

Thank you very much.

On behalf of Access Economics, I'd like to take the opportunity to say how pleased we are to be involved in this exercise and, in a small way, support the efforts to lift Australia's economic performance.

Australia's successes over the past 25 years have resulted from, firstly, government providing a supportive and competitive framework and, secondly, the private sector taking advantage of the competitive environment to introduce new ideas, new technologies and new ways of doing business as it responds to more demanding customers. IBM's "Smarter Planet" initiative is entirely in keeping with the spirit of those past successes.

Unfortunately, as Glen has said, Australia's productivity performance has slipped in recent years. According to the Productivity Commission, the success in lifting performance in the 1990s saw Australia's productivity reach almost 90% of levels achieved in the United States. By 2007, that figure had fallen back to 80%.

The deterioration in productivity has been especially pronounced in the mining sector over recent years as the sector has struggled to keep pace with surging demand on world markets for its production. At least part of the problem has been the limitations of infrastructure – especially our ports – and the coordination of product through transport links. Both microeconomic reform and better use of technologies would help.

The same message applies broadly through the economy.

Currently, the fall out from the global financial crisis is dominating the economic debate. The crisis, however, should not be used as an excuse for inaction as the Deputy Secretary-General at the OECD, Aart de Geus, argued when speaking to an audience at Sydney University in February. He urged us not to waste the crisis.

Instead, he argued, we should use the crisis as an opportunity to drive reforms that may be more difficult to get broad acceptance for in normal times.

This is exactly what we have done in the past. The recession in the early 1980s was followed by the floating of the dollar, the lowering of trade barriers and the opening up of the economy.

Similarly, the early 1990s' recession was followed by reforms to competition policy flowing from the Hilmer Review; entrenching the shift from centralised to enterprise bargaining; introducing competitive markets for employment services; and restructuring the national electricity market. At the same time, pressure to reverse previous reforms to tariffs or to the financial system was resisted and the pro-market economic policy agenda was taken further.

The question that arises is what sorts of initiatives would most effectively lift productivity today? What steps could drive productivity growth over the next decade?

The considerable amount of research that has been conducted in Australia since the mid-1990s into what drives productivity growth sheds some light onto this question. The two main drivers identified in that research are:

- microeconomic reform; and

- investment in technology, especially in information and communications technologies (ICTs).

In particular, the Productivity Commission highlighted how the microeconomic reforms initiated in the 1980s and extended through much of the 1990s transformed the economy, creating an environment that encouraged innovation and flexibility. Its research also identified the important role played by investment in ICTs, especially when analysing productivity improvements at the sectoral level.

Subsequently, some major pieces of research conducted for DCITA (and related areas of government) reached qualitatively similar conclusions, albeit with a greater role for ICTs. For example, a report prepared for NOIE in 2004 estimated that between 65% and 85% on the productivity (MFP) growth in manufacturing between 1984-85 and 2000-01 was accounted for by technological factors.

While there are differences of detail in the various research, a strong, overriding message emerges. That is, combining economic reform and innovation in, and adoption of, new technologies provides the greatest scope to improve productivity throughout the economy.

The advancement witnessed in ICTs over recent decades has influenced economy-wide productivity in three main ways:

- by advances in the technologies which have produced more cost effective solutions to producing a particular ICT;

- by increasing the range of ICT services and reducing their costs, users have directly benefited; and
- most importantly, the advances in ICTs have allowed for improved organisation of capital, skills and labour throughout the economy – that is, by improving the economy's software.

Against this background, the research that Access Economics has conducted summarises the nature of the issues related to reform and technology that are important today for selected sectors of the economy. Five are singled out, namely:

- water;
- energy;
- wholesale and retail trade;
- transport; and
- communications.

Each of these areas have been subject to reforms over the past 20 years although, equally, further reforms are warranted in each. Similarly, each of these areas would benefit from the adoption of improved technology, especially technologies related to the use of information within and between different groups in society.

As the Productivity Commission has argued, the ability to access, share and disseminate knowledge is critical to ongoing productivity growth. In turn, success will be dependent on three features of our economy:

- Incentives – have private agents the motivation to adopt advanced methods of performing the myriad of tasks they face every day?

- Flexibility – to what extent do the regulatory and commercial environments faced by agents constrain their ability to innovate and adapt?
- Capability – is the nation's infrastructure and skills base supportive of innovation?

Let me start with **water**. Australia is the driest continent but we have been slow to develop improved means to use that water better. As Treasury Secretary Ken Henry has observed, the price of water in Australia is roughly half that in Europe. It's perhaps not surprising, then, that our consumption per person is roughly twice that of Europe's.

Possible responses include using price signals to ration water usage more effectively and introducing trade between urban and rural markets. In addition, technology can contribute in significant ways. Better metering would allow the user to be more aware of the marginal cost of use. Sensors are already used in some of our irrigation areas to regulate the flow of water according to the state of the soil, but these could be much more widely applied.

Turning to **transport**, despite moves to reform many parts of the sector, bottlenecks and other inefficiencies in our transport system remain high on all lists of areas warranting action. Earlier I mentioned the widely recognised problems that hindered exports from some of our main ports.

The inefficiencies in urban transport amount to an even larger drain on economic performance. But the combination of capital expenditure, further reform involving a greater use of market signals and improvements in the software of the systems has the potential to yield substantial gains.

Take urban roads, for example. Pricing and intelligent systems are already used to an extent to influence traffic flows, but there is an opportunity to take this much further. Toll roads in Sydney, for example, do not operate as a fully integrated network although with the additions to the network over recent years (eg the M7), it is easy to envisage how they could.

And even if the toll roads were operated in such a coordinated fashion, their integration through pricing and/or the setting of lights with both arterial roads and the various CBDs within the metropolitan area would be needed to achieve the most out of the system.

The most significant issue in terms of **communications** on the policy table today is the rollout of high speed broadband. In recent years, Australia has failed to develop an effective regulatory regime to encourage investment in the core infrastructure for the system.

Of course, considerable investments have been undertaken in parts of the system – for example, in densely populated parts of our cities or in mobile technologies – but the benefits from a high-speed broadband that is enjoyed by a large majority of the community remains some way off.

Moreover, and at least as importantly, it is critical that the regulatory regime provides clear access to those businesses that wish to provide downstream applications and services in a dynamic and competitive atmosphere. For it will be in the provision of such services that the greatest benefits for the economy will accrue.

High speed broadband is a classic case of where getting both the regulatory and technology decisions right will yield the greatest gains. As the OECD has said, “It is not

the speed of communication that makes the difference, but also its use to re-organise work, so that tasks can be performed more efficiently”.

Finally, let me comment on **energy**. Our energy markets have been radically changed over the past fifteen years with, for example, the privatisation or corporatisation of most electricity assets, and the introduction of the national electricity market and gas market. In fact, the more efficient use of these assets has been an important element of the lift in productivity in the 1990s.

But more could be done. In 2005, the Productivity Commission put out a major report on the path to improving energy efficiency. Again, the agenda would involve a combination of policy reform and better use of technology.

At present, contract prices and investment decisions are based around the wholesale spot price of electricity. However, these price signals are not always accurate because feedback from the wholesale market to the retail market is muted and regional markets are not perfectly integrated. The setting of retail prices varies across states, but can involve price caps and averaging across wide areas.

As a result, the price signals to households do not change in periods of peak demand. Without this information, consumers cannot make efficient purchasing decisions. Smart meters, for example, would allow them to do so.

In concluding, I should stress that an agenda involving a new round of reform and encouragement of new, smart technologies will be challenging. Unlike some of the past reforms, their implementation can be complex and time-consuming.

For example, the past decisions to reduce tariffs – while politically difficult – were straightforward to implement. Getting the details within the national electricity market right have been more complex involving, inter alia, balancing the incentives faced for investing in generation – at different locations – with transmission.

Similarly, the regulatory regime that should be developed for broadband entails many fine judgements – and those judgements will affect investment decisions throughout the (upstream and downstream) markets for broadband services.

But as with any challenging agenda, the earlier we start, the better. So as I said earlier, let's not waste the crisis but instead use it to reinvigorate productivity growth.