## Commentary on Global Development in the Twenty-first Century'

The Danish physicist Neils Bohr wryly observed: 'Prediction is very difficult especially if it's about the future.' In that sense, Professor Garnaut set himself a very challenging task. However, reflecting the depth of his scholarship, he has not fallen into the trap of prediction. Rather, he has offered nuanced projections; the difference is more than semantic.

In his speech to the Republican State Convention in Springfield, Illinois in June 1858, Abraham Lincoln started by observing: 'If we could first know *where* we are, and *whither* we are tending, we could then better judge *what* to do, and *how* to do it.' Garnaut's reflections on global economic prospects in the rest of the 21st century are very much in the spirit of this observation. The starting point is an understanding of where we are now, and Garnaut has drawn on his wealth of knowledge and experience to establish that starting point. From there he leads us to 'whither we are tending'. This requires an understanding of how economic, social and political forces will shape the way societies develop, and, critically, how they interact. For this we need to appreciate 'how the world works'. And Garnaut offers much insight into the economic and political dimensions of global development. But then comes the really hard part: judging what to do and how to do it. What role will national and international policies play? What should those policies be? To what extent will they even matter for the long-term outcomes? Here Garnaut recognises the limits of our understanding and is suitably cautious.

That productivity gains, complemented by expanded world trade and capital flows, have been important for underpinning the growth in living standards for much of the world is undisputed. In recent decades, two key forces have principally driven the rate of economic growth: a rapidly growing labour supply and higher productivity. Increasingly, however, we have evidence

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that the rate of improvement in productivity has been slowing down. And that slowing is not solely a phenomenon of very recent times, but rather one that has been underway since the 1950s; although here Garnaut rightly acknowledges that measurement issues still potentially cloud the true picture of productivity change.

Significant impulses to long-term economic growth have come in the past from so-called general purpose technologies (Lispey, Carlaw and Bekar, 2005). The standard examples are the steam engine, railroads, the internal combustion engine, steel and electricity. These technologies typically lead to fundamental changes in the way societies operate.

More recently, we would surely have to add information technology (ICT) to our list. It is now easier to complete a retail purchase from 10,000km away than it is to drive 5km on a congested road and then search for parking. Brokerage services, accounting, banking and insurance can all be effected online from just about anywhere on the planet at a fraction of the real cost of engaging in physical contact with providers. Every aspect of modern life in both the home and commercial worlds is centred on the use of this technology, the real cost of which continues to fall. And there is good evidence that the adoption of ICT has been widespread, and notably so in the poorer regions of the underdeveloped world. With a smartphone a Masai herdsman can have an eye test and order prescription spectacles, conduct banking, call for emergency medical aid, contact family, obtain market prices, receive warnings of natural hazards - in short, be as globally connected as a bond trader in Frankfurt.

We might, therefore, reasonably expect that the transfer of technology to less developed areas will be increasingly facilitated. resulting in gains in productivity and leading inexorably towards convergence with wealthy nations - 'the only stable end-point' of modern economic growth, as Garnaut argues. But, despite the technological advances, we are left with the conundrum so aptly captured by Robert Solow's 1987 quip: 'You can see the computer age everywhere but in the productivity statistics.'

Garnaut creates the sense that the global economy will follow somewhat evenly along the paths he suggests in each of the three blocks of countries he identifies. However, it is highly likely that the future course will be punctuated with shocks; we know from the past that this has always been the case and it would be challenging to mount a credible argument that such shocks will diminish in future.

We can distinguish two types of shocks: natural disasters, and political perturbations whose origins lie in the very process of economic growth. For natural disasters we can invest in preparedness, avoid policies that favour locating in risky zones, and improve the systems of rapid deployment of emergency relief. The

But it is not only in Africa and the Middle East that tensions can disrupt the path of economic growth. Garnaut logically gives centre stage to China in his analysis of world economic growth. Of its growing importance there can be no doubt. Depending on which estimates you prefer, China is already the world's largest economy, with some 17% of global GDP; its economy is about three times the size of Japan's and four times the size of Germany's. Of course, this is not a new state of the world. In 1700 China and India each generated about 25% of global GDP; in 1820 China alone accounted for 33%.

A large share of the total growth in world GDP recently has been due to

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second type represents a greater challenge, and typically has wider ramifications than the more localised impact of natural disasters. Garnaut acknowledges the challenges for economic growth in the Pacific, where failed states have become the rule. While economic growth has picked up in parts of sub-Saharan Africa, the record is spotty at best, and the political instability that characterises the Ivory Coast, Nigeria, Sudan and the Congo is not an encouraging backdrop for sustained growth. But more worrying still is the instability in the Middle East, across North Africa and through Syria, Iraq and Afghanistan. Today, real per capita GDP in Iraq is lower than it was in 1950. The prospects for return to any serious rate of sustainable economic growth across the region would seem remote.

China. One view is that sustained high growth in China (and India) will, via trade and commodity prices, have positive spillovers and pull the rest of the world along. However, there may be grounds for some scepticism about whether China will converge with the income levels of the rich nations, especially by the 2020s as Garnaut suggests. A recent paper (Pritchett and Summers, 2014) argues that the recent periods of high economic growth in China are to some extent an aberration. By analysing the data on economic growth across a large sample of countries, the authors find a strong reversion to mean, and a tendency among the more rapidly growing economies to experience sharp discontinuities. They build a strong case that a) forecasts for continued high rates of growth in China are overly optimistic, and b) China will

inevitably have those discontinuities, the probability of which is heightened by the presence of an autocratic political structure. The authors conclude:

It is impossible to argue that either China or India have the kinds of 'quality institutions' that have been associated with the steady dynamic of growth in the currently high productivity countries. The risks of 'sudden stops' are much higher with weak institutions and organizations for policy implementation. China and India have very different modalities of this risk, but both have tricky paths to continued prosperity. (Pritchett and Summers, 2014, p.58) If China were to succeed in sustaining its model of governing for, rather than by, the people, it would surely become a significant outlier from the association of democracy and economic well-being.

We simply do not know how the interaction of the economic and political forces will play out in China, but I would argue that it is unlikely to be resolved without some ructions along the way. And given its size, those perturbations, however minor, will inevitably send waves, varying from ripples to tsunamis, to the wider world economy. We have already seen the consequences of boom and bust arising from changes in the level and pattern of import demand in China. Australia is feeling a chill wind as

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Will China's growing domination in world trade lead to calls for greater protection in importing countries? China now produces more steel than the rest of the world combined, and anti-dumping investigations or cries for protection are already underway in the United States, the European Union, India, Korea and Australia. Such moves have the potential to result in a weakening of free trade and a consequent slowing of growth and misallocation of global resources.

History suggests that rising incomes and greater economic freedom go hand in hand with greater political freedom. Can China continue its unprecedented economic growth (even at more modest rates) and at the same time manage the inevitable tensions that build as a consequence of becoming a wealthier, more powerful and globally connected society? Is the Platonic guardians model a political structure for China that is sustainable in the long term? Some might look to the 'one-party democracy' of Singapore as a model that China might emulate - although comparing a city state to a nation as enormous and diverse as China would seem to stretch credibility.

China's growth strategy moves beyond its energy- and metal- intensive phase, while New Zealand has had its own commodity boom driven in good measure by exports to China. But these bumps and hollows could pale into insignificance alongside the ramifications of a major political 'realignment'. The rest of the world, living with an enormous economic powerhouse, is analogous to Canada cohabiting with the US. When asked by a journalist from the US about that relationship, Prime Minister Trudeau responded: 'Living next to you is in some ways like sleeping with an elephant. No matter how friendly and even-tempered is the beast, if I can call it that, one is affected by every twitch and grunt.'

A fundamental challenge not mentioned by Garnaut is the capacity of the world to feed itself. To date the record has been impressive. In 1961 food for the global population of 3.5bn came from 1.4bn hectares. Fifty years later the population had doubled to 7bn and agricultural land use had risen only to 1.5bn hectares. The growth of agricultural productivity has been truly remarkable, and has had widespread benefits: real agricultural prices fell by some 70% during the 20th century.

With little or no possibility for further expansion in land area, the world will be fed only through sustained growth in agricultural productivity. New developments in production and processing might well contribute to the required growth of productivity. Precision farming, zero tillage, genetic modification, biological control and microbial fertilisers are just some of the innovations that will drive future productivity. However, none of this will happen easily; there are both political and environmental challenges. Deforestation, desertification, agricultural run-offs, falling ground water levels and declining water quality are just some of the potential barriers to sustained agricultural productivity growth.

In summary, Garnaut well recognises the headwinds that global economic growth may encounter: his top three candidates are climate change, lagging growth among the world's poorest, and the capture of the policy-making process by vested interests. To those I would add the capacity to feed ourselves and, above all else, the potential global economic ramifications that might stem from political perturbations in China. The first will require sustained investment in research and development, supported by polices that price resources at marginal social cost and deal with environmental externalities. Avoiding the second will require uncanny political management by the Chinese leadership, supported by robust global institutions. We can only hope that our understanding of China's rise to become the major economic and political force in the world will continue to be enhanced by those such as Professor Garnaut.

## References

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