

AIG ECONOMY 2007 - GLOBAL REALITIES FOR AUSTRALIA

CHINA, MANUFACTURING AND THE RESOURCES BOOM

Steven Kennedy and Phil Garton

30 minute speech – 6 March 2007

Thank you for inviting me to talk with you today about global realities for Australia. While I will be discussing global developments and, in particular, China's role in these developments, I will also discuss some of the new realities of the Australian economy.

Part 1: China, the World and Manufactures

Over the past three years, the world economy has experienced a period of robust above-trend growth. Based on the data we have so far, world GDP is estimated to have grown by around 5¼ per cent in 2006, the strongest growth in 33 years. A defining feature of the recent strong world growth has been the contribution from developing countries. Over 70 per cent of world growth over the past three years has come from developing countries, despite them comprising only 47 per cent of world production.

China alone has contributed nearly one-third of world growth over the past three years. China's GDP growth is expected to remain strong at around 10 per cent in 2007 reflecting ongoing strong growth in investment. Investment is being underpinned by high rates of national saving, widespread urbanisation (generating strong demand for new infrastructure), the availability of a large pool of low-cost labour, and strong profit growth.

China's rapid expansion is affecting the global economy in two key ways. The first is through its demand for commodities. China has accounted for a large share of world demand for key commodities, relative to its share of world GDP (Chart 1). The increment in demand from this source has undoubtedly been a major factor underpinning the surge in commodity prices in recent years.

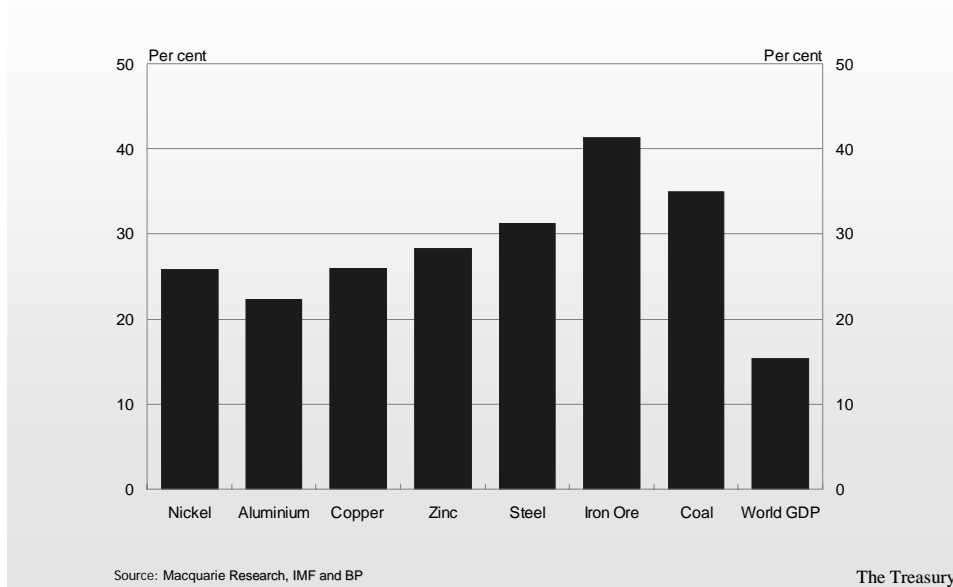
The second effect is through China's supply of manufactures, particularly of the more labour-intensive type, and the downward pressure this has exerted on the prices of these goods. It is this second aspect of China's influence that I want to focus on first.

The increase in manufactures supply can be viewed as the fundamental China supply 'shock' to the world economy. Higher demand for commodities is a derived demand, driven by the expansion of Chinese manufactures output and the associated growth in the Chinese energy and construction sectors.

Much media discussion of this issue gives the impression that China's expansion is unprecedented, that China is largely an export production machine — producing manufactures without consuming — and that China is set to dominate world manufacturing. But what does the data tell us?

Chart 1

China's Share of World Consumption

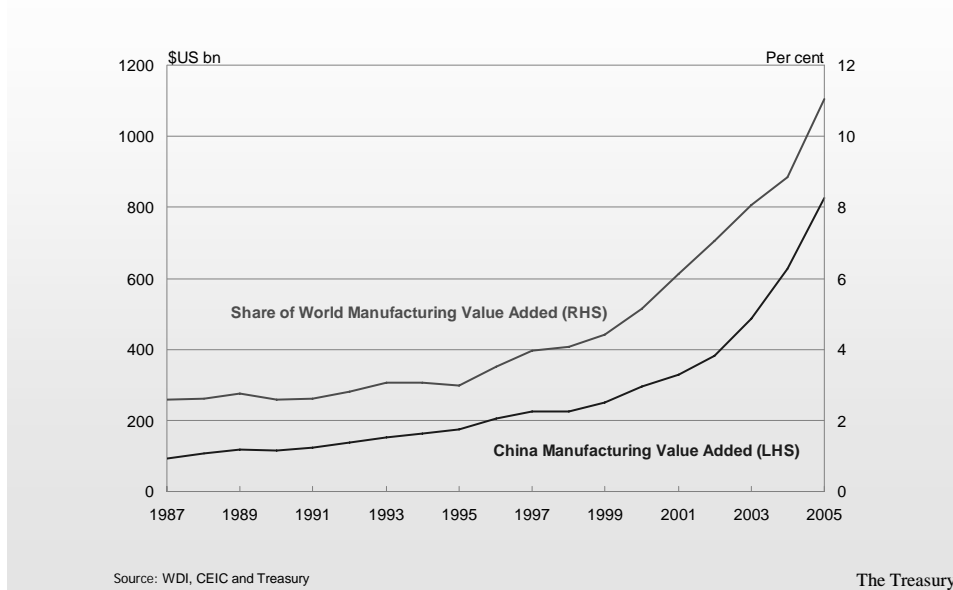


A good starting point in thinking about this issue is to look at how much China's manufacturing output has grown relative to world output. Chart 2 shows that Chinese manufacturing output has indeed grown very rapidly in recent years, with average annual growth in nominal terms of around 20 per cent since 1999. As a result, China is estimated to now account for around 11 per cent of world manufactures output, compared to 2½ per cent only 15 years ago.

This growth in manufacturing output has been associated with a similar increase in China's share of world manufactures exports, from around 2 per cent to 10 per cent over the same period. To put this in perspective it is instructive to compare China with other Asian economies that have gone through rapid development phases.

Chart 2

China's Manufacturing Value Added

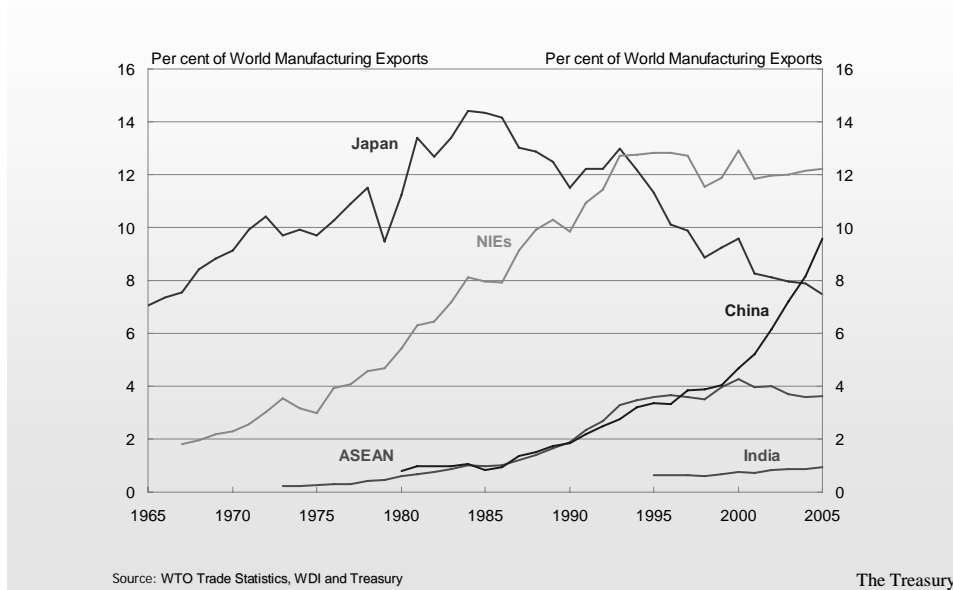


As Chart 3 shows, China's share of world manufactures exports is still below the peak shares reached by Japan in the early 1980s and the Asian Newly Industrialised Economies (Korea, Hong Kong, Taiwan and Singapore) in the early 1990s. This suggests that to date at least, rather than being unprecedented, the supply shock from China has been yet another in the series of supply shocks experienced by the manufacturing sector over recent decades.

A point that is not widely recognised is that China is becoming an increasingly significant consumer of manufactures as well as a producer. China's imports of manufactures have been growing strongly, albeit less rapidly than its exports, from around 2 per cent of world manufactures exports in the early 1990s to almost 7 per cent in 2005.

Chart 3

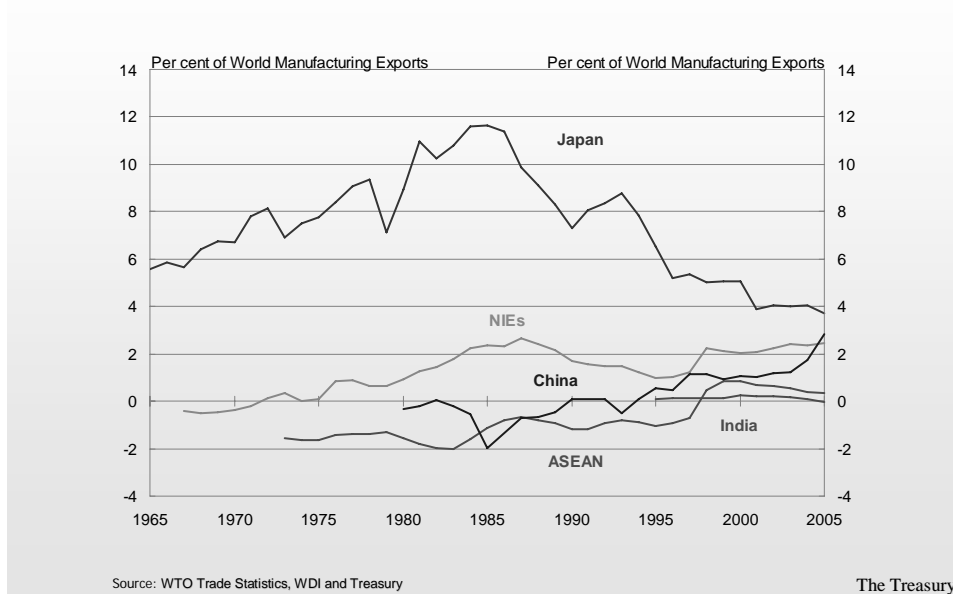
Gross Manufacturing Exports



In considering China's net addition to the supply of manufactures in the rest of the world — that is, the extent to which it has increased supply by more than demand — net exports are a more relevant concept than gross exports. Viewed in this way, the net supply expansion from China has been much less significant so far than that from Japan in previous decades (Chart 4). Indeed, it is Japan that stands out as being exceptional in exporting manufactures during its rapid growth phase but importing comparatively little.

Chart 4

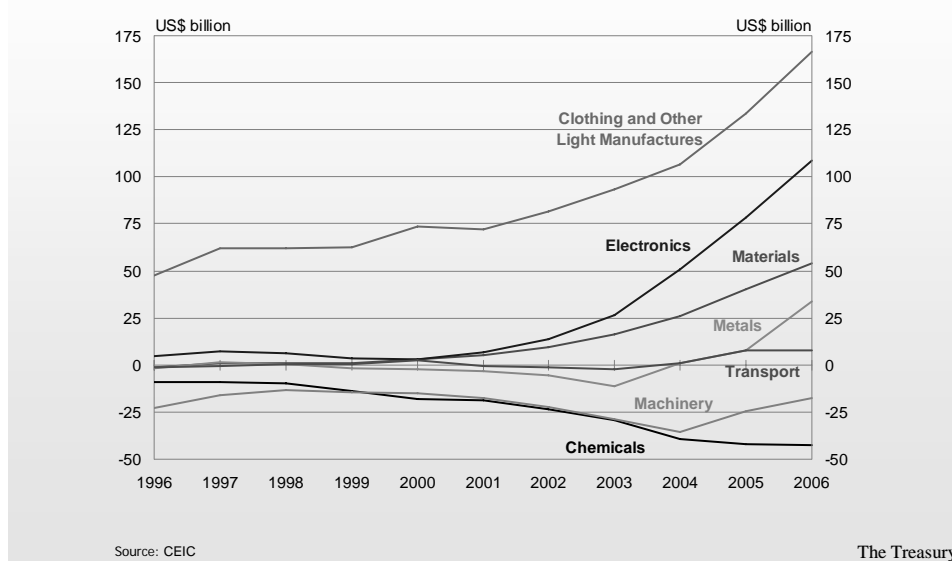
Net Manufacturing Exports



So far we have considered manufacturing in the aggregate, but what of the composition of China's net manufactures exports? Until the start of the current decade, China's net exports largely comprised clothing, footwear and other light manufactures (Chart 5). The past few years have seen steep increases in net exports of electronic goods (computers, telecommunications and audio-visual equipment and electrical appliances), as well as metals and other materials (principally textiles).

Chart 5

China's Net Exports of Manufactures by Category



At the same time, China has continued to be a net importer of chemicals and machinery, which can be characterised as intermediate and capital goods. This is consistent with economic theory, which suggests that China should have a comparative disadvantage in capital-intensive manufacturing. The recent shift into net exports of metals appears to be an exception to this story, but this may be a reflection of overinvestment in capacity that should be unwound eventually.

It is also notable that the largest increases in Chinese imports have occurred in the electronics category, where both exports and imports have been rapidly expanding. The combination of high levels of both imports and exports is consistent with China's role in the integrated global supply chain for these products.

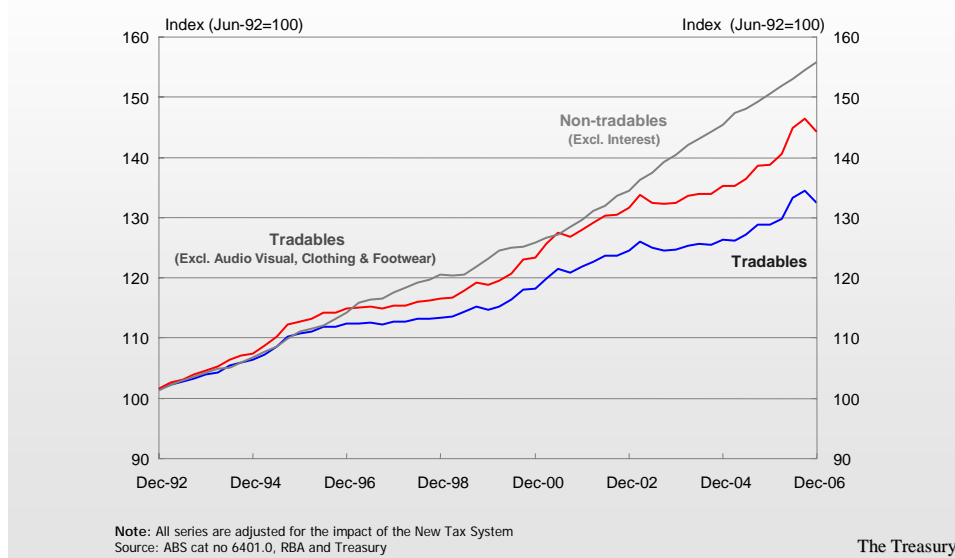
The expansion of manufactures supply from China has exerted downward pressure on relative prices of manufactures around the world.¹ We can clearly see this impact in Australian consumer prices. In this chart, the Consumer Price Index is decomposed into tradable and non-tradable prices. Chart 6 shows that growth in tradable and non-tradable prices first diverged about 15 years ago, with tradable prices growing on average around one to two percentage points slower than non-tradable prices.

¹ Other factors include rapid improvements in information and communications technology and the tendency for productivity growth to be higher in manufacturing than in the services sector.

Changes in tradable prices reflect a number of factors, including exchange rate movements. However, one factor affecting the longer-term trend in tradable prices is low or declining prices in audiovisual and computing equipment, and clothing and footwear. Together the prices of these goods account for around half of the difference between tradable and non-tradable prices over the past 15 years. It seems reasonable to conclude that the re-emergence of China is a significant influence on the trends in the prices of audiovisual and computing equipment and clothing and footwear, as these are the two sectors of Chinese manufacturing which have had the biggest impact on the net world supply of manufactures.

Chart 6

Tradable and Non-tradable Prices



Part 2: The Resources Boom: How is the Australian Economy Responding?

Lower manufactures prices have been one important way in which China’s re-emergence has been affecting the Australian economy. The other key way is through the rapid increase in non-rural commodities prices (nearly 90 per cent over the past three years), which has seen the terms of trade reach a 50-year high. I would now like to turn to how the Australian economy is adjusting to this latter development.

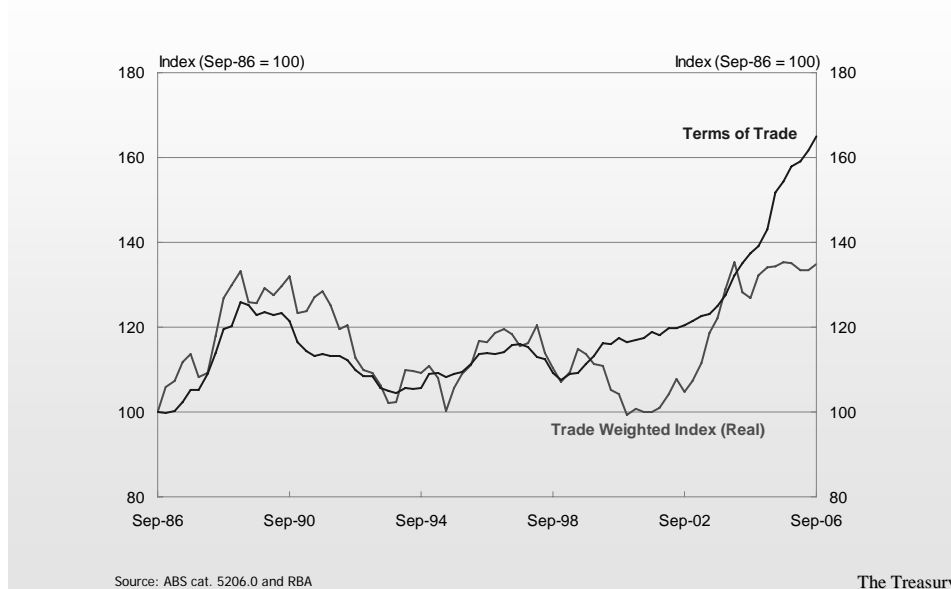
How do economists expect an economy to respond to a rapid increase in minerals prices and the terms of trade? First, they expect the exchange rate to appreciate and second, they expect labour and capital to move to the sectors experiencing the positive price shock (in the Australian case mining and related sectors such as construction) and move away from those sectors that are negatively affected by the change in relative prices (which include manufacturing).² Of course, and perhaps not surprisingly to some, what economists expect to happen and what actually happens are not always the same. So just how has the Australian economy responded?

² The Stolper-Samuelson theorem describes these effects and is discussed in more detail in Henry (2006a).

The terms of trade does appear to have been a factor in the dollar appreciating through the course of 2003 and remaining relatively high. However, the (real) exchange rate has not appreciated to the extent that, all other things given, one might have expected (Chart 7).

Chart 7

Terms of Trade and Trade Weighted Index



This may reflect the economy being weaker in an underlying sense around the time the resources boom began to take hold, which in turn may have reflected the wash up of the housing boom. However, by the exchange rate not appreciating to the extent that perhaps it could have, the increase in the terms of trade has been more sharply reflected in an increase in nominal income. If the exchange rate had appreciated by more, the positive effects of an increase in the terms of trade on real income would still have been felt, but through a fall in import prices rather than a boost to nominal income.

Moreover, because the benefits of the increase in the terms of trade have flowed through higher nominal income and wealth (higher profits and share prices), there has been a stronger boost to employment and wages.³ Government revenues have also benefited by more.

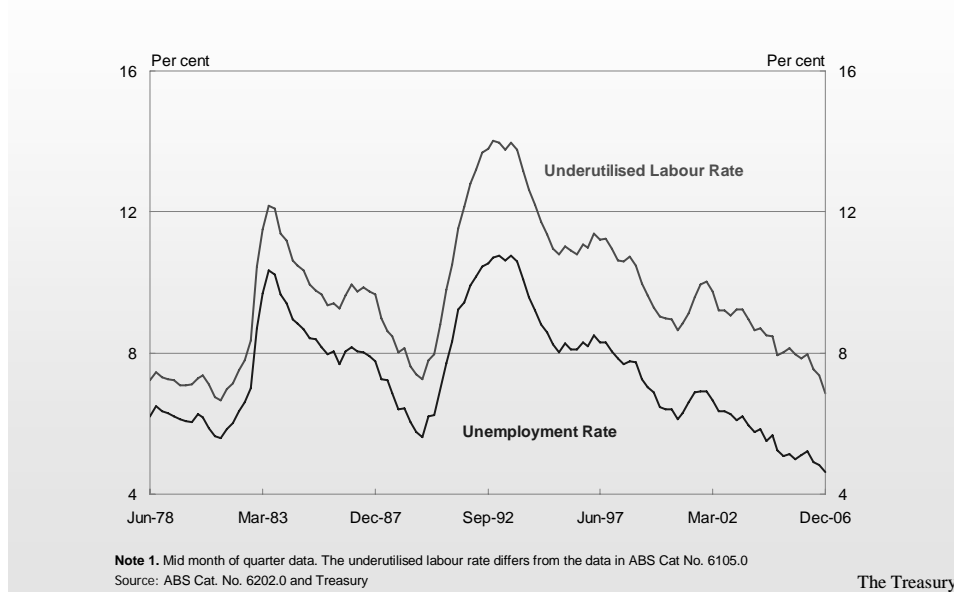
Before examining the extent to which labour and capital have moved within the economy in response to the change in relative prices, it is worth pausing to consider the extent to which inputs and, in particular, labour are fully utilised. This question is important because, if the economy was at full employment, the resources sector could only expand by bidding labour and other inputs away from other sectors and, hence, causing these sectors to grow more slowly (Henry 2006a).

³ Profits in the mining industry have grown well ahead of all other industries, increasing by 100 per cent over the past three years, compared to 17 per cent in the rest of the economy.

Chart 8 shows how the unemployment rate has fallen over the past 15 years and illustrates that the economy is significantly closer to sustained full employment than it has been for many years. I have also included a broader measure of unemployment, or perhaps more accurately, underutilised labour (for example, this measure includes people in part-time employment seeking more hours). While it illustrates that underutilised labour has not fallen to the same extent as unemployment, underutilised labour is also around historically low levels.

Chart 8

Unemployment and Underutilised Labour

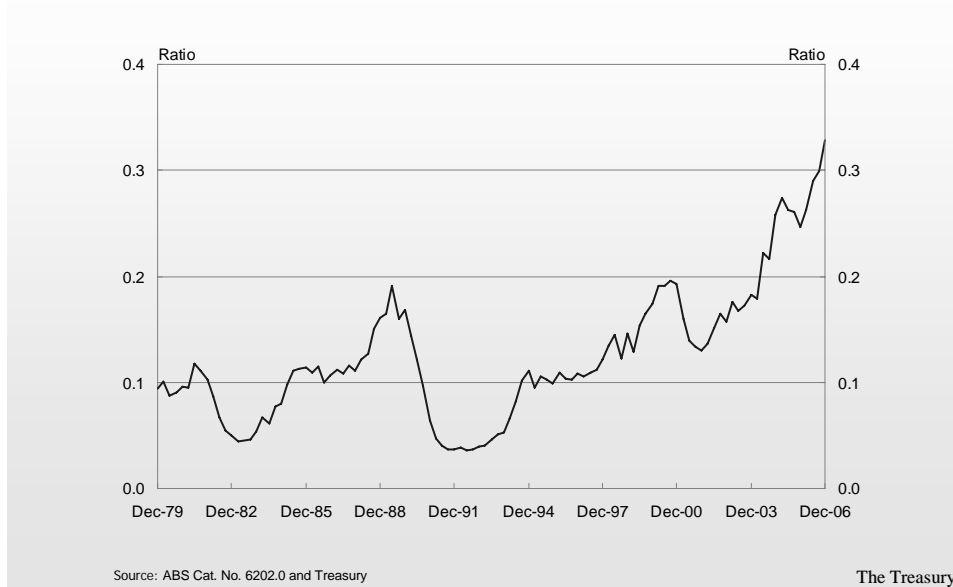


Other measures of the state of the labour market, including the employment to population ratio and vacancy rate (the number of vacancies as a proportion of the unemployed), also show a high level of labour utilisation. The employment to population ratio is at its highest level on record, with around 72 per cent of persons aged 15 to 64 years working.⁴ For the vacancy rate, there are now around three unemployed persons for every job vacancy compared with an average of around eleven unemployed persons for every vacancy over the 1980s and 1990s (Chart 9).

⁴ ABS labour force statistics are available from 1966.

Chart 9

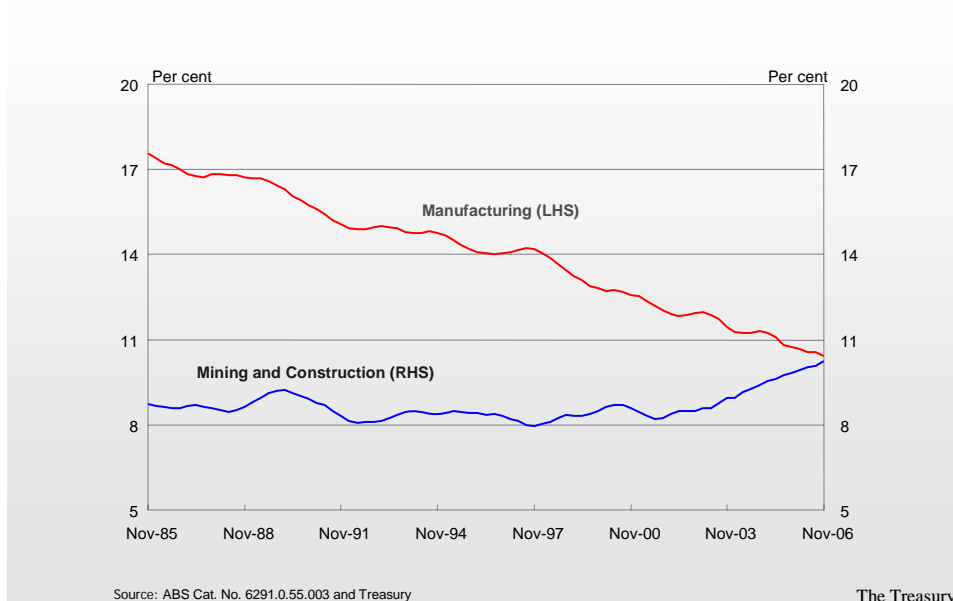
Vacancy to Unemployment Ratio



With the labour market considerably tighter than it has been for many years, have we seen labour moving between sectors of the economy in response to higher mineral resources prices in the manner expected? Employment growth in mining and construction has grown well ahead of other industries with their combined share of total employment rising to an all time high and accounting for around 30 per cent of the growth in employment over the past two years. We have also seen a decline in the share of manufacturing employment, although interestingly not beyond the trend decline we have been observing for over 20 years (Chart 10).

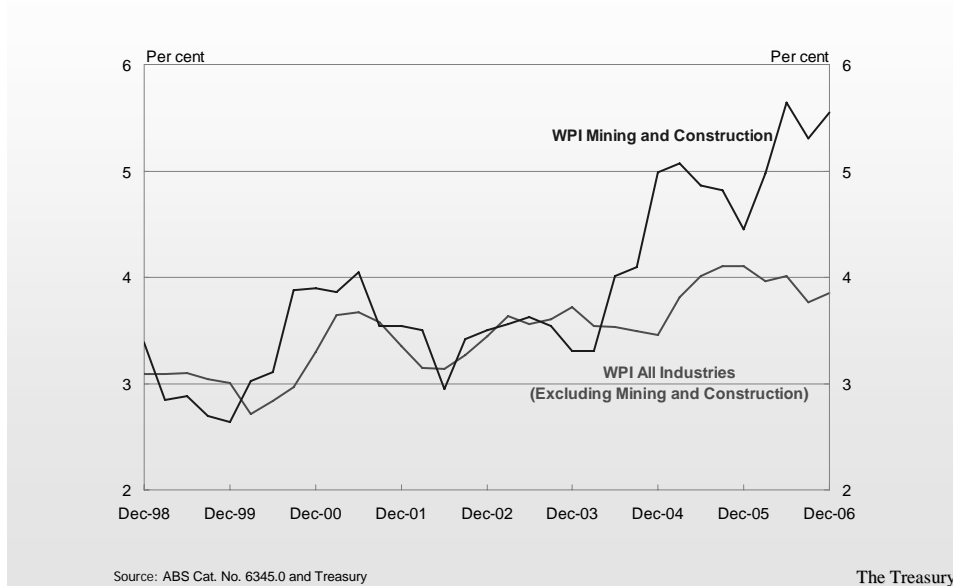
Chart 10

Industry Share of Employment (4 quarter moving average)



Reflecting the increase in demand for labour in mining and construction, there has been significant variation in wages outcomes, with wages in mining and construction growing significantly stronger than other sectors (Chart 11).

Chart 11
Wages Growth by Industries
 (through the year)



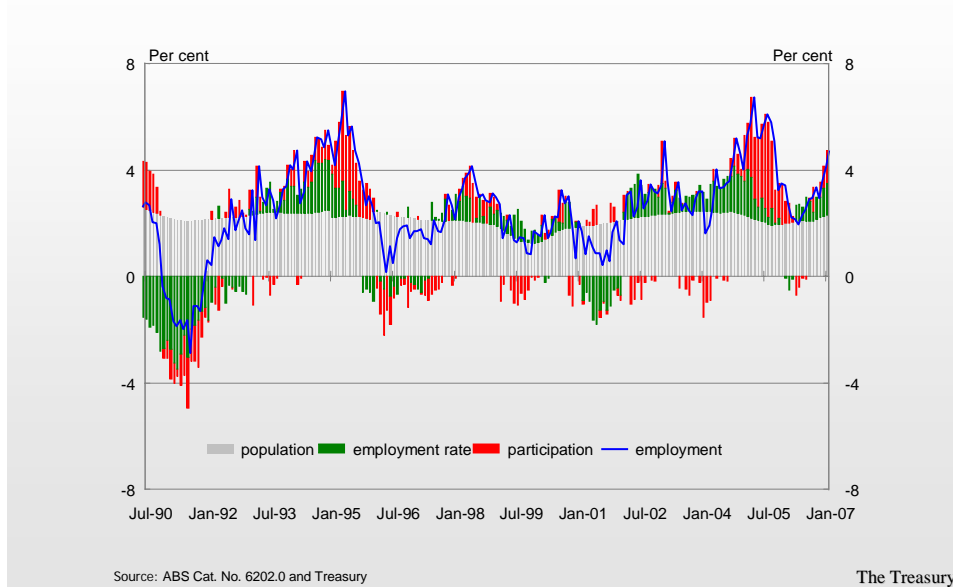
As is well known, the distribution of industries across Australian states is uneven, with mining and construction accounting for 26 per cent of total activity in Western Australian and Queensland compared with only 9 per cent for the other states.

Thus, the differences in the labour market across industries are reflected in differences across states. Moreover, we would also expect to see movements in labour to those regions where activity is strongest reflecting the increasing share of employment in these industries.

Chart 12 shows, however, that there has been no significant increase in population growth in Western Australia and Queensland, reflecting little change in the rates of interstate migration. Moreover, if we overlay population growth with employment growth we can see that the rapid increase in employment in these states has not been due to population movements.

Chart 12

Employment Growth in Queensland and Western Australia

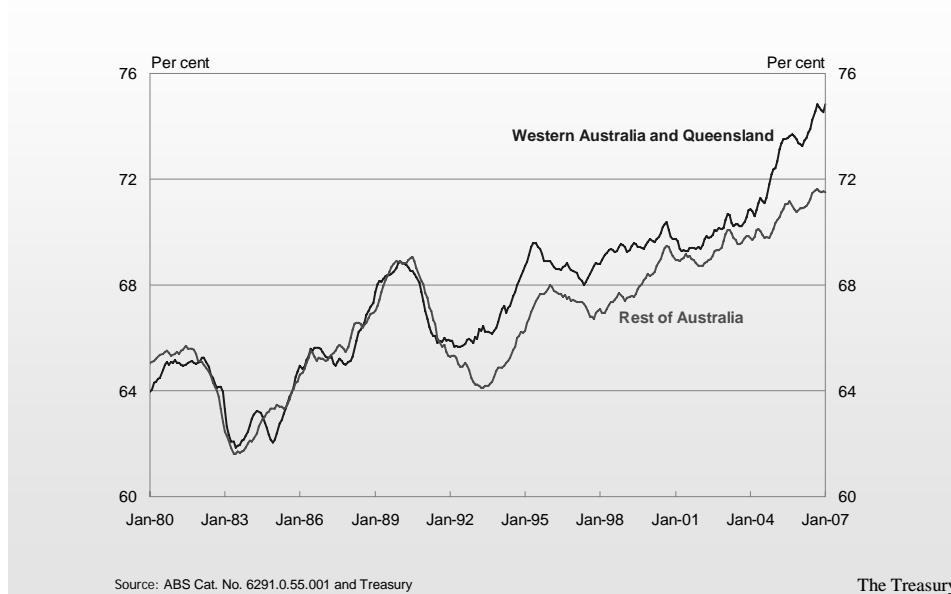


This shows that most of the additional employment in WA and Queensland has come through attracting workers into the labour market from within their own States rather than through attracting labour from other states. Thus, at this stage, we have not yet seen large movements of labour toward the regions with the strongest demand.⁵ What we have observed is an increase in labour utilisation particularly in Western Australia and Queensland. This can be clearly seen in Chart 13, which shows the proportion of people aged 15 to 64 years employed for WA and Queensland and for the rest of Australia.

⁵ Although for the most recent data there was an increase in international migration to WA. In 2005-06, net overseas immigration accounted for 54 per cent of WA population growth (see ABS Cat. No. 1367.5 *WA Statistical Indicators*).

Chart 13

Employment to Population Ratio (15-64 age group, 3 month moving average)



While the economy is responding to the increase in the terms of trade in a manner that is broadly consistent with expectations there have been some interesting variations. In particular, the increase in the terms of trade has probably stimulated the economy by more than expected and while additional resources have flowed to mining and construction, there has also been an overall increase in employment. More labour resources have been drawn in as the economy has reached what we would previously have thought of as full employment.

How then is the manufacturing sector being affected by these changes? Table 1 shows average annual growth rates for various industries within manufacturing between 1983-84 and 1988-89. Throughout this period, most manufacturing industries grew strongly. As we move forward to the period 1989-90 to 1991-92, we see manufacturing experiencing the full impact of our last recession while in the following eleven years most areas of manufacturing grew solidly with the exception of textiles and clothing.

In the period 2003-04 to 2005-06, only two sectors of manufacturing grew strongly and in fact most sectors declined. Of the two strong sectors, non-metallic mineral products (including cement, bricks and lime) grew very strongly, reflecting the booming construction industry. Furthermore, this is essentially a non-tradable manufacturing sector, with low import penetration and export propensity, and hence is probably less affected by exchange rate movements. The machinery and equipment sector also grew solidly and while this industry is a highly traded sector, it clearly has benefited from the strong demand engendered by the resources boom and may have been positively affected by the composition of China's growth.

Table 1
Manufacturing Gross Value Added
(Average Annual Growth)

	1983-84 to 1988-89	1989-90 to 1991-92	1992-93 to 2002-03	2003-04 to 2005-06
Total Manufacturing	3.7	-2.1	2.4	-0.2
Food, Beverage & Tobacco	2.2	1.2	2.5	0.1
Machinery & Equipment	3.0	-3.3	3.5	3.7
Metal Products	4.6	-0.2	1.6	-1.1
Petroleum, Coal & Chemical	3.7	-1.2	3.0	-2.8
Printing, Publishing & Recorded Media	5.5	-2.2	3.2	-0.6
Wood & Paper Products	4.5	-6.8	1.8	-1.2
Non-metallic Mineral Products	4.8	-4.9	3.3	6.7
Other Manufacturing	5.2	-5.6	3.7	-3.9
Textile, Clothing, Footwear & Leather	3.5	-6.2	-3.8	-11.0

Source: ABS Cat. No. 5206.0 and Treasury

The Treasury

Why then has around 75 per cent of the Australian manufacturing sector been either flat or declining while other parts of the economy were booming? As David Gruen noted in his address to this group last year, with an economy very close to full employment, parts of the economy cannot boom without others contracting to release the required resources. Interestingly, as I noted earlier, there has been little evidence to date of labour moving to regions to satisfy additional demand. This suggests that the increase in labour supply may have softened the effect of the terms of trade increase on manufacturing.⁶

How then does the relatively muted movement of labour from manufacturing to other sectors (particularly compared with manufacturing's longer-term trend decline) square with weak output growth in manufacturing? The answer is that, over the past three years, average annual productivity growth in manufacturing has slowed to 1.9 per cent, down from 3.0 per cent between 1992-93 and 2002-03.

One possible explanation for why manufacturing employment has fallen more slowly than output is that there may be a lagged adjustment process in manufacturing that still has some way to go. Another possibility is that it points to confidence that manufacturing will bounce back should the exchange rate fall, so that employers want to hold on to employees in a tight labour market. It remains to be seen which of these interpretations is correct.

⁶ The Rybczynski (1955) theorem shows that an increase in labour supply will shift production toward relatively labour-intensive industries. In this case, this effect may have offset the Stolper-Samuelson effect arising from the rise in the terms of trade.

Nonetheless, even though the exchange rate has not have forced quite the adjustment on the economy that we might have expected it has still forced a substantial adjustment on the manufacturing sector.

One might be prompted to ask whether the re-emergence of China and the booming resources sector spells the end of manufacturing in Australia. I think not. As we pass through the resources boom, the significant amount of mining construction will eventually ease (although there seems to be a considerable way for this to go just yet). With likely other adjustments, including through the exchange rate as the terms of trade ease somewhat, I expect other sectors of the economy such as manufacturing will grow more strongly in the future.

However, I do think that the longer-term trend decline in manufacturing as a share of output and employment may continue for some time yet. And it may well be that the composition of Australia's manufacturing will shift to take advantage of China's re-emergence and the composition of its growth.

Conclusion

The rapid development taking place in China, like that which preceded it in Japan and the NIEs, is providing a positive boost to global and Australian welfare. In fact, Australia is currently experiencing a period of great prosperity. In real terms, per capita net national disposable income has risen by 15 per cent over the past five years, compared to an 11 per cent increase in per capita production. These gains have been facilitated by policy reforms that have increased the flexibility of the Australian economy and its integration into the global economy.

The economy's adjustment to the rapid rise in the terms of trade has largely proceeded as most expected although there have been some interesting developments particularly around the labour market. Australia now finds itself as close to full employment as it has been for 30 years and perhaps more fully employed than previously thought possible. The fact that more labour resources have been able to be utilised as the labour market has tightened has so far helped moderate the adjustment impact on other sectors of the economy.

The 30-year low in unemployment and associated developments are indeed a wonderful outcome, but these developments do not mean Australia's future is assured. As they say in financial markets, past performance is not necessarily a guide to future performance. It will require a subtle change in thinking for the economy's recent performance to be maintained. Australia has been able to grow at a rate somewhat faster than its potential growth rate for some time as excess capacity in labour market has been reduced. This will probably no longer be the case and not only will growth rates be on average a little lower, the adjustment to various shocks within the economy may look a little different.

We should also not forget that some of the prosperity currently being enjoyed is likely to be transitory. In particular, the dramatic extent to which our purchasing power has risen will not continue indefinitely but probably fall back, at least to some extent, with the terms of trade likely to retrace some of their recent increase.

Thank you for the opportunity to speak with you today.

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