital controlled by some SWFs, most concerns have centred around a lack of transparency and whether portfolio adjustments could cause sudden reversals in capital flows and abrupt price changes, with potentially destabilising effects on both asset markets and whole economies (see, for example, Garten (2007) and IMF *Global Financial Stability Report*, April 2007 (Chapter II, p 85)).

At the outset, it is important to note that there are good reasons to be comforted by the growing importance of this investor class. As a group, SWFs are thought to be relatively conservative, long-term investors. Similar to other institutional investors with long investment horizons (such as pension funds and life insurance companies),

9 At end-2006, the total stock of global reserves (less gold) stood at US\$5.6 trillion (IMF *Global Financial Stability Report*, April 2007).

10 See, for example, Miles and Jen (2007).

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SWFs should have the ability to absorb a greater degree of short-term asset return volatility and may be prepared to buy during periods of asset price weakness, thereby providing market liquidity in times when it is most needed.

In contrast to highly-leveraged investment funds, such as hedge funds, SWFs are not likely to be forced by capital requirements or investor withdrawals to liquidate positions rapidly.¹¹ Most SWFs are not thought to be significantly leveraged in the normal sense, although foreign exchange-based SWFs, with their matching liability profiles, are fully leveraged.¹² While these funds are unlikely to be subject to margin requirements, this leverage may still pose a macroeconomic risk if the value of their underlying assets were to deteriorate significantly.

Concerns over the potential for abrupt changes in SWF asset allocation strategies to lead to periods of heightened financial market volatility can only be valid if their investment decisions are not based on purely commercial (market-based) motives. Given that most SWF portfolios are either run by a stand-alone investment manager or by well-regarded private fund managers and investment consultants, it is somewhat difficult to see these funds acting any differently from other market participants.

The typical SWF does not publicly disclose much substantive information on its asset allocation approach, the size (and type) of its individual holdings or its investment returns, nor its corporate governance processes or risk management techniques. With very little known about these funds, some commentators and policymakers have expressed concerns over the potential for minor comments or rumours to lead to periods of heightened volatility as market participants react to what they perceive SWFs to be doing (see, for example, Lowery (2007)).

Such concerns, however, are not dissimilar to those previously expressed in relation to hedge funds which have, at least to date, been proven to be largely unjustified. Indeed, the emergence of hedge funds as an important investor class may have actually made the financial system less volatile (see, for example, Warsh (2007)). Moreover, there may be good reasons for less than full disclosure of SWF investment activities — given the size of some SWFs, and their ability to have a material influence on the prices of

11 Highly leveraged asset management funds can, at times, be subject to redemption pressures. Specifically, if on-balance-sheet liquidity is insufficient to meet large redemptions, these institutions can only meet investor withdrawals with the forced sale of their securities, potentially affecting other funds and creating conditions favourable to a market crash (IMF Global Financial Stability Report, April 2007, pages 83-84).

12 There is some anecdotal evidence to suggest that certain SWFs have placed investments with other leveraged funds, while one SWF recently invested directly in a major private equity fund.

particular securities, other investors may attempt to 'shadow' their portfolio adjustments with the aim of earning windfall profits.

Overall, SWFs present few direct threats to financial stability. Indeed, from a financial stability perspective SWFs should not generally be viewed any differently from most other market participants — many of these funds share broadly similar objectives, management and motivations with other institutional investors in the private or public sectors, such as insurance and pension funds. While some have suggested that poor public disclosure may lead to periods of market instability, such concerns have previously been expressed in relation to hedge funds with seemingly little justification. Moreover, these concerns need to be balanced against the fact that full public disclosure may not be optimal either, given the risk that full disclosure of SWFs' investment activities may lead to gaming practices by other investors.

The politicisation of global capital flows

Attempts by foreign interests to purchase controlling stakes in strategic industries or iconic domestic companies can sometimes cause broadly based domestic concerns. Resistance can be even stronger if the purchaser is an overseas government and can raise suspicions over whether the purchase is being pursued for strategic or other non-commercial reasons. While SWFs are not new, as they grow in size and importance it seems inevitable that their activities will be subject to increasing scrutiny by the governments and citizens of the countries in which they invest.

Some developed countries are reportedly considering strengthening regulatory frameworks for vetting potential acquisitions of domestic companies by foreign government-controlled entities, including SWFs. The German government is reportedly considering introducing new legislation to block state-controlled foreign investments, particularly those made by SWFs. The Financial Times has reported that 'the European Commission has launched an inquiry into whether vast state-controlled investment funds from Russia, China and the Middle East threaten the continent's single market'. The US has also recently revised legislation governing its Committee on Foreign Investment in the United States, with a particular focus on the role of investments by governments (Truman 2007; p 7). Some European countries are also reportedly proposing the use of 'golden shares' which would allow governments to block takeovers of domestic companies without requiring a majority holding in those companies.

As SWFs continue to grow in size and diversify into new markets and asset classes, these pressures may intensify and could result in an increase in 'financial protectionism'. This financial protectionism could infect both source economies (due to perceptions of unequal treatment) and host economies (due to concerns about the need

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to protect strategic industries). Such a trend is ultimately likely to be welfare-destroying, particularly if it were to 'spill over' into non-official financial flows or into more traditional trade protectionism.

In most cases, a specific regulatory response from host economies may not be justified. Most investments by SWFs take the form of portfolio investments and rarely amount to a controlling stake. As already noted, SWFs are generally run by independent investment teams, or by private fund managers and/or investment consultants and, as such, are likely to behave similarly to most other market participants. It is important, as far as possible, to use existing processes to assess these investments rather than create new legislation that targets SWFs in general, or even specific SWFs. That is not to say, however, that a host country may not have legitimate cause for concern in some circumstances.

Efforts to increase transparency and accountability in SWF management would help to temper the concerns of countries in receipt of investments by SWFs. Indeed, a small but growing number of SWFs are disclosing more substantive information on their objectives, investment strategies and returns.¹³ This trend may continue to gather pace in response to both domestic and international pressures, although a strong case can be made for establishing international standards on 'best practice' SWF management.

While the manner in which these funds are managed is ultimately up to their own sovereign governments (which are unlikely to welcome moves to restrict the way in which they make their international investments), a government entity that operates outside its own borders is no longer 'sovereign' in all respects and will be better served by seeking cooperative solutions (Truman 2007). Moves to increase transparency may help to dispel some of the misgivings about the motivations for SWF investments in particular assets or industries. Greater transparency may also help to deter SWF investment managers from taking imprudent risks with the money they manage.

Governance as a key risk

SWFs are typically not regulated by their domestic financial authorities and the extent of indirect regulation may also be limited. As such, these funds may not be subject to the same degree of market discipline that is imposed on private investment managers,

13 For example, Norway's Government Pension Fund-Global makes public extensive information on its investment strategy and investment results on a quarterly basis, and annually provides information on its holdings of the bonds and equities of individual countries and corporations. Singapore's Temasek Holdings recently began publishing an annual report containing considerable detail on its investments. In July 2007, the Kuwait Investment Authority revealed for the first time the size of its total holdings (Truman 2007, pages 8-9).

relying instead on oversight by domestic citizens or bureaucracies. One likely consequence is that risk management practices and fiduciary controls may not be as strong as they could be, particularly if it is assumed that a SWF is backed by an implicit sovereign guarantee.

In addition, there are related concerns over the potential for SWFs to be subject to rent-seeking or political interference. While it remains to be seen whether such concerns are justified, there is clearly some scope for improving the institutional arrangements under which these funds operate.

Other risks associated with SWFs include the potential for inappropriate fiscal loosening, possibly outside the scrutiny of the budget process, and distortionary resource allocations at the national and global level from those funds which may not be managed to maximise economic returns in the medium to long term. These risks are likely to be greater where governance structures are poor, and where sovereign funds are not invested through intermediary asset managers accountable only for producing specific risk-adjusted returns.

Moving towards an international consensus

Developing an international consensus around standards for SWFs may be helpful in improving the institutional arrangements under which SWFs operate, strengthening governance structures and reducing the risk of a protectionist backlash against SWF investments. International financial institutions, such as the IMF, may be the most appropriate vehicle through which to develop a substantive set of international standards, particularly as they have already developed a number of voluntary transparency initiatives that are relevant for SWFs.¹⁴

Indeed, in November 2007, the IMF convened its first annual *Roundtable of Sovereign Asset and Reserve Managers*. The Roundtable — which is ‘designed to facilitate the exchange of ideas and experiences in [sovereign] asset and reserve management’ — provides a vehicle for the IMF to progress work on a set of best practices for SWFs.¹⁵

These standards could include, but not necessarily be confined to, the following:

14 These include the IMF’s *Guidelines for Foreign Exchange Reserve Management*, the *Code of Good Practices on Fiscal Transparency*, and the *Guide on Resource Revenue Transparency* (IMF Global Financial Stability Report, September 2007, Chap I, page 50).

15 ‘IMF Convenes First Annual Roundtable of Sovereign Asset and Reserve Managers’, IMF Press Release No. 07/267, November 16, 2007

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- SWFs should be governed by clear objectives determined by their sovereign governments, and rules and operations for the SWF should be transparent and free from political interference;
- SWFs should have an explicit investment mandate and clearly articulated asset management strategy;
- There should be regular public disclosure and reporting, and SWFs should be subject to independent audits and evaluations of their investment performance;
- SWFs should, in general, limit the size of their holdings in any one company to minority, non-controlling, stakes. Alternatively, SWFs should only invest in equity that does not have control rights attached to it (that is, non-voting shares); and
- The leveraging of SWF investment portfolios should be limited.

While the majority of SWFs currently in existence do not conform to the above guidelines, there are some exceptions. Norway's Government Pension Fund is regarded as the most open and transparent of the bigger long-established SWFs. Australia's Future Fund is also an example of an open and transparent SWF governed by strong fiduciary controls (see Box 2). Such funds can provide useful models for the development of international standards on 'best practice' SWF management.

Box 2: Australia's Future Fund

Established in April 2006, the Future Fund is a dedicated asset fund that aims to offset the largest liability on the Australian Government's balance sheet — unfunded public sector superannuation. The Future Fund's investment mandate provides a mechanism for the Government to articulate its expectations for returns on the Fund and its tolerance for risks. Under the investment mandate the Board is directed to:

- seek long-term real returns of at least 4.5 per cent to 5.5 per cent and minimise the probability of losses subject to achieving at least this benchmark;
- establish an internal limit on holdings of any listed company in order to ensure that it does not trigger the takeover provisions under the *Corporations Act 2001* or hold a stake of more than 20 per cent in any foreign listed company;
- act in a manner that minimises the potential to cause any abnormal change in the volatility or efficient operation of Australian financial markets or adversely affect the Government's reputation in these markets; and
- have regard to international best practice for institutional investment in determining its approach to corporate governance principles.

The Board is supported in its functions by the Future Fund Management Agency which acts on the investment directions of the Board. The Government has retained the right to direct the Board by changing the investment mandate. However, there are strong protections against the misuse of this power — if the Board considers that the new mandate is inconsistent with the basic objectives of the Fund it has the right to table a submission to Parliament opposing the change. This transparency is aimed at reducing the risk of politically motivated investments while protecting the capability of the Fund to pursue investment strategies with a long-term horizon. New legislative provisions have also been passed which prohibit the Government issuing directions which require the Fund to invest in specific assets, businesses or activities.

The corporate governance framework of the Future Fund reflects the Board being part of the General Government Sector but also having investment powers and responsibilities beyond those usually provided to departments of state. As such, under the Future Fund legislation, the Board is subject to requirements based on both the *Financial Management and Accountability Act 1997* and *Commonwealth Authorities and Companies Act 1997*.

The operations of the Fund, Board and Agency are subject to the reporting and audit requirements of the FMA Act. The Australian National Audit Office is responsible for auditing the financial statements relating to the Fund. An annual report covering the performance and activities of the Board, Agency and Fund (including financial statements) is required to be prepared and tabled in Parliament and the Board is required to attend senate estimates hearings. The Board is also required to formulate and make public its investment strategy and its approach to managing risks.

Conclusions

Sovereign wealth funds are an important and rapidly-growing investor class. As they continue to grow in size and influence, their activities will inevitably be subject to increased scrutiny by governments of the countries in which they invest. While the activities of these funds present few direct threats to financial system stability, it is incumbent upon the international community to manage the rise of this investor class in such a way as to avoid an increase in 'financial protectionism'. The quality of SWF governance is also important as it will influence resource allocation effects and the extent of risks from inappropriate fiscal loosening in the future.

There is clearly some scope for improving the institutional arrangements under which these funds operate, and the development of international standards of 'best practice' SWF management (under the auspices of the IMF) would be a positive step forward. Greater transparency and accountability may ultimately be in these funds' best interests and would help to assuage concerns of host economies over the motivations for SWF investments in particular assets or industries.

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John Forrest: Four times treasurer

John Hawkins¹

John Forrest entered the first federal parliament with an established reputation as a disciplined explorer and long-standing state premier. While narrowly missing out on becoming prime minister, he served four times as treasurer. In his first term, he followed in the conservative footsteps of Turner. He was later faced with reorganising federal finances when the arrangements governing the first decade of Federation were coming to an end. In his final term, he faced the challenges of funding Australia's involvement in the First World War.



1 The author is from Domestic Economy Division, the Australian Treasury. The views in this article are those of the author and not necessarily those of the Australian Treasury.

Introduction

The Right Honourable Sir John Forrest, honoured as a privy counsellor and a knight grand cross of St Michael and St George (the highest form of knighthood), served as Australia's treasurer in four stints under three prime ministers, bringing down six federal budgets. Including the eleven budgets he delivered in pre-Federation Western Australia, he brought down more budgets than any other federal treasurer. His cumulative term as federal treasurer was the longest until Page in the 1920s. A 'man of forthright rectitude, robust common sense and homely hard-headedness'², Forrest had a commanding presence; 'a big man with a big brain, a big voice and a big heart'.³ He stood 180 cms tall and weighed over 100 kgs. Perhaps no treasurer has achieved as much fame for his activities before politics as the heroic explorer John Forrest. And perhaps none has showed as much leadership, and got so close, without ever achieving his ambition of becoming prime minister.⁴

Forrest was a strong advocate of development, especially for his native West Australia. A frequently used expression of his political goals was 'to make two blades of grass grow upon a spot of ground where only one grew before'.⁵

Forrest the explorer

John Forrest was born in 1847 in the Bunbury area of Western Australia, one of ten children to British servants who moved with their employer to Australia before taking up farming. Forrest attended the government school in Bunbury and became a skilled horseman. He later attended a school in Perth where he showed aptitude at arithmetic, and trained as a surveyor. Forrest worked for the Surveyor-General's Office from 1865 to 1890.

Forrest's surveying expertise led to him to be appointed navigator on an expedition in 1869 which searched in vain for clues to the fate of the renowned explorer Leichhardt. Becoming leader of the expedition, Forrest successfully led six men for four months

² Crowley (1981).

³ Campbell-Jones (1935, page 138).

⁴ A less flattering view is put by the other great West Australian statesman of the era, George Pearce, who had been a political rival of Forrest for around two decades until they both served in Hughes' Nationalist party government. He regarded Forrest's 'ideas as outdated and his political cunning as overrated'; Heydon (1965, page 176). Clark (1987, page 48) suggests Hughes himself regarded Forrest as a 'pompous, vain, provincial fool'. Serle (1946, page 315), while generally favourable, attributes Forrest's failure to achieve the highest office to being 'too much inclined to look upon his opponents as people to be overcome rather than convinced'.

⁵ The line comes originally from Swift's *Gulliver's Travels*.

over 3,000 kilometres, much of it previously uncharted. The following year Forrest led the first overland expedition from Perth to Adelaide. In 1874 he led a party from Geraldton to Adelaide, the first west-to-east crossing through the western centre of Australia. On one of these trips he noted the effect of iron ore on his compass, but this was not followed up.

These feats brought Forrest public renown and confidence. He visited Britain in 1875 and gave public lectures, being feted as 'the young explorer'. He was honoured by the Royal Geographical Society and the Linnean Society. He was rewarded with a land grant of 2,000 hectares and on returning to Perth in 1876 was promoted to deputy surveyor-general. The same year he married Margaret Elvire Hamersley, a well-connected artist, but to Forrest's disappointment they were to have no children. She was 'a woman of exceptional managing ability', able to influence Forrest while leaving him under the impression that he had reached all decisions himself.⁶

As his biographer Crowley (1981) notes, the expeditions also established a leadership style; 'his objectives were boldly conceived, but cautiously executed. He was rarely compelled to go forward without knowing what lay ahead; nor was he obliged to advance merely because he could not retreat.' He carried into his administrative career the attributes of strength, thoroughness and punctiliousness. Crowley also suggests that his surveying influenced his blunt political style; 'he tended also to think that political solutions were discovered easily enough if the correct levels had been taken and the right angles measured'.

In 1883 Forrest did his last field work, accompanying a party surveying the Kimberley. He had earlier published a journal of his early explorations (1875). In 1884 he showed a much wider range of interest and published a precursor (with extensive statistics) to the *Western Australian Yearbook*.

Also in 1883 Forrest became surveyor-general and commissioner of crown lands, with seats in the Executive and Legislative Councils. He was the first colonial-born member of the Executive Council. In 1887 he represented Western Australia at the first Colonial Conference and Queen Victoria's jubilee.

Forrest supported self-government for Western Australia but as a government officer was not an active campaigner in the 1880s. He participated in the Legislative Council debates on the new constitution. He harboured hopes of being the first premier, since he was the only Executive Councillor who wished to continue on under the new system.

6 Campbell-Jones (1935, page 138).

Premier and treasurer of Western Australia

Forrest was elected unopposed to the Assembly seat of Bunbury and in December 1890 was sworn in as colonial treasurer, and was also known as premier.⁷ He held both positions until he left for federal politics in 1901, also serving as colonial secretary from 1894 to 1898. His dominance was uncontested, given his ability, experience and support. It was said that 'no other man in Australia has enjoyed such despotic sway over a state'.⁸

He was the sole member of his original cabinet still in office when he retired. His government was stable, although it suffered defeats on some measures and Forrest withdrew some proposals when support was not forthcoming. Forrest relied on his personal support; he never formed a political party, and never faced one in opposition to him. A strong supporter was his brother Alexander, an MP and mayor of Perth for most of the 1890s.

Forrest expanded public works as he felt the needs of the growing population had been neglected by the previous, unrepresentative government. To this end he raised loans in London and during his decade in office, Western Australia's public debt rose from £1.4 million to £12.2 million. He personally determined the allocation of public works based on deputations to his office and his travels during parliamentary recesses. He allocated less to the goldfields areas as he expected their relative importance to decline over time. A major project was the Coolgardie Water Scheme, which established a new wheat belt, and he purchased the Great Southern Railway. He established an Agricultural Bank. While far from a socialist, he saw a role for government in owning major utilities and infrastructure.

In other ways, at this stage of his political career, he was also progressive. He widened the franchise by abolishing the property qualification for the Legislative Assembly in 1893 and giving votes to women in 1899. He introduced a workers' compensation scheme, laid down rules on hours and conditions in the mining industry, limited hours of work in shops, legalised trade unions and in 1900 established an Arbitration Court. He styled himself a 'moderate protectionist'.⁹

Forrest was a lucky treasurer. The drought that ravaged the eastern states from 1895 to 1903 was less severe in the west and there were a succession of discoveries of new

7 At the time 'premier' was a courtesy title conferred by common usage rather than an official position.

8 Campbell-Jones (1935, page 131). By the time of Federation, he had set a record for an Australian premier of ten consecutive years in office.

9 Crowley (2000, p 103).

goldfields in the 1890s. While the other state treasurers were coping with depression, Forrest was managing a boom.

Forrest participated in the conventions leading to Federation, although without any apparent fervour. He successfully led the 'yes' campaign in Western Australia's Federation referendum.

Federal parliament

Like many state leaders, Forrest entered the federal Parliament, elected unopposed for the electorate of Swan which contained his state seat of Bunbury. However, his hope of leading a band of supporters into the federal Parliament was not realised.

Barton had appointed Forrest as postmaster-general in his interim cabinet, but seventeen days later, after the sudden death of James Dickson, he was moved to the Defence portfolio, which he retained after the first election, and he started the integration of the colonial forces. After the August 1903 reshuffle following Barton's retirement he served as minister for home affairs under Alfred Deakin. Forrest was one of the wealthiest members of the first parliament and when in Melbourne stayed in a large suite at the Grand Hotel where he entertained lavishly.

In 1903 Forrest was again elected unopposed but the other four Western Australian Representatives seats, and all three Senate places, went to Labour.

During the short-lived Watson Labour government of 1904, Forrest was an opposition backbencher for the first (and only) time.¹⁰ Although tempted, he rejected the overtures from the 'Come back, Jack' campaign to return to the Western Australian Parliament. He also declined a minor portfolio in the short-lived Reid-McLean coalition government.

¹⁰ It was an experience he did not find congenial after over twenty years as a state or federal minister. He reportedly exclaimed 'Mr Speaker, what are those men doing in our places? Those are our seats!'; McMullin (2004, page 49). This attitude was caricatured by Billy Hughes who famously remarked that Forrest seemed to be under the delusion that no cabinet was constitutional unless he was in it. Hughes also described him as 'a living image of a bygone age — a remnant of the post-pliocene age of politics. He stands there as a kind of fossilised mastodon, at once a source of astonishment and interest to the curious'; Hansard, 1908 pages 2323-4. There is a certain irony in this remark given that Hughes appointed Forrest to his own cabinet almost a decade later and himself stayed in Parliament until his death at the age of 90, having been an MP for around 60 years.

Forrest's first term as federal treasurer

Forrest was first appointed Treasurer (and fifth in seniority in the ministry) by Deakin in July 1905 and the following month presented his first federal budget on his 58th birthday.

As the new Deakin government had been in office for such a short time, much of Forrest's budget was essentially the work of his predecessor George Turner.¹¹ But Forrest added his own vision, making a contrast with the dour delivery of Turner. As Deakin put it at the time, 'Where Sir George Turner plodded through columns of figures, lingering lovingly over minute variations, and never rising to a larger view than that of his totals, his successor has swept the details into printed tables, used simply as texts on which he discoursed. When the punctilious timidity of the first caused large and small items alike to assume importance, the breadth and boldness of Sir John Forrest throws the main figures alone into bold relief.'¹²

In his first budget speech Forrest promised to 'a round unvarnished tale deliver', but was soon interrupted by Fisher and others who complained that Forrest had not distributed the budget papers before his speech.¹³ After this matter was sorted, Forrest expounded his concerns about the net emigration from Australia since the early 1890s. Forrest spoke of Australia's prosperity but expressed concern that Australia's population was growing more slowly than that of the United States and Canada. He then turned to the budget outcome for the previous year, noting that some money voted for public works had not been spent. There was a lengthy discussion about New Guinea.

Forrest provided in this speech an early estimate of what would later be called gross domestic product. He commented 'the general production of Australia — the production from our primary producing industries, amongst which I include manufactures ... was greater last year than ever before ... I should say it amounted to £120,000,000.'¹⁴ He estimated that about half was attributable to agriculture, a quarter to mining and a quarter to manufactures; and that production per head exceeded that

11 Crowley (1992, page 641). For an account of Turner as treasurer, see the Autumn 2007 Economic Roundup.

12 Deakin wrote this as the anonymous 'Sydney correspondent' of the London Morning Post, 13 October 1905. It was reprinted as Deakin (1968), page 155.

13 Hansard, 22 August 1905, pages 1194-5.

14 Hansard, 22 August 1905, page 1221. Forrest was drawing on the pioneering statistical work of Timothy Coghlan; see Hicks (1981). He repeated the estimate in Coghlan's presence at a London lecture in March 1906; Forrest (1906, page 7). By comparison, nominal GDP for 1904-05 was estimated by Butlin (1987) as £224 million.

in many European countries and the United States. On a later occasion he gave an estimate of national wealth as £1 billion, or about £250 per person.¹⁵

Forrest continued to push his long-held desire for a transcontinental railway, but to his disappointment, no further progress was made due to a lack of support from the South Australians.¹⁶ Forrest suggested that the Australian government should take over the debts of the states and assume responsibility for all government loan-raising in London.

He took a trip to London in early 1906 to consult with financiers and experts at the UK Treasury and the Bank of England and promote British migration to Australia. Forrest foreshadowed a banking bill and a note issue in 1906 and draft bills were circulated to the Bank of England and others. However, Forrest had resigned before implementing them.¹⁷ Similarly, in 1907 Forrest told a premiers' conference that a post office savings bank could be a 'splendid thing' and set parliamentary draftsmen to work on a bill but nothing eventuated.¹⁸

George Allen, the inaugural Treasury secretary, served Forrest during his first three terms as treasurer. Forrest apparently relied heavily on him, commenting 'Allen does all the written work'.¹⁹

By the time of Forrest's second federal budget on 31 July 1906, the Australian economy was at its 'most prosperous ... since the establishment of the Commonwealth'²⁰, helped by the ending of the long drought. In his budget speech he said he did 'not propose to unduly weary honourable members with figures'²¹, although he then proceeded over the course of a three-hour speech to read out more than 300 numbers, often giving state breakdowns of the budgetary impact of measures. There was minimal further discussion of the state of the economy, other than references to the number of sheep.

Forrest proudly announced the introduction of a uniform 'penny post' across Australia. He also discoursed at some length about a naval agreement, a plan to

15 Forrest (1906, page 9).

16 He asked 'What is the use of Parliament unless it exercises all the powers of State in order to carry out works of great public utility?'; Hansard, 22 August 1905, page 1230. Reputedly, when once challenged about the cost of the project he derisively replied 'What's a million?'; Campbell-Jones (1935, page 150).

17 His main motive was apparently the seigniorage revenue. In 1909 he returned to the issue but again lost office before action was taken; see Gollan (1968, page 76) and his letters to leading bankers in July 1909 in the Forrest Papers.

18 Faulkner (1923, page 2).

19 Cited by Crowley (2000, p 359).

20 Forrest, Hansard, 31 July 1906, page 1994.

21 Forrest, Hansard, 31 July 1906, page 1994.

encourage selective immigration²² and the introduction of Australian coinage. He tabled many statistical tables including international comparisons.

A large part of the budget speech looked forward to the fiscal federalism framework that would ensue when the Braddon clause (section 87) expired in 1910. Forrest presented his own proposal for revenue-sharing, whereby each state would get a fixed payment of three-quarters of the net revenue from customs and excise contributed by that state over the previous five years. He made extensive reference to his discussions on the topic with notables during his trip to the UK. He suggested the Australian government take over the states' debts and be responsible for all government loan-raising in London. A bill subsequently passed the House authorising a referendum to enable the Australian government to take over the debts of the states, but amendments in the Senate were unacceptable and so the matter did not proceed.²³

Acting Opposition leader Joseph Cook, saying he did 'not pretend to any special financial ability', concentrated on fiscal federalism issues during his reply, and there were exchanges about whether the Commonwealth or the states could borrow on more favourable terms. Labor leader Chris Watson remarked on the state of the economy and argued for a form of counter-cyclical fiscal policy.²⁴

In 1906-07 a loose fourth party emerged in the Parliament, known as 'tariff reformers' or 'the corner' and comprising conservative protectionists and moderate free traders. Forrest and McLean were its unofficial leaders and in Western Australia it took the form of a West Australian Party, which contested three lower Representatives seats and the Senate in the December 1906 election. Its policies included federal takeover of states' debts, old age pensions, uniform corporate and banking laws, opposition to a land tax and preference for unionists. Forrest particularly attacked the Labor Party, especially for its alleged extreme socialism and the caucus pledge which he saw as an undesirable diminution of the independence of members. He had relatively little to say about protectionism. This election was the first time Forrest faced a contest for a seat, and it annoyed him. However, he retained Swan by a two-to-one margin.

From March to June 1907, Forrest was acting prime minister and minister for external affairs, as well as treasurer, while Deakin and Lyne attended the Imperial

22 As he put it, 'We do not want the dregs of other lands. We need the young and enterprising,' Hansard, 31 July 1906, page 2016. He had earlier emphasised the need to 'fill up' Australia in his 1906 London speech.

23 He later attempted the same measure in 1914 but again unsuccessfully.

24 Watson's remarks are discussed further in his biography in the Winter 2007 Economic Roundup.

Conference.²⁵ This was probably the pinnacle of Forrest's career, as he was to miss out on gaining the prime ministership on four occasions.²⁶

Forrest reassessed his position upon Deakin's return to Australia. Forrest had long felt uncomfortable being in a government dependent on Labor support to survive. He was concerned that under Labor pressure Deakin might introduce a land tax. He pushed Deakin to align with the free traders instead but Deakin would not have it, in part at least because he viewed Watson as more trustworthy than Reid.²⁷ Forrest's frustration with Deakin grew until he resigned from Cabinet in July 1907 and was replaced by his cabinet rival William Lyne. The reasons for Forrest's resignation at this time, and whether it was aimed at securing for him the prime ministership were widely debated.²⁸ Deakin's own anonymous column attributes Forrest's departure to

25 Forrest seemed to have enjoyed this mightily. Crowley (1992, pages 675-80) recounts how he made copious use of prime ministerial stationery for correspondence, chaired eight meetings of cabinet and a premiers' conference, travelled extensively and commented publicly on a wide range of matters. He also inspected Canberra as a proposed site for the federal capital, but continued to prefer Dalgety, on the banks of the Snowy River.

26 His first real chance was when the non-Labor parties fused in 1909. Forrest was spoken of as a possible leader (along with Deakin, Cook and Irvine), but it was Deakin that emerged as the only man acceptable to all the leading players; Crowley (2000, pages 397-402). Hume Cook described a government not led by Deakin as 'Hamlet without the prince' and said he (and others) could not be counted as supporters unless Deakin led; Hume Cook to Forrest, 14 May 1909, Forrest Papers. Forrest's closest miss was when he lost the Liberal leadership by one vote when Deakin retired in 1913. Forrest was particularly hurt that Deakin voted for Joseph Cook in preference to him. He described this as 'the most painful episode in my political career', asking Deakin 'Do you think I would have acted towards you the way you have acted towards me?'; Crowley (1992, page 778) and La Nauze (1965, page 625). (The other crucial vote Forrest lost was that of Groom, variously attributed to Groom following Deakin's lead or being influenced by false rumours that Forrest had a brain tumour.) He also failed to get the leadership of the National Labor-Liberal coalition when it formed in February 1917. Crowley (1992, page 823) believes 'Forrest was successful in gaining the support of possibly 17 of the 34 Liberals and had more than an outside chance of success'. In January 1918 Hughes stood down following the defeat of his second conscription referendum and there was speculation Forrest might become prime minister. Forrest saw the governor-general and 'broached a certain matter' (as it was discreetly put in the vice-regal appointments book) but failed to convince him he could command a majority and Hughes was recommissioned; Crowley (1992, page 842).

27 Deakin wrote to Forrest that 'There is a gulf between the Labour party and myself but a greater gulf between Reid and myself'; 5 August 1908, Forrest papers.

28 Forrest wrote to Deakin that he felt 'out of joint with my surroundings' and his constituents would not view him as acting 'consistently and indeed honourably'; 25 July 1907, Forrest papers (on microfiche at National Library of Australia). In following letters he argues for his view that requiring Labor support was 'humiliating' and denies 'tariffs was a reason — or anything else'; 27 and 28 July 1907, Forrest Papers.

In contrast, a press report gave as 'the real reason' Forrest's poor relations with his colleagues who regarded his presence as making it harder for the government to retain the support from Labor it needed to survive; Sydney Morning Herald, 31 July 1907, page 9.

dissatisfaction with a forthcoming tariff and describes him as 'impetuous in everything'.²⁹ Within a week of becoming treasurer, Lyne brought down a budget, most of the work for which had been done by Forrest. Forrest interjected repeatedly during the speech and attacked Lyne on other occasions so forcefully that Deakin tried to calm him.³⁰

Forrest's second term as treasurer

From his first entry into federal Parliament Forrest had opposed what Deakin had called the 'three elevens'³¹ and wanted a merger of the non-Labor parties. The 'fusion' of anti-Labor forces was finally achieved in 1909, aided by Reid's retirement. In June Forrest returned to the Treasurer's role.

His speech on the 1909-10 budget, at 90 minutes, was then the shortest on record.³² He was the first treasurer to budget for a deficit as the introduction of the old age pension increased expenditure by an 'enormous sum', there was a need to develop the postal service, and customs and excise revenue was expected to fall.³³ However, he saw these problems as temporary and advocated funding the deficit by issue of four-year treasury bills, which he compared to 'an overdraft'.³⁴ A contentious expenditure item was the provision of a battleship to the United Kingdom.³⁵ The budget was described in the press as 'makeshift' and 'tentative'.³⁶ It was criticised by Labor for its deficit

29 The column appeared in the *Morning Post* of 6 August 1908 and is reprinted in Deakin (1968), pages 207-8.

30 Deakin wrote to Forrest, 'You are so good tempered as a rule and these personalities are so unnecessary'; 20 July 1908, Forrest Papers.

31 The representation of three similarly sized parties, none able to command a majority.

32 He referred to it wistfully as his 14th budget, a sign that 'the years are rolling along'; Hansard, 12 August 1909, page 2413.

33 Hansard, 12 August 1909, page 2415. He did not decry the additional expenditure, saying that 'Care of the aged poor is a subject of intense importance, and in every civilised country some efforts are made to provide for them' and referring to 'our duty to those who have not been successful in the battle of life, in many cases through little or no fault of their own'; Hansard, 12 August 1909, page 2417.

34 Hansard, 12 August 1909, page 2416. He justified the borrowing by drawing on his experiences as WA premier; 'without borrowed capital the railways, telegraphs, harbours, water supplies and nearly all the great works throughout Australia could not have been constructed'; Hansard, 12 August 1909, page 2424.

35 This led to some purple prose by Forrest in his budget speech, referring to the UK as 'our own nation - the home of our fathers ... this other Eden ... this blessed plot'; Hansard, 12 August 1909, page 2423.

36 Cited by Crowley (2000, page 410).

funding, with Hughes in particular denouncing it in vituperative tones.³⁷

In August 1909 Forrest was involved in negotiating with the premiers a financial agreement for the years beyond the expiry of the transitional arrangements which had governed the first decade after Federation. The threat of Fisher's return at the coming election may have persuaded the premiers, all non-Labor at the time, to accept at this conference terms offered by Deakin and Forrest that were less generous than they had previously insisted upon.³⁸ These were based on a per capita grant of 25 shillings per year. These financial arrangements between the commonwealth and states lasted until 1927, although inflation eroded their value.³⁹

In December 1909 Forrest declined the offer to be High Commissioner in London.⁴⁰

The fusion (by then called 'Liberal') government was defeated at the April 1910 election. Two referenda were held at the same time, approving the federal takeover of states' debt but narrowly rejecting the new financial agreement.

While the Labor government's clear majority in both houses meant resistance was only token, Forrest was a leading Liberal spokesman on economic matters.⁴¹ He supported the government on the issue of Australian currency but opposed the bill establishing the Commonwealth Bank, particularly objecting to its governance arrangements.

Forrest's third term as treasurer

The Liberals won a narrow majority in the House at the May 1913 election, but facing a hostile Senate were limited in what they could achieve. Forrest was treasurer (and deputy prime minister) when World War I broke out and he authorised payment for

37 Hughes remarked, 'Every impecunious person has resorted since its first discovery to this ingenious method of putting off the evil day by signing one's name on the back of a bill'; while Watkins interjected 'It is a pawnshop policy'. Hughes claimed that Turner, whilst Barton's treasurer, had suggested borrowing to fund public works but the House had rejected it and argued that as the federal pensions partly replaced some state schemes they should contribute to the cost. He also suggested a land tax on large estates, praising Lloyd George's policies in the UK. Hughes went on to say 'No budget has been more vapid, evasive or unsatisfactory'; Hansard, 12 August 1909, pages 2427-30. He went on to describe the government's financial policy as an 'anaemic decrepit weakling' (page 2432) and concluded 'This budget, on being dissected, exhales an aroma which will provoke every manifestation of nausea and disgust' (page 2435).

38 Wright (1969, pages 473-4).

39 A referendum to make them permanent in April 1910 was defeated.

40 La Nauze (1965, p 595).

41 He was especially critical of the land tax proposed by Labor, or the 'socialistic caucus party' as he called it; West Australian, 29 November 1910.

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the raising of an Australian Imperial Force. He also had to deal with problems arising from the closing of the London money market.

Forrest's budget of October 1913 not only forecast a large deficit but 'did not bear the stamp of his style and language'.⁴² It was long on lists of figures but lacked any rhetorical flourishes. The budget speech was described as ill-tempered.⁴³ Forrest expressed his opposition to maternity allowances for all, believing many did not need or deserve it, and arguing 'a system of social insurance must soon take its place'.⁴⁴

There had been a frosty relationship between Forrest and Commonwealth Bank governor Miller.⁴⁵ For a while relations improved and Forrest referred to him as an 'excellent man'. But they later deteriorated again and Forrest mused about putting the governor under the direction of a board.⁴⁶ A bill to curb the Bank's savings bank business lapsed when the parliament was prorogued.

Forrest's final term as treasurer

The Liberals lost the September 1914 double dissolution election. Forrest was again a leading Liberal spokesman on economic matters. He opposed many measures of the Labor government, especially the extension of the land tax and introduction of income tax. However, he had come round to accepting that the Commonwealth Bank played a useful role.

While this was a period of frustrating return to opposition, in 1915 Perth honoured Forrest's fifty years in public service and the new University of Western Australia awarded him a Doctor of Laws.

After the Labor government split over conscription, there was another 'fusion', of the Liberals and Hughes' pro-conscription 'National Labor' party, to form a 'war government', known as the Nationalist Party. Forrest became treasurer again in 1917, ranking third in cabinet after Hughes and Cook.

George Allen had by now retired as treasury secretary, being succeeded by James Collins.

42 Crowley (2000, page 430).

43 Sawyer (1956, pages 117-8) comments 'Instead of showing any gratitude for the magnificent reserve left to him, he snarled at Fisher for having invested part of it in securities having several years to run'.

44 Hansard, 2 October 1913, page 1793.

45 Crowley (2000, p 432). This was unsurprising as the Liberals had opposed the Bank's creation and then argued against it expanding its business in London.

46 Crowley (1992, p 805 and p 834).

Forrest was returned unopposed at the 1917 election and remained as treasurer. In a 'somewhat extraordinary'⁴⁷ circumstance, Forrest presented two budgets within two months; one for 1916-17 on 14 June 1917 (with most debate delayed until July) and another for 1917-18 on 8 August.⁴⁸ It was said of the latter that it 'did not bear Forrest's brand'.⁴⁹ Facing a tough budget as customs revenue was declining, he spoke for less than an hour in a very plain way.⁵⁰ A special 'additional profits' tax was introduced. A controversial income tax on eligible men who had not enlisted⁵¹ was also discussed but never levied.

By now Forrest was generally regarded as past his prime.⁵² In October 1917 he had the great satisfaction of being on the first intercontinental train to Perth for which he fought so long and being the first native-born Australian to be appointed to a baronetcy. He styled himself 'Lord Forrest of Bunbury'. However, otherwise it was a very bad time. Not only was Australia incurring huge war casualties but, at a personal level, two of Forrest's brothers died and his own health deteriorated. A series of operations on his temple were unsuccessful. Hughes appointed William Watt as acting treasurer in February 1918 and Forrest reluctantly resigned from the cabinet on medical advice in March 1918.

He set sail for London for special medical treatment and his investiture in the Lords, but died on the ship on 2 September.

47 Hansard, 12 July 1917, page 134.

48 After Fisher's slightly later than usual budget in December 1914, World War I and political turmoil disrupted financial arrangements, with no budget presented in 1915 and 'budget statements' (of sorts) by Higgs in May and September 1916, another by Poynton in December 1916 and another by Forrest in March 1917; Sawyer (1956, page 145). The story of these will be told in forthcoming essays in the Economic Roundup during 2008. While Forrest brought down the 1917-18 budget in August 1917, it was not fully debated until June 1918.

49 Crowley (2000, page 453).

50 The only exception was a patriotic peroration, where he proclaimed 'We are part of a great empire ... confronted by foes unparalleled in the world's history for cruelty and barbaric atrocity ... we owe everything we possess, including our homes on this continent, to the Motherland ... we are closer to the 'Old Land' than we ever were'; Hansard, 8 August 1917, page 837.

51 Those who had not taken the 'glorious opportunity of doing their duty', as it was put; Crowley (1992, pages 832-3).

52 However, the reference by a biographer and former secretary of Hughes to Forrest's 'political and administrative incompetence' is probably unfair; Booker (1980, page 219).

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Key themes from the Treasury Business Liaison Programme — October 2007

As part of Treasury's Business Liaison Programme, Treasury officials met with around 60 businesses, and some industry and government organisations, in Sydney, Melbourne, Brisbane, Perth, Rockhampton and Gladstone in October 2007.¹ This summary also draws on meetings held in May and July-August 2007, when Treasury officials met with firms in Sydney, Melbourne, Newcastle, Cootamundra, Wagga Wagga and Young. Collectively the firms interviewed employ over 500,000 Australians.

Most retailers expect sales to remain solid, although there is wariness about the prospective impact of higher interest rates. The strongest part of the economy continues to be the mining sector and associated construction activity. Manufacturers and tourist operators are concerned about the effect of the appreciation of the Australian dollar. Companies indicate that the labour market is tight and there are shortages of workers with key skills, but they anticipate this will lead to only a modest rise in wage growth. They also suggest that the appreciation of the dollar, and competitive pressures, are limiting the impact of strong demand on inflation.

Treasury greatly appreciates the commitment of time and effort by the businesses, industry associations and government agencies that participate in the programme.²

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- 1 A detailed explanation of the Treasury Business Liaison Programme is provided in the Treasury *Economic Roundup*, Spring 2001.
 - 2 This summary reflects the views and opinions of participants in the liaison programme, which are not necessarily shared by Treasury. While Treasury's evaluation of the economic outlook is informed by findings from business liaison, a much wider range of information and data are utilised to ensure a rigorous assessment of the Australian economy.

Retail sales

Retailers report a continuation of solid trading conditions which they anticipate will continue. They are generally surprised that interest rate rises have had a relatively muted impact on sales thus far, and that defaults on goods purchased on credit remain low. However, there are concerns that a 'tipping point' could be reached if interest rate increases continue.³ Discount retailers comment that tax cuts provided a fillip to sales in July.

Retailers note that high petrol prices are affecting the pattern of sales at convenience stores. Consumers have a limit to the amount they wish to spend at petrol stations and respond to higher prices by making more trips to stations and buying less in the associated convenience stores.

Many retailers were expecting weaker sales during the election campaign. Some attribute this to uncertainty in general leading to deferral of large purchases. Others felt that the election was a distraction for families making decisions on purchases. There was general agreement that elections disrupt advertising campaigns, even if only by cluttering up letterboxes, although a few retailers regarded this 'election campaign effect' as an 'urban myth'.

Continuing the pattern of recent quarters, national retailers speak of particularly strong sales growth in Western Australia, the Northern Territory and south-east Queensland, reflecting the mining boom and strong population growth. In Perth sales of luxury goods are especially strong. Retailers also note that sales growth in Victoria is stronger than in New South Wales, although NSW sales are picking up. There are still some concerns expressed about western Sydney, where falling house prices and a more cautious approach by lenders appear to be constraining spending. This is also an area where higher interest rates (and prospectively higher petrol prices) have a strong impact. Some stores in rural areas are still suffering the adverse impact of drought on their sales.

Contacts remark that only a small proportion of purchases are made over the Internet but such purchases are growing rapidly. It is suggested that the exchange rate appreciation is encouraging purchases from Internet retailers overseas.

³ The liaison meetings were held before the Reserve Bank increased interest rates in November, but this was widely anticipated by contacts.

Manufacturing

Manufacturers describe facing more difficulty in exporting due to the appreciation of the Australian dollar, although widespread use of hedging instruments is delaying this impact.

However, some manufacturers argue that they are more resilient to exchange rate pressures than previously. Moreover, they view the high dollar as an opportunity to import more capital equipment while its \$A price is low.

Manufacturers of processed food tell of being constrained by the drought limiting supplies from farms. This is particularly a problem for manufacturers who stress their products are 'fresh' or 'Australian made'.

In October, contacts were not reporting any marked impact from the problems in the subprime market in the US on either the cost or availability of credit.

Housing

Marked divergences remain in the housing market across the country. House prices in some mining areas are rising rapidly, and approaching those in capital cities. On the other hand, contacts refer to weak demand for larger homes, falling house prices, and little interest in land purchases in western Sydney. House construction in New South Wales in general is reported as quite weak. Estate agents suggest that high petrol prices are making areas with poor public transport less attractive. The housing market remains strong in Queensland. While the rate of price growth appears to have softened in Perth, sales remain strong and rents continue to rise. One response to higher home prices has been developers putting smaller blocks on the market.

Contacts describe the demand by investors as having been lacklustre in 2007. They attribute this to low yields and a slowing in price growth and the incentives for investors to direct funds into superannuation. However, as rental yields are now rising, and some of the temporary superannuation concessions are no longer available, some estate agents and builders think investor interest in housing is reviving.

Some contacts believe that the housing industry would struggle to expand its level of activity were demand to pick up, owing to widespread skills shortages. The skills shortages are attributed to a short-sighted neglect of apprenticeships over recent years. As a consequence, completion times could stretch out were demand to increase appreciably.

Tourism

Tourism operators tell of difficulties arising from the strong Australian dollar. In particular, the Japanese market is being affected, with the dollar appreciating by 23 per cent against the yen during the course of 2006-07. Tourism operators refer to some structural features of the Japanese market as exacerbating this problem. Japanese tourists make unusually heavy use of travel agents who only adjust the price of holiday packages once a year. When the costs of Australian accommodation rise due to exchange rate changes, the travel agents redirect tourists to other destinations until the annual repricing.

The strong Australian dollar is also adding to a tendency for Australian holidaymakers to favour overseas travel over traditional coastal resorts.

Business investment

With business activity strong, a number of firms are planning to increase capital expenditure. Ironically, while some investment projects are designed to reduce the need for workers, a shortage of skilled workers is often stated as a reason why some projects are being deferred. Another problem is a shortage of well-located land.

Mining companies tell of embarking on new projects to expand capacity (despite viewing current commodity prices as unsustainable). Most mining companies continue to note difficulties in obtaining certain equipment, such as large tyres.

Production and exports continue to be constrained by capacity in rail and ports and considerable investment is continuing in these areas. A number of contacts mention they would like to make more use of rail transport (and note it is environmentally preferable) but links between major centres were inadequate as there has been insufficient investment over many years.

Employment

Most firms indicate plans to increase employment over the coming year, although many say they would expand employment more if there were more workers available.

Businesses operating nationally highlight shortages of managers, engineers, electricians, geologists, truck drivers, IT staff and chefs (among others) in Western Australia. However, with Perth property prices now the second highest in the country, they say it is very hard to entice eastern state workers to move there. For this reason, many mining companies report increasing use of 'fly-in-fly-out' arrangements to run their remote mines.

There are also skills shortages and increased labour turnover in other States. As well as those occupations noted above, there are shortages of accountants, store managers and logistics experts, and specialists such as radiologists. In some places there are shortages of low-skilled workers such as delivery drivers.

Contacts suggested that a shortage of workers in child care is being heightened by 'welfare to work' provisions increasing the demand for childcare. Farmers near mining areas face particular difficulty in retaining workers. And once labour leaves the farm, it is difficult to coax back. Some firms have concerns about the ageing workforces in some trades such as bricklaying. Mining companies are making extensive use of '457' visas, but some smaller employers claim the scheme is too complicated for them to use.

Many companies refer to shortages of apprentices, and a lack of experienced workers to mentor them. Some apprentices are abandoning their training to take well-paid unskilled jobs at the mines. A number of contacts express dissatisfaction with TAFE training, which is often characterised as lacking vibrancy, operating in overcrowded and rundown campuses with poorly paid staff, often retired tradespeople unfamiliar with current techniques and unable to connect with young students.

Wages and other costs

Notwithstanding the tight labour market, there continues to be no generalised surge in wages, although there has been a slight rise in the growth rate. Three-year agreements are common, which spreads out the impact of labour shortages on wages. However, some companies report a tendency to promote people faster than their experience would normally warrant. Some are improving the non-wage component of packages such as salary sacrificing for superannuation, cars or notebook computers. Some firms are also finding that they need to offer more flexible working hours to retain and attract staff. Some have responded by improving working conditions, such as by air conditioning offices.

Other costs are generally contained. Firms comment that the world prices of some manufactured goods have stopped dropping as China removes export subsidies. However the Australian dollar costs of imported inputs and capital equipment are being kept down by the appreciation of the Australian dollar. The prices of mining equipment have increased markedly.

Contacts described how the drought has led to some sharp rises in electricity prices (as most electricity plants rely on fresh water for cooling). In the medium term, they noted, emissions trading may result in further increases but trials of meters offering and displaying off-peak prices may lead to a more efficient use of electricity. A number

of companies refer to the impact of higher water prices, which are expected to rise further. Many contacts with operations in Perth refer to significant rises in rents.

A commonly mentioned problem is inconsistent regulations and licensing requirements across the States. This unnecessarily drives up business costs.

Some food prices, notably of dairy products, have risen considerably, partly attributable to the drought. This effect could extend for some time as, for example, dairy production will take at least two years to return to pre-drought levels, given the need to rebuild herds. Moreover contacts warn that price rises are not solely due to the Australian drought. Global prices of food have increased as farmland is increasingly used for growing crops used to produce biofuels, demand increases in Asia and subsidies are removed, while there are no longer large stockpiles of rural produce in Europe to buffer price movements.

Prices

Underlying inflationary pressures are rising, although the exchange rate appreciation is containing import prices. Companies suggest that competitive pressures are limiting price increases. This is compressing margins, although profits generally remain strong.

New car prices are static despite cars having more features, while used car prices are falling.

Inflationary pressures are stronger in Perth than in other capital cities, reflecting the mining boom's impact on demand and the property market in particular.

Regional areas

Drought conditions continue to have a serious impact on farmers, although rains have brought relief to some. The recent drought is viewed as worse than 2002-03 by some agriculturalists and their suppliers as it has proved more prolonged.

The May business liaison round included meetings in Cootamundra, Wagga Wagga and Young. Wagga Wagga is developing as a services centre, aided by Charles Sturt University and the defence industry, a diversification which reduces the impact of droughts on the town. This has been reinforced by several companies moving to the region from major city centres, reflecting the lower costs of doing business. However, some companies in the region are reporting labour shortages.

Water allocations are regarded as a crucial challenge for the Riverina and wine and fruit growers. Abattoirs' business surged as farmers sought to cut stock levels during the drought but has since dropped away after the mid-2007 rains.

The July business liaison round included meetings in Newcastle. Its port, the world's largest for coal exports, remains a key issue. The number of ships off Newcastle had peaked at 78 after severe storms along the NSW coast disrupted shipping and rail operations. There were around 40 in the queue in November. However, this queue understates the excess demand as quotas are still in force.

The largest employers in Newcastle now include the hospital and the university, rather than being dominated by mining-related businesses.

The October round included meetings in Rockhampton and Gladstone. The strength of the mining sector is underpinning strong growth in these towns. Large capital expenditures are being undertaken to expand the capacity of Gladstone's port and the aluminium smelter. Rockhampton continues to be a centre for the beef industry but significant employment also comes from Central Queensland University and regional offices of government departments. Rents and house prices have increased in recent years and there are shortages of both temporary and permanent accommodation. Contacts report that this has pushed the poorest and least skilled people out to small towns and declining villages with poor transport and health care.

Carbon pricing and trading

Many companies support a prompt introduction of an emissions trading/carbon pricing scheme to reduce uncertainty about the regime to be adopted. There still appear to be a number of companies that have given little thought to the implications of carbon pricing, apparently assuming widespread 'grandfathering' or protection of existing producers, or that they can pass on cost increases with minimal effect on demand.

WHAT'S NEW ON THE TREASURY WEBSITE

The Treasury's website, www.treasury.gov.au, includes past issues of the *Economic Roundup*. Some of the other items posted on the website since the previous issue of *Roundup* that may be of interest to readers are listed below.

SPEECH

'Full Employment in Australia and the Implications for Policy' (December 2007). Address to the NSW Economic Society by Steven Kennedy, General Manager, Domestic Economy Division.

<http://www.treasury.gov.au/contentitem.asp?NavId=008&ContentID=1328>

The unemployment rate is now near 30-year lows. This raises the question of whether it can be maintained, or fall further, without generating unsustainable increases in wages. Estimates of the Phillips and Beveridge curves suggest that unemployment around current levels is broadly consistent with stable inflation.

Workers with low educational qualifications have substantially higher unemployment rates than others, and their overall labour force participation is relatively low. Large relative differences in unemployment and labour force participation rates by education level suggest this as a rich area of policy focus. Labour market outcomes also diverge across the states, reflecting the strong and likely persistent demand in resource-rich states. This suggests a role for policy in removing barriers to labour moving to these states from states where demand is less strong.

BUDGET STATEMENTS

Mid-Year Economic and Fiscal Outlook 2007-08 (October 2007)

<http://www.budget.gov.au/2007-08/myefo/html/index.htm>

This update is prepared in accordance with the *Charter of Budget Honesty Act 1998*. It provides the Australian Government's update on the outlook for the Australian economy and its fiscal position, incorporating data available up to October 2007.

Pre-Election Economic and Fiscal Outlook 2007 (October 2007)

<http://www.treasury.gov.au/contentitem.asp?e=1&NavId=057&ContentID=1321>

Consistent with the requirements of the *Charter of Budget Honesty Act 1998*, the *Pre-Election Economic and Fiscal Outlook 2007* issued by the Australian Treasury and Department of Finance provides updated information on the economic and fiscal outlook. The information in the report takes into account,

to the fullest extent possible, all Government decisions made before the issue of the election writs.

WORKING PAPER

2007-04: Australian Labour Supply Elasticities: Comparison and Critical Review (October 2007)

<http://www.treasury.gov.au/contentitem.asp?NavId=049&ContentID=1319>

Sandra Dandie and Joseph Mercante

Labour supply elasticities measure the responsiveness of individuals' labour supply to changes in variables such as the net wage rate (after consideration of tax and transfers) and net non-labour income. Elasticities have been estimated in Australia and internationally using a range of modelling approaches. This paper draws on reviews of elasticity estimates in the literature and considers factors affecting their estimation and interpretation. As indicated in these surveys, caution should be exercised when comparing these estimates, with due consideration of differences in data, methodological approaches and model specifications.

This paper summarises published labour supply elasticity estimates from Australia and discusses what can be learnt from them. Comparisons are also made with selected elasticity estimates from the United Kingdom, Canada and New Zealand.

Elasticity estimates in the reviewed studies aid our understanding of the labour supply responses of various population groups and are particularly useful when disaggregated. Disaggregated elasticity estimates allow an understanding of the relative responses of different population groups characterised by education levels, part-time or full-time employment status, level of income, or other household characteristics. However, few studies have estimated disaggregated elasticities. There is also scope for further improvements in modelling methodologies and specifications. This would help to identify population groups that are responsive to changes in net wages and incomes, and thereby strengthen the basis for policy development.

What's new on the Treasury website

ANNUAL REPORTS

Treasury Annual Report 2006-07

<http://www.treasury.gov.au/contentitem.asp?NavId=035&ContentID=1320>

The 2006-07 *Treasury Annual Report* outlines performance against outcomes, outputs and performance information contained in the Portfolio Budget Statements. It also includes the reporting requirements and financial accounts for the Royal Australian Mint, Australian Government Actuary and Foreign Investment Review Board.

Australian Government National Competition Policy Report 2005-07 (1 July 2005 to 30 June 2007)

<http://www.treasury.gov.au/contentitem.asp?NavId=036&ContentID=1306>

The report details the Australian Government's performance against its commitments under the Competition Principles Agreement for the period 2005-2007. This includes progress on the review and reform of legislation that restricts competition; implementation of competitive neutrality principles; structural reform of public monopolies; access arrangements for essential infrastructure facilities; legislative exceptions from the application of Part IV of the *Trade Practices Act 1974*; and final National Competition Policy payments made to States and Territories in 2005.

Sources of economic data

The following table provides sources for key economic data. Australian Bureau of Statistics (ABS) data can be obtained over the internet at <http://www.abs.gov.au>. The Reserve Bank of Australia information is available at <http://www.rba.gov.au>. Similarly, OECD information is available at <http://www.oecd.org>. Information on individual economies is also available via the IMF at <http://www.imf.org>.

International economy	
Output, current account balance and interest rates	OECD Main Economic Indicators
Consumer price inflation	ABS cat. no. 6401.0
National accounts	
Components of GDP, contributions to change in GDP	ABS cat. no. 5206.0
Incomes, costs and prices	
Real household income	ABS cat. nos. 5204.0 and 5206.0
Wages, labour costs and company income	ABS cat. nos. 5204.0, 5206.0 and 6345.0
Prices	ABS cat. nos. 6401.0 and 5206.0
Labour market	ABS cat. no. 6202.0

External sector

Australia's current account, external liabilities and income flows

ABS cat. nos. 5368.0, 5302.0 and 5206.0

Past editions of *Economic Roundup*

A full index to articles published in *Economic Roundup* was included in the Spring 2006 edition. Details of articles published in recent editions are listed below:

Winter 2007

Trends in aggregate measures of Australia's corporate tax level

Treasury costings of taxation policy

Recent productivity outcomes and Australia's potential growth

The financial sector in Papua New Guinea — A good case of reform

The Bottom Billion: Why the poorest countries are failing and what can be done about it: Some insights for the Pacific?

Christ Watson: Australia's second Treasurer

Autumn 2007

Political awareness

Peer review in the context of regional integration

Australia's G-20 host year: a Treasury perspective

Corporate social responsibility and financial performance in the Australian context

George Turner: Australia's first treasurer

Key themes from the Treasury Business Liaison Programme — November 2006 and February 2007

Copies of these articles are available from the Treasury. Written requests should be sent to Manager, Domestic Economy Division, The Treasury, Langton Crescent, Parkes, ACT, 2600. Telephone requests should be directed to Mr Chris McLennan on (02) 6263 2756. Copies may be downloaded from the Treasury web site <http://www.treasury.gov.au>.

