
ECONOMIC NOTES

AUSTRALIA'S 'TWO-SPEED ECONOMY'

Harry Perlich

The global economy, and particularly the advanced industrial nations, experienced one of the largest downturns in modern history with the onset of the Global Financial Crisis (GFC) in 2008-2009. In contrast, the Australian economy fared relatively well. The author examined the situation in late 2009, writing an article for this journal that discussed 'the dual economy' that emerged in the Australian economy in this period (Perlich, 2009). This showed that the faster growing state economies were focused on mining exports following the GFC, while the slower growing state economies were associated with more traditional key sectors such as manufacturing, finance and tourism. The aftermath of the GFC on the Australian economy is revisited here, with an update analysis to the end of 2012, when the mining boom had significantly flattened.

The analysis undertaken in 2009 focused on the four largest economies of Australia, in terms of GDP and population. This focus is reiterated here. The state economies are Western Australia (WA) and Queensland, characterised as the 'resource' states, while New South Wales (NSW) and Victoria are broadly characterised as the 'non-resource' or 'manufacturing' states. Tasmania and South Australia are significant regional economies too, with the latter having had a relatively strong role in manufacturing, but our focus here is on the big four. Combined, NSW, Victoria, Queensland and WA contain 88 per cent of Australia's population (ABS, 2013a) and produce around 90 per cent of Australia's GDP (ABS, 2013b).

The expression 'two-tier' economy that was used in the 2009 article has been revised to 'two-speed' in this article. Various expressions of this sort may be used to describe the Australian economy over this period. Indeed,

some authors have argued that 'three-speed' is more appropriate (Corden, 2011). The semantics are less relevant, however, than to acknowledge that the Australian economy has experienced a range of primary and secondary impacts subsequent to the GFC. Although 'speed' is not the only criterion of success and failure, the article argues that the mining boom in the post-GFC period has distorted the growth and distribution of wealth in the Australian economy, with contrasting benefits and disadvantages. These uneven benefits and disadvantages have occurred across different states, employment sectors and industries.

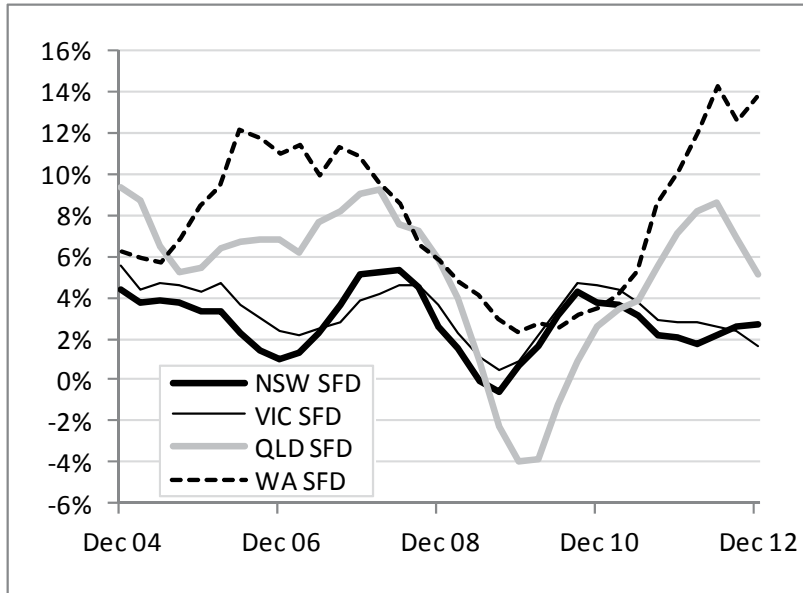
State Economic Performance Indicators

The emergence of Australia's contemporary two-speed economy occurred around the end of 2004. In the period since then, Western Australia has consistently been the strongest of the four large state economies (as shown in Figure 1 on the next page). Average annual growth in State Final Demand (SFD) for WA was very high at 8.2 per cent for the period from March 2005 to December 2012 (ABS, 2013b). Queensland average annual SFD growth was also high at 4.8 per cent. Victoria's average was lower at around 3.0 per cent, while NSW came last at around 2.7 per cent.

In 2007, the collapse of banks and trouble in the financial sectors of key advanced economies brought a cloud of pessimism and contraction in the global economy. At the end of 2007 both of Australia's 'resource states' experienced the start of a sharp downturn in SFD growth. A distinct difference then emerged in 2009 between the performance of WA and Queensland. WA growth revived even as the Queensland economy contracted, to the point of becoming the weakest performing state of the four analysed by the end of 2009. SFD in both NSW and Victoria rebounded during 2010, outperforming Queensland and even briefly WA. This pattern was short-lived, however. The WA economy began to boom again in 2011. Queensland SFD also recovered rapidly, despite facing a disastrous flood in early 2011.

By the end of 2011 the two-speed differential between the 'resource states' and the 'manufacturing states' was firmly re-established. However, WA was clearly the best performing state economy.

**Figure 1: Annual Growth in State Final Demand (original chain volume measure)
Selected States, 2004-2012**



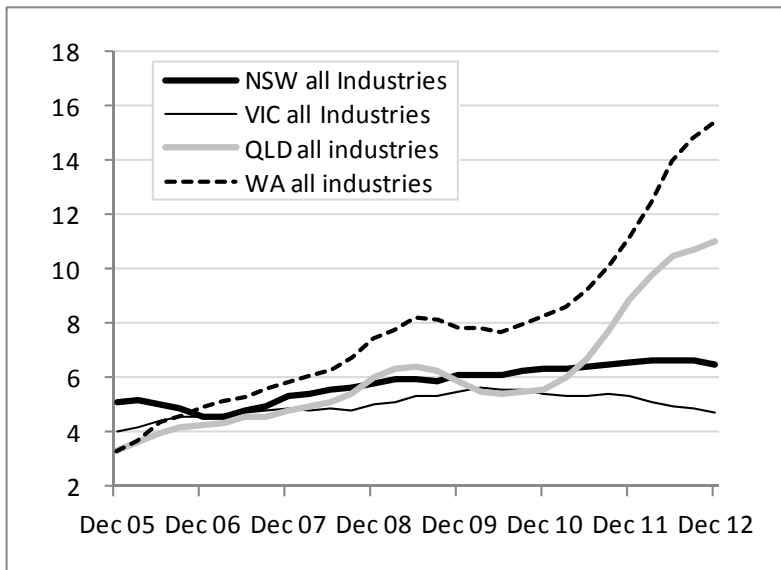
Source: ABS Australian National Accounts 5206.0 (2013)

Notably, for both NSW and Victoria, economic growth was stronger in the eight years prior to 2005 than the subsequent eight years to the end of 2012. For WA the opposite was the case: there was much stronger economic growth after 2005 and it became the standout state for economic performance. For Queensland, the period prior to 2005 netted a slightly stronger SFD result than the more recent period to the end of 2012. The sudden deterioration of the Queensland economy following the GFC meant that its position in the overall Australian economy faltered. However, to the end of 2012 the Queensland economy grew strongly again and its performance exceeded the performance of NSW and Victoria. The rebound of Queensland had an impact on the aggregate performance of the national economy.

Business Investment

Before concentrating on the key subject of investment in the mining boom, it is relevant to dwell on the strength of private investment more generally in each of the states under consideration. Total private new business investment in NSW was still slightly higher than the other states in late 2005 (see Figure 2 below), at around \$5 billion per quarter. By the end of 2006, WA was clearly leading in private business investment and remained in the lead for the next six years to the end of 2012, reaching around \$15 billion per quarter. For both WA and Queensland, total private investment accelerated prior to the GFC, dropped sharply and then re-accelerated, reaching record levels. In contrast, private business investment was relatively weak in NSW and indeed declined in Victoria over the period.

Figure 2: Private New Capital Expenditure, All Industries, (\$billion per quarter, 4 period rolling average), Selected States, 2005-2012



Source: ABS private business investment 5625.0 (2013)

The two-speed character of the Australian economy was strongly influenced by the differential business investment levels in the states. This is evidenced by the contribution of business investment to overall economic growth in the states. In both NSW and Victoria, business investment for the 10 years to the end of 2012 contributed an annual average to growth of only 0.7 per cent. In Queensland the average annual business investment contribution to growth was 1.9 per cent in this period, while in WA it was much larger, at 4.0 per cent (ABS, 2013b).

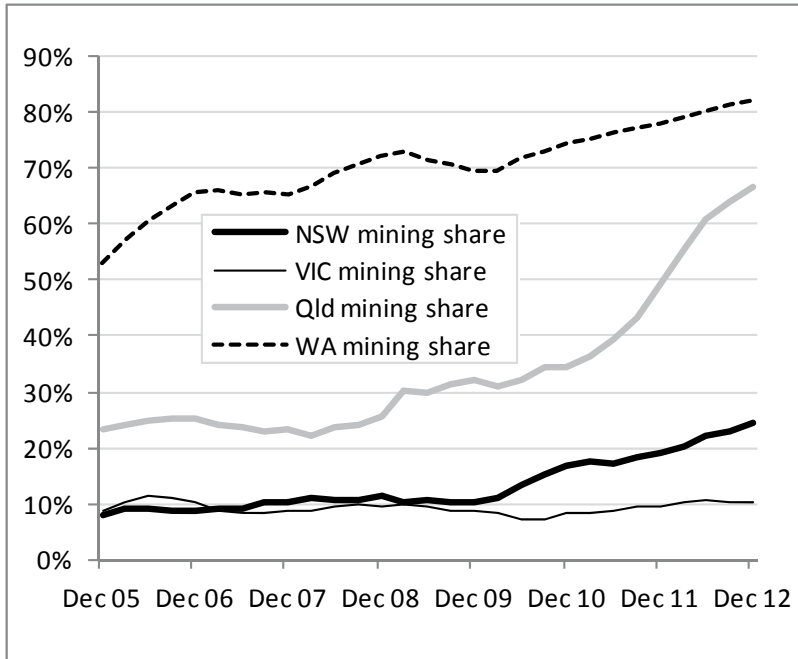
Contribution of the Mining Boom to Investment

The contribution of mining to the Australian economy (concentrated in particular regions) has been extraordinary in the last 10 years. Australia's business investment has been increasingly dominated by mining investment, with a share of almost 60 per cent of total private business investment in 2012 (ABS, 2013e).

WA and Queensland were together hosts to about 85 per cent of this total mining investment, with WA having by far the greatest share. By 2012 WA private business investment in the mining sector reached \$51 billion, or around 80 per cent of the WA total (see Figure 3 opposite). For Queensland, in second place for Australia's mining investment, the share of mining in total private business investment surpassed 60 per cent at the end of 2011, and 70 per cent in 2012.

NSW is generally referred to as a 'non-resource' state in this article but this state also benefitted from the resource export boom and from mining investment – with the major expansion of coal mining in the Hunter Valley being a particular focus. In the 1990s, mining investment in NSW had constituted an average of around 6 per cent of total private business investment. By 2011 it constituted over 20 per cent and this increased to 27 per cent by the end of 2012. The expansion of mining since 2009 was vital to the state's economic performance, because other types of investment (and spending) were weak or declining in the period following the GFC. Meanwhile, Victoria's mining investment remained relatively small and static, reflecting that state's relative lack of suitable resource endowments.

Figure 3: Mining Share of Total Private New Capital Expenditure (Current Prices), 4 period rolling average, Selected States, 2005-2012



Source: ABS private business investment 5625.0 (2013)

Demand Drivers of the Two-Speed Economy

The rapid growth of the Chinese economy and Chinese demand for mineral resources are often assumed to be the source of Australia's recent positive economic performance. Although this is broadly accurate, the demand driver details deserve more scrutiny. For example, both Japan and South Korea had been more significant sources of minerals demand until the recent past (ABS, 2012c). Australian exports to China only surpassed those to Japan in October 2009 (in rolling annualised terms), exports to Japan having previously been in first place for 20 years. Nevertheless, it remains true that Australia's contemporary economic

dynamism has ridden heavily on the development of China. The annual growth of exports to China was around 7.4% in the year to end 2011, reaching \$70 billion annually. Growth of exports to India was even faster, at 13.4%, although India's share was only 18% that of China's.

Australian mining investment destined for minerals export has been dominated by industries such as iron ore extraction. Iron ore represented up to a quarter of total Australian commodity export value in the financial year ending in 2012 (DFAT, 2013). Adding coal, gold and natural gas makes this 52 per cent of Australia's total commodity exports.

In addition to rising demand for Australia's mineral exports by volume, those mineral exports were subject to rising international prices, despite the GFC. As a consequence, the terms of trade for Australia also improved significantly, reaching record levels in mid-2011 (ABS, 2013h). Thus, the Australian economy, and its resource exporting states in particular, benefited from unusually high returns on its mineral production and exports.

Chinese and Indian demand for Australia's mineral exports has been only one aspect of their positive economic impact on Australia in recent years. Certainly, the rapid industrial development of these economies has led to large mining investment in Australia and expanding minerals exports. A second impact is that these economies have surged in their demand for tertiary education. Both NSW and Victoria have had particular strength in the education export sector in the last ten years, and an increasing number of students have come from countries such as China or India. Indeed, for the state of NSW, the value of education exports currently rivals that of coal exports (ABS, 2013c).

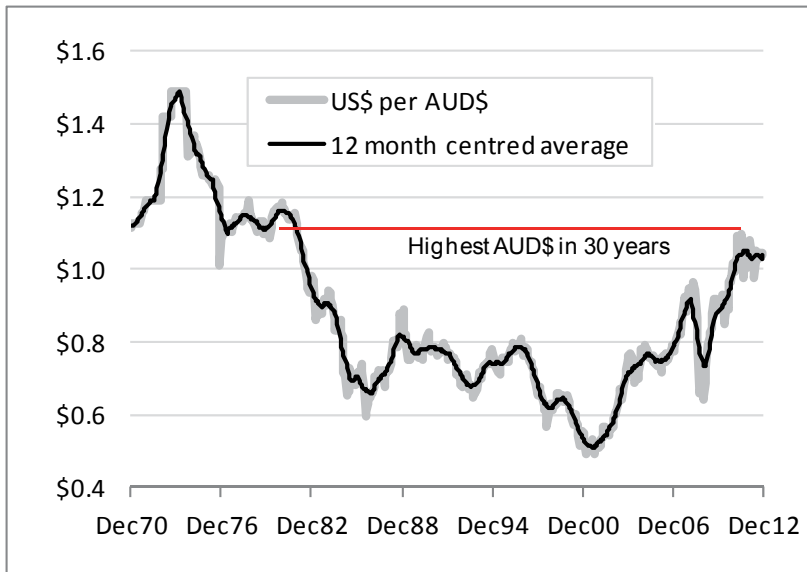
Secondary Repercussions of the Two-Speed Economy

While aggregate figures for economic growth and investment in Australia have been positive during the mining boom, the analysis of individual states presents a significantly more mixed picture. Indeed, the two-speed character of the Australian economy provides a much less positive image than the national average suggests. Furthermore, analysis of the mining boom indicates that the very success of mining exports has had some negative economic impact on the non-resource states.

Initially, a surging international demand for iron ore, coal and gas stimulated investment in Australian locations able to supply these resources. These locations and their industries are concentrated in WA and Queensland.

Strong investment and subsequent ore production and exports led to increased international demand for the Australian currency, which in turn drove up its international value. The Australian dollar went from a low in 2001 to a post-float record high in 2011 (as shown in Figure 4 below), more than doubling in value in this period from US\$0.49 to a peak of US\$1.10.

**Figure 4: Value of the Australian Currency
Against the US Dollar, 1970-2012**



Source: Reserve Bank of Australia, exchange rates (2013a)

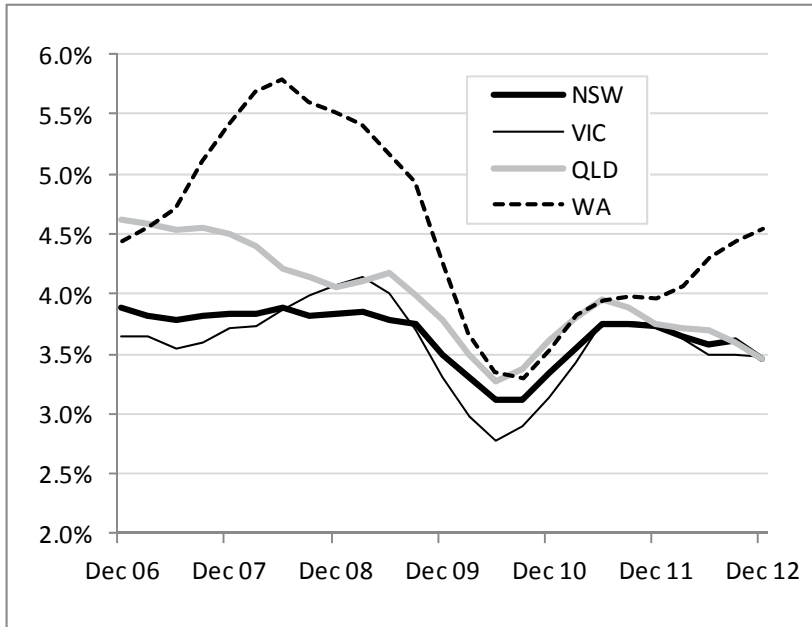
The escalation of the Australian currency was stimulated by the rising value and volume of Australia's mineral exports (strongly influenced by rising international mineral prices). An inverse force therefore affected Australia's exports in non-mining commodities and services. As the value of the Australian currency rose, the overseas cost of purchasing Australian commodities and services also rose and demand for the nation's non-mining exports therefore softened (though not in industries that benefited from aggregate expanding demand from newly affluent consumers from China and India, such as the education industry).

The cost of manufactured foreign imports dropped as Australia's international purchasing power increased. So the demand for (manufactured) imports also increased. This phenomenon had been previously evident in the Australian economy during the resources boom that occurred in the 1970s (Gregory, 2011). The Dutch economy had experienced a similar trend following the exploitation of gas resources in the 1960s, giving rise to the term "Dutch disease" (Corden, 2011).

The tendency for Australian-produced manufactures and services to become relatively 'expensive' has been influenced by a number of factors with uneven geographical impacts. The high demand for labour in the mining industry has generated labour shortages and rising wages in that industry. As additional labour has been drawn from other industries and regions (and countries) the tightening of labour supply in those industries and regions contributed to the rise of wages more widely and therefore raised the general costs of production.

Labour cost inflation had been particularly evident in WA and in Queensland prior to the GFC (see Figure 5 opposite). The rising cost of labour in WA was tempered for a time during the GFC downturn, but upward pressure then re-emerged (ACCI-Westpac, 2011). The return of significant wage inflation in WA in 2012 highlights the continuing strong influence of the mining boom on that state's economy. In the other states, the trend for wage growth was subdued in the period. Since the Queensland economy's sharp downturn after the GFC, it has had a low rate of wage inflation, similar in this respect to the experience of NSW and Victoria.

Figure 5: Labour Cost (annual percentage change of Index), Selected States, 2006-2012



Source: ABS Labour price index 6345.0 (2013)

Challenges to Non-Mining Employment

The period of the mining boom and the high Australian dollar coincided with weakness in several employment sectors, most notably manufacturing. Although manufacturing has been in long term decline in Australia, measured in terms of its employment share, the last several years have seen greater pressure on manufacturing due to the high cost of Australian labour, which affects both export and import competitiveness. Total manufacturing employment fell in NSW by 15 per cent in the 10 years to November 2012, even as mining employment increased by 178 per cent over that period (ABS, 2013i). In WA mining employment more than doubled in the period, while even manufacturing employment

expanded a little, by 5 per cent, impacted by strong population growth and mining industry demand in that state.

Notably, the car manufacturing industry in Australia has been weak, with several of the major manufacturers announcing employment reductions or closures. This included the announcement by Toyota of layoffs at the Altona plant in Victoria in April 2012 (Snow, 2012) and the announcement by Ford Motors in May 2013 of an impending end to production (Janda, 2013).

The ambiguity of the mining impact on non-mining employment was reinforced by an economic impact assessment made specifically for one mining project, the Waratah Coal 'China First' mine in Galilee, Queensland, which is anticipated to be one of the largest coalmines in the world. The impact assessment indicated that for every two jobs created in the mining sector the equivalent of one job is likely to be lost. The report noted that "Overall manufacturing output is estimated to decline in Queensland relative to what would be achieved if the project does not proceed" (AEC Group, 2010: xiii). The expected decline in manufacturing employment would be for a variety of reasons, including those mentioned earlier relating to a higher exchange rate and less competitive manufacturing and tourism sectors. The report also pointed out negative impacts close to the mine, such as the acquisition of agricultural land, disruption of farming activity, higher housing costs and rising wages crippling some established local industries.

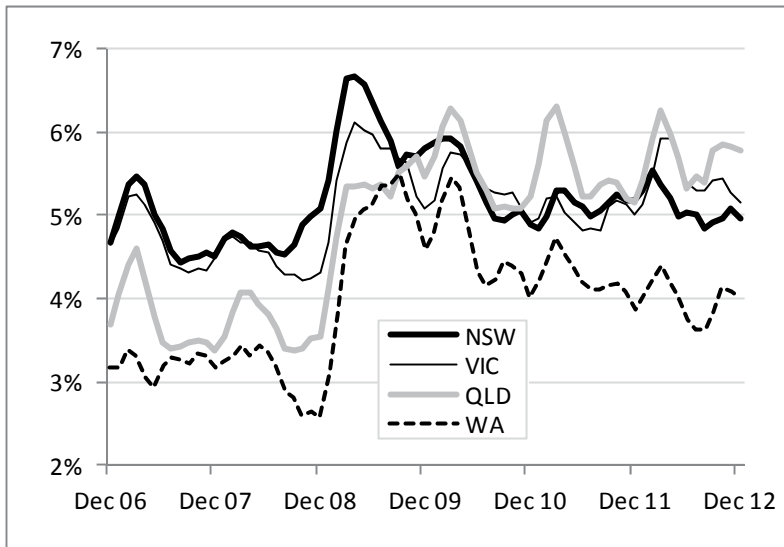
Unemployment Rate Differentials Between States

The strength of mining and the subsequent weakness of several other sectors had its repercussions in the rate of unemployment in the states analysed. The unemployment rate in Australia during the onset of the GFC remained moderate by international advanced country standards, being at 5.2 per cent in December 2011 (ABS, 2012g), and compared favourably with many other developed economies after the GFC (Worldbank, 2012). However, as with other economic indicators, the aggregate Australian unemployment figure has masked the two-speed divergence.

Prior to the GFC, the 'resource states' experienced far lower unemployment than the 'manufacturing states'. WA briefly experienced unemployment below three per cent in 2008, the lowest ever recorded in

the state (ABS, 2013g). Queensland unemployment also remained below four per cent for most of 2006 to 2008. The GFC caused unemployment to suddenly rise in all states (as shown in Figure 6). WA unemployment improved substantially after the shock, due to renewed mining investment stimulus. However, Queensland unemployment remained at an elevated level, on par with NSW and Victoria, for the period to the end of 2012. Notably, the Queensland economy is rather more diversified than that of WA, with a stronger presence of non-resource industries.

Figure 6: Unemployment Rate (12 month rolling average), Selected States, 2006-2012



Source: ABS labour force, Australia 6202.0 (2013)

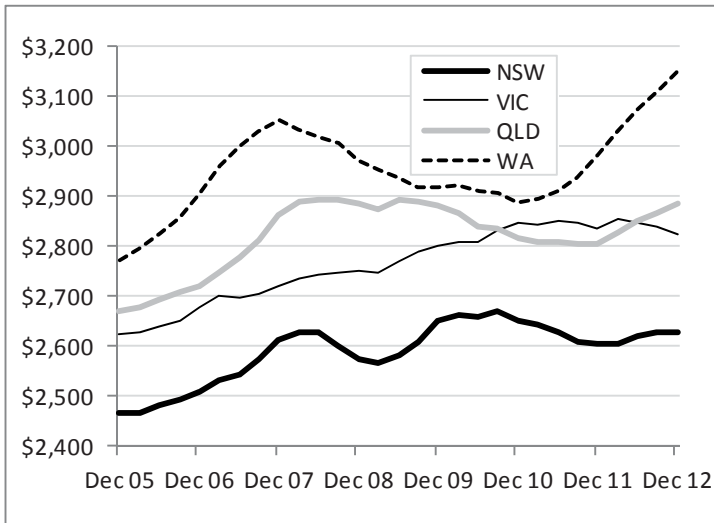
In the eastern states, unemployment statistics also masked a shift to part-time employment and lower participation in the workforce. For example, in NSW (with one-third of Australia's population), full time employment shrank from February 2009 to March 2010. Only part time employment grew at a sufficient rate to make total employment growth positive from the second half of 2009. In addition, the NSW workforce participation

rate had softened from a state peak of 64.3 per cent in April 2008 to 63.4 in December 2012, an indication of increased hidden unemployment and economic vulnerability.

Retail Activity and the Two-Speed Economy

The analysis of retail activity, including spending and consumer sentiment, gives a further insight into the impact of the two-speed economy on the populations in each state. In WA, both retail turnover and turnover growth *per capita* were much higher than for the other three states analysed from 2005 to 2012 (ABS, 2012d), a product of WA's rising wages and falling unemployment. The other states mostly experienced stagnant or declining turnover from the onset of the GFC (as shown in Figure 7). NSW retail turnover *per capita*, in real terms, was the same at the end of 2012 as five years before. Queensland retail turnover *per capita* had softened in real terms until the end of 2011. In Victoria, turnover per head was flat for the two years to the end of 2012.

Figure 7: Retail Turnover, \$ per capita per month (12 monthly rolling average), Selected States, 2005-2012



Source: adapted from ABS Retail trade, Australia 8501.0 (2012)

There was a peculiar contradiction of economic perceptions in the Australian population during the period examined. In the media there was acknowledgement that the mining boom had helped to save the economy from recession. Yet the majority of people evidently felt no direct benefit. A Nielsen Poll for the *Australian Financial Review* found: “85 per cent of voters thought the mining boom was a good thing for Australia ... 52 per cent felt they had not benefited at all” (Tingle, 2012). Even in the resource export states there was a mixed assessment. In WA, the greatest ‘beneficiary’ state, there was the highest number of respondents agreeing that the mining boom had benefited them “a lot”, at 23 per cent. Yet still 41 per cent said “not at all”. Perhaps this is not surprising, given the complex impact of the mining boom. Mine workers have obtained very high rates of pay, yet wherever mining occurs it can raise house prices and rents dramatically, which raises the cost of living, disproportionately impacting people not receiving mining rates of pay. The existence of a mine near a town can have a strong inflationary impact on local rents and house prices, yet ‘fly in, fly out’ (FIFO) miners often spend the bulk of their cash outside the local economy (NSW government, 2011).

Government Responses and Institutional Regulation

Although ‘market forces’ were the primary factor that shaped the economic character and development of the Australian economy in the period of analysis, government and institutional interventions (Federal and state) were a key factor in the evolution of the two-speed economy. They were significant in terms of diminishing or increasing a divergent impact (of the GFC and of the mining boom).

Responses at a national level involved monetary policy controlled by the Reserve Bank of Australia and fiscal and legislative interventions controlled by the elected Federal government. The policies of these institutions revealed a degree of both harmony and conflict, with the interventions of the RBA and Federal government exacerbating certain negative impacts during the period.

Reserve Bank Interest Rate Policy

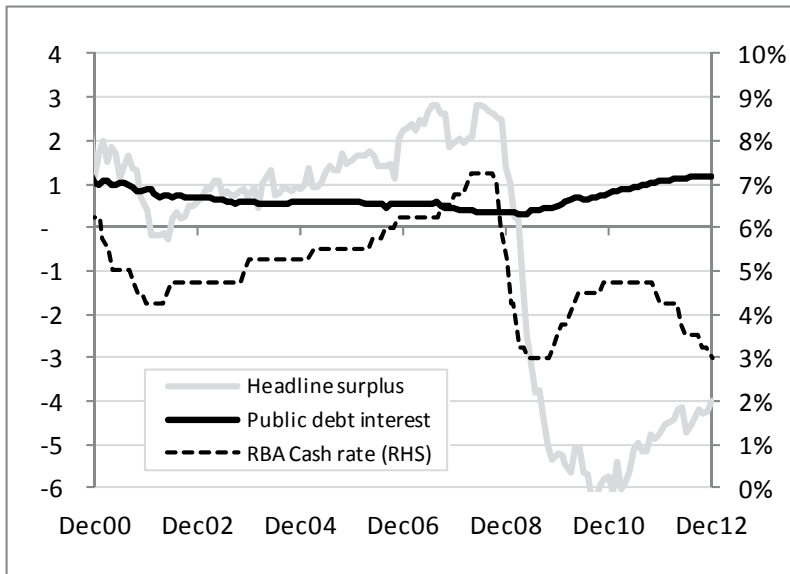
In juggling inflation and economic activity, the Reserve Bank of Australia (RBA) is tasked, independently of government economic policy, to determine a target interest rate. Prior to the GFC, the Australian economy was subject to accelerating inflationary pressures, arising from a combination of high investment, high employment and wage growth. With inflation rising above the RBA's benchmark band (between 2 and 3 per cent), the RBA ratcheted up target interest rates, with the deliberate intention of slowing economic activity. The benchmark cash rate reached a peak of 7.25 per cent in March 2008 (RBA, 2013b). The raising of the RBA target interest rate, prior to the GFC, had minimal impact on the resource states but tended to have a dampening effect on economic activity in NSW and Victoria. These were the states with already weaker economic performance and higher unemployment. NSW was most negatively affected by rising interest rates, as Sydney, its capital city, also has the highest house prices and lowest housing affordability (HIA-Commonwealth Bank, 2013). NSW was virtually in recession in 2006 while Victoria experienced an offsetting housing construction boom (and much lower house prices in Melbourne), which muted the negative effect of rising mortgage interest rates (ABS, 2012b).

Following the onset of the GFC, the RBA's target cash rate was lowered to 3.0 per cent by April 2009 (see Figure 8 opposite), providing a large indirect bonus to mortgage holders, especially in NSW and Victoria. The Australian economy as a whole began to revive in late 2009, underpinned by mining investment in combination with Federal government stimulus spending. The RBA subsequently began again to temper economic activity. Upward movements of the target interest rate started as early as October 2009, with seven 0.25 per cent rises in the cash rate to the end of 2010 (RBA, 2012b). These actions by the RBA to slow the Australian economy were an unprecedented policy measure among advanced industrial nations following the GFC.

There was then a second wave of pessimism in the global economy in 2011 (arising from concerns with Greek debt, Italian debt, Spanish debt and US budget deficits). There were also signs of aggregate weakness emerging in the Australian economy. Responding to these signs, the RBA once again reduced the target interest rate in November and December 2011, the cash rate being lowered to 4.25 per cent. States such as NSW

went back into relative economic malaise, while private business investment in WA was booming again and Queensland investment would soon follow. By the end of 2012 the RBA had dropped the target interest rate to 3.0 per cent to address aggregate economic weakness. This was close to a historic low. Yet the mining boom continued, Australia's exchange rate remained high (above parity with the US dollar), and Australian industries other than mining remained subject to unfavourable competitive pressures.

Figure 8: Federal Government Budget Surplus/Deficit [Billion rolling monthly (LHS)] and RBA Target Interest Rate (RHS), 2000-2012



Source: RBA (2013b), RBA (2013d)

Intervention by the Federal Government

The onset of the GFC had coincided with the election of a Labor Federal government in Australia in late 2007. Then Prime Minister, Kevin Rudd, characterised the likely impact of the economic downturn as cataclysmic

(Rudd, 2009) and initiated large national spending programs for housing and schools and as household cash handouts (Tiernan, 2010). Meanwhile, global pessimism affected the mining sector (especially because of negative expectations concerning China's growth) and resulted in a sharp downturn in mining investment and the mining boom (affecting WA and Queensland), albeit only briefly. The Federal government economic stimulus was especially beneficial to the previously weakest performing states. The two-speed character of the Australian economy was therefore momentarily inverted, with the resource states weakening and the non-resource states strengthening.

The Federal government under Rudd had also considered introducing a mining industry resource "super-profits" tax (RSPT). The mining industry resisted this, funding a vigorous media campaign to promote its message on Australian television (Minerals Council, 2012). Under the subsequent Prime Minister, Julia Gillard, the mining tax was renamed and redesigned to become the Minerals Resource Rent Tax (Commonwealth, 2012). Gillard described this tax in March 2012 as "spreading the benefits of the mining boom" (Swan; Gillard, 2012). The intention was to use the tax revenue to improve non-mining sectors of the economy and in family benefits. The development of the tax, however, occurred toward the tail of the mining boom and it was reported that only a small amount of revenue was obtained by the end of 2012 (Chambers; Crowe, 2013).

At the end of 2012 the Australian economy remained in its two-speed condition, with weakly and strongly performing states. The mining investment boom was tapering off and, while Australia's currency was starting to slip back from its 2012 peak, its value remained high. Federal government and RBA actions had evidently helped to soften and alter the impact of the GFC and the mining boom, but the effect of international economic forces continued to exert the dominant influence.

Summary

The Australian economy avoided the recession experienced in many advanced industrialised countries after the onset of the GFC. Yet this avoidance masked problems of distorted investment and employment activity. Mining investment held up GDP performance for the country as a whole, but it was an economy at two-speeds geographically.

At the end of 2012, the exchange rate for the Australian currency remained high, despite the softening of record high commodity prices and some slippage in the favourable terms of trade. This was not conducive to rebalancing the economy toward greater strength in manufacturing, tourism, agriculture and service industries capable of competing internationally.

Australia is known as a country that has always benefited from primary industries, such as grazing, agriculture and mining. In recent years mining helped to keep the country as a whole buoyant during difficult times in the international economy. However, sharp peaks and troughs of economic performance occur for economies that are narrowly focused in their expertise and industrial strengths. Disparities between Australian states have also been starkly evident, dependent on their relationship to mining production. There has been a divide between those benefiting and those disadvantaged in the current era. The Australian economy therefore remains conflicted, narrowly focused and vulnerable as it enters the next period of restructuring.

Harry Perlich has a doctorate in Political Economy from the University of Sydney and works as an economic consultant.

harry.perlich@gmail.com

References

Access Economics (2011) *Business Outlook*, December Quarter.

ACCI-Westpac Survey of Industrial Trends (2011) [http://www.acci.asn.au/Research-and-Publications/Research/Economic-Surveys/Industrial-Trends/ACCI-Westpac-Survey-Of-Industrial-Trends-\(1\)](http://www.acci.asn.au/Research-and-Publications/Research/Economic-Surveys/Industrial-Trends/ACCI-Westpac-Survey-Of-Industrial-Trends-(1))

AEC Group, Economic Impact Assessment for the China First Coal Project, Final Report August, 2010, Volume 5-Appendices: page xiii, xxvii <http://www.waratahcoal.com/eis-volume-5>

Australian Bureau of Statistics (2013a) Cat. No. 3101.0 Australian Demographic Statistics

Australian Bureau of Statistics (2013b) Cat. No. 5206.0 Australian national accounts, State Final Demand

Australian Bureau of Statistics (2013c) Cat. No. 5368.0 International Trade in Goods and Services, Australia, including 5368.36a: NSW exports by country

Australian Bureau of Statistics (2013d) Cat. No. 8501.0 Retail turnover, Australia

Australian Bureau of Statistics (2013e) Cat. No. 5625.0 Private New Capital Expenditure and Expected Expenditure, Australia

Australian Bureau of Statistics (2013f) Cat. No. 6345.0 Labour price index

Australian Bureau of Statistics (2013g) Cat. No. 6202.0, Labour Force, Australia.

Australian Bureau of Statistics (2013h) Cat. No. 5206.0, Australian National Accounts: National Income, Expenditure and Product. Key aggregates

Australian Bureau of Statistics (2013i) Cat. No. 6291.003, Labour Force by industry, Australia.

Banks, G. (2011) Australia's mining boom, what's the problem?, Address to the Melbourne Institute and The Australian Economic and Social Outlook Conference, 30 June 2011
http://www.pc.gov.au/_data/assets/pdf_file/0018/110592/mining-boom-what-problem.pdf

Chambers, M., Crowe, D. (2013) 'Mining tax take stuck at zero as major resources companies will escape levy for a second quarter' *The Australian*, January 14, 2013
<http://www.theaustralian.com.au/national-affairs/in-depth/mining-tax-take-stuck-at-zero-as-major-resources-companies-will-escape-levy-for-a-second-quarter/story-fnb56a2t-1226553169086> [Accessed 20 March 2013]

http://www.austlii.edu.au/au/legis/cth/consol_act/mrrta2012295/

Corden, M. (2011) The Dutch Disease in Australia, Policy Options for a Three-Speed Economy, Working Papers in Trade and Development, Australian National University, November 2011

Department of Foreign Affairs and Trade DFAT (2012) Composition of Trade, Australia's merchandise exports and imports, http://www.dfat.gov.au/publications/stats-pubs/composition_trade.html [Accessed 23 March 2013]

Economists at Large, Review of Economic Impact Assessment for the China First Project EIS, December 2011 <http://www.ecolarge.com/2011/12/china-coal-project-economic-assessment-reviewed/>

Gregory, R.G. (Oct 2011) Then and Now: Reflections on two Australian Mining Booms, *Working Paper No. 50* Centre for Strategic Economic Studies Victoria University Melbourne

Gregory, B. and Sheehan, P. (2011) The Resources Boom and Macroeconomic Policy in Australia, *Australian Economic Report*: Number 1, Centre for Strategic Economic Studies, Victoria University.

Grudnoff, M. (2012) 'Job creator or job destroyer? An analysis of the mining boom in Queensland', *The Australia Institute Policy Brief* No. 36, March 2012, (on the economic impact assessment, page 5)
<https://www.tai.org.au/index.php?q=node%2F19&pubid=982&act=display> [Accessed 6 December 2012]

Gruen, D. (2011) 'The resources boom and structural change in the Australian economy', paper presented to the Committee for Economic Development of Australia, Economic and Political Overview 2011, 24 February,
<http://archive.treasury.gov.au/contentitem.asp?ContentID=1975>

Henry, K. (2008) 'Revisiting the policy requirements of the terms-of-trade boom', Address to the Australian Business Economists, Sydney, 20 May 2008

HIA-Commonwealth Bank, Affordability Report, March Quarter 2012
http://www.commbank.com.au/corporate/research/publications/economics/hia-housing-report/2012/2012_March_Qtr.pdf [Accessed 18 March 2013]

Ivanova, G., Rolfé, J., Lockie, S. and Timmer, V. (2007) Impact assessment, Bowen Basin Assessing social and economic impacts associated with changes in the coal mining industry in the Bowen Basin, Queensland, Australia, in *Management of Environmental Quality: An International Journal* Vol. 18 No. 2, 2007 pp. 211-228
<http://www.bowenbasin.cqu.edu.au/Ivanova%20et%20al%20Mining%20impacts.pdf>

Janda, M., 'Ford closure sends shockwave through manufacturing industry' ABC News, May 2013 <http://www.abc.net.au/news/2013-05-23/ford-closure-sends-shockwave-through-manufacturing-industry/4708584> [Accessed 23 September 2013]

Kennedy, S. (2009) 'Australia's response to the global financial crisis', Address to the Australia Israel Leadership Forum, Wednesday, 24 June 2009
<http://archive.treasury.gov.au/contentitem.asp?ContentID=1576>

Lowe, P. (2012) (Deputy Governor of RBA), 'The Forces Shaping the Economy over 2012', Address to the Committee for Economic Development of Australia, Sydney, 16 February 2012, in *RBA Bulletin*, March quarter 2012

McKenzie, F.H. (2011) Submission for Inquiry into the use of 'fly-in, fly-out' (FIFO) workforce practices in regional Australia, House of Representatives Standing Committee on Regional Australia (submission 84)
http://www.aphref.aph.gov.au_house_committee_ra_fifodido_subs_sub84.pdf

Minerals Council, Plump Films (2011) Australian Mining. This is our Story (Adverts on Australian television from May 2011 to 2012...) <http://www.thisisourstory.com.au/our-ads.aspx> <http://plumpfilms.com.au/blog/this-is-our-story-heather-parry/>

NSW government (2011) Fly-in, fly-out and drive-in, drive-out workforces in NSW mining (2011), NSW government submission, October 2011 in Inquiry into the use of 'fly-in, fly-out' (FIFO) workforce practices in regional Australia, House of Representatives Standing Committee on Regional Australia (submission 145)
http://www.aphref.aph.gov.au_house_committee_ra_fifodido_subs_sub145.pdf
http://www.aph.gov.au/Parliamentary_Business/Committees/House_of_Representatives_Committees?url=ra/fifodido/subs.htm

Perlich, H (2010) The Impact of the GFC on Australia as a 'Dual Economy', *Journal of Australian Political Economy*, Number 64, Summer : Special issue on the GFC, global, national and urban aspects of the crisis.

Reserve Bank of Australia (2013a), exchange rates <http://www.rba.gov.au/statistics/hist-exchange-rates/index.html>

Reserve Bank of Australia (2013b), cash rates <http://www.rba.gov.au/statistics/cash-rate.html>

Reserve Bank of Australia (2013c), Indicators of spending and confidence (G8) <http://www.rba.gov.au/statistics/by-subject.html>

Reserve Bank of Australia (2012d), Australian government finances (E1) <http://www.rba.gov.au/statistics/by-subject.html>

Richardson, D. (2009) 'The benefits of the mining boom. Where did they go?' *Technical Brief* No. 3 May 2009, The Australian Institute.

Richardson, D. and Denniss, R. (2011) Mining the truth, The rhetoric and reality of the commodities boom, *The Australian Institute Paper* No. 7 September 2011 <https://www.tai.org.au/index.php?q=node%2F19&pubid=913&act=display>

Rudd, K. (2009) 'The Global Financial Crisis', *The Monthly*, Feb 2009, No 42. <http://www.themonthly.com.au/monthly-essays-kevin-rudd-global-financial-crisis--1421>

Snow, D. (2012) 'Oh what a feeling – unemployment', *Sydney Morning Herald*, 21 April 2012 <http://www.smh.com.au/national/oh-what-a-feeling--unemployment-20120420-1xc7c.html#ixzz1sckfXLaa> [accessed 21 April 2012]

Swan, W. (2012) 'Spreading the benefits of the Boom', joint media release with the Hon Julia Gillard MP, 8 May 2012 <http://ministers.treasury.gov.au/wmsDisplayDocs.aspx?doc=pressreleases/2012/038.htm&pageID=003&min=wms&Year=2012&DocType=0>

Tiernan, A. (2010) 'Weathering the Global Financial Crisis: Reflections on the Capacity of the Institutions of Australian Governance', Paper prepared for presentation at the American Political Science Association Annual National Conference, Washington DC, September 1-6, 2010 http://www98.griffith.edu.au/dspace/bitstream/handle/10072/34649/64980_1.pdf?sequence=1 [Accessed 24 march 2013]

Tingle, L. (2012) 'Mining benefits go unsung', *Australian Financial Review*, 10 April 2012 http://afr.com/p/national/mining_benefits_go_ungung_suup6G7rcDrVJmFsvMm0pK

World Bank data on employment rates <http://data.worldbank.org/topic/labor-and-social-protection>

Yates, C. (2012) 'High-wire act balancing a two-speed economy', *Sydney Morning Herald*, 28 April 2012

