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# Death To The Dutch Disease: The Century of the Surplus

*Stimulating Production Efficiencies To Offset The Threat of the Dutch Disease*

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# Death To The Dutch Disease: The Century of the Surplus

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*From The Streets of China - To The Mines of Australia - Feeding The Manufacturing Services Sector -  
And Finally, Making It To The Aussie's Kitchen Table*

Iron is the world's most commonly used metal. Steel, of which iron ore is the key ingredient, represents almost 95% of all metal used per year.<sup>1</sup> The rapid growth of infrastructure within the emerging BRIC nations - particularly China - has triggered a need for steel, that in turn has fueled an increased demand for Australia's iron ore. Australia has been blessed with an abundance of natural resources that are expected to sustain the mining sector for the next century, but the government must look beyond these finite commodities and start preparing for the next round of economic turmoil.

In the last decade, Australia has been a poor performer in both its labour and multi-factor productivity metrics (See Appendix 1). Production efficiencies - particularly within the mining and utility sectors - are worse off in comparison to others (See Appendix 2)<sup>2</sup>. Australia needs to come to terms with their: low-scale production capabilities; relatively high cost of labour; and the decreasing ease of doing business as a result of the Carbon Tax and MRRT. A successful outcome will be the measure of the government's ability to manage their dual-horizon economy, and to avoid being side-tracked from speculative booms, such as stimulus packages for the car manufacturing sector and carbon based tax schemes.

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<sup>1</sup> "Iron ore pricing emerges from stone age", Financial Times, October 26, 2009  
<http://metalsplace.com/news/articles/30805/iron-ore-pricing-emerges-from-stone-age/>, Visited February 2, 2012

<sup>2</sup> Saul Eslake, "Productivity", The Grattan Institute and Advisor, Economics & Policy, Pricewaterhouse Coopers, Australia, August 15, 2011

## Managing The Dual Horizons

1. **Short-Term Horizon:** In the short-term, the government ought to stimulate efficiencies within the sectors that offer “low lying fruit” as it relates to increased productivity. The government will get the most “bang for their buck” by focusing their efforts on industries with: a large footprint; a sustainable value proposition; and area where there’s proven technology at their disposal. Such as the case with the utility sector; one of three sectors that account for almost 80% of the decline in productivity growth.<sup>3</sup>

- a. Mining & Electricity
- b. Gas, Water & Waste Services
- c. Agriculture, Forestry & Fishing

A combination of loosening monetary policies (e.g. decreasing the cash rate), with some subtle amendments to the fiscal policies (e.g. tax breaks for: innovative start-ups; federal sponsorship of energy efficiency initiatives; and/or tax-breaks for re-investment into industrial plant automation systems, etc) will assist in encouraging cost-cutting measures - and hence competition - which has a direct correlation back to productivity. This double-edged sword addresses two major concerns, prevention of the Dutch Disease, and increased productivity within the unproductive sectors. The competitive advantage gained by doing so, will allow a sustainable, comparative advantage for the long-term.

2. **Long-Term Horizon:** The government would be naive to believe that their largest, and increasingly popular export (e.g. iron ore export at \$49.4B) to China, is being used purely for innocent capital infrastructure programs. (See Appendix 3 & 4). The Chinese have recently announced investments into their pacific naval fleet, which is sure to catch the attention of the US, whom currently control those valuable Pacific trade lanes.<sup>4</sup> Although it’s a geopolitical issue that may trigger the next economic turmoil, it will take economic foresight to preempt these risks by diversifying Australia’s trade commodities, as well as its partners.

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<sup>3</sup> Saul Eslake, “*Productivity*”, The Grattan Institute and Advisor, Economics & Policy, Pricewaterhouse Coopers, Australia, August 15, 2011

<sup>4</sup> “China’s Pacific Push Spurs U.S. Spending on Anti-Sub Warfare” Bloomberg Business Week, November 30, 2011, <http://www.businessweek.com/news/2011-11-30/china-s-pacific-push-spurs-u-s-spending-on-anti-sub-warfare.html>, Visited February 23, 2012

## A “New” Manufacturing Sector - Defined By Services & Productivity

There is little negative to be said with regards to Australia’s current mining boom. At first glance, one would presume that increased demand for commodities, resulting in increased foreign investment in Australia, leading to an increased exchange rate, are all indicators of a healthy and growing economy. The cause and effect of these reassuring events have inadvertent consequences that need to be properly assessed. One such dilemma is the Dutch Disease, which summarizes the negative implications to the non-mining industry (e.g. Manufacturing), as a result of a boom in the mining industry (e.g. Iron Ore) (See Appendix 2) .

The past decade has been relatively unimpeded by government policy as it relates to “Productivity.” It appears they’ve indulged in the steady economic growth, all the while taking a status quo approach to production efficiencies. The data claims that Australia’s degrading rate of productivity, has gone unnoticed and is in need of some government intervention. For example, hours worked in mining have more than doubled over the past decade, while the real value of the sector’s productive capital stock has increased by only 80%.<sup>5</sup> The manufacturing sector is similar to the services sector, in that they both have a comparable impact to exports (See Appendix 5). **Emphasis should be placed on the services sector, particularly the highly skilled workforce that’s required in innovative programs, such as energy efficiency initiatives (e.g. \$100M package for the Smart Grid, Smart City project.<sup>6</sup>), rather than the low-skilled sectors (e.g. textiles, car manufacturing, etc) that most struggle with when having to compete with China, India, South Korea, etc. The intellectual property gained from running these innovative projects, is just as valuable as the CAPEX/OPEX savings that materialize from these initiatives.**

**Given the slow adoption rates of new technology** in Australia; this skeptical culture must be put at ease by the government’s underwriting. It is just as important that these funds be allocated in a manner that guarantees that they’ll be funneled back into innovative, cost-cutting initiatives (e.g. recursive efficiencies). The utility sector is a prime example of how there are enabling technologies available - **such as IEC 61850 - that can drastically reduce the CAPEX and OPEX expenditures within a broad range of applications, be it in LNG, Water, Metals and Mining, and other industrial applications.<sup>7</sup>**

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<sup>5</sup> Saul Eslake, “*Productivity*”, The Grattan Institute and Advisor, Economics & Policy, Pricewaterhouse Coopers, Australia, August 15, 2011

<sup>6</sup> “*Smart Grid, Smart City*”, Australian Government, Department of Resources, Energy and Tourism, [http://www.ret.gov.au/energy/energy\\_programs/smartgrid/Pages/default.aspx](http://www.ret.gov.au/energy/energy_programs/smartgrid/Pages/default.aspx), Visited February 28, 2012

<sup>7</sup> Ralph Mackiewicz, “*Technical Overview and Benefits of the IEC 61850 Standard for Substation Automation*”, SISCO Inc.

## The Century of a Surplus

The most fundamental question that Australia faces in regards to its current account, is whether it should run with a deficit or a surplus. This pertains to both the private and the public sectors, as well as Australia's terms of trade that factor in the financial servicing costs. Although the iron ore and coal industries have large potential, they don't have the margins and the scale of return to move the country into a CAS on its own. Production efficiencies and the ease of doing business needs to be streamlined here in Australia.

Pro-CAD economists argue that an increase in the CAD will not harm the economy, and are generally pessimistic when it comes to running a surplus. They argue that the economic benefits of operating a CAD outweighs the benefits of a CAS; in other words the cost of equity is more than the cost of debt.

Pro-CAS economists claim that a deficit lowers the national savings rate, causing interest rates to rise and, in turn, crowds out private-sector spending, especially investment.<sup>8</sup> Albeit there is no empirical data to support the linkage between CAD and higher interest rates, the fact is one is riskier than the other, in that you must appease both local, and foreign shareholders. The deeper the CAD, the less room for error when making government expenditures.

Some fiscal policies such as economic rent - or what is commonly referred to as Mineral Resource Rent Tax (MRRT) - will upset some, but given that the tax takes effect at \$75M threshold, it makes for a fair sanity check on the earnings of these large-scale mining firms.<sup>9</sup> Furthermore, the rent will encourage these firms to re-invest in their infrastructure - rather than retaining earnings - which this increased investment will further drive economic growth and GDP.

*"Only 2.4% of Australian firms introduced one or more product innovations that were new to international markets in 2008-09, compared with 10% of Japanese firms, between 20% and 35% of European firms, and even 20% of New Zealand firms"*<sup>10</sup>

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<sup>8</sup> John Tatom, *"Not All Deficits Are Created Equal"*, CFA Institute, Volume 62, Number 3, 2006

<sup>9</sup> "Government To Lift MRRT Threshold to \$75M", Australian Associated Press, November 21, 2011, <http://www.australiannews.com.au/story?cityid=d8e82e1-fce9-4f45-9541-79d83e888155&storyid=336f2909-4e98-4ce9-a592-6783939815e5>, Visited February 18, 2012

<sup>10</sup> Saul Eslake, *"Productivity"*, The Grattan Institute and Advisor, Economics & Policy, Pricewaterhouse Coopers, Australia, August 15, 2011

Some would say the government ought to be supporting the mining services sector, whose productivity had fallen by 10.4% in 2009/2010<sup>11</sup>. Albeit it a major concern, the priority needs to be placed on rejuvenating industries that have a wide-spread impact. This is an attractive technology, as it applies across most industries, be it utilities, LNG, metals and mining, desalination plants, etc. In fact, the South Australian Transmission Provider - Electranet - has commissioned the first two - IEC 61850 substations in Australia, with the third and forth being energized in the middle of 2012.<sup>12</sup> The Victoria Desalination Plant is another example of how the Victorian government capitalized on this cost saving technology. This non-proprietary communication has been identified as a key pillar within the Smart Grid, so it's to no surprise why other countries have recognized the benefits and are much farther down the line with their IEC 61850 deployments.<sup>13</sup> With a bit of sponsorship from the government, this cost-saving technology established in 2004 - could immediately translate into production efficiencies throughout the utility, LNG, and industrial sectors. This is but one example of low lying fruit that have yet to be picked in the Australian productivity domain.

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<sup>11</sup> N.Garrow & T.Valentine, "The Role of Mining In The Australian Economy", White Paper

<sup>12</sup> "Clare North Substation", ElectraNet Current & Planned Developments, <http://www.electranet.com.au/network/current-planned-developments/mid-north/new-developmentpage-4/>, Visited February 20, 2012

<sup>13</sup> Charles Newton, "Highlights From The North American Study of Electric Power Utilities Protection and Control Management and Staff", Electric Energy Online, [http://www.electricenergyonline.com/?page=show\\_article&mag=43&article=319](http://www.electricenergyonline.com/?page=show_article&mag=43&article=319), Visited February 14, 2012

## Diversifying Trade Commodities & Partners

“China is currently the largest consumer of iron ore, which translates to be the world’s largest steel producing country. It is also the largest importer, buying 52% of the seaborne trade in iron ore in 2004.<sup>14</sup> Second in line is Japan. The vice-versa is true with Coal, making it a great opportunity to hedge Australia’s investments in these two commodities, as well as their trading alliances. As expected, this increased demand for Australia’s natural resources will put upwards pressure on the currency rate - a lead indicator - that in turn will create a financial influx, which can take the form of foreign direct investment, portfolio holdings of stocks and bonds, bank loans and other holdings of government and agency securities. Government intervention will be required to cool down the economy, and assist in addressing the depreciating price of coal. The estimated export price of coking coal continued to decline in February/2012, reflecting a further decline in spot and contract prices.<sup>15</sup> Fiscal policies such as sponsorship of clean-coal, and coal sequestration, are technologies that will influence the inelastic demand that comes with this commodity.

There are a couple sentimental aspects to consider in the ore versus coal debate, and the China versus Japan debate; each of which impact a unique part of Australia’s dual-horizon. First off, the increased demographic of environmentally conscience consumers has spooked the government into adopting a Carbon Tax that has effectively degraded the price of their number two export, and will intimidate foreign investors with stringent regulatory frameworks. The government needs to chose; MRRT or Carbon Tax, not both.

The second - and more long-term aspect - is China’s increased spending on their naval fleet, specifically their anti-sub warfare. This has both economic impacts (e.g. increased demand for iron ore) and geopolitical impacts(e.g. increased threat to the US). This will effectively drive Australia, Japan and the US to become more aligned - militarily and economically. Depending on how this geopolitical situation pans out, Australia may see pressure to one day reduce their trade with China, whereby Japan will once again become the key trading partner. The US will play a more important role with their dependency on Australia’s iron ore, and newly refined, and highly efficient manufacturing services.

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<sup>14</sup> “Iron ore pricing emerges from stone age”, Financial Times, October 26, 2009  
<http://metalsplace.com/news/articles/30805/iron-ore-pricing-emerges-from-stone-age/>, Visited February 2, 2012

<sup>15</sup> “Index of Commodity Prices”, RBA, January, 2012, <http://www.rba.gov.au/statistics/frequency/commodity-prices.html>, Visited February 14, 2012

## Summary

Over the long-term, Australia cannot depend purely on their commodities, nor can they depend on a single trading partner. We've looked at the role that China, Japan and the USA will play, and have attempted to identify the comparative advantages that Australia needs to address in their productivity. It has called upon economic principles such as the twin deficit hypothesis, economic rent, tax relief for innovative initiatives, and a number of other monetary and fiscal policies, that will assist in gaining production efficiencies and making business all-around easier here in Australia. We've prescribed specific technologies - IEC 61850 - that have proven to introduce cost savings and increased performance over a broad range of industries as well.

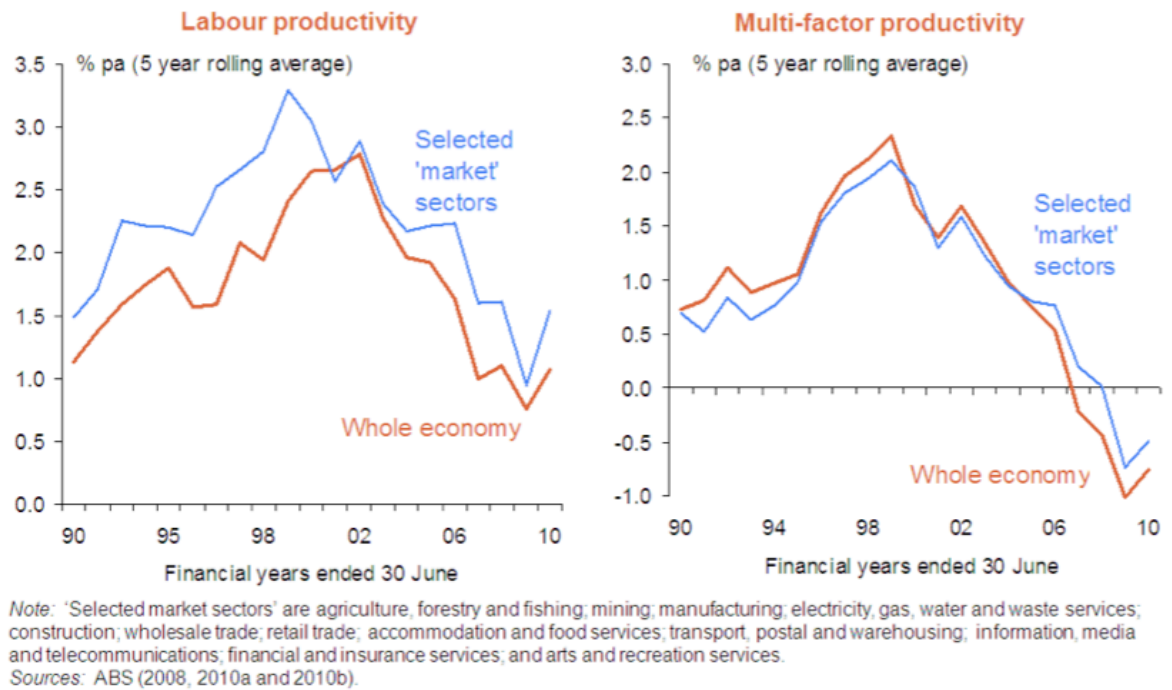
Some have suggested investment in offshore capital, which would be more valuable when commodity prices fall and currency depreciates. This lacks confidence in Australia's capability to reform its productivity levels; in other words they're banking on foreign investments, rather than their own workforce. Others argue that the added revenue stream should finance personal income tax cuts, whilst others make a case for trade tariffs. These don't address the underlying productivity issue, and create deadweight losses that ought to be avoided. All three - Foreign Investment, Trading Tariffs, Carbon Tax - discourage increased productivity.

The MRRT is a different story; this acts as a sanity check that regulates the amount of mega-profits. Although it's a worthy and just revenue stream, there should be measures in place to tailor these taxes to make them more manageable. In essence it ought to be used as a negotiating concession that can be loosened for major expenditures exceeding a certain capital expenditure, job creation, etc.

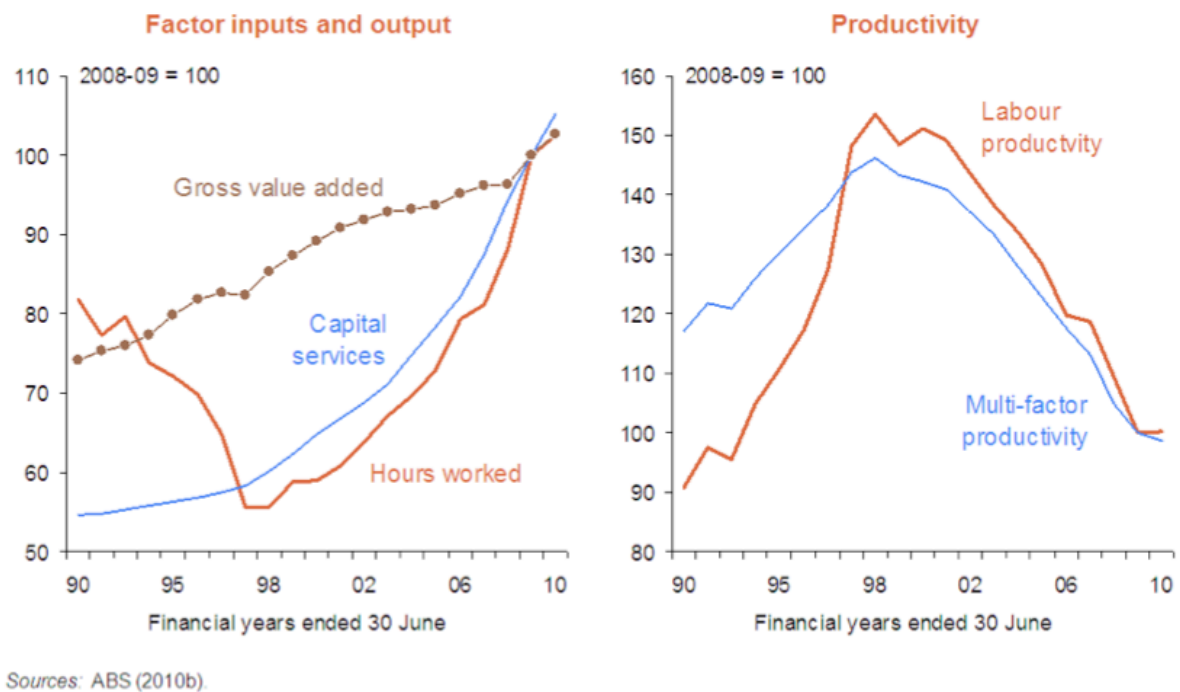
Good things typically come from dire situations, whereby businesses are required to do more with less. This is an innate evolution of economics; now is the time to seek production efficiencies. It's imperative that the government pushes and pulls in the right direction, using the right amount of force, otherwise these business savvy investors will go to the low-cost competition (e.g. Africa, Mongolia, etc) where the regulatory frameworks are far less stringent. Priority needs to be given to increasing Australia's productivity, as well as easing up frameworks that make it easy to do business here in Australia. Having dropped from 9th place on the global Ease of Doing Business Index in 2009, to its current 15th place, behind Saudi Arabia, Ireland, and far behind 3rd place of New Zealand, Australia has to reaffirm foreign investors that this is the place to dig holes.



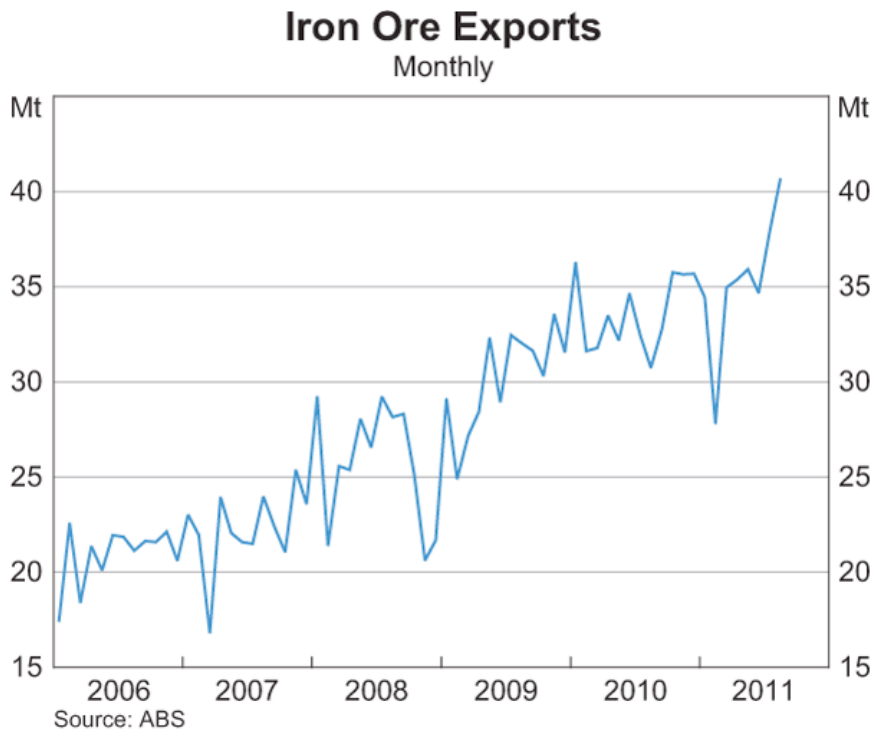
## Appendix 1: Australian Productivity Levels



## Appendix 2: Australian Utility Productivity Levels



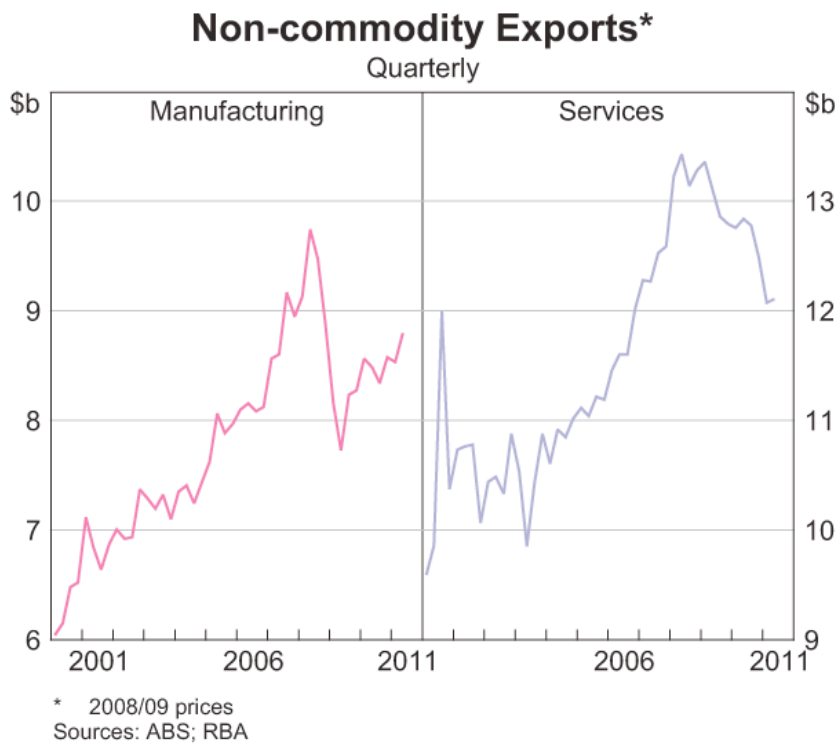
### Appendix 3: % GDP - Iron Ore Exports



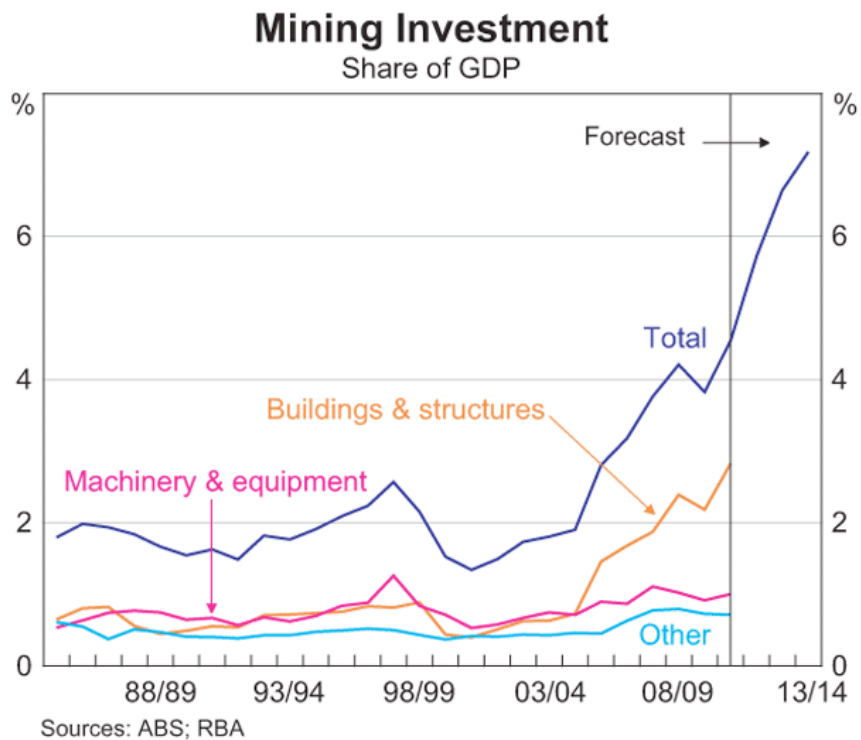
### Appendix 4: Chinese Steel Prices



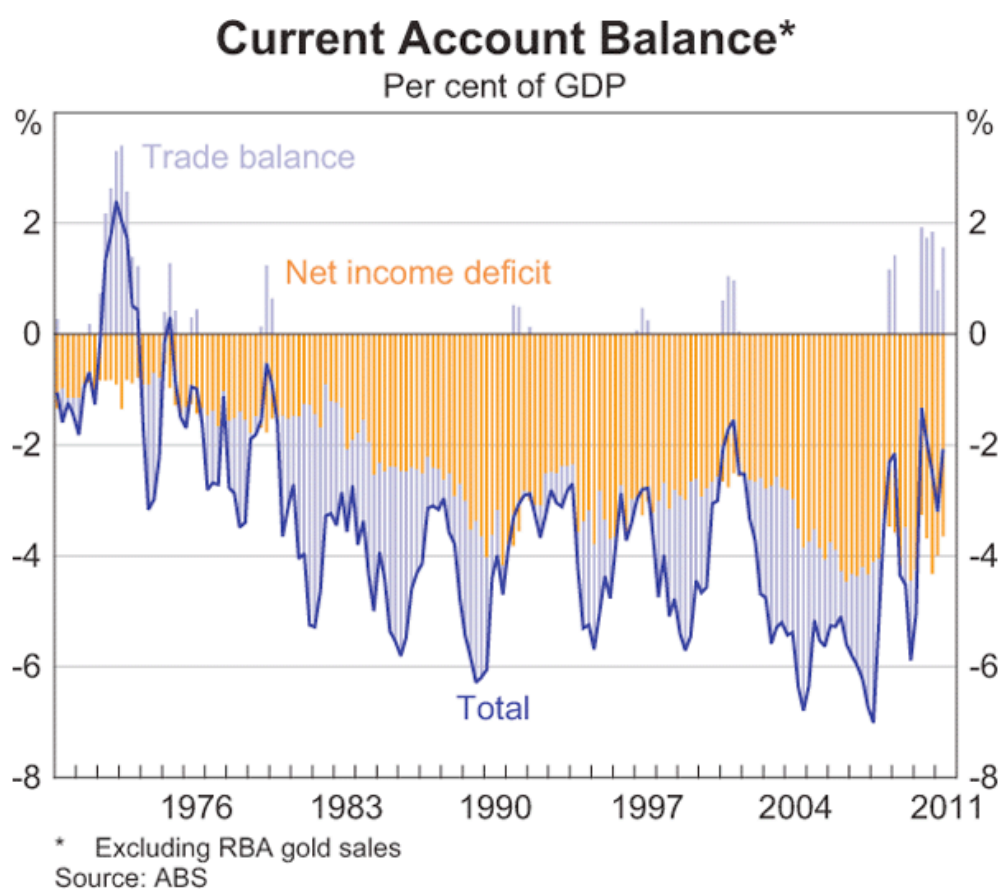
## Appendix 5: Non-Commodity Exports: Manufacturing vs Services



## Appendix 6: % GDP - Mining Investment



## Appendix 7: % GDP - Current Account Balance



## Appendix 8: Australia Fact Sheet



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# AUSTRALIA

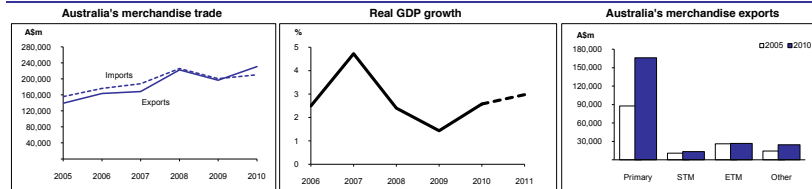
Fact Sheet

### General information:

Fact sheets are updated biannually; June and December

<b>Capital:</b>	Canberra	<b>Head of State:</b>	HM Queen Elizabeth II, represented by the Governor-General HE Ms Quentin Bryce
<b>Surface area:</b>	7,692 thousand sq km	<b>Head of Government:</b>	Prime Minister The Hon Ms Julia Gillard
<b>Official language:</b>	English		
<b>Population:</b>	22.4 million (2010)		
<b>Exchange rate:</b>	A\$1 = US\$1.0100 (Mar 2011)		

Recent economic indicators:	2006	2007	2008	2009	2010(a)	2011(b)
GDP (US\$bn) (current prices):	785.8	954.6	1,061.0	986.6	1,236.0	1,448.2
GDP PPP (US\$bn) (c):	737.1	793.6	831.9	850.6	882.4	918.5
GDP per capita (US\$):	37,645	44,893	48,823	44,509	55,160	64,351
GDP per capita PPP (US\$) (c):	35,310	37,321	38,282	38,751	39,699	40,816
Real GDP growth (% change yoy):	2.5	4.7	2.4	1.4	2.6	3.0
Current account balance (US\$m):	-41,503	-59,214	-47,442	-42,096	-31,868	-5,529
Current account balance (% GDP):	-5.3	-6.2	-4.5	-4.3	-2.6	-0.4
Goods & services exports (% GDP):	20.0	19.1	22.3	20.0	21.1	21.5
Inflation (% change yoy):	3.3	3.0	3.7	2.1	2.7	3.0



### Australia's trade and investment relationships (d):

<b>Major Australian exports, 2010 (A\$m) (e):</b>		<b>Major Australian imports, 2010 (A\$m) (e):</b>	
Iron ore & concentrates	49,360	Crude petroleum	16,236
Coal	42,963	Passenger motor vehicles	15,917
Gold	14,439	Refined petroleum	9,980
Crude petroleum	10,487	Medicaments (incl veterinary)	7,928
Natural gas	9,430	Telecom equipment & parts	7,534

<b>Australian merchandise trade, 2010:</b>	
Exports (A\$m):	230,942
Imports (A\$m):	210,113
Total trade (exports + imports) (A\$m):	441,056
Merchandise trade surplus (A\$m):	20,829

<b>Australia's main export destinations, 2010 (e):</b>		<b>Australia's main import sources, 2010 (e):</b>	
1 China	25.3%	1 China	18.7%
2 Japan	18.9%	2 United States (f)	12.1%
3 Republic of Korea	8.8%	3 Japan	8.7%
4 India	7.1%	4 Thailand	5.2%
5 United States	4.0%	5 Singapore	5.1%

<b>Australia's trade in services, 2010:</b>	
Exports of services (A\$m):	52,391
Imports of services (A\$m):	55,922
Services trade deficit (A\$m):	3,531

<b>Australia's investment links, as at 31 Dec 2010:</b>	
Level of Australian investment abroad (A\$m):	1,185,704
Level of foreign investment in Australia (A\$m):	1,967,806

Compiled by the Market Information and Research Section, DFAT, using the latest data from the ABS, the IMF and various international sources.

(a) All recent data subject to revision; (b) IMF forecast; (c) PPP is purchasing power parity; (d) Total may not add due to rounding; (e) Merchandise trade; (f) Based on unpublished ABS data and includes confidential aircraft imports. na Data not available. np Data not published. . Data not meaningful.

## Appendix 9: China Fact Sheet



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# CHINA

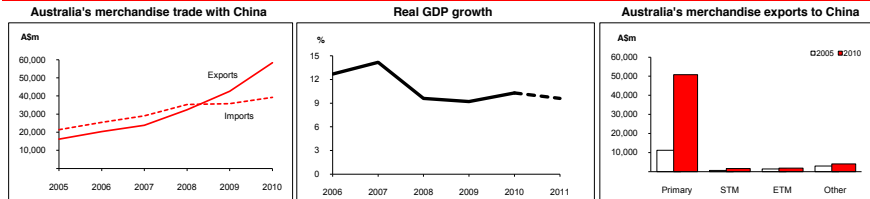
Fact Sheet

### General information:

Fact sheets are updated biannually; June and December

<b>Capital:</b>	Beijing	<b>Head of State:</b>	
<b>Surface area:</b>	9,561 thousand sq km	<b>President</b>	HE Mr Hu Jintao
<b>Official language:</b>	Mandarin		
<b>Population:</b>	1,341.4 million (2010)	<b>Head of Government:</b>	
<b>Exchange rate:</b>	A\$1 = 6.6406 Yuan (Feb 2011)	<b>Premier of the State Council</b>	HE Mr Wen Jiabao

Recent economic indicators:	2006	2007	2008	2009	2010(a)	2011(b)
GDP (US\$bn) (current prices):	2,712.9	3,494.2	4,520.0	4,990.5	5,878.3	6,515.9
GDP PPP (US\$bn) (c):	6,242.4	7,338.7	8,219.0	9,057.4	10,085.7	11,174.3
GDP per capita (US\$):	2,064	2,645	3,404	3,739	4,382	4,833
GDP per capita PPP (US\$) (c):	4,749	5,554	6,189	6,786	7,519	8,289
Real GDP growth (% change yoy):	12.7	14.2	9.6	9.2	10.3	9.6
Current account balance (US\$m):	253,268	371,833	436,107	297,142	306,200	372,235
Current account balance (% GDP):	9.3	10.6	9.6	6.0	5.2	5.7
Goods & services exports (% GDP):	39.1	38.4	35.0	26.7	25.9	26.3
Inflation (% change yoy):	1.5	4.8	5.9	-0.7	3.3	5.0



### Australia's trade and investment relationship with China (d):

Australian merchandise trade with China, 2010:		Total share:	Rank:	Growth (yoy):
Exports to China (A\$m):	58,402	25.3%	1st	37.3%
Imports from China (A\$m):	39,256	18.7%	1st	9.7%
Total trade (exports + imports) (A\$m):	97,658	22.1%	1st	24.7%

Major Australian exports, 2010 (A\$m):		Major Australian imports, 2010 (A\$m):	
Iron ore & concentrates	34,681	Clothing	4,164
Coal	5,191	Computers	3,960
Crude petroleum	1,668	Telecom equipment & parts	3,854
Wool & other animal hair (incl tops)	1,621	Prms, toys, games & sporting goods	1,870

Australia's trade in services with China, 2010:		Total share:	
Exports of services to China (A\$m):	5,954	11.4%	
Imports of services from China (A\$m):	1,694	3.0%	

Major Australian service exports, 2010 (A\$m):		Major Australian service imports, 2010 (A\$m):	
Education-related travel	4,428	Personal travel excl education	681
Personal travel excl education	691	Transport	505

Australia's investment relationship with China, 2010 (e):		Total:	FDI:
Australia's investment in China (A\$m):		11,876	6,699
China's investment in Australia (A\$m):		19,525	12,816

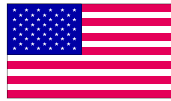
### China's global merchandise trade relationships:

China's principal export destinations, 2010:		China's principal import sources, 2010:	
1 United States	18.0%	1 Japan	12.6%
2 Hong Kong, SAR of China	13.8%	2 Republic of Korea	9.9%
3 Japan	7.6%	3 Taiwan	8.3%
14 Australia	1.7%	6 Australia	4.3%

Compiled by the Market Information and Research Section, DFAT, using the latest data from the ABS, the IMF and various international sources.

(a) All recent data subject to revision; (b) EIU estimate (c) PPP is purchasing power parity; (d) Total may not add due to rounding; (e) Stock, as at 31 December. Released annually by the ABS. na Data not available. np Data not published. ... Data not meaningful.

## Appendix 10: USA Fact Sheet



# UNITED STATES

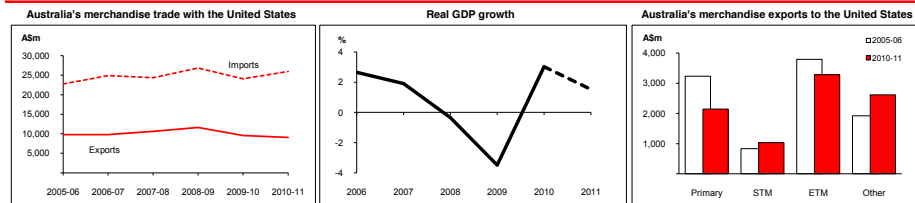
Fact Sheet

### General information:

Fact sheets are updated biannually; June and December

<b>Capital</b>	Washington D.C.	<b>Head of State and Head of Government:</b>
<b>Surface area:</b>	9,364 thousand sq km	President The Hon Barack H Obama
<b>Official language:</b>	English	
<b>Population:</b>	310.0 million (2010)	
<b>Exchange rate:</b>	A\$1 = US\$1.0766 (Jul 2011)	

<b>Recent economic indicators:</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010(a)</b>	<b>2011(b)</b>
<b>GDP (US\$bn) (current prices):</b>	13,377.2	14,028.7	14,291.6	13,938.9	14,526.6	15,064.8
<b>GDP PPP (US\$bn) (c):</b>	13,377.2	14,028.7	14,291.6	13,938.9	14,526.6	15,064.8
<b>GDP per capita (US\$):</b>	44,750	46,467	46,901	45,348	46,860	48,147
<b>GDP per capita PPP (US\$) (c):</b>	44,750	46,467	46,901	45,348	46,860	48,147
<b>Real GDP growth (% change yoy):</b>	2.7	1.9	-0.3	-3.5	3.0	1.5
<b>Current account balance (US\$m):</b>	-800,621	-710,304	-677,134	-376,551	-470,898	-467,642
<b>Current account balance (% GDP):</b>	-6.0	-5.1	-4.7	-2.7	-3.2	-3.1
<b>Goods &amp; services exports (% GDP):</b>	10.9	11.8	12.9	11.3	12.6	14.3
<b>Inflation (% change yoy):</b>	3.2	2.9	3.8	-0.3	1.6	3.0



### Australia's trade and investment relationship with the United States (d):

<b>Australia's merchandise trade with the United States, 2010-11:</b>		<b>Total share:</b>	<b>Rank:</b>	<b>Growth (yoy):</b>
Exports to the United States (A\$m):	9,075	3.7%	6th	-4.9%
Imports from the United States (A\$m) (e):	25,970	12.1%	2nd	8.0%
Total trade (exports + imports) (A\$m) (e):	35,045	7.6%	3rd	4.3%

<b>Major Australian exports, 2010-11* (A\$m):</b>		<b>Major Australian imports, 2010-11* (A\$m) (e):</b>	
Beef	709	Goods vehicles	1,176
Alcoholic beverages	527	Civil engineering equipment & parts	1,072
Meat (excl beef)	457	Non-electric engines & motors	969
Medical instruments (incl veterinary)	424	Medicaments (incl veterinary)	893
*Includes \$2.2bn of confidential items & special transactions, mainly uranium, nickel & alumina, 25% of total exports.		*Includes A\$2.7bn of aircraft and other confidential items, 12% of total imports	

<b>Australia's trade in services with the United States, 2010-11:</b>		<b>Total share:</b>
Exports of services to the United States (A\$m):	5,176	10.2%
Imports of services from the United States (A\$m):	10,359	18.1%

<b>Major Australian service exports, 2010-11 (A\$m):</b>		<b>Major Australian service imports, 2010-11 (A\$m):</b>	
Prof, tech & other business services	1,875	Personal travel excl education	3,214
Personal travel excl education	776	Prof, tech & other business services	2,144

<b>Australia's investment relationship with the United States, 2010 (f):</b>		<b>Total:</b>	<b>FDI:</b>
Australia's investment in the United States (A\$m):		410,046	93,417
United States' investment in Australia (A\$m):		549,881	120,089

### United States' global merchandise trade relationships:

<b>United States' principal export destinations, 2010:</b>			<b>United States' principal import sources, 2010:</b>		
1	Canada	19.5%	1	China	19.1%
2	Mexico	12.8%	2	Canada	14.5%
3	China	7.2%	3	Mexico	12.0%
15	Australia	1.7%	33	Australia	0.4%

Compiled by the Market Information and Research Section, DFAT, using the latest data from the ABS, the IMF and various international sources.

(a) All recent data subject to revision; (b) IMF/EIU forecast; (c) PPP is purchasing power parity; (d) Total may not add due to rounding; (e) Based on unpublished ABS data and includes confidential aircraft imports; (f) Stock, as at 31 December. Released annually by the ABS. na Data not available. np Data not published. ... Data not meaningful.