

Productivity growth trends

Long term productivity growth

- 3.1 Australia's long-term productivity growth rate, taken from the decade prior to any microeconomic reforms were implemented, 1973-74, through to 2006-07 in the yet unfinished cycle, averaged 1 per cent per year.¹ Long-term growth from 1964-65 to 2007-08 averaged 1.1 per cent per year and if growth is taken from the start of 1993-94 it also averaged 1 per cent per cycle, despite including the 2.3 per cent surge cycle. According to the Productivity Commission (PC), this places Australia 'just below the OECD rankings over the period'.²
- 3.2 Growth figures taken from cycle to cycle will give different results to those taken from decade to decade or from trough to trough. And annual results may vary wildly from year to year. However, it appears that in recent history the Australian productivity growth rate has settled at around 1 per cent per annum.

Performance in Australia in the 1970s and 1980s

- 3.3 Australian productivity in the 1960s to early seventies was above the current long-term average, with the first two productivity cycles commencing 1964-65 averaging 1.4 per cent across the cycles. However,

1 Australian Bureau of Statistics (ABS), *Australian System of National Accounts*, Cat. no. 5204, 2007-08, p. 42.

2 Productivity Commission (PC), *Submission no. 20*, p. viii.

from 1973 through to the late eighties the rate of growth declined, particularly marked in the mid to late eighties, dropping under the long-term average of 1 per cent.³

Government response to lagging productivity growth

3.4 Australia's declining productivity performance became a policy concern in the 1980s when the average growth rate declined to 0.8 per cent, but moreover, the concern was about falling incomes per capita:

Concerns about declining productivity, growth, income growth and income levels relative to other OECD countries in the early 1980s gave impetus to the major economic reforms, which were implemented from the mid-1980s.⁴

3.5 The Treasury submission to the inquiry highlighted the lengthy period of falling average GDP per capita between Australia and the OECD average (of the 24 longest-standing countries) from the 1950s to the early 1990s.⁵

3.6 With an increase in the adoption of market-based policies in the developed world there was a growing feeling that past institutional and industry frameworks were impeding Australia's growth and adding to the decline in Australia's relative incomes per capita.

Microeconomic reforms

3.7 A series of microeconomic reforms were implemented in the 1980s and 1990s to improve the declining economic growth by improving the competitiveness and flexibility of Australian firms both globally and domestically.

3.8 The Treasury states that the primary objective of the microeconomic reforms of this period were to:

Improve economic efficiency by correcting externalities and other market failures, establishing and protecting property rights and supporting a competitive market environment.⁶

3.9 These reforms started with the opening up of the economy in 1983 by floating the exchange rate, deregulating the financial sector and capital

3 PC, *Submission no. 20*, p. ix, Figure 2.

4 PC, *Submission no. 20*, p. vi.

5 The Treasury, *Submission no. 10*, p.8.

6 The Treasury, *Submission no. 10*, p. 7.

markets and introducing reductions in import protection, including the abolition of quotas and a phasing out of tariffs.⁷

- 3.10 The floating of the dollar in 1983 led to a swift devaluation of the currency, which also gave many Australian businesses an immediate competitive edge and thus first-time inducement to enter the global market. However, the globally-facing economy meant that only the most efficient businesses survived. A Committee for Economic Development of Australia paper on Australia's manufacturing sector noted that this era:

Forced manufacturers to either meet import competition or cease business. If they could meet the competition of foreign producers at home, they could meet it elsewhere.⁸

- 3.11 These immediate changes were followed by labour market reforms which created more flexibility in firms.⁹ These included a move away from centralised, to more enterprise-level, wage bargaining. Another was the reduction in 'demarcation', where an employee was restricted to working on part of a production process. According to a report commissioned by the Australian Chamber of Commerce and Industry (ACCI), labour market reforms since 1993 have contributed 1.4 per cent growth in labour productivity.¹⁰
- 3.12 National Competition Policy (NCP) was established in the mid 1990s and was eventually rolled out by all levels of government. It was designed to 'forge a national market by using a more coordinated approach of promoting competition across different jurisdictions'.¹¹
- 3.13 The heart of NCP was the restructuring of public sector monopoly businesses; provision for third party access to nationally significant infrastructure and the application of competitive neutrality principles such that government businesses did not enjoy an advantage over private sector competitors (eg previously tax advantaged). The application of the pro-competitive market rules in the *Trade Practices Act* were also extended with the effect of applying to all businesses in Australia.

7 As an example, the effective rate of assistance for manufacturing has declined steadily from about 20 per cent in the mid-1980s to just under 5 per cent in 2007-08. —PC, *Trade and Assistance Review 2007-08*, May 2009, Figure 2.5, p. 20.

8 Dr J Edwards, 'Export weakness, investment strength', *CEDA Competing from Australia Project Paper no. 2*, 2007, p. 4.

9 Mr Glenn Stevens, Reserve Bank of Australia (RBA), House of Representatives Standing Committee on Economics, *Transcript, 14 August 2009*, p. 13.

10 Australian Chamber of Commerce and Industry (ACCI), *Submission no. 7*, p. 73.

11 The Treasury, *Submission no. 10*, p. 8.

- 3.14 Referring to the business environment prior to the competition reforms of the 1990s, the ACCI submission stated:

These restrictions also created a business culture that focussed on securing government preference rather than on achieving a competition edge through effective costs management, innovation and responsiveness to customer demand and requirement.¹²

- 3.15 The NCP also incorporated a process for reviewing and overseeing a wide range of legislation at all levels of government, which, over a period of ten years, streamlined processes for businesses and reduced unnecessary regulatory burdens.¹³

- 3.16 The Treasury reported that NCP resulted in productivity gains in reforming infrastructure markets:

These reforms have improved efficiency across a range of areas of public infrastructure and the resulting increases in the productivity of Australia's stock of infrastructure have helped to raise Australia's potential output.¹⁴

Macroeconomic framework

- 3.17 Treasury's submission noted the role macroeconomic policies play in realising long-term growth¹⁵:

Medium-term frameworks for monetary and fiscal policy were also developed to promote macroeconomic stability.¹⁶

- 3.18 One macroeconomic framework which was strengthened in the early 1990s was monetary policy. Monetary policy started to focus on inflation targeting to ensure Australia's inflation rate was contained within a range throughout the business cycle. As inflation erodes living standards and deters investment it is essential to control it.

12 ACCI, *Submission no. 7*, p. 39.

13 The volume of regulation expanded in the period 2000-2006, some of which is a result of NCP reforms and the requirement for new legislation; the burden of these regulations may not have increased, as noted in: Australian Government, *Rethinking Regulation – The Report of the Taskforce on Reducing Regulatory Burdens on Business, January 2006*, pp. 5-6.

14 The Treasury, *Submission no. 10*, p. 11.

15 Barring one quarter of negative growth in December 2000 and one quarter in December 2008 (following the global financial crisis), the economy has continued to grow since the trough of the 1990-91 recession. RBA Statistical Tables, Table G1, GDP chain volume, viewed 2 March 2010: <http://www.rba.gov.au/statistics/tables/index.html>

16 The Treasury, *Submission no. 10*, p. 8.

- 3.19 Australia's inflation targeting strategy was formalised in 1996 in the 'Statement on the Conduct of Monetary Policy', an agreement between the then Federal Treasurer and the Governor of the Reserve Bank of Australia (RBA). The agreement set a target of maintaining inflation within a range of 2 to 3 per cent over the business cycle.¹⁷ The current Statement on Monetary Policy is the fourth agreement.
- 3.20 At its February 2010 public hearing with the House Economics Committee the RBA echoed the need to maintain stable monetary policy to foster productivity growth:
- If you look back through economic history, if you have high and variable inflation, resource allocation in the private economy tends to get screwed up and you end up with lower levels of productivity growth and lower living standards. What we can do for the community, what we can do for productivity growth, is deliver low and stable inflation.¹⁸
- 3.21 In the 1990s fiscal policy moved away from a focus on aggregate demand management in the Australian economy and took on a more microeconomic perspective. This was recently expressed by Dr Ken Henry, Secretary to the Treasury on the role of Australian fiscal policy:
- Over time, fiscal policy considerations have come to have more to do with the quality of government spending and taxation policy interventions in the economy.¹⁹
- 3.22 An example of this sort of fiscal policy behaviour was the introduction of various tax reforms since the 1980s.²⁰
- 3.23 The macroeconomic fiscal strategy adopted in the 1990s was aimed at creating balance over the cycle and of having a smaller public sector footprint. For example, during this period government owned enterprises and infrastructure were privatised. This had the impact of also reducing ongoing government expenditure.

17 RBA, *Fourth Statement on the Conduct of Monetary Policy*, December 2007.

18 Dr P Lowe, RBA, House of Representatives Standing Committee on Economics, *Transcript*, 19 February 2010.

19 Dr K Henry, Fiscal policy: more than just a national budget, Address to the 2009 Whitlam Institute Symposium, 30 November 2009, p. 12. Viewed 23 February 2010.

<http://www.treasury.gov.au/documents/1689/PDF/02_Fiscal_Policy.pdf>

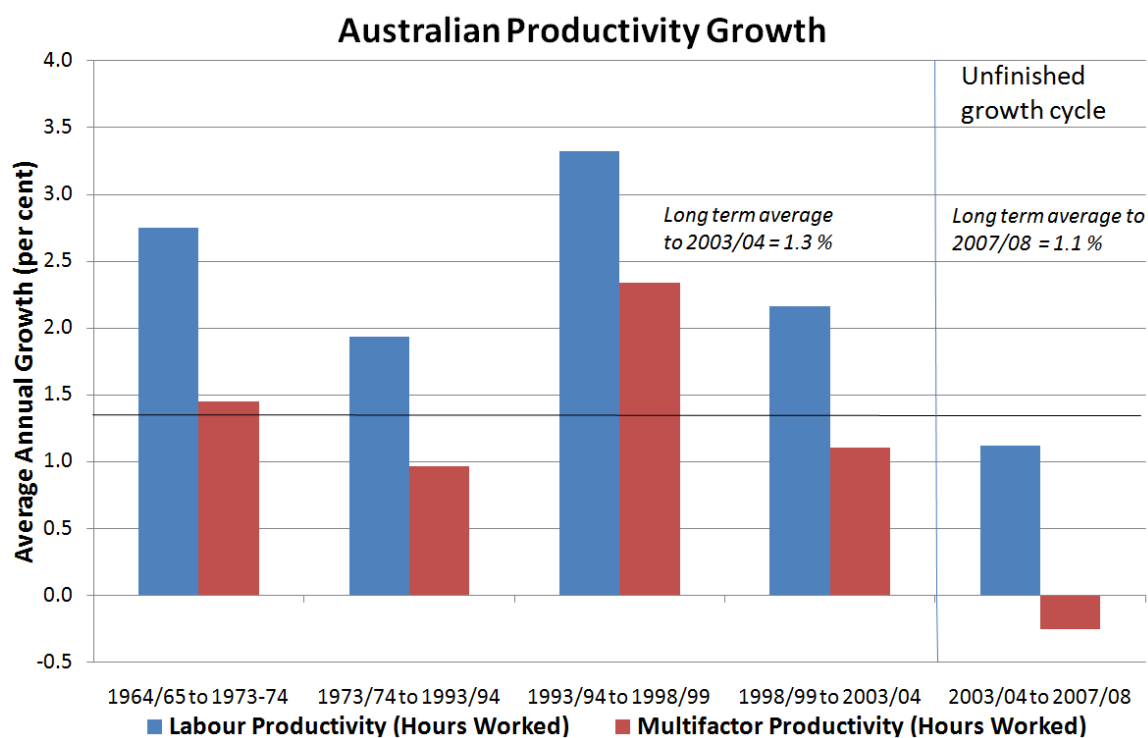
20 Reducing marginal tax rates encourages incentives for effort and reducing taxation on capital creates incentives for investment.

The productivity growth surge

- 3.24 Following the relative slump in growth from 1984-85 to 1993-94, with average growth at around 0.9 per cent over the two cycles, productivity growth in the subsequent cycle, 1993-94 to 1998-99, more than doubled.
- 3.25 Average productivity growth for the period was estimated at 2.3 per cent which far exceeded its long term average of 1.1 per cent. The PC, in their submission to the inquiry referred to this growth rate as 'extraordinary'.²¹ Consequently, this golden (and relatively short-lived) period of record productivity growth has been referred to as the 'productivity growth surge'. The growth surge can be seen pictorially in Figure 3.1.
- 3.26 As ACCI's submission highlighted, both labour productivity and MFP soared in the 1990s:

Growth in both labour productivity (output per hour worked) and multifactor productivity (output per combined unit of labour and capital) increased to record high levels between 1993-94 and 1998-99.²²

Figure 3.1 Australia's productivity growth (Percentage average annual rate of growth)



Source ABS, Australian System of National Accounts, Cat. no. 5204.0, 2007-08

21 PC, Submission no. 20, p. viii.

22 ACCI, Submission no. 7, p. 5.

- 3.27 The following cycle, 1998-99 to 2003-04 ended with an average of 1.1 per cent across the cycle, returning to the long-term average.

What caused the high productivity growth of the 1990s?

- 3.28 Much has been written about the contributions to the historically high rates of productivity growth in the Australian economy in the last decade of the 20th century. A number of economists and public policy analysts disagree on what the primary impetus for the surge was – one argument suggests that there was not really a miracle period of productivity growth.
- 3.29 The prevailing view is that extensive microeconomic reforms progressively introduced in the 1980s to the 1990s offered Australian businesses the platform for the biggest efficiency gains in decades.

Microeconomic growth theory

- 3.30 The majority of contributors to the inquiry supported the view that the superlative growth achieved in the 1990s was directly attributable to the raft of microeconomic reforms which commenced in the 1980s.
- 3.31 Treasury's submission stated:
- The PC (2005) found that NCP and related reforms directly contributed to productivity and price changes in infrastructure sectors during the 1990s, increasing Australia's GDP by 2.5 per cent or \$20 billion (in 2005-06 dollars).
- 3.32 The South Australian Government referred to the conclusion of the PC's 1999 report on the contribution of microeconomic reforms to productivity, stating that:
- The Productivity Commission compared the timing of reforms with observed productivity outcomes and undertook detailed case studies of particular sectors to identify the influences on changes in their productivity performance. The report concluded that microeconomic reform had played the major role in bringing about productivity gains.²³
- 3.33 The PC also emphasised that when Australian businesses were exposed to more competition following the microeconomic reforms of the 1980s, this created the impetus for businesses to change and become more productive:

23 South Australian Government, *Submission no. 22*, p.9.

A change in firm organisation, a change in management practice, or the adoption and development of new technologies might not happen without a clear purpose or incentive such as that provided by competition.²⁴

3.34 This 'impetus to be more productive' view was supported by the CLE:

A moment's reflection makes one realise that it is not simply the spread of computers that will generate productivity increases, but the incentives and capability to use them effectively which the microeconomic reforms allowed - including the enormous investments in modern communication systems following privatisation and deregulation of telecommunications globally.²⁵

3.35 The Treasury also referred to a study conducted in 2000 by the International Monetary Fund (IMF) which found that trade liberalisation, labour market reform and increased competition 'lifted Australia's trend MFP growth in the 1990s by between 0.5 and 0.9 of a percentage point (Salgado 2000)'.²⁶ These reforms essentially constituted the 'first wave' of reforms which were first implemented in the 1980s.

3.36 Another study conducted by the IMF supported the view that businesses adopted productivity enhancing measures after exposure to competition brought about by the microeconomic reform agenda. The Treasury noted the IMF's finding that:

...intensified competition through the reforms have driven the more efficient use of resources through new work practices and encouraged the more rapid uptake of new technologies (Tressel 2008).²⁷

3.37 ABARE's submission agrees that Australia's microeconomic reforms provided a spring-board for productivity growth by freeing up the environment market participants operated in:

These reforms benefited productivity growth by improving the incentives for innovation and by improving flexibility and options for decision-makers to improve performance.²⁸

24 PC, *Submission no. 20*, p. 9.

25 Centre for Law and Economics, ANU (CLE), *Submission no. 6*, p. 6.

26 The Treasury, *Submission no. 10*, p. 9.

27 The Treasury, *Submission no. 10*, p. 9.

28 Australian Bureau of Agricultural and Resource Economics (ABARE), *Submission no. 23*, p. 15.

- 3.38 Professor Chris O'Donnell's evidence lends more weight to this view. He stressed that microeconomic reforms, on a general level, are designed to promote competition, and that competition leads to technical efficiency within firms. He also notes, as a corollary, that non-competitive markets protect unproductive firms (such as those operating behind tariff walls):
- ...it is only in competitive environments that technically efficient firms will survive.²⁹
- 3.39 It can be inferred from Professor O'Donnell's evidence that the microeconomic reforms of the 1980s and 1990s led to aggregate productivity growth because the Australian economy became more competitive.
- 3.40 The Treasury submission emphasised that the microeconomic reform program delivered more to the Australian economy than a one-off productivity growth surge. It noted reductions in the prices and range of consumer goods and services available to Australians and improvements in service quality and reliability stemming from the 'second wave' of reforms (mostly NCP) which commenced in the mid to late 1990s.³⁰
- 3.41 Treasury also believes that these reforms have provided a platform for ongoing productivity growth:
- In particular, greater market competition and microeconomic flexibility have permanently improved firms' operating environment, promoting the ongoing search for and diffusion of more productive processes and better products (PC 2008).³¹
- 3.42 ACCI's submission agreed with PC analysis which concluded that NCP and affiliated reforms were directly responsible for significant infrastructure price reductions since the early to mid 1990s.³²
- 3.43 Professor John Quiggin, a leading Australian economist, is often presented as opposing the view that microeconomic reforms delivered a productivity growth surge. However, the main thrust of Professor Quiggin's argument is that the timing of some of the most substantial reforms could not have contributed to the high growth rates in the 1990s due to the later timing of reform implementation. For example, he contends that NCP, the most sweeping of these reforms, was not

29 Professor C O'Donnell, *Transcript*, 4 February 2010, p. 7.

30 The Treasury, *Submission no. 10*, p. 9.

31 The Treasury, *Submission no. 10*, p. 9.

32 Including, for example, significant reductions in real electricity prices, port, telecommunications and rail freight charges. ACCI, *Submission no. 7*, p. 42.

implemented until the late 1990s and therefore could not have been reflected in the 1993-94 to 1998-99 data:

National Competition Policy, one of the central elements of the Hawke-Keating government's microeconomic reform program (agreed in 1995) did not come into effective force until the late 1990s. The major microeconomic reforms of the Howard government, including the GST, privatisation of Telstra and other Government Business Enterprises, the replacement of the CES by the Job Network and a series of labour market reforms culminating in WorkChoices all took effect during this period.³³

- 3.44 Professor Quiggin accepts that microeconomic reforms in some sectors, like manufacturing and agriculture provided productivity growth; albeit limited. However, he believes other sectors did not fare as well:

Attempts to apply the 1980s microeconomic reform package in growth areas such as health, education, the financial sector and the information economy have been generally unsuccessful and in some cases actively counterproductive.³⁴

- 3.45 He concludes that 'the extent of any contribution to productivity growth from microeconomic reform over the period since 1980 is too small to be distinguished from other fluctuations in the time series'.³⁵
- 3.46 There is, however, some contention that this view is too simplistic and that factors outside these reforms significantly contributed to the record high growth rate.

Rapid adoption of leading edge information and communications technology

- 3.47 During the 1990s Australians embraced information communications technology (ICT) at an unprecedented rate given Australia is not a leading ICT producer.³⁶ This era also ushered in the first widespread use of the internet in businesses and government organisations.
- 3.48 The Department of Innovation, Industry, Science and Research noted that rapid adoption of ICT, despite Australia not being an ICT manufacturer,

33 Professor J Quiggin, *Submission no. 28*, p. 2.

34 Professor J Quiggin, *Submission no. 28*, p. 3.

35 Professor J Quiggin, *Submission no. 28*, p. 2.

36 Mr T Lowndes, Department of Innovation, Industry, Science and Research (DIISR), *Transcript*, 23 October 2009, p. 52.

‘reflects a culture of being willing to look at new practices and do new things’.³⁷

- 3.49 A number of studies have been undertaken on the stand-alone impact of ICT on aggregate productivity growth during the surge cycle. The committee received evidence to support the role ICT played in Australia’s record productivity growth rates in the 1990s.
- 3.50 The CLE has undertaken research on the long-term impacts of ICT in Australia compared to 18 OECD countries, during 1980-2005. Dr George Barker noted in evidence about this research that ‘Our conclusions show quite clearly that the spread of ICT capital and differences between nations are major drivers of productivity’.³⁸
- 3.51 The CLE also contend that when assessing the contribution of microeconomic reforms to the productivity growth surge, other factors must be controlled for. They note the remarkable uptake of the internet over the same period was a significant historic event and was a key contributor to the surge. They note:
- The internet is a major innovation associated with the Information and Communications Technology (ICT) industry the significance of which has been compared to the advent of railroads in the 19th Century.³⁹
- 3.52 The committee also heard evidence that it was not the uptake of computers per-se that led to productivity gains, but rather the connectivity of computers which came about in the 1990s:
- Computers came online with the first IBM personal computer in 1984 but they did not show up with a productivity effect for a long period. The insight was that it is not stand-alone computers that may contribute most to productivity but the networking of computers.⁴⁰
- 3.53 A number of submitters to the inquiry highlighted the fact that ‘ICT diffusion ‘played a significant role in the productivity growth surge. ICT diffusion essentially means that ICT is widely dispersed throughout the Australian economy.

37 Mr T Lowndes, DIISR, *Transcript*, 23 October 2009, p. 52.

38 Dr G Barker, CLE, *Transcript*, 30 October 2009, p. 37.

39 CLE, *Submission no. 6*, p. 3.

40 Dr G Barker, CLE, *Transcript*, 30 October 2009, p. 36.

3.54 The Manufacturing Alliance noted that ICT take-up and diffusion contributed up to 30 per cent of Australia's productivity growth in the 1990s.⁴¹ Dr Boon Lee, an academic economist, agreed with a study by Thierry Tressel of the IMF that Australian productivity growth in the 1990s benefited from the diffusion of ICT.⁴²

3.55 Talking generally about the relationship between ICT and productivity growth, a representative of the Department of Broadband, Communications and the Digital Economy stated:

It is well-recognised in economic circles that there is a relationship between the availability and use of ICT and productivity.⁴³

3.56 The PC acknowledges that the impact of ICT uptake in the 1990s cannot be discounted as a source of productivity growth, but that its contribution was insignificant compared to the benefits accruing from the microeconomic reforms which were 'fundamental and far-reaching'. The PC stated:

There was rapid uptake of new technologies (including ICTs) in this period but their contribution to MFP growth was small.⁴⁴

3.57 ACCI claims the microeconomic reforms of the 1980s and 1990s prompted the uptake of newly available technology, which gives a chicken-and-egg slant to the 'microeconomic reform versus ICT growth' argument:

More competitive markets also accelerated the adoption of new technologies and introduction of new products by firms to differentiate themselves from the mainstream and enable them to capture niche markets.⁴⁵

3.58 Although predominantly supporting the view that information communications technology was the prime driver of productivity growth in this period, Dr Barker similarly acknowledged the role of microeconomic reform in the rapid growth of productivity in the mid nineties:

The point is that the reform process came into play by creating the incentives and capabilities to invest in ICT, and it gave rise to a lot

41 The Manufacturing Alliance, *Submission no. 14*, p. 6.

42 Dr B Lee, *Submission no. 3*, p. 1. Reference to: Tressel, T, *Does Technological Diffusion Explain Australia's Productivity Performance?*, IMF Working Papers, April 2008.

43 Mr R Windeyer, Department of Broadband, Communications and the Digital Economy, *Transcript*, 25 February 2010, p. 2.

44 PC, *Submission no. 20*, p. ix.

45 ACCI, *Submission no. 7*, p. 42.

of the productivity growth that we have seen. Computers and the internet by themselves do not lead to the productivity effects. You have got to have a framework of law and policy that creates and supports the adoption.⁴⁶

- 3.59 Professors Cooper and Sheen of Macquarie University postulate that the contribution of ICT and microeconomic reforms is hard to distinguish because ultimately both depend on efficiencies of process. Their submission stated:

Although there has been a lengthy debate about the relative contribution of microeconomic reform versus technological change to the recent productivity growth spurt, even this distinction is now difficult to maintain. One reason for this difficulty is that microeconomic reform is concerned with the modification of the environment in which economic relationships are transacted with the aim of producing greater efficiency in these relationships. However, in an increasingly sophisticated world, technological change at its heart is also concerned with modifying the way tasks are combined.⁴⁷

A mirage caused by measurement quirks and other impacts?

- 3.60 Professor John Quiggin has been vocal in his alternative views on the reasons for Australia's record productivity growth cycle spanning 1993-94 to 1998-99. Firstly, he largely discounts the popular view that microeconomic reforms were responsible for the growth surge – mainly because he believes the most influential of the reforms (NCP) was implemented too late in the cycle period to have had any effect on the estimate.
- 3.61 Secondly, Professor Quiggin believes the arbitrary cut-off points in the productivity cycles create skews which may make a cycle appear more productive than in reality. As discussed in Chapter 2, productivity cycles do not mirror business cycles, and if they do, it is incidental.⁴⁸ Professor Quiggin asserts that the divisions of these 'hypothetical productivity

46 Dr G Barker, CLE, *Transcript*, 30 October 2009, p. 7.

47 Professors R Cooper & J Sheen, *Submission no. 5*, pp. 1-2.

48 The ABS first released MFP estimates for the market sector in June 1994. MFP was calculated back to 1963-64 and the data was organised using a concept of 'productivity cycles' which were inferred from the MFP series with start and end points of the cycles being peak deviations from long-term productivity growth. The cycles tend to span approximately six years.

cycles' created a superlative productivity growth result by using the years 1993-94 to 1998-99.⁴⁹

- 3.62 In his 2006 paper, *Stories about Productivity*, Professor Quiggin argues that the relatively short duration of the productivity cycle and the high year to year variability in the data meant that 'the MFP data set does not contain enough information to allow clear statistical discrimination between competing hypotheses'.⁵⁰ At an inquiry public hearing he stated:

There is a long statistical debate about the extent to which any increase in productivity in the mid-nineties was a genuine outcome of those reforms or merely a statistical blip. I have taken the view in my evidence that the evidence is not really sufficient to determine whether there was an upsurge in productivity followed by a slump or whether that was merely the product of seeing patterns in the data.⁵¹

- 3.63 Professor Quiggin cites the econometric work of Keith Hancock (2005)⁵² and concludes that the Australian MFP data set should be interpreted with caution. Quiggin writes:

Thus, the data contains more evidence on the level of MFP than on the rate of growth of MFP, and more evidence on the rate of growth of MFP than on trends in the rate of growth of MFP. Attempts to detect a structural break in the trend rate of growth of MFP are therefore likely to be fraught with difficulty.⁵³

- 3.64 Professor Quiggin notes that when the ABS first published MFP estimates which revealed a record growth period in 1993-94 to 1998-99, the PC inferred this was attributable to the microeconomic reforms which started in the 1980s. Quiggin uses the slow-down in MFP in the following cycle (from 2.3 per cent to 1.1 per cent) as supporting the view that the record growth in the 1990s was a result of a statistical anomaly, an economy moving out of the doldrums of the recession and an increase in work intensity.⁵⁴

49 Professor J Quiggin, *Submission no. 28*, p.1.

50 Professor J Quiggin, *Stories About Productivity*, Australian Bulletin of Labour, Vol. 32, No. 1, 2006, p. 19.

51 Professor J Quiggin, *Transcript*, 19 November 2009, p. 10.

52 Keith Hancock, *Productivity Growth in Australia 1964-65 to 2003-04*, Australian Bulletin of Labour, Vol. 31, No. 1, 2005, pp. 28-32.

53 Professor J Quiggin, *Stories About Productivity*, Australian Bulletin of Labour, Vol. 32, No. 1, 2006, p. 20.

54 Professor J Quiggin, *Stories About Productivity*, Australian Bulletin of Labour, Vol. 32, No. 1, 2006, p. 19.

- 3.65 Analytical work undertaken by the ABS in 1989 supports part of Professor Quiggin's view. This work identified that in terms of labour productivity the hours worked tend to lag the growth of outputs by up to four quarters.⁵⁵ This means that as a peak in the business cycle is reached, labour productivity will decline, and as the economy comes out of a trough labour productivity will rapidly grow, as was the case in the mid 1990s.
- 3.66 The increase in work intensity hypothesis put forward by Quiggin is that during the 1990s there was an unsustainable increase in work intensity (via a significant increase in working hours and reduced 'on-the-job leisure')⁵⁶ which was not necessarily reflected in the data. Professor Quiggin noted that the reported working hours peaked in 2000 and he concluded therefore that:
- Thus it seems likely that gains in measured productivity from this source during the 1990s were, at least partially, reversed after 2000.⁵⁷
- 3.67 For part of this hypothesis to hold it would mean that reported labour hours were under-estimated, thus resulting in productivity growth arising from reduced or static inputs yet greater output. This is because, as the PC noted in 1999, reported longer working hours would not influence estimates of productivity but 'greater work effort per hour worked would be reflected in the productivity measure'.⁵⁸ Although the PC agree that greater work intensity (being more efficient when on the job) could have influenced the estimates it indicates that the source of most of the productivity growth in that cycle did not emanate from labour productivity.⁵⁹
- 3.68 The PC assert:

55 N. Batty, *Gross Domestic Product, Employment and Productivity*, June quarter 1989, Australian National Accounts: National Income and Expenditure, Cat. no. 5206.0.

56 PC, *Microeconomic Reforms and Australian Productivity: Exploring the Links*, Commission Research Paper, Volume 1: Report, November 1999, p. 75.

57 Professor J Quiggin, *Stories About Productivity*, Australian Bulletin of Labour, Vol. 32, No. 1, 2006, p. 24.

58 PC, *Microeconomic Reforms and Australian Productivity: Exploring the Links*, Commission Research Paper, Volume 1: Report, November 1999, p. 75.

59 PC, *Microeconomic Reforms and Australian Productivity: Exploring the Links*, Commission Research Paper, Volume 1: Report, November 1999, p. 75.

The 1990s productivity surge could not be attributed to international trends, normal recovery from domestic recession, improved labour force skills, or greater work intensity.⁶⁰

- 3.69 The PC acknowledges that the recovery from the recession of 1990-92 and increased work intensity could have played some role in the improved productivity performance but that these alone could not explain the strength of the rise.⁶¹

Growth is cyclical

- 3.70 Even if productivity cycles were created at different points in the historic series – the periods would still exhibit a cyclical trend.⁶² It is therefore reasonable to expect wide variations in estimates within cycles as growth is volatile. This was expressed in the Australian Bureau of Agricultural and Resource Economics' (ABARE) submission:

Short-term movements are not typically a strong indicator of underlying productivity trends, as growth can be highly volatile.⁶³

- 3.71 It is reasonable to expect large variations in growth *between* different cycles. Professor Quiggin notes that 'dividing business cycles into two or more productivity cycles is likely to produce alternating periods of weak (contraction phases) and strong (expansion phases) productivity growth'.⁶⁴ Similarly, the Treasury's Summer 2006 Economic Roundup stated that:

A period of strong multi-factor productivity growth is not typically followed by another similar period.⁶⁵

- 3.72 The productivity cycle following the surge cycle did just that. Multifactor productivity growth fell from an average across the cycle of 2.3 per cent to 1.1 per cent. However, the next cycle has not seen a rebound to higher growth rates. Instead, the yet to be completed cycle from 2003-04 has exhibited decelerating growth.

60 PC, *Submission no. 20*, p. ix.

61 PC, *Microeconomic Reforms and Australian Productivity: Exploring the Links*, Media Release, 12 November 1999.

62 Professor Quiggin suggests there are nearly 40 possible choices for a break-point in the series. Professor J Quiggin, *Stories About Productivity*, Australian Bulletin of Labour, Vol. 32, No. 1, 2006, p. 24.

63 ABARE, *Submission no. 23*, p. 8.

64 Professor J Quiggin, *Stories About Productivity*, Australian Bulletin of Labour, Vol. 32, No. 1, 2006, p. 24.

65 Dolman, B, Lan, L & Rahman, J, *Understanding Productivity Trends*, Treasury Economic Roundup, Summer, 2006, p. 42.

Declining productivity growth since 2003-04

- 3.73 The current productivity cycle, commencing in 2003-04, at a peak level of productivity, is an incomplete cycle. So far, the story is of declining productivity growth with a growth rate to 2008-09 of -0.4 per cent.⁶⁶ This is a significant shift from the previous cycle's 1.1 per cent growth rate.
- 3.74 As ACCI's submission indicates the 'decline in productivity has resulted from very strong growth in demand for inputs – both capital and labour'.⁶⁷
- 3.75 It is interesting to note that hours worked in the market sector has grown by 2.2 per cent a year which is twice the historical average. This can be attributed to greater participation rates given the unemployment rate averaged 5 per cent over the unfinished cycle, with two and a half years at under 5 per cent.⁶⁸ A 2007 OECD report notes that employment growth tends to be associated with lower average measured labour productivity growth,⁶⁹ and this would be particularly so in an economy with supply side constraints. This is because as employment opportunities expand more low-skilled workers are employed who 'generate diminishing returns to labour input'.⁷⁰
- 3.76 Capital services have also increased significantly – from 3.8 per cent long-term average to 5.3 per cent over the unfinished cycle.⁷¹ Average output growth in this cycle is, however, now below its long-term average.⁷² Australia's current prosperity is therefore price driven, not volume driven, where high prices for commodities are boosting the value of Australia's outputs.

66 ABS, *Australian System of National Accounts*, Cat. No. 5204.0, 2008-09, p. 40.

67 ACCI, *Submission no. 7*, p. 11.

68 RBA, *Statistical Tables, Output and Labour*, Labour Force G7. Viewed 11 March 2010 <<http://www.rba.gov.au/statistics/tables/index.html>>.

69 OECD, *OECD Economic Outlook*, Chapter 2—More Jobs but Less Productive? The Impact of Labour Market Policies on Productivity, pp. 56-57.

70 OECD, *OECD Economic Outlook*, Chapter 2—More Jobs but Less Productive? The Impact of Labour Market Policies on Productivity, p. 57.

71 ABS, *Australian System of National Accounts*, Cat. no. 5240.0, 2007-08, p. 43, and ABS, *Australian System of National Accounts*, Cat. no. 5240.0, 2008-09, p. 40.

72 Long term output growth from 1964-65 to 2007-08 is 3.3 per cent. Refer ABS, *Australian System of National Accounts*, Cat. no. 5240.0, 2007-08, p. 43. Growth since the last completed cycle to 2008-09 approximates 2.8 per cent, falling from around 3.6 per cent for the incomplete cycle to 2007-08. ABS, *Australian System of National Accounts*, Cat. no. 5204.0, 2008-09, p. 40.

Key reasons for the productivity growth decline

- 3.77 The majority of evidence received which commented on the productivity growth decline since 2003-04 agreed that the slow-down has predominantly been generated by poor productivity growth in three industries – Agricultural, forestry and fishing; Mining; and Electricity, gas and water services (EGW).⁷³
- 3.78 The Treasury noted the impact on aggregate productivity growth of falling productivity growth in two of the three industries:
- The Productivity Commission (2008) estimates that the combination of drought on agricultural output and the terms of trade related slowdown in mining productivity explains more than half of the fall this decade in Australia's multifactor productivity growth from its long-term average.⁷⁴
- 3.79 This impact is significant given the mining and agricultural industries shared in only 10.3 per cent of Australia's gross value add in 2008-09 (16 per cent of the market sector recognised in MFP estimates) and yet productivity declines in these two sectors alone accounted for more than 50 per cent of the decline in aggregate productivity growth over the decade.⁷⁵
- 3.80 When the productivity declines in the EGW sector are added to those in Mining and Agriculture, the PC calculated that 70 per cent of the 'recent rapid decline in productivity growth since the cycle ending in 2003-04 is accounted for by specific developments in these sectors'.⁷⁶
- 3.81 A variety of compounding reasons have been suggested for the slowing of growth in this cycle including a slow-down in the microeconomic reform agenda,⁷⁷ bottlenecks constraining growth in mineral exports, and supply side constraints leading to diminishing returns in the labour market.⁷⁸
- 3.82 The Manufacturing Alliance argues sub-optimal investment in infrastructure; skills and innovation have resulted in the productivity growth decline. They claim manufacturing R&D 'collapsed' in the current
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73 The Treasury, PC, ACCI, ABARE, the Manufacturing Alliance and Master Builders Australia commented on the decline and all agreed with this conclusion.

74 The Treasury, *Submission no. 10*, p. 6.

75 ABS, *Australian System of National Accounts*, Cat. no. 5204.0, 2008-09, p. 28.

76 PC, *Submission no. 20*, p. x.

77 CLE, *Submission no. 6*, p. 7.

78 PC, *Submission no. 20*, p. x.

decade and Australia lags behind 'many other nations' in public and private investment in education and skills.⁷⁹

- 3.83 Although the PC agrees that investment in infrastructure, R&D and human capital are vital to productivity growth in the long-term, they dispute causal links of sub-optimal investment in these areas with declines in productivity this decade. They dispute R&D investment was below par because:

Real R&D in Australia has been growing quite strongly since the mid-1970s but growth has been particularly strong in the 2000s. ... After adjusting for Australia's differences in industry composition (which affects R&D intensity) business R&D intensity is now 3rd amongst 20 key OECD countries.⁸⁰

- 3.84 Similarly, the PC dismisses sub-optimal infrastructure investment as a primary cause of the growth decline, because:

Although there is some empirical evidence that investment in physical capital, including public infrastructure, was subdued during the 1990s and early 2000s, the picture since the mid-2000s has been in stark contrast, with substantial increases in investment spending.⁸¹

- 3.85 The PC also asserts that measures of the change in labour quality⁸² suggest that education and training had only 'a very small direct influence on the unusually high productivity growth of the 1990s and even less on the recent productivity slump'.⁸³

- 3.86 Other reasons suggested are comparative – that the impacts of ongoing regulatory reform and further ICT developments have had limited impacts this decade than they did in the previous decade. For example, the introduction of the internet, mobile telephony and electronic delivery of services gave the economy a big productivity hit in the 1990s which incremental developments this decade could not match.⁸⁴

79 Manufacturing Alliance, *Submission no. 14*, p. 6.

80 PC, *Submission no. 20*, p. x.

81 PC, *Submission no. 20*, p. x.

82 The ABS compiles experimental quality-adjusted measures of labour by adjusting hours worked by educational levels attained and work experience as proxies for quality. Reilly R, Milne W, Zhao S, *Quality-adjusted labour inputs*, ABS Research Paper, Australia, November 2005, Cat. no. 1351.0.55.010, p. 33.

83 PC, *Submission no. 20*, p. x.

84 The Treasury, *Understanding Productivity Trends*, Economic Roundup, Summer 2006, p. 10.

Sectoral factors

3.87 The mining sector contributed the key productivity growth decline of all industry categories since 2003-04, subtracting approximately 0.3 percentage points per year off market sector MFP between 2003 and 2008.

3.88 The timing of the productivity growth decline coincides with the start of the resources boom, when worldwide commodity prices increased. The higher prices for outputs gave Australian mining firms the incentive to add more labour to existing mines and invest in new capital and facilities. This increase in inputs has not translated to a commensurate increase in outputs, and as such, productivity has declined.⁸⁵ ACCI highlighted this mining sector input/output imbalance, stating:

Over the four years to 2007-08, the number of hours worked in mining increased by 47 per cent and the volume of capital services consumed increased by 38 per cent, while volume of mine output has risen by only 16 per cent.⁸⁶

3.89 In addition, some mining sectors, particularly coal, mining and oil, have experienced depleted in-situ mineral deposits and so have invested in further capital in-situ to extract diminishing reserves and/or invested in exploration at new sites for future reserves (corresponding with a long lead time to output extraction).⁸⁷

3.90 The PC note in their submission that improvements in the terms of trade can lead to a 'decline in productivity if resources are reallocated to more profitable but less productive industries'.⁸⁸ This observation was echoed by an Assistant Governor of the RBA in February 2010:

...the recorded productivity growth in the mining sector is quite low at the moment, but the value added is quite high because the prices the miners are getting are high. So we are getting, on the face of it, quite low productivity growth out of the mining sector but the actual value added, or the income we are getting as a society, is quite high.⁸⁹

85 The Treasury, *Understanding Productivity Trends*, Economic Roundup, Summer 2006, p. 10.

86 ACCI, *Submission no. 7*, p. 14.

87 PC, *Submission no. 20*, p.ix.

88 PC, *Submission no. 20*, Figure 1.2, p. 5.

89 Dr P Lowe, RBA, House of Representatives Standing Committee on Economics, *Transcript*, 19 February 2010, pp. 33-34.

3.91 The PC emphasised that this was a rational adjustment for a profit-maximising industry and one which the Australian economy has enjoyed higher per capita incomes:

This adjustment neatly underscores that businesses need to pursue opportunities to maximise profits, not target productivity as an end in itself. The national corollary of that is apparent in strong Australian real per capita income growth in 2000s up to the onset of the global financial crisis, notwithstanding the sharp productivity growth slowdown.⁹⁰

3.92 The Treasury notes that the growth in inputs has not been fully reflected in increased output but that, 'In part, this is likely to reflect lags between the time when investments are made and when the capital comes on stream'.⁹¹ From historical experience these lags take around five years for the increase in output to be realised.⁹²

3.93 It appears, however that the lag effect could be longer this time, more medium-term than short-term. This is due to the projected ongoing investment in the sector at very high rates. The ABS's private new capital expenditure⁹³ survey found that the first estimate for expenditure in 2010-11 is up 15.3 per cent from the first estimate for 2009-10 with mining the main contributor for the rise.⁹⁴ Thus, even though investment is now at historically high levels it is set to increase even more.⁹⁵ The forecast growth in mining capital investment over the next two years is expected to be significant which means output growth has to catch the last five years of investment growth as well as the projected growth, before productivity growth rates pick-up in the mining sector.

3.94 Australia's agricultural sector has also detracted from aggregate productivity growth this decade at an average rate of 1 per cent per annum.⁹⁶ This has largely been a result of two very bad drought years in 2002-2003 and 2006-07, coupled with higher than average temperatures

90 PC, *Submission no. 20*, p. 38.

91 The Treasury, *Submission no. 10*, p. 5.

92 The Treasury, *Submission no. 10*, p. 5.

93 New capital expenditure refers to the acquisition of new tangible assets either on own account or under a finance lease and includes major improvements, alterations and additions.

94 ABS, *Private New Capital Expenditure and Expected Expenditure*, Australia, December 2009, Cat. no. 5625.0, February 2010, p. 6.

95 This level of investment would account for 48.4 per cent of total private capital expenditure.

96 The Treasury, *Submission no. 10*, p. 6.

and lower than average rainfall experienced in many Australian agricultural regions.⁹⁷

- 3.95 Additionally, positive influences in the 1990s which lead to strong productivity growth either did not continue in the 2000s or did not have the same level of impact. For example, the 1990s enjoyed the returns from earlier microeconomic reforms, good weather conditions, rapid advances in technology and new crop varieties.⁹⁸ ABARE notes that other factors have had an impact but that the contribution to productivity slow-down is still unclear and remains a focus of their current research. They note:

While drought has played a role in the productivity slowdown in Australia, other factors such as broader environmental and resource quality issues, population ageing and labour and skill shortages may have affected performance in the agriculture industry. Declining research investment, a trend observed in many developed economies (Pardey, Alston and Beintema 2006), is one key factor which may have contributed.⁹⁹

- 3.96 Agriculture's story contrasts with that of mining – it contributes around a third of mining's contribution to GDP¹⁰⁰ but has historically had strong productivity growth, averaging around 17.5 per cent of market sector productivity growth since 1974-75. Productivity growth has accounted for the entire increase in output in the sector over the last thirty years.¹⁰¹ Therefore ongoing productivity growth is vital for the future of the agriculture sector.
- 3.97 Structural adjustment within the industry has seen long-term productivity gains. For example, during the 1990s, following reductions in wool prices, farmers left the sheep industry in favour of cropping. As a result the farms that remained were more efficient.¹⁰²
- 3.98 Looking forward, ABARE states that climate change poses the greatest threat to not only agricultural, but national productivity growth if firms are unable to make adaptations in their production processes. They assert:

97 ABARE, *Submission no. 23*, p. 9 and p. 14.

98 ABARE, *Submission no. 23*, pp. 8-9.

99 ABARE, *Submission no. 23*, p. 9.

100 Industry gross value add 2008-09: Agriculture, forestry and fishing \$29 551 million; Mining \$89 482 million. ABS, *Australian System of National Accounts*, Cat. no. 5204.0, 2008-09, p. 28.

101 ABARE, *Submission no. 23*, p. 10.

102 ABARE, *Submission no. 23*, p. 11.

A similar situation exists in cases where firms face resource depletion, declining land quality, reduced water availability and other environmental pressures. Productivity growth will depend on the ability of firms to innovate in response to these new and growing environmental pressures.¹⁰³

3.99 ABARE also believes the agricultural sector is likely to be hampered in the long-term by underinvestment in research and development and current drought policy which provides a disincentive for structural adjustment.¹⁰⁴

3.100 The other industry presented as being a main player in Australia's productivity growth decline is the utilities sector – electricity, gas and water (EGW).¹⁰⁵ ACCI's submission highlighted that average annual MFP in this sector has fallen 4.2 per cent per year since 2003-04, 'subtracting 0.1 percentage points per year from market sector MFP growth'.¹⁰⁶ This is equivalent to around 0.7 percentage points this decade within the market sector.

3.101 The Treasury states that 'the significant declines in this sector are unclear'¹⁰⁷ and yet the PC specifies 'large increases in capital and labour inputs, together with significantly reduced output growth'.¹⁰⁸ The Chairman of the PC explained:

Reduced rainfall has necessitated the introduction of demand management initiatives to reduce urban water consumption, along with new capital investments for recycling and desalination. Rural water consumption is also significantly down and major conservation initiatives are underway.¹⁰⁹

3.102 ACCI and Master Builders Australia Ltd pointed out the divergence in the market sector MFP between the three sectors with lagging productivity and the rest of the market sector. This can be seen pictorially in Table 3.1, which shows positive, although subdued growth, in most other industries. ACCI stated:

103 ABARE, *Submission no. 23*, p. 18.

104 ABARE, *Submission no. 23*, p. 19.

105 The industry category under ANSZIC 2006 is now Electricity, gas, water and waste services.

106 ACCI, *Submission no. 7*, p. 14.

107 The Treasury, *Submission no. 10*, p. 6.

108 PC, *Submission no. 20*, p. x.

109 Mr G Banks, PC, *Transcript*, 23 October 2010, p. 3.

It is evident that MFP for market sector excluding these three industries has continued to grow since 2003-04, albeit at a much slower pace as compared to previous cycles.¹¹⁰

Table 3.1 Recent growth in multifactor productivity by industry classification

	2007-08		Four years to 2007-08	
	Growth %	Contribution % points	Growth % per year	Contribution % points
Agriculture, forestry and fishing	7.6	0.3	-1.4	0.0
Mining	-7.9	-1.0	-4.8	-0.4
Manufacturing	-0.2	-0.1	-0.8	-0.2
Electricity, gas and water	-5.8	-0.2	-4.2	-0.1
Construction	2.1	0.2	1.0	0.1
Wholesale trade	3.2	0.2	0.3	0.0
Retail trade	-0.1	-0.1	0.6	0.0
Accommodation, cafes and restaurants	-3.4	-0.2	-0.2	0.0
Transport and storage	-0.7	0.0	0.8	0.1
Communication services	4.7	0.2	3.0	0.1
Finance and insurance	3.2	0.4	2.2	0.4
Cultural and recreation services	-0.7	0.0	0.2	0.0
Market sector	-0.4		-0.3	

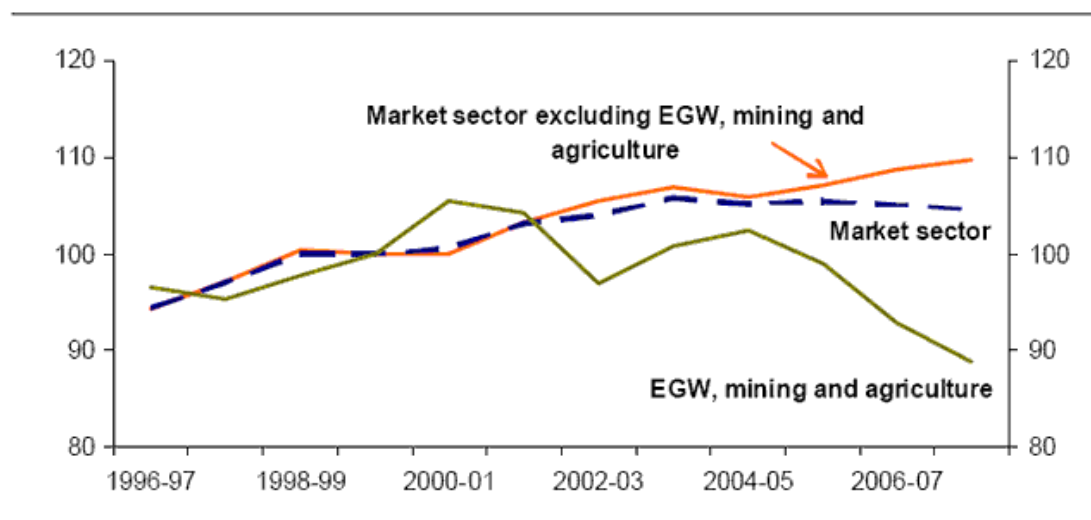
Source *Master Builders Australia Ltd, Submission no. 17, p. 6. Using www.pc.gov.au/research/productivity/estimates-trends, based on ABS, MFP Experimental Estimates, 2007-08.*

3.103 Although the steep decline has been mostly pronounced in three industries, softer growth across the ABS market sector indicates a trend of declining productivity across the economy. This can be seen in Figure 3.2.

110 ACCL, *Submission no. 7*, p. 15.

Figure 3.2 Multifactor productivity in the market sector excluding EGW, mining and agriculture, 1996-97 to 2007-08

Index 1999-2000 = 100



Source PC <<http://www.pc.gov.au/research/productivity/estimates-trends/recent-movements>> viewed 15 March 2009.

Structural change

- 3.104 The last decade has seen a continuation of structural change in the economy. The services sector has continued its long-term trend of growth and the mining sector has expanded its share of inputs in the production process,¹¹¹ thus diverting resources, particularly labour, from other industries.
- 3.105 Reduced productivity growth rates in the mining sector have already been discussed at paragraphs 3.87 – 3.91. This is likely to be a medium-term trend; given estimated investment spending in this industry is due to grow significantly over the next two years.¹¹²
- 3.106 Another underlying reason why productivity growth may have declined is the ongoing dominance of the services sector which now constitutes 72 per cent of gross value add and yet only half of services industries are recognised in the MFP estimates. The Manufacturing Alliance highlights the work of Professor Allan Hughes and Dr Vadim Grinevich of the University of Cambridge, stating:

111 PC, *Submission no. 20*, p. 22.

112 ABS, *Private New Capital Expenditure and Expected Expenditure*, Cat. no. 5265.0, December 2009, p. 9.

...the study shows that services sectors have dominated the acceleration of productivity growth in the Australian economy since 1992.¹¹³

- 3.107 It is worth noting that the work of Hughes and Grinevich revealed that the productivity growth in the services sector was attributable to just three services sectors: Financial intermediation, Wholesale trade, and Other business activities not elsewhere classified. Financial intermediation (the current classification equivalent is Financial and insurance services) remains the highest contributor to MFP growth (refer Table 3.1). Wholesale trade, has, however, slowed since the 2004 data set used in the Hughes-Grinevich study.¹¹⁴
- 3.108 There are a number of impediments to achieving strong productivity growth in an economy increasingly focussed on service provision and these problems will be discussed in more detail in Chapter 5, which discusses the challenges Australia faces to boost productivity growth.

Slowing microeconomic reform

- 3.109 The CLE also concluded, from a study of ICT impacts post 2000, that it was a slowing in microeconomic reform in this period that caused the slump in productivity growth:

The message that emerges is that despite the catch up on ICT over the period post 2000, the slowing of microeconomic reform seems to have led to a slip in Australia's competitiveness.¹¹⁵

- 3.110 This is the argument that microeconomic reforms of the 1980s and 1990s picked the 'low hanging fruit' and so further reforms are more difficult. The Australasian Institute of Mining and Metallurgy note that:

Many commentators would suggest that the beneficial impacts of past microeconomic reforms are beginning to wane – measures such as the float of the currency, dismantling the protective wall of tariffs and quantitative import restrictions, making labour markets more flexible and reducing cost of transport.¹¹⁶

113 Manufacturing Alliance, *Submission no. 14*, p. 5.

114 <http://www.cbr.cam.ac.uk/research/programme1/project1-22.htm>

115 CLE, *Submission no. 6*, p 3.

116 Australasian Institute of Mining and Metallurgy, *Submission no. 13*, p. 5.

- 3.111 Professor John Quiggin believes the key reform areas have been almost completely achieved, with the remaining emphasis now focussing on 'essentially symbolic issues'.¹¹⁷ He states:

I think there certainly was some slackening off in the pace of microeconomic reform after 1998 but if you had accepted the analysis of the Productivity Commission that we really had transformed the economy and were continuing to transform it, I do not think we would have seen the kind of slump in productivity growth that actually shows up in the data.¹¹⁸

- 3.112 Professor Quiggin notes that the microeconomic reform agenda of the 1980s and 1990s has been exhausted and that:

...we need to look in new directions for increased productivity that particularly focus on expanding participation in education and also on new policies designed to take advantage of the information revolution.¹¹⁹

- 3.113 The PC agreed that following the sharp growth decline in the 1998-99 to 2003-04 productivity cycle, we can no longer rely upon previous microeconomic reforms to deliver productivity growth.¹²⁰

- 3.114 ABARE agrees that irrespective of what caused the productivity decline this decade, we need to look to the future to improve productivity growth. Their submission states:

Nevertheless, the slowdown in productivity growth this decade suggests a revived focus on lifting productivity growth is necessary to facilitate a return to positive long-term growth.¹²¹

Committee conclusions

- 3.115 Growth rates have averaged 1.1 per cent per annum across the growth cycles of the last forty years. Australia has also sat at approximately the OECD average since the 1990s.¹²² Given this, and given the enormous positive influences on productivity in the 1990s productivity growth rates averaging above 2 per cent are the exception, not the norm.

117 Professor J Quiggin, *Submission no. 28*, pp. 2-3.

118 Professor J Quiggin, *Transcript*, 19 November 2009, p. 14.

119 Professor J Quiggin, *Transcript*, 19 November 2009, p. 10.

120 PC, *Submission no. 20*, p. 20.

121 ABARE, *Submission no. 23*, p. 8.

122 The Treasury, *Submission no. 10*, p. 6.

- 3.116 An often overlooked fact is that despite the slowing pace of growth Australia now enjoys productivity levels much higher than any achieved during the growth surge.
- 3.117 The committee agrees with the prevailing view that microeconomic reforms and stable macroeconomic foundations contributed to the majority of productivity growth in the 1990s. It is likely that the main microeconomic impacts on this period of growth came from the first wave of reforms introduced in the 1980s, which provided the impetus for businesses to become much more efficient.
- 3.118 The committee considers the surge of the 1990s to have been a result of a mix of factors, not least the growth in global economic activity in the 1980s and 1990s.
- 3.119 The committee does not discount the enormous contribution to the growth surge through Australian businesses rapidly adopting and subsequently expanding the use of, ICT equipment and applications. The committee believes that this knowledge-based growth will also be critical to the future productivity growth story.
- 3.120 The committee notes the statistical limitations of the productivity cycles and of inferring trends in a short cycle, however, the quantum of the 1990s surge weakens the argument that the record growth was a mere statistical oddity. Likewise, other factors, like the recovery from the 1990-1992 recession had impacts on productivity growth but were not the prime source of productivity growth.
- 3.121 The committee accepts the limitations in constructing productivity estimates and accepts there may be distortions created in using different periods of comparison. However, these comparison problems are mitigated when comparing growth rates instead of levels. Even if statistical distortions were to have been a significant issue in the 1990s data it is implausible to have accounted solely for the more than doubling of the growth rate in this period.
- 3.122 Irrespective of what can be attributed to causing the growth, the surge period has left the legacy of reinvigorated microeconomic and macroeconomic frameworks and an economy confident to embrace world-leading ICT technology.
- 3.123 However, Australia now resides in a different economic construct. There has been significant structural change in the economy which is likely to widen over the medium-term. Australia is a global participant in a world where many economies remain under substantial macroeconomic pressures, including the leading world economy, the US.

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- 3.124 The mining sector continues to lead the growth in GDP due to the global dominance of China and its voracity for minerals and ores. Whilst it is pumping out income and leading to high living standards this sector is also leading the decline in productivity growth rates.
- 3.125 Although short-term productivity rates can be very volatile, the slow-down in productivity in the last decade suggests that a revived focus on lifting aggregate productivity growth is important in order to return to positive growth cycles and retain high living standards in the long-term.
- 3.126 What is important now is identifying the future challenges to productivity growth and ensuring the fine-tuning of future frameworks to foster an environment conducive to strong productivity growth.