

Queensland's Economy in the Post-GFC Era

Jon Norling

Norling Consulting Pty Ltd

For many years, Queensland's economic and population growth rates were the envy of the nation. This underpinned strong property development and construction sectors and most QELA members benefited from these boom conditions.

Enter the GFC in 2008 and our paradigm was fundamentally altered. Economic and population growth rates fell, property development waned and the State's revenue base shrunk. This paper seeks to explain what has happened and provide an outlook to our economic future. In order to fully consider some aspects of the State's future economy (namely, coal and gas) it will be necessary to also briefly review some economic aspects of climate change.

With reference to this session's theme, "The Light on the Hill," this paper seeks to examine how bright or dim is that light on the hill.

Recent Economic Conditions

Prior to the Global Financial Crisis (GFC) in mid-2008, Queensland had consistently outperformed the Australian economy. Gross State Product (GSP) had consistently been about 1.5 percentage points (or 40%) above Australia's Gross Domestic Product (GDP). Since the GFC, Queensland's GSP has generally fallen short of Australia's GDP, by in the order of 0.4 percentage points (or 17%). Queensland has performed poorly in financial years 2009, 2010, 2011, 2014 and 2015, whereas it outperformed the nation in only 2012 and 2013.

This section of the paper seeks to explore why this has occurred in an attempt to better understand how our future economic performance may track.

Population – Queensland's population growth has consistently been much higher than Australia's population growth rate. A narrowing of the population growth rate gap in the 1998 to 2001 financial years and again in the 2009 to 2014 financial years has coincided with periods of lower economic growth in Queensland. These periods of reduced population growth in Queensland were caused by lower than average levels of net interstate migration to Queensland.

The first period of low net interstate migration (1997 to 2001 financial years) coincided with an improving Victorian economy that successfully competed against Queensland for interstate migrants (referred to as being caused by the 'Kennett factor' due to the improved Victorian economy being created following tough decisions taken earlier by Premier Kennett). The second period of low net interstate migration (2009 to 2013 financial years) coincided with the GFC. The GFC caused a reduction in the value of superannuation funds, a fall in house prices and uncertainty over job security, all of which led to reduced levels of interstate migration throughout Australia and to Queensland. There was a total loss of appetite for risk and interstate migration is generally viewed as a risky activity.

Employment – in the 16 years to the 2008 financial year, the number of persons employed in Queensland increased by an average of 2.9% per annum, significantly above the population growth rate over the same period. However, during the GFC, employment increased by only 0.6% per annum, significantly below the population growth rate, resulting in Queensland's unemployment rate increasing from 3% to almost 7%, with Queensland and Tasmania sharing the honours as having the highest rate of unemployment.

Components of Growth – Queensland's GSP has been driven by significant growth of the mining, construction, professional and administration and trade sectors, with manufacturing (especially) and agriculture recording a declining contribution to economic growth. A key factor not readily apparent from the data is that much of the recent growth in the construction and professional and administration sectors relates to the mining sector in terms of services to and the construction of pipelines and processing plants.

A particularly promising aspect of our economy is its increasing diversity with significant growth in the professional and administration sectors considered to be a demonstration of a maturing economy with increasing reliance upon services.

During the GFC period, major declines have been recorded in the manufacturing, trade and professional and administration sectors.

Australian Dollar – During the period leading up to the GFC, the Australian dollar's value averaged about US\$0.70, which provided favourable conditions for our exports and the tourism sector. Since the GFC, Australia's economy provided a safe haven for global investments as well as relatively high interest rates, with the Australian dollar exceeding parity for a long period and averaging US\$0.94 since the commencement of the GFC. This has significantly reduced the value of our export earnings and reduced our tourism sector's competitiveness.

Resources – Queensland's resources sector is dominated by coal, which generates almost 75% of the state's production by value. Other significant minerals include Lead (9%), Copper (5%) and Zinc (3%), with the oil and gas sector contributing 5%. However, the mining boom experienced in Queensland during the 2012 and 2013 period was caused by mining exploration rather than increased production levels. Coal exploration activities ramped up in the 2011 financial year before peaking in the 2012 financial year and declining subsequently due to falling coal prices. Gas exploration activities increased significantly from the 2010 financial year and peaked in the 2013 financial year in support of the planned opening of the three LNG plants on Curtis Island at Gladstone.

Construction – Growth in Queensland's construction sector has been driven by the engineering sector rather than the building sector. During the 13 years to 2005 the engineering sector averaged only 36% of the construction industry. In the last three years, this had increased to a massive 71%, with the construction of the LNG plants in Gladstone likely to be key driver of this sector. The residential sector has been subdued since the GFC commenced, although the non-residential sector has taken up some of the slack over this period.

Agriculture – Historically the backbone of Queensland's economy, agriculture now generates less than 3% of GSP. Our major products by production value are beef (34%), fruit and vegetables (21%), sugar cane (11%), grains (10%), cotton (7%) and poultry (7%). Our agricultural sector has been constrained in recent years suffering from a combination of droughts, floods, cyclones, suspension of live cattle exports and the high Australian dollar.

Economic Consequences of Climate Change

Whilst there has been much scientific and political debate about climate change in the media, there has been little rational analysis of how climate change might affect Queensland's important economic sectors or, indeed how it might affect the finances of Queensland households. Key economic references for those willing to take the time to explore these issues include:

1. Stern, Sir Nicholas (2006) *The Stern Review: The Economics of Climate Change*
2. Commonwealth of Australia (2008) *Carbon Pollution Reduction Scheme: Australia's Low Pollution Future – White Paper*
3. Garnaut, Prof Ross (2008) *The Garnaut Climate Change Review: Final Report*
4. Garnaut, Prof Ross (2011) *The Garnaut Climate Change Review Update*

There is broad agreement by these economic sources that the benefits of strong and early action far outweigh the economic costs of doing nothing.

Climate change impacts would vary considerably across continents and countries. Some regions, particularly higher altitude and latitude areas in the northern hemisphere, would actually benefit from a warmer climate in terms of increased food production and lower energy costs.

However, Australia is most vulnerable to climate change impacts. Prof Garnaut determined that Australia would be adversely impacted more than any other developed country. It is already a hot and dry country, with impacts and resultant economic costs described as severe. This would be evident through:

1. Major declines in agricultural production;
2. An increasing reliance upon food imports;
3. Significant cost increases in the provision of urban water;
4. Significant risk to coastal buildings and infrastructure;
5. Reduced international demand for our mining products;
6. Significantly weaker terms of trade; and
7. The effective destruction of the Great Barrier Reef.

The Garnaut Review projects that Queensland would be more adversely affected by climate change in comparison to the rest of Australia. This is due to:

1. Its economic reliance upon the coal, beef, sugar and tourism industries, which are all expected to be significantly adversely impacted by climate change; and
2. Its coastal settlements likely to suffer extreme infrastructure impacts from increased storm surge and localised flooding.

The costs of unmitigated climate change by 2100 have been estimated in Australia by the Garnaut Review at 8% of GDP. This estimate is much higher than the global equivalent figure for the same period by the Stern Review (2.2%), clearly emphasising the particular vulnerability of Australia. The projected impact upon real wages by 2100 of 12% is greater than for GDP due to a combination of a declining economy and rising prices.

Whilst Australia's impacts have been estimated at almost four times that for global impacts, Queensland's impacts have been estimated at twice that for Australia – by 2100, a reduction in GSP of 16% and of real wages of 24%.

Despite Australia generating only 1.2% of the world's greenhouse gas emissions, it has one of the highest per capita greenhouse gas emissions levels in the world and the highest amongst the developed nations (27t CO₂-e, cf 7t CO₂-e).

With the Garnaut Review supporting the principle for the allocation of emissions between countries on a per capita basis, Australia would be required to achieve one of the highest per capita reductions in emissions in the world. This increased level of mitigation by Australia

amplifies its costs of mitigation.

The Garnaut Review modelling estimated that up until about 2060, the costs of mitigation would outweigh the mitigation benefits, resulting in a net reduction in GDP at this date in the order of 5%. However, from about that date, the benefits of mitigation are expected to outweigh mitigation costs such that by about 2100 cumulative mitigation costs would equal cumulative mitigation benefits. From 2100, cumulative benefits would exceed cumulative costs such that by 2200 the net benefits of mitigation to Australia would approximate at least a 20% increase in GDP.

Not surprisingly, the Garnaut Review concluded that Australia could not afford not to adopt a mitigation process.

However, given such a very long lead time before mitigation benefits would be realised (50 years) and the very short political election cycles in this country, it is perhaps not surprising that Australia's commitment to mitigation efforts has become highly politicised.

Australia cannot solve this global problem unilaterally. Given Australia's particular vulnerability to climate change and with it contributing only 1.2% of global emissions (with China's current annual growth in emissions exceeding Australia's emission level), it is in Australia's interest for it to be at the forefront in leading the global mitigation response.

However, following the Cancun Agreements 2010 and the recent USA-China agreement on climate change mitigation, Australia's current commitments now appear to be lagging behind those of the general global response to climate change mitigation. This is not a good position for the developed country most at risk from climate change.

Of particular importance to Queensland is the future of our coal industry, noting that it generates 30% of our exports, yet its use as an energy source is a major generator of greenhouse gases. The future of this industry will depend upon the mitigation decisions made at the global level (90% of our mined coal is exported) and the success or otherwise of carbon capture and storage (CCS) technologies.

The modelling undertaken by the Garnaut Review (2008) found that if CCS technologies can reduce carbon leakage to below 10%, coal usage for global electricity generation would increase significantly above current levels and then drop back to current levels by 2100, resulting in a decimation of coal mining activity during the 2070 to 2100 period. Not surprisingly, the coal industry would be decimated much earlier if CCS technologies fail to deliver at least a 90% reduction in emissions. Alternatively, if CCS technologies can reduce carbon leakage to below 0.1%, then coal would become a very attractive source of global electricity, with its use in the generation of global electricity projected to increase tenfold by 2100. Consequently, this has huge ramifications for Queensland.

The Garnaut Update (2011) noted that whilst CCS technologies had successfully been applied to the oil and gas sectors, recent attempts to apply the technologies to the coal sector had not been successful. The Update noted that governments had committed US\$40b to 25 large-scale CCS demonstration projects globally. Much is now riding on the success of these projects, with the coal industry still hopeful that CCS will deliver. The Update concluded that if CCS cannot prove successful in the coal sector the viability of coal as a long-term energy source would be seriously diminished. This year Canada's SaskPower reported that its Boundary Dam CCS Project has exceeded expectations and is delivering a 90% reduction in CO₂ emissions, although the costs of the Project have not been finalised.

It is also relevant to note that the Garnaut Update also noted that since the Garnaut Review (2008), there had been a large expansion in the world's known gas reserves, which had led to reduced global gas prices. This is likely to lead to an increased role of gas in the global transition from high emission to low emission energy sources.

Future Economic Conditions

From the foregoing analysis, it is contended that the following key factors will dictate the strength of Queensland's economic fortunes. Close attention should be placed upon these factors with their attainment likely to drive strong economic growth:

Short Term (<5 years)

Medium Term (5-10 years)

Long Term (10-20 years)

Continued fall in AU\$

Low AU\$

Low AU\$

Successful LNG production

Continuing investment in gas exploration

Commencement of construction of Adani Carmichael Coal Mine

Commencement of other Galilee and Bowen Basin coal mines

Significant investment in CCS

Further successes reported by CCS demonstration projects

CCS technology proven within budget

Annual population growth >2.0%

Annual population growth >1.8%

Annual population growth >1.5%

Annual employment growth >2.5%

Annual employment growth >2.0%

Annual employment growth >1.8%

End to the drought

Few damaging cyclones

Few damaging cyclones

Creation of new tourism products

Attracting Chinese tourists to Queensland

Attracting more Asian tourists to Queensland

Closure of the car manufacturing industry increases demand for interstate migration

GBR kept off the endangered list

Continued mineral and petroleum exploration

Expansion of North West Queensland Mineral Province

Continued expansion of North West Queensland Mineral Province

Countries meet GHG emission reduction targets

Countries increase GHG emission reduction targets

GHG concentration is kept below 450ppm

Based upon an assessment of the current and projected short term economic factors, it is projected that Queensland's GSP would increase by 5% in 2015/6 (due to the LNG exports coming online) before settling back to range between 3% and 3.5% per annum, which is significantly below the pre-GFC levels.

Conclusion

We should get used to “The Light on the Hill” being a little dimmer and smaller than we have become used to in the pre-GFC period. Whilst it is expected to glow a bit brighter in 2015/6, that level of brightness is expected to be short-lived.

Australia should be at the vanguard of the global climate change response and implement a cap-and-trade emissions reduction scheme.