# 4

# Productivity in other nations

4.1 In assessing the productivity performance of other nations, a distinction should be drawn between the aggregate productivity *level* and the aggregate productivity *growth* rate. There are lessons for Australian policy makers when looking at both.

## International trends in developed countries

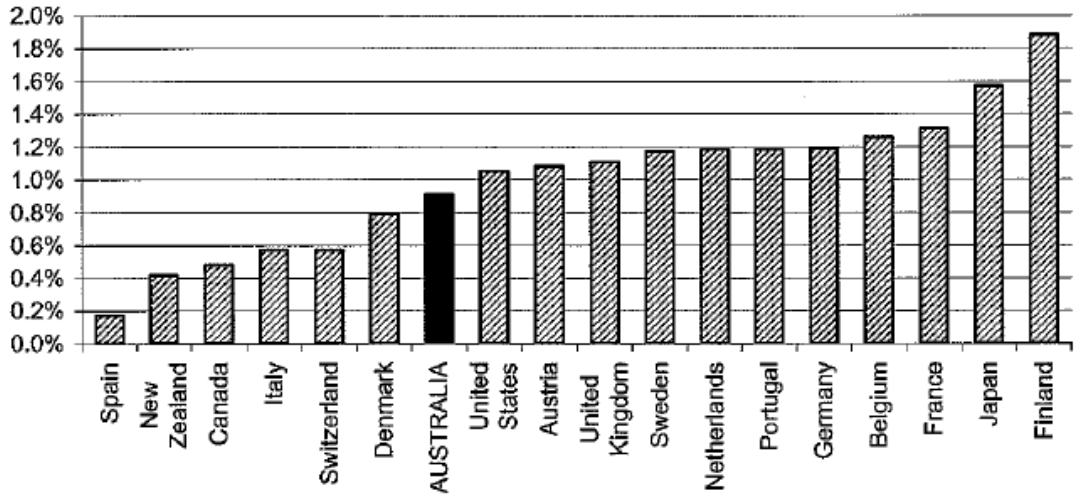
4.2 Productivity has grown significantly since it began to be closely monitored as an economic measure in the 1960s. However, MFP growth has deteriorated over the last decade in the major OECD economies, with potential impacts on the real economy over and above the impacts of the Global Financial Crisis.[1]

4.3 The figure overleaf illustrates average MFP growth among major OECD nations in recent years.

1 OECD, *The real economy and the crisis: revisiting productivity fundamentals*, April 2009.

Figure 4.1 MFP growth in selected OECD countries[(a)], 1985-2007[(b)]

Average annual growth rate




Source Productivity Commission, Submission no. 20, p. 12. Original data source: OECD Stat (database)

*(a) Selected countries are those for which data are available (b) closest available years. To 2006 for Italy, Japan and Sweden, to 2005 for Denmark, Finland, Netherlands and the United Kingdom, to 2004 for Belgium, 1989-2006 for New Zealand, 1990-2006 for Spain.*

## International productivity leaders this century

4.4 A number of countries stand out for their exceptional productivity levels, or exceptional productivity growth. Unique features of these economies are explained below.

### The United States of America

4.5 The United States became the world's 'productivity leader' early in the 20th century. It achieved and maintained this position:

> …as resources shifted away from its less-productive agricultural sector and as it accumulated knowledge and capabilities that led to the development and diffusion of major technological, management and organisational advances.[2]

2 Dolman, B, Parham, D, Zheng, S, *Can Australia Match US Productivity Performance?* Productivity Commission (PC) Staff Working Paper, March 2007, p. 2

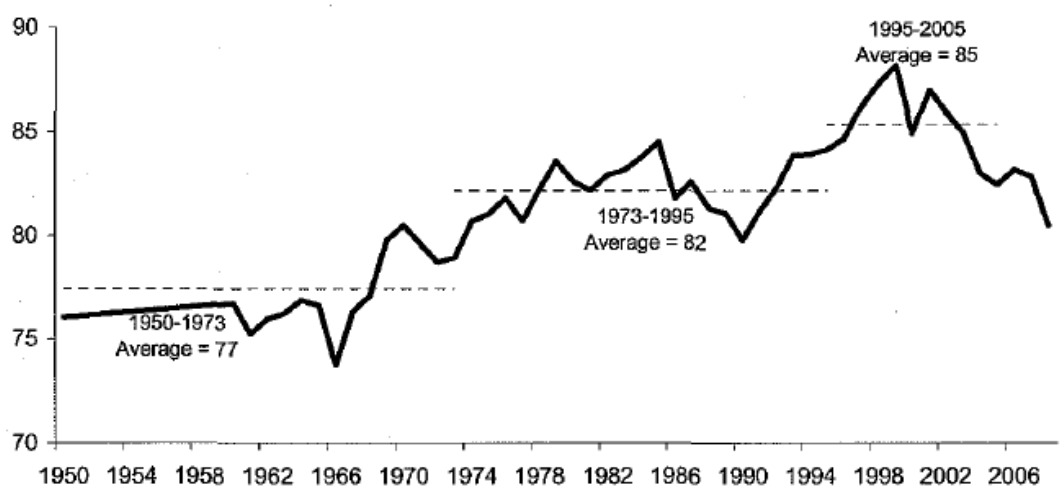
4.6 It can still be considered as the productivity leader on an aggregate level, despite being overtaken by countries such as Norway. The countries which have overtaken the United States have done so due to industry mix or employment policies, rather than through technological factors.[3] Professor Quiggin told the inquiry that the United States is still the frontier country:

> It is important to remember that the US is not, in terms of these productivity measures, the highest measured country in output per hour. Some European countries are significantly higher. To my mind, I do not think that says that those countries are for example technologically ahead of the US. It is just a reminder that that productivity data, especially in the context of international comparisons, needs to be taken with a grain of salt.[4]

4.7 A Productivity Commission (PC) Staff Working Paper projected that Australia is unlikely to reach the productivity levels of the United States in the coming decades.[5] This is due mainly to productivity improvements associated with ICT manufacturing, which Australia is not substantially engaged in; the additional human capital advantages enjoyed by Americans due to their higher average levels of education; and constraints associated with our remoteness from world markets.

Figure 4.2 Australia chasing the productivity frontier

Australian labour productivity as a percentage of the United States level, 1950 to 2008




*Source* *Productivity Commission, Submission no. 20, p. 13.*

3 ACCI, *Submission no. 7*, p. 15.

4 Professor J Quiggin, *Transcript*, 19 November 2009, p. 18.

5 PC, *Can Australia match US productivity performance?*, March 2007, p. 57.

## Norway

4.8 Norway has been at the front of the productivity frontier since 1991, but it has natural endowments in gas reserves, with mining (based on extraction of oil) contributing around 20 per cent of total output.[6] This has created a high productivity climate without significant government intervention.

4.9 However, such an industry mix and policies constraining employment mean that Norway's high productivity has been achieved with low labour utilisation, that is, the number of hours worked per head of population is relatively low.

## Finland

4.10 As shown in Figure 4.1, Finland had the highest MFP growth of selected OECD countries between 1985 and 2007.

4.11 Finland has made significant investments in human capital, which as the Department of Education, Employment and Workplace Relations noted, has led to very strong results in standardised international students tests.[7]

4.12 The strength of the outcomes produced by the Finish education system was shown by a McKinsey study in 2009. It argued that had America closed the gap in achievement in its schools with countries like Finland and South Korea between 1983 and 1998, GDP would be 9 to 16 per cent higher.[8]

## Singapore

4.13 Singapore has high rates of economic growth and productivity, which Professors Kuruvilla, Erickson and Hwang attribute to the success of the Singapore Skills Development System (SSDS).[9]

4.14 The SSDS is described in Chapter 6.

4.15 Mr Michael Rice gave evidence to the committee at a public hearing about Singapore's focus on education to allow it to bridge the productivity gap in manufacturing:

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6 Dolman, B, Parham, D, Zheng, S, *Can Australia Match US Productivity Performance?* PC Staff Working Paper, March 2007, pp. 3, 7, 8.

7 Department of Education, Employment and Workplace Relations, *Submission no. 19*, p. 6.

8 McKinsey, *The economic impact of the achievement gap in America's schools*, April 2009, p. 17.

9 Kuruvilla, S, Erickson, C, Hwang, A, *An Assessment of the Singapore Skills Development System: Does it constitute a viable model for other developing nations?*, May 2001.

> …my colleague Dr Brian Lloyd and I visited Singapore, and we had the opportunity to meet the secretariat for the minister for industry, technology, and trade… Because of my interest in engineering supply and demand, I said, 'What are you doing about engineering graduations? This was quite some years ago. He said, 'We are going to increase them to a level where two per cent of our workforce have engineering qualifications.' I said, 'Why?' and he said, 'Because that is where Germany is, that is where America and Japan are, and we want to be there too. Then I said, 'Are you going to achieve that?' and he said, 'Yes.' And they did—by the year 2000.[10]

### France

4.16 Figure 4.1 shows that France has achieved sound MFP growth. However, labour utilisation dropped dramatically in the 1970s.[11] The OECD recently stated that France has one of the highest minimum costs of labour among OECD countries, as well as employment legislation which discourages older workers from staying in the workforce. Both contributed to the low labour utilisation outcome.[12]

4.17 Low labour utilisation brings about undesirable social consequences; this is unlikely to be a successful means of raising productivity in a country like Australia.

## Productivity in developing economies

4.18 Labour productivity in the emerging economies of Brazil, India, Indonesia, China and South Africa has been estimated to be substantially below the levels in the upper-half of the OECD countries. The productivity gap varies from 55 per cent (South Africa) to 90 per cent (India) lower than the richest OECD countries.[13] The OECD has suggested that this productivity shortfall can be explained primarily by human capital and physical infrastructure shortfalls.[14]

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10 Mr M Rice, *Transcript*, 20 November 2009, p. 24.

11 PC, *Submission no. 20*, p. 12.

12 OECD, *Economic policy reforms: Going for growth 2010*, p. 109.

13 OECD, *Long-term growth and policy challenges in the large emerging economies*, March 2010, p. 9.

14 OECD, *Long-term growth and policy challenges in the large emerging economies*, March 2010, p. 15.

4.19 It should be borne in mind that productivity statistics for developing countries are difficult to find, and with measurement methodologies varying widely, results may be questionable. Accordingly, drawing comparisons is difficult.

### China and India

4.20 The OECD estimates that total factor productivity in China grew at 4.4 per cent in the period 2005 – 2008.[15] Future productivity growth will be spurred by the trend shift from the low-productivity agricultural sector and improving education levels.[16]

4.21 The OECD cited a study by Bosworth and Collins (2007) which showed that average total factor productivity growth in India increased from 1.1 per cent from 1978 – 1993 to 2.3 per cent from 1993 – 2004. Poor infrastructure support from government, low educational attainment and inflexible labour markets are identified as the impediments to Indian productivity growth.[17]

4.22 China and India are still experiencing large-scale industrialisation and as such have the 'benefit of backwardness'; that is, it is easier for an economy to grow fast if it is catching up than if it is near the technological frontier.[18]

## Problems with international comparisons

4.23 Drawing conclusions from comparing Australian productivity levels with other countries is problematic for two reasons: differences in measurement methodology; and economic differences: in economic structures, industry composition, comparative advances, regulatory settings, and cultural and social factors.

4.24 The PC submitted that useful comparisons can only be drawn with the United States:

> These comparability issues mean that cross time comparisons are best made with the labour productivity 'frontier' country alone. The United States is widely regarded as representing the frontier.[19]

15 OECD, *OECD economic surveys: China*, February 2010, p. 108.

16 OECD, *OECD economic surveys: China*, February 2010, p. 11.

17 OECD, *Globalisation and emerging economies*, pp. 318, 324.

18 Dolman, B, Parham, D, Zheng, S, *Can Australia Match US Productivity Performance?* PC Staff Working Paper, March 2007, p. 19.

### Differences in measurement

4.25 Unlike GDP measurement, the methodologies used in productivity measurement are not mature. While there are best practice methodologies, there are not standard methods in place. This makes benchmarking Australian productivity against other countries problematic.

4.26 This issue was discussed in detail in Chapter 2.

### Economic differences

4.27 Australia, like all others, is a unique economy. Our industry composition (or industry mix) and comparative advantages (such as mining) are different in nature and scale to other economies. Taxation policies and regulatory settings are unique, and changes to these occur on different timeframes to the rest of the world.

4.28 Further, measurement issues arise where countries are at different stages in the business cycle and significant exchange rate fluctuations.[20]

4.29 Social and cultural factors also impact upon the options open to industry and government to boost productivity. For example, policies which lead to low labour utilisation (and hence high unemployment) are unlikely to be acceptable to the Australian community, even if they provide significant productivity benefits.

## What can we learn from other nations?

4.30 Productivity measurements in other countries are most useful for observing the outcomes of particular policies, and how those policies impacted upon productivity growth. It is worthwhile learning from the strengths of other countries' successful strategies.

4.31 Australia should note the productivity outcomes of policies which are relevant in the Australian context and look to countries whose productivity challenges are relatively similar to ours.

4.32 In particular, Australia may learn from the results of long-term investments made some time ago in other nations, as productivity growth is a long-term agenda and most policies are a long-term investment.

19 PC, *Submission no. 20*, p. 12.

20 The Treasury, *International comparisons of industry productivity,* Economic Roundup, 2008, p. 53.

4.33 This is preferable to a focus on aggregate productivity measures, which are not reliable enough to draw robust conclusions about relative performance.[21]

## Committee conclusions

4.34 The committee believes that benchmarking our productivity against other countries is problematic, as measurement methodologies are inconsistent and Australia is a unique economy.

4.35 Meaningful benchmarking can only be conducted against the frontier country, the United States.

4.36 We can, however, analyse the policy approaches of other countries in terms of boosting capacity and capabilities in the economy. This is a smart thing to do especially in a fiscally constrained environment, where we need to prioritise spending and plan for the long-term

21 PC, *Submission no. 20*, p. 11.