

Discussion

1. Michael Plumb

The paper by Saul Eslake provides a thorough discussion of issues relating to productivity growth in Australia over the 2000s. Following a brief discussion of why productivity is important, the paper provides evidence of a fairly broad-based slowing in multifactor productivity growth across a range of countries over the 2000s, but argues that this slowing has been more pronounced in Australia. While the relatively weaker productivity growth in Australia can partly be attributed to developments in the mining and utilities sectors (see below), it is argued that the slowing in Australia's productivity growth has nevertheless been broad based across industries. The paper cites a number of reasons for this: the fading impact of reforms in the 1980s and 1990s, such as deregulation of the labour and financial markets; the dearth of productivity-enhancing reforms in the 2000s; reduced emphasis on productivity due to generally prosperous economic conditions; deterioration in productivity growth as the economy moved towards full capacity; increased regulation; and a decline in Australia's relative take-up of new technologies. It is argued that the deterioration in Australia's productivity performance will act as a drag on living standards and place upward pressure on inflation, and a number of policy responses are outlined (see below).

My discussion of the paper covers three issues:

1. Is there a silver lining to the slowing in measured productivity growth since the 1990s?
2. Potential catalysts for higher productivity growth.
3. The consequences for inflation of weak productivity growth.

Is there a silver lining?

While being careful not to downplay the negative implications of weak productivity growth, it is worth asking if there are any positive aspects to the factors associated with the decline in *measured* productivity growth in Australia over the 2000s. I would like to expand upon three areas touched on in the paper: developments in the mining industry; developments in the utilities industry; and the decline in the unemployment rate to a relatively low level.

In the case of the mining industry, sharp increases in commodity prices since the middle of the decade have made it profitable to extract some lower-quality deposits.¹ This has contributed to lower productivity because extracting lower quality-deposits requires more labour and capital to produce relatively little additional physical output. Also, while the significant expansions of mining capacity currently underway should eventually be reflected in rapid growth in mining output and productivity in the medium term, they may be associated with falls in measured productivity in the short term, reflecting disruptions to production associated with expansion

¹ For a discussion of mining industry productivity, see Topp *et al* (2008).

and the lags between the initial investment and the subsequent increase in output. While the profitable extraction of lower-quality deposits and expansion of capacity can be regarded as positive economic developments in the mining industry, they may have contributed to a decline in measured productivity in the mining sector, at least in the short term.

Part of the explanation for the decline in productivity in the utilities sector may also be associated with lumpy investment. In recent years a significant amount of investment and employment growth has occurred in various parts of the utilities industry, following a period of under-investment, in order to maintain existing infrastructure or to improve the reliability of supply systems. Moreover, shifting patterns of consumption, particularly the large run-up in ‘peak’ demand for electricity, has required investment in peak supply capacity and upgrading of distribution infrastructure that produces only relatively little additional output, even though this output does attract high prices.² Although greater reliability of supply is generally beneficial (e.g. the counterfactual could be brownouts during periods of peak demand for electricity), it does not translate into higher utilities output relative to the additional inputs, and therefore may contribute to a decline in measured productivity. Another example is the building of desalination plants in order to improve the reliability of water supply during drought periods.

It is also possible that the trend decline in the unemployment rate to a relatively low level, which has obvious social and economic benefits, may have contributed to slower growth in measured productivity over the 2000s. For example, those workers drawn from the pool of long-term unemployed may have lower productivity on average, at least initially, due to factors such as skill atrophy during their absence from employment. As lower productivity workers enter employment, average measured productivity declines, all else equal. In a broader sense, however, aggregate labour utilisation in the economy has risen, as there has been an increase in the proportion of *available* workers making a contribution to GDP. This latter effect is not captured in measured productivity, which is a technical efficiency measure of output per hour worked, rather than output per *available hours*. The decline in unemployment has occurred alongside a significant increase in the labour force, reflecting both population growth and a rise in the participation rate, suggesting that there has been a substantial reduction in unutilised labour. This is a good economic outcome, although it may have contributed to lower productivity growth at the margin.

Potential catalysts for higher productivity growth

What can be done to improve Australia’s productivity performance? The paper outlines a number of potential policy reforms, including: industry-specific reforms; improving the regulatory environment; taxation reform; skills development; improving infrastructure; and encouraging firm-level innovation. The relative merits of these proposals are discussed in the paper and elsewhere so will not be addressed in these comments, but it is worth emphasising that any proposal needs to be scrutinised in terms of its potential costs and benefits, rather than implementing reform for reform’s sake.

Another question worthy of posing is whether there is likely to be an improvement in Australia’s productivity performance, irrespective of public policy action. For example, one explanation for the moderation in productivity growth in the 2000s is that the long period of economic expansion

² For a discussion of developments in the utilities industry, see Plumb and Davis (2010).

in Australia and the rise in the terms of trade have weakened incentives for governments, firms and workers to pursue productivity-enhancing reforms. That is, strong growth in incomes, profits, employment and government revenue have reduced the incentives to implement changes that improve productivity. Recently, however, economic conditions in various Australian industries have become more challenging – for example, in parts of manufacturing, retail and tourism – and firms in these industries may be compelled to undertake productivity-enhancing changes. An improvement in productivity growth in these industries would provide some support for the ‘reduced incentives in good economic times’ explanation for the slowing in productivity growth in Australia in the 2000s.

Consequences for inflation of weak productivity growth

The paper makes the important point that persistently weak productivity growth generates a greater propensity for inflation. For a given rate of growth in nominal wages, lower labour productivity growth gives rise to faster growth in nominal unit labour costs, defined as the labour costs associated with producing a unit of output. Faster growth in unit labour costs exerts upward pressure on inflation. From the perspective of an inflation-targeting central bank, the link between inflation, wage growth and productivity growth is critical.

Since the mid 2000s, the consumer price index (CPI) has grown at an average annualised rate of around 3 per cent – around ½ percentage point higher than over the first part of the inflation-targeting period (Table 1). To analyse the drivers of this pick-up, the goods and services for which prices are measured in the CPI can be divided into two categories:

- Non-tradable items, whose prices are heavily influenced by domestic factors, such as unit labour costs and margins (although the latter are difficult to measure). Non-tradable items include housing, utilities, education, health, personal services and child care, and comprise around 60 per cent of the CPI by weight.
- Tradable items, whose prices are heavily influenced by world prices and the exchange rate. These items include petrol, motor vehicles, clothing & footwear, traded foods, furniture, household appliances and other consumer durables.

The pick-up in CPI inflation since the mid 2000s has mostly reflected higher non-tradables inflation, which has averaged 3¾ per cent since 2005, compared with 3 per cent over 1993–2004 (note that non-tradables inflation began to rise in the early 2000s). Tradables inflation was also a little higher in the latter period, but has only averaged around 2 per cent since 2005.

The pick-up in non-tradables inflation has at least partly reflected faster growth in nominal unit labour costs, which have grown at an average annualised rate of around 3½ per cent since 2005, double the pace recorded over 1993–2004. Faster average growth in nominal unit labour costs since 2005 (relative to 1993–2004) has been driven by:

- A pick-up in annualised nominal wage growth of around ½ percentage point.
- A decline in annualised labour productivity growth of around 1½ percentage points.

This analysis suggests that relatively weak productivity growth in Australia has contributed to the pick-up in inflation since the mid 2000s, via its impact on nominal unit labour costs. Growth in

Table 1: Consumer Prices, Wages and Productivity
Annualised growth, per cent

	1993–2004 ^(a)	2005–current	Inflation-targeting period
CPI	2.5	3.1	2.7
Non-tradable prices	3.0	3.8	3.3
Tradable prices	1.8	2.1	1.9
Unit labour costs ^(b)	1.7	3.6	2.4
Average earnings	3.9	4.4	4.1
Wage price index	3.4	3.9	3.6
Labour productivity	2.0	0.6	1.5

Notes: (a) Consumer price indices exclude interest and are adjusted for the tax changes of 1999–2000; data begin in March 1993, consistent with the commencement of inflation targeting, except wage price index data which commence in September 1997

(b) Due to measurement issues, unit labour costs growth does not precisely equal the difference between average earnings and productivity growth

Source: ABS

unit labour costs over this period has mostly been above a rate that is consistent with Australia's medium-term inflation target of 2–3 per cent (the exception being the temporary sharp decline in the period following the North Atlantic financial crisis). This has been masked somewhat by the moderate pace of tradables inflation since the early 2000s, primarily reflecting the appreciation of the exchange rate, which has contributed to aggregate inflation outcomes consistent with the target. With the nominal exchange rate already around its post-float high, there is a risk in relying on continued disinflationary pressure from a further appreciation. Also, it is worth emphasising that it is the *change* in the exchange rate, not the level, that matters for inflation, so the disinflationary impetus will wane even if the exchange rate stays around the current high level.

To achieve nominal unit labour cost growth that is consistent with the medium-term inflation target (assuming constant margins), there are two channels:

- Nominal wage growth that is below the pace observed over the several years prior to the North Atlantic financial crisis. This might involve a change in expectations for wage increases, an increase in unemployment, or some combination thereof.
- Faster productivity growth. This would enable slower growth in unit labour costs for a given pace of nominal wage growth.

The second of these channels allows for a greater improvement in living standards in the long run.

References

- Plumb M and K Davis (2010)**, 'Developments in Utilities Prices', *RBA Bulletin*, December, pp 9–17.
- Topp V, L Soames, D Parham and H Bloch (2008)**, 'Productivity in the Mining Industry: Measurement and Interpretation', Productivity Commission Staff Working Paper, December.

2. General Discussion

A number of different issues were raised during the discussion. On the topic of Australia's poor productivity performance over the past decade, one participant suggested that the absence of a recession in the 2000s could be one explanation, since recessions are typically associated with a period of creative destruction, followed by improvements in productivity. This factor, coupled with shortages in the supply of labour and labour hoarding by firms, was thought to be important in explaining the slowdown in multifactor productivity. There was also discussion on the issue of why firms maximising their profit may not necessarily increase productivity. One view was that while firms may not measure productivity explicitly, productivity growth should be an outcome of good business decisions, although a lack of competition may also explain why firms' decisions had not delivered higher productivity. Also on this point, a participant thought that more time should be given to understanding firm behaviour and the implications for productivity. In the past, enterprise bargaining agreements had often referred to improving productivity and one participant questioned whether this was still the case. It was suggested that a study of enterprise agreements could shed light on this topic.

Another participant presented the view that measurement errors in estimating productivity between the 1990s and 2000s had likely reversed in sign but were still important. The participant felt that there was little slowdown in productivity to explain in the latest decade because the surge in productivity during the 1990s existed only in mismeasured data, and was illusory.

Another point raised during the discussion was that measured productivity was not adjusted for risk, and it was not clear to participants that achieving the highest level of productivity in an economy was appropriate if such an outcome can only be brought about through limited regulation and greater risk (developments in the finance industry in United States during the 2000s were seen as a precautionary tale here). A combination of slightly less productivity but also fewer risks was seen as, potentially, a preferable outcome and that the risk/productivity trade-off had perhaps been taken too far in the risk-taking direction. Participants also noted that in the United States relatively high productivity growth had been associated with the majority of the gains accruing to a small fraction of the population, and that higher inequality was not a desirable outcome for society.

The issue of regulation and the impact of government policies on productivity was also a key theme of the discussion. One participant outlined three factors at the firm or enterprise level – incentives, flexibility and capability – as representing a useful framework for thinking about how policy can influence productivity. Another participant suggested that impediments to productivity growth could be the result of the difficulty in getting important productivity-enhancing reforms (e.g. reforms dealing with transportation or the environment) through the Council of Australian Governments process and different regulators of state and national markets.

Finally, one participant raised the question of whether or not the current weakness in productivity was likely to be temporary. It was mentioned that a big increase in mining output was in the pipeline, which could see a boost to productivity going forward (particularly since mining does not employ a large share of the labour force).

