

*The following is a reprint of Statement 4, Sustaining Growth in Australia's Living Standards, from Budget Paper No. 1: Budget Strategy and Outlook 2003-04.*

## **Sustaining growth in Australia's living standards**

*In the face of demographic changes in the decades to come, can changing community attitudes and policy reforms maintain growth in living standards?*

*International evidence helps identify how attention to a range of reinforcing policy reforms, in a sound macroeconomic environment, could raise participation in the labour force, lower unemployment, and sustain high productivity growth, giving faster innovation and growth in GDP per person than projected on present trends.*

*If policies support such reforms, the Australian economy would offer a fairer access to wider employment options, and be better able to meet the challenges of an ageing population.*

### **Introduction**

Australia has enjoyed exceptional growth in real incomes and rising living standards over the past decade. However, growth in living standards will slow in coming decades unless evolving policy reforms, designed to lift participation in the labour force and sustain productivity growth, can counteract the economic effects of demographic changes.

This potential slowdown is sharply at odds with the experience of the past decade, where growth in GDP per person averaged 2.4 per cent per year, driven by 2.5 per cent per year labour productivity growth. These growth rates were unusually high, both by Australia's historical standards and relative to other industrialised countries.

This exceptional productivity growth was a payoff from sustained macroeconomic and structural reforms. The OECD, in its 2003 Economic Survey of Australia, noted that:

*'Dogged pursuit of structural reforms across a very broad front, and prudent macroeconomic policies firmly set in a medium-term framework, have combined to make Australia one of the best performers in the OECD, and also one notably resilient to shocks, both internal and external.'* (OECD 2003c, p. 9)

This performance cannot be expected to continue indefinitely without further reform. In contrast to recent decades, demographic trends will result in an increasing proportion of the population moving into older age brackets. This means that a sharply declining proportion of the population will be in the traditional working age groups, particularly in the under 55 years age group where participation in the labour force historically has been highest. The inaugural *Intergenerational Report 2002-03* (IGR) released with last year's Budget highlighted this issue.

Various scenarios presented in the IGR showed population ageing would slow growth in real GDP per person to about 1½ per cent per annum in the 2010s, 2020s and 2030s if recent trends of lower labour force participation in older age brackets continued and if productivity growth fell back to the average of the last 30 years. Not only would the economy grow more slowly than currently, growing age-related public expenditures would raise budget pressures. On current projections, taxes would need to increase by around 5 per cent of GDP to pay for the same government services in 2041-42 that we enjoy today.

An alternative to significantly cutting government services, or increasing taxation as a proportion of national income, is to increase GDP growth above the rate projected in the IGR. Australia can pursue policies to achieve this. Building on the policy reforms of recent years, this would require sustained efforts to remove obstacles or disincentives to participate in the labour force and to maximise productivity growth rates. Pursuing such reforms should lift GDP per capita and living standards, thereby reducing the pressures to raise taxes or cut expenditure. While pursuit of these reforms will present challenges, Australia's performance over the last decade and international evidence highlights the benefits that successful policy outcomes can bring.

Indeed, the OECD has stated that 'like the United States, Australia, Canada and Ireland also experienced much higher growth over the past few years than continental Europe or Japan' (OECD 2003d, pp. 4-5). This divergent growth performance among OECD economies is in part due to demographics, but also to 'considerable progress in improving the working of labour and product markets with very positive consequences for innovation, technical progress and job creation' (OECD 2003d, p. 5).

The next section outlines how population, participation and productivity trends have interacted in Australia and other OECD countries to generate divergent performance in growth of GDP per person.

The third section examines influences on participation in the labour force, and how reducing unintended obstacles or disincentives could increase the labour

force participation rate and lower unemployment to benefit average incomes and widen access to employment opportunity.

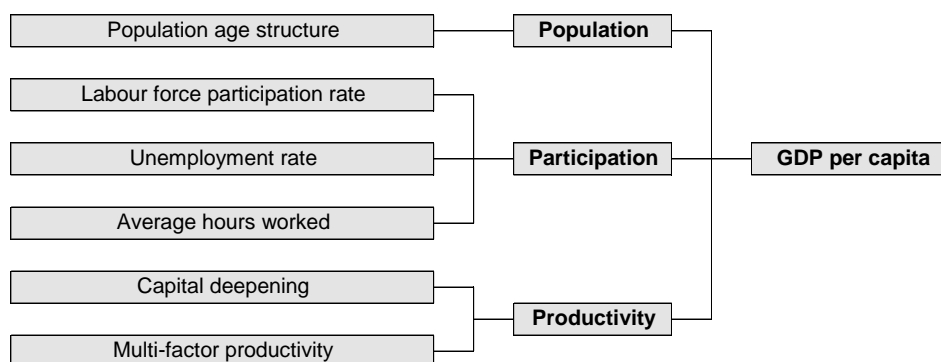
The fourth section presents the latest evidence on what drives high productivity growth.

The fifth section notes a number of policy areas that, working in conjunction with a sound macroeconomic environment, can produce better participation and productivity outcomes, faster innovation, higher growth of GDP per capita and lower unemployment. The conclusions outline broad policy choices for Australians if we wish to enjoy the same relatively high growth in living standards in the 2030s that we enjoyed in the 1990s.

## How population, participation and productivity interact

In assessing longer-term trends in economic growth and growth in Australian living standards, it is useful to look behind these major aggregates and consider some fundamental influences on the economy. One approach considers trends in population, labour force participation and productivity that make up the productive capacity of the economy (Chart 1). Box 1 briefly defines the key terms in this approach, and flags some important conceptual and measurement issues.

**Chart 1: The components of GDP per capita growth**



In Australia's case, trends in population, participation and productivity have all pulled together to produce strong growth in GDP per person over the past decade or so.

*Population* trends over recent years have featured a rising proportion of the population in traditional working age groups (15 to 64 years). This has been the first part of a transition that started with the substantial decline in birth rates experienced in the 1960s and 1970s. The decline in the birth rate meant that the youth dependency ratio, that is the ratio of people below working age to those of working age, declined. The second part of the transition will see a rise in coming decades in the age dependency ratio, as the number of those above 65 rises relative to those aged 15 to 64. Among those of working age, there will be a rising proportion in the 55 to 64 years age group.

### **Box 1: Participation, productivity, GDP per person and wellbeing: some terminology**

**Participation** is the total number of hours worked per person of working age. In Australia, **working age** is defined as 15 years and over; whereas, the OECD (and many of its members) define working age as 15 to 64 years.

- The **total participation rate** is the proportion of people of working age either in work or seeking it. Many specific **participation rates** can be defined by gender or age cohort.
- Not all who participate in the labour force can find work: the **unemployment rate** is the proportion of those of working age who participate in the labour force but are unable to find work.
- The total hours worked by those in work allow us to determine **average hours worked** per person in employment.

High **labour productivity** offers the means to produce more from given inputs of capital and labour. **Labour productivity growth** (assuming no improvement in the 'quality' of labour, such as from better training) can arise from one or both of two components: more capital per worker — **capital deepening**; or combining capital and labour more efficiently through better work practices, better management, or better allocation of resources across industries — **multi-factor productivity**. Measuring and analysing precisely how the components of labour productivity rise, however, is an inexact science.

The interaction of population demographics, participation factors and productivity generates **Gross Domestic Product**, the national accounts valuation of all goods and services produced in an economy. **GDP per person** is often used as an approximate indicator of the standard of living in a society. Whilst the standard of living of individuals does vary on distributional grounds and while factors such as the state of the environment which are not measured by GDP affect standards of living, the measure of GDP per person does permit researchers to make comparisons across countries using widely available data measuring standardised concepts.

Measurement issues are nevertheless important to this area of work. Differences in national statistical practices, or in whether variables are measured in national currencies or converted to a common currency (and if so, how) are therefore noted where relevant.

Policy can have little impact on these outcomes. Most of the choices that will influence the make-up of the working age population in the next 40 years have already been made. Conceivable changes in the level of immigration relative to recent outcomes would have only marginal impacts on the overall population growth rate and age structure of the population. Even if the birth rate were to increase in the future, it would be at least 25-30 years before the proportion of the population in the traditional working age group would start to rise in response. In the meantime, labour force participation rates amongst young adults could actually decline in response to increased parenting responsibilities, while the number of dependents would rise (Henry 2002).

The various components of *Participation* (Chart 1) determine the extent to which the population is willing and able to work. Over recent years, these components had a net positive effect on economic growth. The overall labour force participation rate (the proportion of the working age population that chooses to enter the labour force and seek work) has risen gradually as more women have entered the labour force, more than offsetting a declining participation rate among men. The unemployment rate has fallen since the early 1990s, while the average number of hours worked per employee has fallen only slightly. As a result, participation (the hours worked per head of the working age population) has risen.

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

*Productivity* growth has been by far the major source of growth in GDP per capita. Australia's productivity growth in the 1990s was stronger than in most other OECD countries, particularly in the second half of the 1990s. Policy can also have a major influence on the productivity growth rate.

Taking these three factors together, Australia's level of per capita income has been around three-quarters of the US level for most of the past half century (Table 1). Between 1950 and 1990, the level of Australia's per capita income relative to the United States fell, although it still grew strongly in absolute terms. The main causes of the widening gap between Australia and the United States were a relatively poor productivity performance through the 1950s and

1960s, indeed, one of the worst in the OECD, and a relatively poor participation performance in the 1970s and 1980s.

Australia's impressive productivity performance since the beginning of the 1990s has only now restored our relative productivity and GDP per person to the position we held in the 1950s. By contrast, for 'large continental European countries, GDP per capita stopped converging to US levels in the 1980s. And probably backtracked in the 1990s. The same conclusions also apply for Japan'. (Cotis 2003, p. 1) The OECD believes this diversity of performance stems primarily from costly policy failures in some member countries.

**Table 1: GDP per person, participation and productivity, 1950-2001**

	Relative level United States = 100				Growth 1950-2001	Average growth rate		
	1950	1973	1990	2001		1950-1973	1973-1990	1990-2001
	Index	Index	Index	Index	%	%	%	%
<b>GDP per person(a)</b>								
United States	100	100	100	100	193	2.5	2.0	1.7
Canada	79	84	83	81	200	2.7	1.9	1.5
Australia	78	76	73	78	192	2.3	1.7	2.3
France	54	77	76	73	300	4.0	1.9	1.4
Japan	20	69	82	75	987	8.1	3.0	1.0
<b>Population and participation(b)</b>								
United States	100	100	100	100	1	-0.6	0.7	0.3
Canada	87	97	99	95	11	-0.1	0.8	-0.1
Australia	96	104	96	94	-1	-0.2	0.2	0.1
France	107	96	70	67	-36	-1.0	-1.2	-0.2
Japan	94	127	114	101	9	0.7	0.1	-0.9
<b>Productivity(c)</b>								
United States	100	100	100	100	189	3.0	1.3	1.4
Canada	91	87	84	85	170	2.9	1.0	1.6
Australia	81	73	76	82	194	2.6	1.5	2.2
France	50	80	108	110	527	5.1	3.1	1.6
Japan	22	55	71	75	897	7.3	2.9	1.9

(a) Measured at 1999 US dollars, at purchasing power parities.

(b) Hours worked per capita.

(c) GDP per hour worked.

Source: University of Groningen and The Conference Board (2003).

More generally, over the past decade, OECD countries with high GDP per capita growth rates have typically had population, participation and productivity trends working together to enhance living standards. Countries with the slowest growth had productivity growth insufficient to offset relatively slow growth in the population of traditional working age and/or relatively low participation growth (OECD 2003e pp. 35-37 and Figure 1.2).

Future productivity and participation trends are likely to develop interactively. For example, if Australia achieved very high rates of productivity growth, there may be less need to increase participation to generate growth and people might choose to exercise some of their potential income gains by reducing working hours.

## Why participation is changing

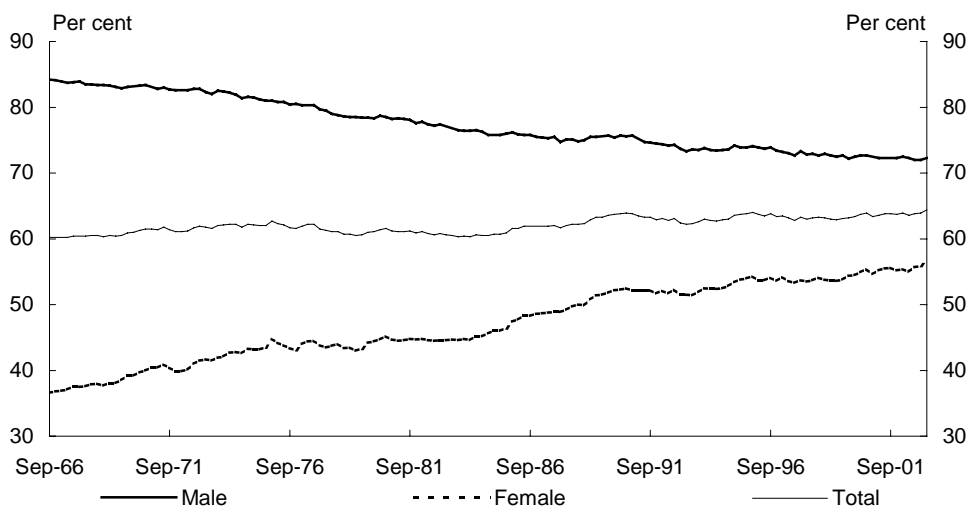
As noted above, trends in the various components of participation in Australia have resulted in solid overall growth in hours worked per head of the population aged over 15. This, in turn, has been supportive of economic growth and rising incomes per head. These trends are detailed below.

### The labour force participation rate

The first component in participation is the labour force participation rate, which measures the proportion of the population over 15 who are either working, or available to work.

The labour force participation rate has risen modestly, from around 60 per cent in the mid 1960s to around 64 per cent at present. This gradual upward trend masks quite different trends among men and women. Female participation rose dramatically from below 40 per cent in 1966 to over 55 per cent in 2003. At the same time, male participation fell markedly from 84 per cent in 1966 to around 72 per cent in 2003 (Chart 2).

**Chart 2: Participation rates by gender, Australia**



Source: Australian Bureau of Statistics, *Labour Force, Australia, Preliminary* (Cat. No. 6202.0, March 2003).



Broadly similar trends in overall participation rates by gender are apparent across the OECD (Table 2). The breadth and strength of these trends suggests that they are mainly driven by economic opportunities and social factors. However, policy settings also can have an influence.

**Table 2: International participation rate changes<sup>(a)</sup>**

	Female			Male			Total		
	1970	2000	Change	1970	2000	Change	1970	2000	Change
	%	%	% points	%	%	% points	%	%	% points
Australia	47	66	20	94	85	-9	71	75	5
Canada	43	70	27	86	82	-3	65	76	12
Switzerland	52	71	18	101	95	-6	77	83	6
Germany	48	64	16	93	80	-12	70	72	3
Denmark	58	76	18	92	84	-8	75	80	5
Spain	29	52	23	96	79	-16	62	66	4
Finland	61	72	11	83	78	-5	72	75	3
France	49	63	15	87	76	-11	68	69	2
United Kingdom	51	68	17	94	83	-12	72	75	3
Ireland	34	56	22	96	81	-15	66	69	3
Italy	34	47	13	87	76	-11	60	61	2
Japan	55	64	9	89	93	4	72	79	7
Korea	41	54	13	73	76	2	57	65	8
Mexico	22	42	21	87	90	4	54	65	12
Norway	39	76	38	89	85	-4	64	81	17
New Zealand	38	68	30	92	84	-8	65	76	11
United States	49	72	23	87	85	-2	68	78	11

(a) This table shows participation rates for the OECD definition — the population between the ages of 15 and 64. The participation rates for Australia in this table are therefore higher than other references to participation in this statement.

Source: OECD (2002c).

Consistent with the general trend, Australian participation rates for men aged between 55 and 59 (that is, the proportion of men in this age group who are working or available for work) fell over the last 20 years. But Australia's rates fell more than in other key economies. For example, from 1981 to 2002, the Australian participation rate for this group fell 9 percentage points; whereas, from a nearly identical starting point, the US participation rate fell only 5 percentage points.

While Australian participation rates for women aged between 55 and 59 increased significantly, these increases were consistent with the trend across most of the OECD countries. So, while the Australian female participation rate almost doubled for this age group, Australia's OECD ranking remained stable for the group.

Low and declining participation rates (by international standards) for Australian males aged between 55 and 59 suggest specific policies or

conditions in Australia over the last 20 years may have discouraged participation by older men more than in other countries. Accelerating structural adjustment in the 1980s may have displaced some workers with lower skill levels, as also happened in the United States. But to a greater degree than in the United States, displaced Australian workers may have had difficulty finding alternative employment due to a less flexible labour market, and a mismatch between their skills and those required for new jobs, with insufficient incentives to bridge the gap. Some of these workers may have become discouraged in the search for employment and hence left the labour market.

Related to this, the numbers of people in this age group receiving the Disability Support Pension, which is similar in value to the age pension, has grown markedly.<sup>1</sup> Some older workers may have effectively retired early on this pension (or other welfare payments) rather than continue to look unsuccessfully for work. With increasing numbers of people in these age groups and increasing proportions of them receiving welfare payments, the resultant falling rate of participation, if sustained, could have significant economic effects in the decades ahead.

OECD research shows that it is more difficult to reverse retirement decisions, once taken, than it is to encourage people still in employment to delay retirement (OECD 2003a). Those most weakly 'attached' to the labour force tend to be more likely to initiate early retirement before age 65. OECD evidence shows that workers who did not complete secondary education, sole parents and the moderately disabled are other groups similarly at risk of withdrawing from participation.

In Australia, there are 2.8 million people under the age of 65 on income support. This is over 20 per cent of all working-age Australians. Parenting Payments are paid to sole parents supporting a child or the partner of a person who is unemployed and supporting a child. Parenting Payments and the Disability Support Pension have more recipients than there are for the Newstart Allowance, which is the main unemployment payment. The Newstart allowance has an activity test, while the Disability Support Pension and Parenting Payments do not.

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1 Between 1990 and 2000, the number of male Disability Support Pension recipients aged 50-59 increased by over 60 per cent. In the same period, the number of men in this age group grew by only around 40 per cent. Over the longer term, male Disability Support Pension recipients have increased by over 400 per cent since 1972, while the male population increased by only 45 per cent. (Department of Family and Community Services 2002; Department of Family and Community Services 2001).

Comparisons across the OECD countries show problems of underutilisation of labour resources through low participation are ubiquitous. In almost all countries, low participation detracts more from the potential labour force than excessive unemployment (OECD 2003a).<sup>2</sup>

European studies also indicate that, across all age groups, withdrawal from participation is seldom reversed and leads to a high risk of persistent low standards of living (OECD 2003a). So there are social as well as economic reasons for concern about falling participation rates among those of working age. It is also unlikely that withdrawees have made sufficient financial provision for permanent withdrawal from the labour force. In equity terms, the falling participation problem is similar to that of long-term unemployment.

The IGR noted that recent participation trends combined with an ageing population would reduce the overall participation rate markedly over time, from around 64 per cent in 2003-04 to slightly over 55 per cent in 2041-42. This decline could become significant from the latter part of this decade, other factors unchanged. The IGR emphasised, however, that such projections make little allowance for change over time in behaviour with respect to labour force participation.

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

## **The unemployment rate**

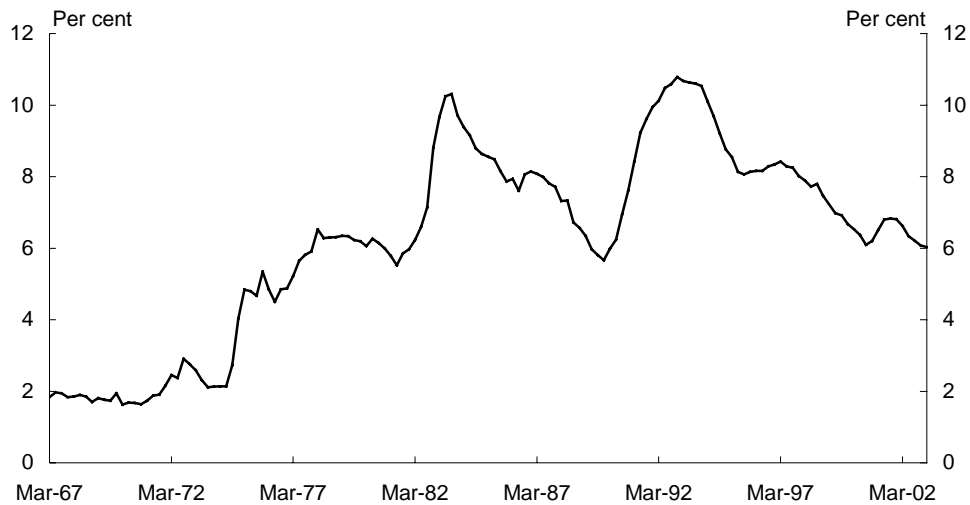
The second component of participation is the unemployment rate, the proportion of people participating in the labour force but unable to find work.

After exceeding 10 per cent during the early 1990s, the unemployment rate has fallen to around 6 per cent in 2003 (Chart 3).

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2 The OECD illustrates the relative magnitudes by assuming any unemployment over 5 per cent is 'excessive', and that low participation countries could have participation rates (for each of three age brackets and both genders) as high as the third highest experienced in the OECD.

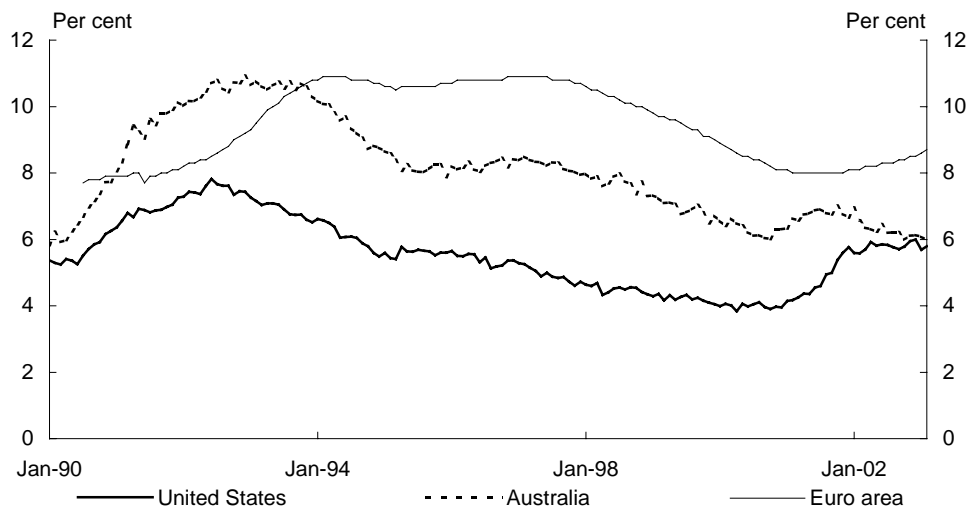
**Chart 3: Unemployment rate, Australia**



Source: Australian Bureau of Statistics, *Labour Force, Australia*, Preliminary (Cat. No. 6202.0, March 2003).

Australia's unemployment rate has generally been between the rates experienced in the United States and the Euro area over recent years (Chart 4). The Euro area is characterised by high unemployment, particularly compared to the more flexible labour markets of the United States, United Kingdom and New Zealand. The recent economic slowdown in the United States has raised US unemployment rates to Australian levels for the first time in 20 years.

**Chart 4: Standardised unemployment rate, Australia, United States and Euro area**



Source: OECD (2003b).

While the unemployment experience in Australia has, in general, been better than in many other developed countries, there have been other countries that have experienced lower levels of unemployment over a consistent period of time, most notably the United States.

Countries choose the level of unemployment they are willing to tolerate. Policy actions influence unemployment outcomes. For example, if minimum wages are high compared to the median wage, businesses will be less willing to employ some lower skilled workers.<sup>3</sup> Employment protection legislation which makes it harder to dismiss employees also makes it riskier and more expensive for employers to hire new employees, and contributes to the existence of unemployment. Tax and welfare policies also can interact to increase unemployment if benefit payments are not work-tested or time-limited, or are generous compared to after-tax incomes from employment (OECD 1999). While these issues are seen as contentious by some in Australia, they are part of an increasing consensus about the causes of persistent unemployment. These issues are taken up in more detail later in this statement.

### **Average hours worked**

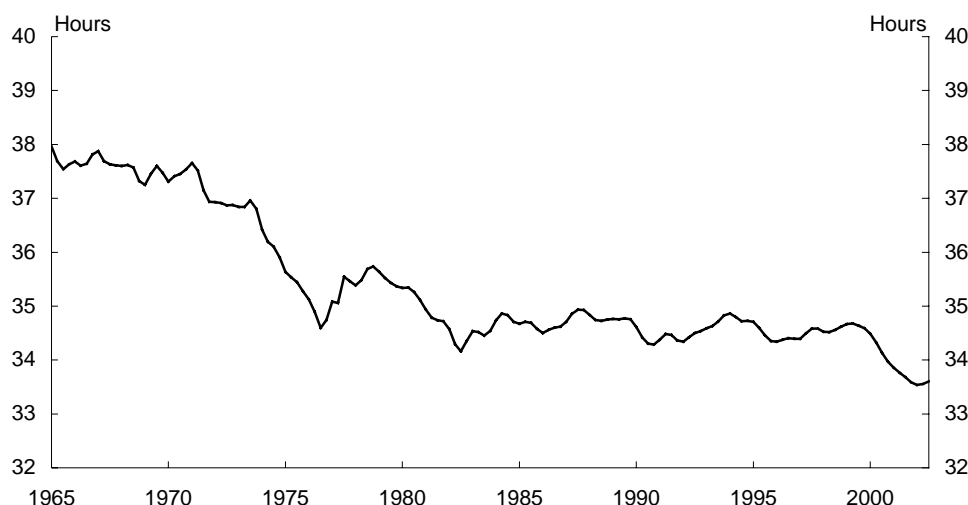
The key remaining element that contributes to overall participation is the average number of hours which people work.

Average hours worked per employee in Australia has fallen only slightly over the past two decades, after falling sharply between the mid 1960s and early 1980s (Chart 5). Since mid 2001 average working hours have fallen further, apparently due to full-time employees working fewer average hours. In recent months, the average number of hours worked has begun to climb again.

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3 Australia has the second highest minimum wage in the OECD, at 57.9 per cent of the median wage. Only France, at 60.8 per cent of the median wage, has a higher minimum wage. In contrast, the minimum wage in New Zealand is 46.3 per cent of the median wage, 41.7 per cent in the United Kingdom and 36.4 per cent in the United States. See Keese and Puymoyen (2001).

**Chart 5: Average hours worked per employee, trend, Australia**



Source: Australian Bureau of Statistics, *Modeller's Database* (Cat. No. 1364.0.15.003, December 2002), unpublished data, and *Labour Force Statistics, Australia* (Cat. No. 6203.0, March 2003).

While Australia's average hours of work fell by around 10 per cent over the last four decades, most other OECD countries have recorded larger falls. Average hours fell by over 30 per cent in Germany and Norway and by around 20 per cent in the United Kingdom and Japan. An important exception is the United States, which has around the same average hours of work today as four decades ago.

The fall in average hours worked in Australia almost entirely reflects the increase in the number of people in part-time employment, as average hours worked by part-time and full-time employees both increased over the past two decades. In the mid 1960s, around one in ten employees worked part time. By the start of 2003, over one in four worked part time. Australia's overall rate of part-time employment (27 per cent) is the second highest in the OECD, after the Netherlands (33 per cent). Japan (25 per cent), Switzerland (25 per cent), New Zealand (23 per cent), and the United Kingdom (23 per cent) also have high rates of part-time work.

The rise in part-time employment in Australia parallels rapidly increasing labour force participation by women. Availability of part-time work is likely to have facilitated higher participation by women, and by formerly non-working parents in both single-parent families and dual-income families. The tendency for young people to have longer periods in education, and for workers to have periods of further education and retraining over their working lives, are also assisted by the availability of part-time work.

While the strong growth of part-time employment might be taken as evidence of welcome improvement in labour market flexibility, it also bears another interpretation. It may, in part, be the means by which employers escape rigidities in the regulation of full-time employment. Surveys suggest significant proportions of part-time workers wish to work more hours, and there is some evidence that full-time workers performing both paid and unpaid overtime may wish to work fewer hours. These results suggest a labour market still too inflexible to allow part-time and full-time workers and employers to arrive at mutually advantageous arrangements.

### **Choice, or market misfunction and unintended policy consequences?**

It is impossible to prescribe what tomorrow's participation performance ought be. Participation outcomes (that is, hours worked per head by the working-aged population) are a product of individual and family choices in the context of labour market options and policy influences.

It is worth reiterating, though, that European experience suggests falling participation rates, like long-term unemployment, bear mostly on the least affluent, are difficult to reverse, and can lead to persistent poverty and social disengagement.

Demographic projections show more of the labour force will be concentrated in the older age brackets within which participation in Australia has become relatively low by international standards. It could be that business, in response to changing demographic structures, might change its employment practices and make it more attractive for this group to actively participate. However, it would appear that these low participation rates are at least in part driven by insufficiently flexible and competitive markets and unintentional interactions among policies, rather than changing worker preferences.

Of the three contributors to participation outcomes, it is very difficult to predict the future trend in average working hours. Tomorrow's more productive workers might choose lower average working hours. But for the other two contributors to participation outcomes, it seems likely Australia would be a more fair society if participation rates were higher and the unemployment rate lower than today.

## **High productivity: getting the most from participation**

Productivity growth determines the growth in living standards in the long run. At any point in time, the level of productivity will determine the standard of living society can enjoy from chosen levels of participation.

The participation rate will never reach 100 per cent. However, higher productivity growth can deliver compound growth in income from whatever participation level is achieved, year after year. Even if the growth rate of productivity slows in the future (as it has in periods in the past), higher productivity levels achieved by then would mean higher incomes, higher savings, higher investment and higher future growth.

Over the last decade, Australia was one of only a few OECD countries to experience a rise in productivity growth. Recent Australian and US analysis, and new multi-country comparisons, have helped to identify the reasons for this strong performance. In short, strong competition drove new work practices and encouraged rapid uptake of business-transforming information and communication technologies in a macroeconomic environment that supported steady growth and strong investment.

Australian productivity levels still trail the world's best in many sectors, notwithstanding this recent high productivity growth. One cause is that distances among regional markets in Australia, and between Australia and global markets, are large, and Australia has a history of high levels of protection. Together these have led to industries duplicating plants around Australia and persisting in producing goods or services to which Australia was, globally, not well suited. These features also resulted in more limited competition within Australia than otherwise would have occurred. Even though Asian economic growth, falling transport costs and widespread economic reforms of recent decades have gradually weakened the significance of these constraints on Australian productivity, they are likely to remain a substantial challenge to our future productivity growth.

Whether Australia can sustain the strong productivity growth of the 1990s will depend on two factors: the extent to which Australian industry can move to the productivity frontier in those areas where it now lags; and on whether that productivity frontier itself continues to move outwards with technological progress.



## **A decade of strong growth in productivity and income**

Australia experienced extraordinarily strong productivity growth through the 1990s. This led the OECD in its report *Is There a New Economy?* to group Australia with five other economies that experienced a sustained jump in the trend growth of GDP per capita, associated with fast productivity growth and a strong uptake of information and communication technologies (OECD 2000, pp. 3-5).<sup>4</sup>

By the second half of the 1990s, Australia's average annual labour productivity growth was more than double that recorded in the late 1980s and had risen to rates last seen in the 1960s. (Moreover, in the 1990s Australia's productivity growth exceeded the OECD average; whereas in the 1960s, productivity growth was high everywhere and Australia's growth was below the OECD average.)

Australia's productivity surge started earlier than the United States' and accelerated to a higher rate. Recent estimates indicate that increased investment in the use of information and communication technologies made an important contribution to productivity growth in Australia, slightly more so than in the United States. The real story for Australia, however, has been in the growth of the residual part of labour productivity growth, so-called 'multi-factor productivity growth'. This growth was far more rapid in Australia than in the United States and captures the increased output from better combining labour and capital inputs. This reflects factors such as improving management and work practices within industries, and resource reallocation into more productive industries (Table 3).

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4 The other five economies grouped with Australia were the United States, Denmark, Ireland, the Netherlands and Norway. The group's accelerated growth through the 1990s was remarkable because the OECD area's growth slowed overall. Moreover, the fastest-growing, 'new economies' were already richer than average, reversing the previous four decades' experience, when the fastest-growing economies had been poorer than average. The 'new economy' phenomenon reversed the tendency for living standards within the OECD to converge.

**Table 3: Contributions to labour productivity accelerations — United States and Australia**

	United States(a)	Australia(b)
	%	%
Labour productivity growth acceleration	0.5	1.0
Capital deepening	0.2	-0.1
ICT capital	0.3	0.4
Other capital	-0.2	-0.5
Multi-factor productivity contribution(c)	0.3	1.1

(a) Growth in the 1992 to 2000 cycle minus growth in the 1986 to 1992 cycle.

(b) Growth in the 1993-94 to 1999-2000 cycle minus growth in the 1988-89 to 1993-94 cycle.

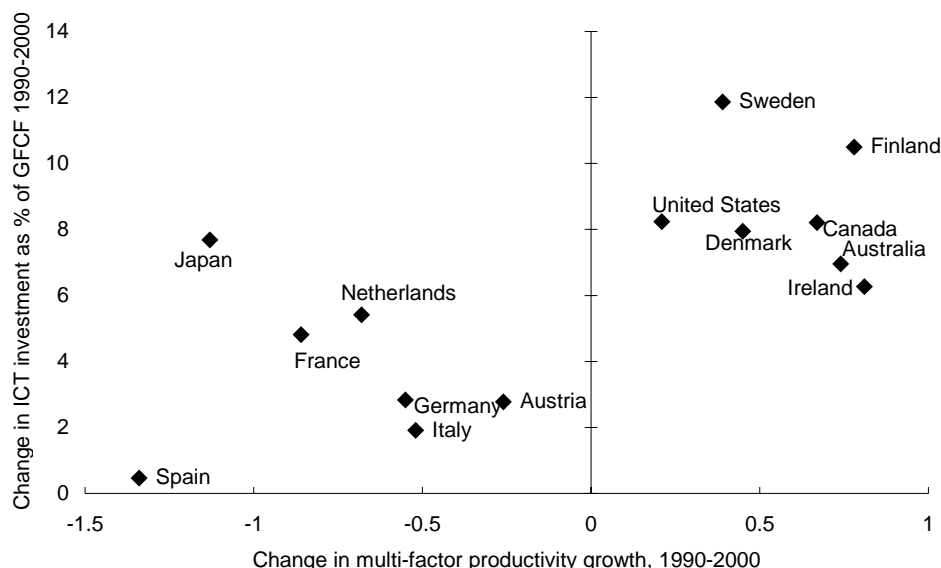
(c) Multi-factor productivity growth for the United States includes the contribution to labour productivity growth from labour quality.

Note: Figures may not add to totals due to rounding.

Source: Parham (2002).

Recent analysis suggests that Australian economic reform has been central to much of the increase in multi-factor productivity growth. Reform encouraged both a more efficient allocation of labour and capital, and a competitive environment which drove workplace change within industries. These changes were conducive to the uptake of information and communication technologies, in both new and established plants. These technologies, in turn, contributed to the ongoing re-design of existing business processes (Parham 2002, p. 58). Australia was one of the leading economies in the OECD in using these technologies to achieve multi-factor productivity gains (Chart 6).

**Chart 6: Pick-up in multi-factor productivity growth and increase in information and communication technology investment**



Source: OECD (2003e) and OECD (2002a), as updated.

## **Can US productivity growth keep expanding potential productivity?**

Since the United States defines many of the sectoral productivity frontiers, understanding its productivity experience is important to understanding Australia's. This offers special insights into whether Australia can hope to keep catching up to global productivity frontiers that are themselves moving outwards over time.

Productivity growth in the United States jumped from a trend growth rate of about 1½ per cent to around 2¼ per cent through the late 1990s. Estimates of how information and communication technology use has lifted productivity in the United States still differ, with some stressing capital deepening in these technologies and others the possibly greater contribution of multi-factor productivity growth. But all agree information and communication technology contributed significantly to the improved productivity performance (Kahn and Rich 2003; Gordon 2003; Oliner and Sichel 2002).

Fears that the collapse in information and communication technology asset prices would stall investment by US computer users, and thereby punctuate the contribution of information and communication technologies to productivity growth, were misplaced. In fact, investment in computers and software has picked up again after the US recession of 2000 and 2001, with anecdotes suggesting the rapid technological obsolescence of much investment of this type meant firms were soon driven to replace ageing computers and software installed during the Y2K episode and the dot.com boom.

Recent sectoral analysis shows that, outside the information and communication technology producing sector itself, most US productivity growth since the 1990s was in the retail, wholesale and financial services sectors — all intensive information and communication technology users (Gordon 2003). In the retail sector, productivity growth seems to have arisen from competition, with new, more productive market entrants displacing older established players. In such cases, it was not just the use of these technologies, but the ability to invest in new, better-designed facilities that permitted a whole range of reorganisation.

Reflecting on the increasing evidence that competitive pressures are central in raising productivity, the President of the US National Bureau of Economic Research, Martin Feldstein, commented that:

'... even if the technical changes in information technology had not occurred, the pressures to raise profits and reduce costs would have led to a greater increase in productivity in the United States [than in Europe]. Information technology was just the means, a very powerful means, for translating the pressure for profit enhancement through cost reduction into practice.' (Feldstein 2003, p. 8)

### **Sectoral productivity comparisons: the United States and the European Union**

The higher United States productivity growth performance compared to the European Union's is almost all due to productivity growth in the retailing, wholesaling and financial sectors. More than half the difference arises in retailing alone.

While both US and European retail sectors had similar access to information and communication technology advances, the divergent productivity performance arose principally through the relative ease with which new firms could enter the market in the United States, and the application of new investment and new modes of business by all firms.

By contrast, Europe's relatively burdensome restrictions on closure of large businesses, zoning regulations restricting start-up of new businesses, general regulatory burdens and onerous employment protection legislation are impediments to business start-ups, productivity growth and the uptake of new technologies (Gust and Marquez 2002; Gordon 2003).

Feldstein has generalised these insights from the retail sector to comparisons of US and European management motivation and work practices:

'The US-Europe difference is not just a matter of incentives. The organizational rules and constraints are also very different on the two sides of the Atlantic Ocean. European work rules, embodied in union agreements and legislation, make it much more difficult to change work assignments or discharge redundant workers. And to the extent that is true, it acts as a barrier and a disincentive. Why introduce a new technology that permits managing with fewer employees when you cannot discharge those who become redundant? And even when changing work assignments can eventually be achieved, the effort to do so is so great that in many cases European managers are discouraged from even starting.' (Feldstein 2003, p. 8)

### **Why does Australia lag in productivity and income levels?**

Achieving high productivity depends in part on specialisation of skills and achieving economies of scale and scope across the economy, including in

service industries.<sup>5</sup> While Australian productivity levels are now around the world's highest in industries such as transport, storage and communications, productivity levels more generally still trail the world's best (van Ark and Timmer 2002, pp. 103 and 107). This is notwithstanding particularly strong productivity growth in the 1990s in wholesaling, construction, finance, accommodation, cafes, restaurants, and retailing (Parham 2002).

Fully achieving economies of scale and scope in many industries requires large markets, either domestically or internationally through trade. Australia was a small domestic economy through the nineteenth century and much of the twentieth century, fragmented into even smaller regional economies. With the transport technologies of those days, regional Australian economies were at very costly distances both from each other and from the global economy, then centred on Western Europe and North America.

Australian policies from the 1930s exaggerated these natural disadvantages through high trade barriers. The effect of these barriers was to further reduce the force of international competition across a range of industries. From the 1970s, Australia also restricted international investment and entry of foreign firms into the domestic market, further reducing the potential for competition and improved productivity performance.

These structural policy failures were exacerbated by difficulties in managing the macroeconomy, particularly in the face of adverse external developments. Macroeconomic policy settings lacked clear frameworks to handle the instabilities of the 1970s and 1980s and contributed to the recession in 1990-1991. It was not until the mid 1990s that the Australian monetary policy framework was consolidated into a medium-term inflation-targeting regime. A *Statement on the Conduct of Monetary Policy* was agreed between the Treasurer and the Reserve Bank Governor in August 1996, which formalised the operational independence of the Reserve Bank in implementing monetary policy to achieve the Government's inflation goals. This *Statement* included a commitment by the Reserve Bank to hold inflation between 2 and 3 per cent on average, over the course of the economic cycle.

The Government announced legislation in 1996 to establish a new fiscal framework. The *Charter of Budget Honesty Act* 1998 states that fiscal policy should be directed at maintaining the ongoing economic prosperity and

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5 'Economies of scale' refer to the frequent tendency for per-unit costs to fall as the number of units produced rises. 'Economies of scope' is the corresponding tendency for production or sale of distinct items or services to become cheaper through sharing costs of infrastructure or management.

welfare of the people of Australia, and therefore should be set in a sustainable medium-term framework. The primary objective of the fiscal strategy is to maintain budget balance, on average, over the course of the economic cycle.

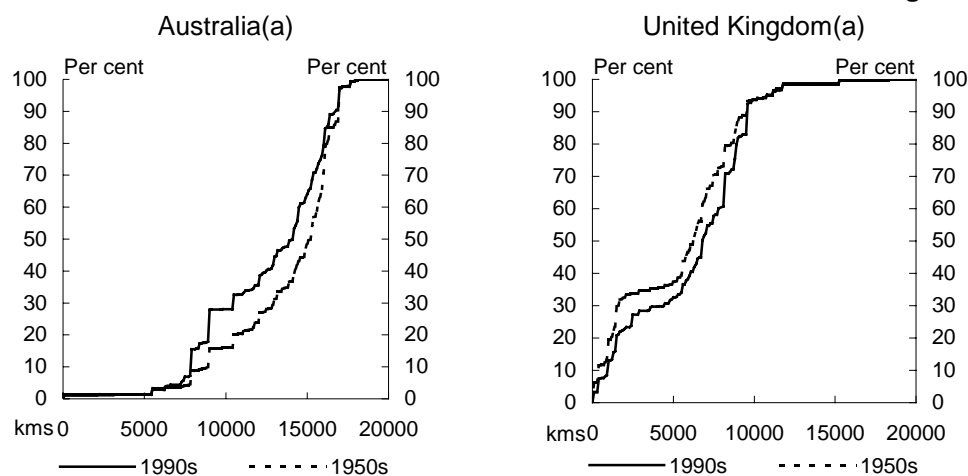
Fiscal policy and monetary policy were poorly coordinated prior to these developments, and generated considerable uncertainty. The exchange rate, before being floated in 1983, also transmitted adverse overseas developments (such as the oil price shocks) rather than providing a fully effective means to cushion the economy from their impact. With inflexible labour and product markets (and a centralised wage fixing system), the effects of these shocks were transmitted widely and rapidly into the broader economy. The result was a tendency towards higher inflation, lower growth, weaker investment, rising unemployment and poor productivity. Moving these macroeconomic policies onto a medium-term footing improved the climate for quality investment decisions and hence the potential for productivity growth.

The rapid economic growth of Asia over recent decades will help to ameliorate the disadvantage of long distances from Australia's international markets. Falling international transportation costs have also played a role by helping to lower the costs of Australia's trading with the rest of the world. Containerisation of shipping, widening use of bulk carriers, the growth of air freight and the fall in communication and data costs have all lowered costs of international trade.

Nevertheless, the costs of trading with major international markets remains a key barrier for Australia relative to other countries. For example, from the 1950s to the 1990s, the proportion of world GDP within a 10,000-kilometre circle from Sydney increased from some 16 per cent to 28 per cent. But for London, the same sized circle enclosed 94 per cent of world GDP in both the 1950s and the 1990s (Chart 7). By this measure, the only OECD country in the world more remote from the bulk of global GDP than Australia is New Zealand.

Distances among domestic markets continue to constitute an economic hurdle. Australia is the world's sixth largest country in area, yet has a relatively small population of around 20 million. No two cities in Australia with a population of over one million are closer than 600 kilometres, and Perth is 2,400 kilometres from its nearest Australian regional market. In contrast, California (which economic historians have noted was once very similar to the Australian economy in size and affluence), now has a population of around 34 million in an area around one-twentieth of Australia's, with its population concentrated between San Diego and Sacramento — a distance of some 800 kilometres (McLean and Taylor 2001).

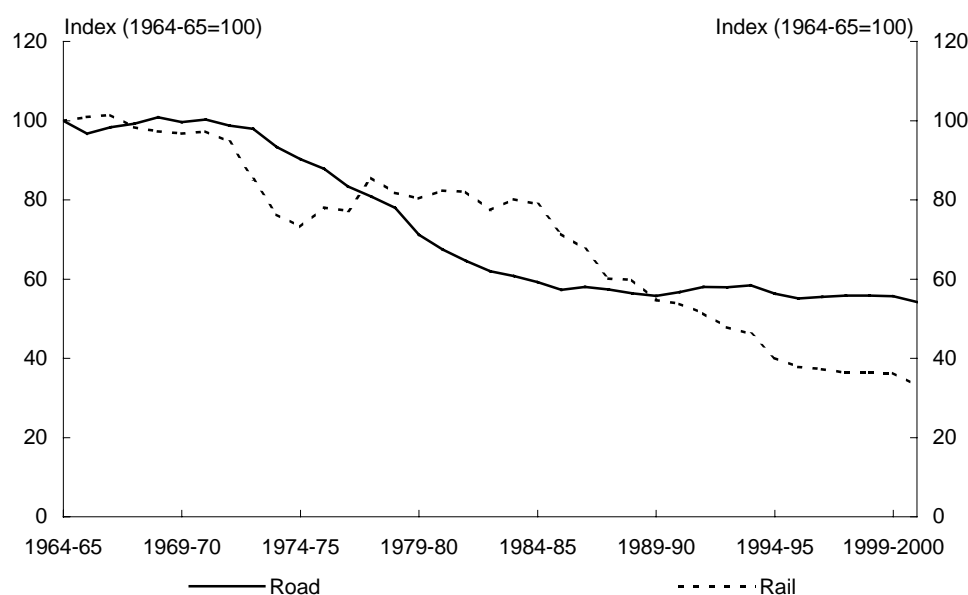
**Chart 7: Distance to the world's GDP from Australia and the United Kingdom**



(a) These charts show the percentage of world GDP (measured in purchasing power parity terms) falling within circles of different radii (from 0 to 20,000 kilometres) from either Sydney or London.  
Source: Treasury calculations based on data from Maddison (2001).

Technological change and economic reforms have made a difference domestically: the improvements in roads, the use of larger articulated trucks and reform of the railways have lowered the costs of national trade. Since 1965, road freight rates have almost halved in real terms while rail freight rates have fallen by two-thirds (Chart 8). Since 1990, real coastal shipping rates to and from Perth have fallen by 40 per cent and real air rates within Australia have fallen by 25 per cent.

**Chart 8: Real road and rail transport costs, 1964-65 to 2000-01**



Source: Bureau of Transport and Regional Economics (2002).

While neither international nor national distances among markets are as costly to Australia as they used to be, geographic remoteness is still a significant influence in the pursuit of world-class productivity performance and living standards.

Efficient resource allocation will lead to activities of the highest value being carried out. On the one hand, resources will be allocated to activities where distance is not a barrier or where Australia's advantages are clear. For example, in some areas of mining and agriculture, and potentially some areas of the international trade in services. On the other hand, it also means that, to a greater extent than for many other countries, resources will be allocated to activities where distance confers natural protection by decreasing the competitiveness of imported goods or services. As a consequence, Australia's relative levels of productivity may be behind global best practice in these areas.

These remaining economic costs of distance cannot be wholly erased, and constitute a challenge to the quality of all economic policies. Australia has to do better than other countries in the quality of policies to drive productivity if the remaining natural barriers of distance are to be overcome. For example, while Australia has relatively high productivity in the transport industry, still higher productivity may be needed to overcome Australia's geographical disadvantages.

### **Can Australian productivity keep rising at recent rates?**

Continuing high Australian productivity growth will require an environment in which individual businesses strive for better products or better ways of doing things and where resources move quickly to the good ideas. Competition is central to this, through providing both an incentive for new ideas and effectively sorting the good from the bad. It has become clear that the level and acceleration of labour productivity growth in the 1990s in Australia came about through both the outward movement of the international productivity frontier and Australian convergence with that frontier. Looking forward, there continues to be scope for both of these factors to drive productivity growth.

In moving towards the productivity frontier, competition and flexibility in product and labour markets, supported by good education and training in a stable macroeconomic environment have been found to be centrally important. In general, Australia's policies have been found by the OECD to be relatively



good. Nonetheless, strong productivity growth is not automatic: it will require consistent striving for competitive, flexible markets and continuing policy reforms.

For future outward moves in the productivity frontier, there are several grounds for optimism. First, there is evidence of momentum in the recent high United States productivity growth that would keep US labour productivity growth around 2 per cent per year and perhaps as high as 2¾ per cent per year for several more years (Oliner and Sichel 2002).

Second, and beyond the short-term momentum from current uses of computers, the family of information and communication technologies could offer considerable medium-term contributions to productivity growth for a decade or more to come, as they gradually facilitate further organisational change and new business practices. In this respect, they resemble earlier 'general purpose technologies'. As with steam in the 18th and 19th centuries and electricity in the 19<sup>th</sup> and early 20<sup>th</sup> centuries, information and communication technology is now clearly a general-purpose technology with wide potential for further organisational change in many industries and in household life. But as experience with those earlier technologies has shown, applications take several decades to disperse through the economy. The railway and steam-related shipping booms occurred decades after the first application of steam power in factories and mines, and in turn the electrification of previously steam-powered factories took decades while new factories were constructed and new production line and management techniques were refined (Commonwealth Treasury 2001; DeLong 2002, p. 25).

Third, further technological innovation is likely in a range of areas, and should lead to productivity enhancements where competition and flexibility drive the application of new technology.

## **Policies to increase participation and sustain productivity growth**

Recent analysis has helped to identify the key policy settings which have been important in encouraging productivity growth, and explaining differences in performance across a group of advanced economies. These same policy settings can also be very influential in widening the choices available to actively participate in the labour force, or in reducing or removing obstacles or disincentives to such participation.

The analysis uses databases that generally cover 21 OECD member countries, over the period from the early 1970s to the late 1990s. It permits generalisations based on the range of policies pursued by those countries over that time period, but the generalisations should not be projected beyond that range of experience. (For example, propositions about the size of government obviously could not be extrapolated to very small government, insufficient to maintain basic services).<sup>6</sup>

## **Lessons from multi-country comparisons**

The central findings of recent research comparing policy consequences for performance in a wide group of OECD countries are that:

- faster innovation, productivity growth and income growth are driven by high competition and flexible, lightly regulated product and labour markets.
- for best effect, these policies need to be set in a stable, low-inflation macroeconomic environment, to facilitate investment and entrepreneurship.
- important, mutually reinforcing benefits come from 'cross-market effects' of reforms in labour and product markets. Product market competition helps produce good employment and productivity outcomes, and flexible labour markets contribute to strong innovation outcomes as well as low unemployment and high participation.

One important implication of these findings is that where long-term joblessness or inactivity are still problematic (as in Australia), mutually supporting product and labour market reforms that improve participation and productivity, and lower unemployment, may tend over time to make society not only richer in aggregate, but also fairer in terms of wider access to flexible employment options.

The research yielding these results uses recently-constructed indicators that estimate the effects on economic performance over the last 20 to 30 years of regulatory burdens, openness to trade, and openness to foreign direct

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6 The experience spans governments whose outlays as a share of GDP range from 23 per cent (Korea) to over 50 per cent (Sweden and France). The share of total government spending on education, transport and communications and R&D ranges from about 13 per cent (Germany) to 30 per cent (Korea). To finance total outlays, tax mixes also vary widely. For example taxes on incomes and profits as a percentage of GDP range from under 8 per cent (Korea) to almost 30 per cent (Denmark). See OECD (2003e), p. 69 and OECD (2002d).

investment in product markets, as well as regulatory, tax and welfare distortions in labour markets.

Such indicators can only approximately capture the subtlety of different national practices. However, they permit examination of the complex way in which policy differences interact to cause performance differences.

The macroeconomic policies that have produced the fastest growth in real GDP per head of working age population in the sample of countries have been those that have delivered stable low inflation, and a relatively small government sector (as a share of GDP).<sup>7</sup> At any chosen size of government, the way it is financed also matters as taxes on incomes are likely to be more directly distorting of work effort (for those in employment), innovation (for example, for those starting unincorporated businesses) and labour force participation (for those unemployed or exiting unemployment, and facing a discouraging interaction of the tax and benefit systems) (OECD 2003e, pp. 20-22, 66-67 and 81-83).

Regulations and foreign competition in product markets interact with regulations and other policies affecting labour markets (such as personal income taxation and welfare payments), and vice versa. The OECD's main conclusions from comparisons published in 2002 and 2003 of members' experience with labour market and product market reforms were: (OECD 2002c, Chapter 5; OECD 2002b)

- anti-competitive product market regulation (including lack of foreign competition through imports or foreign direct investment) worsens labour market performance. That is, weak competition lowers overall employment. In the worst performing economies with high regulation (including lack of foreign competition), weak competition causes almost 3 percentage points of the shortfall in their non-agricultural employment rate below the OECD average (Nicoletti et al 2001, Figure 8).
- labour market regulation affects product market performance. For example, where industrial relations systems are relatively decentralised, strict employment protection legislation reduces R&D intensity, and might

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7 These findings emerge after controlling for differences in other policies (such as competition and labour market policies, further discussed below) and country-specific circumstances (such as the size of national markets and the distance-related costs of their trading with other economies). However, this finding needs to be interpreted with caution, as the quality of individual tax and spending decisions will determine the impact of government on the economy.

therefore slow innovation. And since new technologies typically require more flexible work arrangements and greater individual responsibilities, the OECD suggests that the deployment of new technologies is likely to occur fastest where working conditions and wages are most flexible.

- regulatory restrictions in product and labour markets may suppress apparently unrelated performance (such as R&D, or innovation and the uptake of new, productivity-enhancing technology). The main channel, further discussed below, may be through raising barriers to new entrants, who are very important in more competitive markets to the revision of work practices and the deployment of new technologies.
  - More generally, innovation is just another way of saying 'new work practices'. In countries or industries that are far from the global technology frontier, such new processes for organising work may have little to do with new technologies that need to be discovered by R&D, and which becomes embodied in patents and new capital equipment. It is in these cases that high competition is important in closing the gap in productivity levels by driving the rapid adoption of global best practice.<sup>8</sup>
- employees often share through higher wages some of the revenue extracted by higher prices from consumers in industries where product market competition is low. Such transfers occur not only at the expense of consumers, but also at the indirect cost of consequently reducing demand for other industries' output and hence other jobs.
- there are no clear links from anti-competitive product market regulation to job security. That is, as has been seen in Australia, protecting an industry does not result in protection of employment. Nor does product market de-regulation lead to permanent increases in earnings inequality.

The cross-country evidence also shows that a sophisticated, well regulated financial sector is an important contributor to growth. As the OECD notes:

'There is evidence that a well-developed financial system is an important aspect of a favourable environment for growth, especially in a period of the rapid spread of a new technology when they can promote new, innovative enterprises.' (OECD 2003e, p. 24)

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8 Australian anecdotal evidence illustrates this point in the early and mid 1990s, when labour and product market reforms enabled firms to lift output without initially needing much, if any, new investment.

It is important not to 'over-interpret' the quantitative results from this analysis. It seems to capture realistically the reasons for the relatively good performance of the above average economies, and the relatively poor performance of the below average performers. It thereby offers a plausible prescription of the direction of policy reforms necessary to do better, whether the starting point performance is above average, or below. But it would be a mistake to interpret small differences in national rankings in the underlying indicators of policy settings as providing precise guidance as to where policy reforms are most needed, or the precise quantitative pay-off that might be achieved.

### **Lessons from firm-level data**

A second body of OECD research uses new, firm-level data to compare productivity experience in the same sectors across 10 European and North American economies.<sup>9</sup> Typically, higher than national average information and communication technology use arises in the same industries or sectors in different countries (for example, retailing, wholesaling and financial services), but North American high users are also heavier users than European high users (van Ark, Inklaar and McGuckin 2002). Early results of analysis across countries using firm-level data also show that firm turnover is very important to innovation (OECD 2003e, pp. 127-158).

- About 20 per cent of firms enter and exit most markets every year, affecting some 5-10 per cent of employment (that is, exiting and entering firms, especially the latter, are typically smaller than average employers).
- Some 20 to 40 per cent of entering firms fail within 2 years, and only 40-50 per cent survive beyond the seventh year.
- Entry and exit rates are highly correlated within industries — for example, large numbers of new entrants tend to be correlated with large numbers of exits of failing firms.
- The industries with high entry and exit are not constant over time. High change industries in one period can be low change industries 5 to 10 years later, presumably with the ebb and flow of cycles in products or technology.

The important role of entry of small new firms in innovation helps explain how excessive product and labour market regulations suppress innovation and

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<sup>9</sup> Data limitations have not permitted inclusion of Australia in this work. See Bartelsman, Scarpetta and Schivardi (2003).

retard productivity growth. They make it harder to start new firms that often deploy new work practices, superior technology or merely a more appropriate capital stock, and to close failing firms that embody old work practices or less appropriate capital stock.

The role of firm entry and exit also underlines the importance of good corporate governance, which allows investors to differentiate between good and bad corporate performance early, and apply timely shareholder pressure to underperforming companies to improve their performance. Good corporate governance improves productivity and the efficiency of resource allocation by facilitating speedy growth of strong performers, and quickly detecting firms that will fail. At this point, good bankruptcy administration and resolution structures can help reallocate the resources of a failed firm to other uses, while minimising disruption.

## **Applying the lessons in Australia**

The OECD noted in its 2003 Economic Survey of Australia that:

'In order to meet the longer-term objective of raising living standards towards the highest in the OECD, further reforms to labour, product and financial markets and to social policies will be needed, that will encourage more people to join the labour force, remain in it, and steadily raise their productivity.'  
(OECD 2003c, p. 9)

The central messages from research across countries over the last decade emphasises that policy reforms on a wide front are more likely to yield significant dividends than reforms focused in just one set of markets.

The mutually reinforcing benefits of reforms in both product and labour markets for higher participation, lower unemployment, faster innovation and higher productivity growth often could not have been foreseen in detail.

That said, further reforms in areas likely to boost productivity and participation hold distinct promise to offset at least part of the economic challenges posed by demographic change.

In this regard, the Government is taking active steps to address these issues, and has commissioned an interdepartmental task force reporting to the Treasurer. The task force will take a whole-of-government approach to demographic change, focussing on labour force participation, including by older Australians who wish to work; superannuation and retirement incomes policy; and managing expected increased government spending in areas affected by demographic change.

## **Macroeconomic policies**

Stable and supportive macroeconomic policies are a necessary backdrop to efforts to lift Australia's productivity and participation levels. Australia's medium-term fiscal framework and its monetary policy framework produce stable low inflation and contribute to stabilising the business cycle. The certainty and credibility of these policies contribute to an environment conducive to investment and innovation.

A range of microeconomic policies can also play a more targeted role in responding to economic pressures from Australia's ageing population.

## **Education and training policy**

Investment in education and skills is critical to improving productivity and participation levels throughout the economy.

Improving education and training outcomes can increase productivity directly by increasing the skills and abilities of individual workers and indirectly by raising the flexibility of workplace teams. It also allows more rapid utilisation and transmission of new skills and production technologies, having a dynamic effect in increasing productivity. Literacy and numeracy skills obtained during schooling form the foundation for the capacity of individuals to participate productively in the labour force and adapt to its changing nature.

An ageing population, with an older labour force, will need to engage increasingly in lifelong learning to improve labour force participation choices. The education and training system will need to be flexible and responsive enough to adapt to changes in the age of its key clients, as well as to continual change in the skills required as the economy evolves.

Similarly, it is essential to have a strong higher education sector. The higher education reforms announced in this Budget will establish a more efficient and responsive higher education sector, which should improve flexibility in responding to changing patterns of demand in higher education and deliver better higher education outcomes. As part of this, individuals will have greater incentives and capacity to invest in their education, as well as having greater choices among educational institutions.

## **Labour market policy**

As discussed above, OECD research has highlighted the central role of labour market flexibility in improving economic performance.

A flexible workplace relations system allows employers and employees to tailor wages and conditions to the specific skills and needs of particular individuals and jobs. Increased flexibility will be crucial in achieving higher participation. For example, it would allow older workers to choose whether to remain attached to the labour force for longer by working part time as they approach retirement. Enhanced flexibility in the workplace relations system should also increase incentives for workers to upgrade their skills to increase their attractiveness to employers.

By making it easier for workers to change between jobs and occupations, a flexible labour market can assist workers in avoiding periods of involuntary unemployment. The more flexible the labour market, the easier firms (particularly small businesses) can employ workers in areas of growth in the economy, enhancing job creation, innovation, deployment of new technologies and productivity growth.

Workplace relations are now focused on agreement making, with awards performing a safety net role. The wages and conditions for most federal workers are now determined at the workplace or enterprise level through either formal or informal agreement making. Increased flexibility in wage negotiations has enabled employers and employees to jointly pursue improvements in productivity, wages and conditions taking into account the specific circumstances of the individual firm and workers involved.

While there has been significant reform, there is scope to do more. Proposed amendments to the Workplace Relations Act simplify procedures and increase labour market flexibility in areas such as unfair dismissal cases. Under the current arrangements, industrial disputes have fallen significantly, suggesting that past reforms have not proven contentious. Enacting further reform would provide substantial dividends.

## **Taxation policy**

Productivity and participation are affected by the level of taxation and the design of the taxation system.

When determining the overall level of taxation, the government's role of providing public goods and services and redistributing income needs to be weighed against the distorting impacts of taxation on work effort, risk taking and relative prices. The design of the taxation system is also important. Tax on the returns to capital can affect savings and investment behaviour, while tax on the returns to labour can affect participation decisions.



Taxes on labour income can discourage participation by reducing the returns from additional hours of work. With high taxes on labour income, some workers may substitute into other activities outside the paid labour force, or may restrict their hours of work more than they would choose with a lower tax rate. Skilled workers such as teachers, nurses, lawyers and accountants are increasingly aware of the different personal income tax treatments that apply to work in different jurisdictions. Maintaining internationally competitive personal income tax arrangements will be an important ongoing factor in sustaining participation and productivity in Australia.

### **Welfare and health policy**

Australia has a unique welfare system, providing flat rate (rather than earnings-related) benefits financed from general revenue. It is highly targeted, providing a reliable safety net for those in need.

However, different rates of assistance and means testing arrangements for various social security benefits for people of working age may discourage labour force participation and job search, especially if individuals are able to access more generous payments and less restricted means testing. For example, the Disability Support Pension and the Parenting Payment (single) are more generous than unemployment payments.

The eligibility criteria for, and the obligations that are placed on recipients of, social security payments can also have an important impact on participation decisions. For example, Newstart (unemployment benefit) recipients who are capable of working (including part time work) are required to regularly look for work in return for their taxpayer-funded assistance. However, overall only around 15 per cent of social security recipients of labour force age are currently required to look for work as a condition of receiving their benefit.

The interaction between income tests for social security payments and the personal taxation system can also directly influence participation decisions of those receiving payments. An individual's return from working can depend on a complex mixture of interactions, including the rate at which income support is withdrawn, eligibility for other concessions such as rent assistance, and the marginal tax rate. If effective marginal tax rates are too high, they can affect work incentives.

Incentives to participate for some social security recipients have been improved through *The New Tax System* and the *Australians Working Together* packages. In addition, a review of working age income support payments is currently under way. A key objective is to ensure that the welfare system

actively promotes participation in the labour force where that is an achievable goal for the individual. Retirement income policies should also not operate as a disincentive to participation.

The health of older workers is also an important factor in their labour force participation. Ill health plays a significant role in early retirement decisions. Maintaining and improving health will therefore become more important as the population ages.

Reducing the occurrence of avoidable diseases or injuries will mean that a higher proportion of the ageing population will be able to remain fully engaged in society, including maintaining some form of participation in the labour market if they so choose. Proper management of chronic diseases will be critical to ensuring this full and active participation in all aspects of society.

### **Product market reforms**

Australian product market reforms over the past decade are internationally recognised as contributing to the improved performance of the Australian economy since the mid 1990s (OECD 2003c, pp. 75-84). These reforms intensified competition among both domestic and international suppliers. Intense competition has been shown to be particularly important in raising productivity in sectors where it trails the global frontier.

However, the starting point for these reforms was an economy that had comparatively restrictive product market regulation. Reforms have been implemented in the communications, energy and transport sectors, and by commercialising government businesses, removing anti-competitive regulation, and broadening the scope of competition. Broadly speaking, these reforms received bipartisan political support, and Australia now has a comparatively pro-competitive regulatory stance, as measured by a new OECD index of product market regulation.<sup>10</sup>

Many of these reforms were incorporated into National Competition Policy that was agreed by the Commonwealth and all States and Territories. The implementation of this agenda is now largely completed. However, Australia still lags behind world best practice in a number of areas. This includes acknowledged parts of an ongoing reform agenda encompassing energy, water

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10 The OECD index measures product market regulation for 21 of the 30 OECD members (including Australia) scaled from 0 (least restrictive) to 6 (most restrictive). The index shows the US, the UK, NZ, Australia and Ireland to be the least regulated group of economies. See Nicoletti and Scarpetta (2003).

and transport. There is also considerable scope for further reform in the communications sector.

It also will be helpful to participation and productivity outcomes to continue to lower barriers to trade.

A further helpful contributor to Australian productivity will come from foreign direct investment underpinned by the shift over the last two decades to a more liberal policy regime. Even in the United States and the United Kingdom, both often closer in many industry sectors to the global productivity frontier than Australia, foreign direct investment has clearly generated higher productivity levels and faster productivity growth in the sectors where it is prevalent through intensifying competition (Keller and Yeaple 2003; Griffith and Simpson 2003).

## **Concluding comments**

Continued ageing of the population, persistence of low participation rates among the increasing proportion of older people, and a possible fall-back to historical rates of productivity growth would imply lower growth rates in Australian standards of living in decades to come.

Continuous adaptation, and changes to policies and attitudes, can offset these factors and make possible sustained high levels of growth. To illustrate the gains to Australia's standard of living that could be possible, it is worth considering the increase in GDP per capita that could be achieved through plausible policies to lift participation and sustain productivity growth.

Improving participation has the greatest scope for gains up front. If participation rates for each age and gender cohort were to rise towards the top of the OECD countries' current experience over the next 20 years, then the level of GDP per capita could be over 9 per cent higher by 2041-42 than the projections contained in the IGR. Most of the long-term gain would be in place by the early 2020s.

On top of this, further reforms might be able to drive faster productivity growth than projected in the IGR. Productivity growth of 2 per cent per annum (halfway between the 30 year average of 1¾ per cent used in the IGR, and the 2¼ per cent recorded over the past decade or so) would add a further 4 per cent or so to the level of per capita income by 2021-22. Further, because higher productivity growth compounds through time, by the year 2041 the

higher level of productivity growth could potentially boost incomes a further 9 per cent compared to the scenario with participation alone improving.

If these levels of participation and productivity can both be achieved, the total level of GDP per capita would be almost 20 per cent higher than the base case used for the IGR projections. This would greatly improve Australia's capacity to respond to the pressures that will come from an ageing population and continued higher cost of health care.

Medical, lifestyle and economic improvements mean Australians are living longer, healthier lives. They might generally want more flexibility as to how to spend their additional productive years. If the community supports timely policy choices over the balance of this decade, increasing competition and flexibility in product and labour markets could produce higher participation rates and productivity growth rates than currently projected. Towards 2040, the resultant society would be both richer and fairer in terms of access to employment, with Australians enjoying lower unemployment, better education and training, continuing rapid innovation and productivity growth, and greater choice among more flexible employment options over their life spans.

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