RBS Morgans

Economic Strategy

Problems in Productivity

Political choices may cost productivity.

Two RBA economists, Patrick D'Arcy and Linus Gustafsson have published an analysis of Australian productivity growth (Reserve Bank Bulletin, June Quarter edition 2012). They tell us that growth in productivity is the key driver of growth in per capita income and living standards in the long term. Productivity growth is determined by the development of new technologies and how efficiently labour capital and fixed resources, such as land, are organised in the production process.

Trend productivity growth is an important determinant of the pace at which the economy can grow over the medium term without generating inflationary pressure. During the 1990's and early 2000's, Australia experienced unusually rapid productivity growth. Trend productivity growth then slowed down over the latter part of the 2000's. Weaker productivity outcomes have been especially pronounced in the mining and utilities industries where the level of productivity has actually fallen. There has also been a marked slowdown in trend productivity growth across most other industries.

The authors discuss several measures of productivity. Labour productivity measures output produced per hours worked. Multifactor productivity measures output for a given amount of both labour and capital.

They also discuss capital deepening. Capital deepening occurs as investment in more capital leads the capital-labour ratio to grow over time.

Table 1: Decomposition of Trend Productivity Growth – Annual average percentage change

	1973/74 to 1993/94	1993/94 to 2003/04	2003/04 to 2010/11
Selected market sector industries[(a)]			
Labour productivity	1.8	3.1	1.4
of which:[(b)]			
Capital deepening	1.3	1.3	1.8
Multifactor productivity	0.6	1.8	–0.4
Excluding mining and utilities			
Labour productivity	–	3.1	1.7
of which:[(b)]			
Capital deepening	–	1.3	1.3
Multifactor productivity	–	1.9	0.4

(a) Market sector excluding rental, hiring & real estate services, professional, scientific & technical services, administrative & support services and 'other services' due to difficulties with measuring capital services for these industries
(b) Contributions to labour productivity growth may not sum to totals due to rounding

Source: ABS; RBA

Table 1 above shows us the growth rate of Australian productivity for three time periods. The first is the period from 1973-74 to 1993-94. We can see that labour productivity grew at 1.8% per annum over that 20 year period. Steady capital investment meant that the capital labour ratio increased by an average 1.3% per annum. Total multi-factor productivity grew at an average rate of 0.6% per annum.

The second period is a ten year period from 1993-94 to 2003-04. This was the golden age of productivity. During this time labour productivity grew by 3.1% per annum. Capital deepening proceeded at the same rate of 1.3% per annum. However, total multifactor productivity grew at an average rate of 1.8% per annum.

Analyst
Michael J Knox +61 7 3334 4876
michael.knox@rbsmorgans.com

RBS Morgans Limited
(A.B.N. 49 010 669 726) AFSL235410
A Participant of ASX Group

EC_120711

www.rbsmorgans.com

The third period is the period since 2003-04. During this time, labour productivity has grown at an average rate of 1.4% per annum. Capital deepening has actually accelerated to 1.8% per annum. However multifactor productivity is actually declining at a rate of 0.4% per annum. The problem here is mining and utilities. When we take these two out, labour productivity growth rises to 1.7% per annum, capital deepening slows back to the long term average of 1.3% per annum. However, multifactor productivity rises at a rate of 0.48% per annum.

The deterioration in multifactor productivity growth has been most pronounced in the mining and utilities industries. Both of these industries experienced a large fall in multifactor productivity. In the case of the mining industry, the fall in productivity is partly a natural consequence of the rapid run-up in commodity prices. This has led to the mining of more marginal deposits. The more marginal deposits produce less ore for the same level of inputs. Hence productivity falls when this ore is mined.

Utilities are another matter. There has been additional investment to improve the reliability of supply in the electricity and water industries, which has only made a marginal contribution to additional measured output. One example is recent investment in desalinisation plants. These produce water more expensively than dams. In high rainfall times such as now, they produce no water at all. My view is that the investment in desalinisation plants instead of dams has been for political rather than economic reasons.

Similarly, some of the additional investment in the electricity sector has been associated with the need to meet an increase in peak demand relative to base-load demand. In addition, environmental considerations have required new investments in water recycling and low carbon emission electricity generation. My view is their investments were made for political reasons rather than economic ones. The authors note that these investments decrease measured productivity and increase the unit cost of production.

The General slowdown in productivity growth

The authors say that there has been a broad-based slowdown in multifactor productivity growth that cannot be fully explained by the special circumstances affecting the mining and utilities industries. One possible explanation for the surge and subsequent decline in multifactor productivity growth in Australia, and perhaps other developed economies, over the past two decades is the pattern of adoption of information and communication technologies (ICT).

The widespread adoption of these technologies through the 1990's was largely complete by the early 2000's. This would have been reflected in strong multifactor productivity growth in the 1990's, with the contribution of productivity growth moderating in the 2000's once rates of use had stabilised.

Regulatory reform and economic efficiency

The authors note that the most widely accepted explanation for the acceleration and subsequent deceleration of productivity growth over the past two decades relates to the gradual waning of the impetus to productivity growth initiated by the economic policy reforms of the 1980's and 1990's.

The overall effect of all of these reforms was to increase competitive pressures on firms in product markets such that improvements in productivity became an imperative for economic survival, while at the same time increased flexibility in capital and labour markets ensured that economic resources were allocated more efficiently among competing firms.

I note that many writers have stressed the importance of flexible labour markets in allowing firms to absorb new technology and in turn generate higher productivity growth. The result of the re-regulation of the Australian labour market over the past five years is again an example of political choices which reduce productivity growth.

The authors note that some commentators have argued that there has not only been a lack of further productivity in enhancing regulatory reforms over the past decade, but the introduction of new inefficient regulations may have created a drag on productivity growth.

The authors note that the domestic burden of lower productivity growth is most evident for the utilities sector, where the fall in multifactor productivity has resulted in higher unit costs and higher real consumer prices. The authors also suggest that the result has been stronger non-tradable inflation over the past decade compared to the 1990's. This means that domestic services costs have been increasing at around 4% while overall inflation has averaged 3%.

The authors point out that unless there is a pickup in productivity growth, this will imply slower growth in real incomes in the future.

Conclusion

D'Arcy and Gustafsson show us that Australian productivity growth has been slowing since 2004. Their work, and that of others, suggests that this productivity decline is in part the result of political choices.

The political choice to build desalinisation plants instead of more dams has resulted in a decline in the productivity of water infrastructure. The political choice to re-regulate the labour market has reduced the rate at which new technologies can be absorbed into small and medium enterprises, thereby reducing the productivity growth rate of these firms.

We make political choices all the time. However, if we want high productivity growth we have to make political choices which support it.

Reference:

D'Arcy P and Gustafsson (2012), "Australian Productivity Performance and Real Incomes", RBA Bulletin, June pp 23-25.

www.rbsmorgans.com

QUEENSLAND	
BRISBANE	(07) 3334 4888
BUNDABERG	(07) 4153 1050
CAIRNS	(07) 4222 0555
CALOUNDRA	(07) 5491 5422
CAPALABA	(07) 3245 5466
CHERMSIDE	(07) 3350 9000
EDWARD STREET	(07) 3121 5677
EMERALD	(07) 4988 2777
GLADSTONE	(07) 4972 8000
GOLD COAST	(07) 5581 5777
IPSWICH	(07) 3202 3995
MACKAY	(07) 4957 3033
MILTON	(07) 3114 8600
NOOSA	(07) 5449 9511
REDCLIFFE	(07) 3897 3999
ROCKHAMPTON	(07) 4922 5855
SPRING HILL	(07) 3833 9333
SUNSHINE COAST	(07) 5479 2757
TOOWOOMBA	(07) 4639 1277
TOWNSVILLE	(07) 4725 5787
YEPPOON	(07) 4939 3021
NEW SOUTH WALES	
SYDNEY	(02) 8215 5055
ARMIDALE	(02) 6770 3300
BALLINA	(02) 6686 4144
BALMAIN	(02) 8755 3333
CHATSWOOD	(02) 8116 1700
COFFS HARBOUR	(02) 6651 5700
GOSFORD	(02) 4325 0884
HURSTVILLE	(02) 9570 5755
MERIMBULA	(02) 6495 2869
NEUTRAL BAY	(02) 8969 7500
NEWCASTLE	(02) 4926 4044
NEWPORT	(02) 9998 4200
ORANGE	(02) 5310 2111
PARRAMATTA	(02) 9615 4500
PORT MACQUARIE	(02) 6583 1735
SCONE	(02) 6544 3144
SYDNEY – LEVEL 9	(02) 8215 5000
SYDNEY – LEVEL 33	(02) 8216 5111
SYDNEY – MACQUARIE STREET	(02) 9125 1788
SYDNEY – REYNOLDS EQUITIES	(02) 9373 4452
WOLLONGONG	(02) 4227 3022
ACT	
CANBERRA	(02) 6232 4999
VICTORIA	
MELBOURNE	(03) 9947 4111
BERWICK	(03) 8762 1400
BRIGHTON	(03) 9519 3555
CAMBERWELL	(03) 9813 2945
CARLTON	(03) 9066 3200
FARRER HOUSE	(03) 8644 5488
GEELONG	(03) 5222 5128
RICHMOND	(03) 9916 4000
SOUTH YARRA	(03) 9098 8511
TRARALGON	(03) 5176 6055
WARRNAMBOOL	(03) 5559 1500
WESTERN AUSTRALIA	
PERTH	(08) 6462 1999
SOUTH AUSTRALIA	
ADELAIDE	(08) 8464 5000
NORWOOD	(08) 8461 2800
NORTHERN TERRITORY	
DARWIN	(08) 8981 9555
TASMANIA	
HOBART	(03) 6236 9000