

Australian Opportunities through the Chinese Structural Transformation

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Abstract

China is now Australia's largest trading partner, continuing to increase its relative importance. Its growth and structural change have been the major determinants of the conditions under which Australia relates to global markets for goods, services and capital. China has been a labour surplus economy. Over the past half-dozen years, China has entered the 'turning point' in economic development, in which labour becomes scarce, real wages rise rapidly, the surplus of savings over investment falls and there is some easing of growth rates in sectors that use resources intensively. This changes the nature of Australian opportunities in China.

1. Introduction

China is now Australia's largest trading partner for exports of goods and of services and for imports of goods. It is best known as our largest and fastest-growing export market for minerals, energy and wool, the buoyancy of which made an important contribution to the sustenance of growth through the recession in other developed countries following the Great Crash of 2008. Amongst many firsts, China is the largest source of international students—which, until 2010, kept growing despite pressures that truncated growth in other Australian education markets. It is a growing, but still small, source of direct foreign investment and debt. It provides a high proportion of our migrants (third behind India and New Zealand in recent years) and a higher proportion of skilled migrants (Findlay 2011).

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As, or more, important than these bilateral interactions, China has become the major influence on the external economic environment within which Australia engages in international trade and investment. China's economic growth and structural change are principal determinants of Australian terms of trade. They shape the conditions under which Australia obtains capital and skilled migrants in global markets. They have a major influence on the level and sectoral composition of Australian business investment and a significant influence on the nature of growth of the Australian labour force.

China has accumulated this role in Australian economic development through sustained rapid growth since its market-oriented reform and opening to the international economy began at the end of the 1970s. Its influence on the environment that shapes Australia's international economic transactions is larger than its second place in the hierarchy of world economies or its first place and 10 per cent share of world exports would suggest because it is magnified by unusually high complementarity and also by relative proximity. (Relative proximity matters because it is associated with relatively low transport and transactions costs of trade—the former especially important for bulk commodities and the latter for services and finely differentiated manufactured goods.)

Since the beginning of the twenty-first century, acceleration of urbanisation, export orientation and capital intensification of the Chinese economy have made it more and more complementary to Australia's patterns of production and comparative advantage. Exports, investment and urbanisation are all associated with intense use of energy and metals (Garnaut and Song 2006). An increased tendency of current external payments surplus in China and deficit in Australia in the early twenty-first century has made us highly complementary economies on capital account, as well. China's surplus savings have made it possible for the deficit-prone Australian private sector to fund its borrowings at relatively low cost.

In recent years, China has entered a period of rapid structural change, driven by increasing scarcity and cost of labour after one-quarter of a century of strong growth shaped by a relative abundance of unskilled labour. The main focus of this article is on the contemporary and immediately prospective pattern of

growth and structural change in China. The article concludes with comments on the ways in which continuing structural change in the Chinese economy over the next one and two decades is likely to affect Australian economic performance.

2. The Turning Point in Chinese Economic Development

From the early 1980s, Chinese economic growth had many features that are familiar from standard analysis of a labour surplus economy opening to intense interaction with the international economy. About 5 years ago, economists drew attention to labour scarcity with rapidly rising real wages in parts of China and to the relevance of the Lewisian 'turning point' in economic development (Garnaut 2006; Garnaut and Huang 2006; see also Cai 2010 and other contributions to the special issue of the *China Economic Journal*, vol. 3, July 2010).

The notion that labour shortages would play a role in early future Chinese development was pushed from most minds when the recessionary impact of the Great Crash of 2008 came to China through the sudden dramatic reduction in demand for Chinese exports and the associated collapse of demand for labour in China's coastal cities (Garnaut with Llewellyn-Smith 2009, especially ch. 9). The dramatic fall in urban demand for labour in the export-oriented industrial cities turned out to be brief and the growth in real wages of low-skilled workers soon resumed a rapid upward movement.

3. The Surplus Labour Economy

The idea of the 'turning point' comes from a highly stylised model of economic development in a labour surplus economy (Lewis 1954; Fei and Ranis 1964a, 1964b, 1966; Ranis and Fei 1961, 1963). The labour surplus economy of the model has a highly productive and dynamic 'modern' or 'urban' or 'industrial' sector and a relatively unproductive and stagnant 'traditional' or 'rural' or 'village' sector. When a worker moves from rural to urban employment, the total output of the economy rises. However, in the early stages of expansion of the modern economy, and perhaps for a considerable while, there is still redundant rural labour and marginal product of labour in rural areas remains low or zero.

Rapid expansion can proceed in the urban sector without increases in real wages. The improvements in infrastructure, labour culture and management practices that raise productivity with the passing of time are reflected in a rising rate of return on investment and an increasing profit share of modern-sector income. The rising modern-sector share of the economy contributes to a rising profit share in the economy as a whole.

Savings are a much higher share of profits than of wages, so that a rising profit share of income is associated with a higher savings rate. The higher savings, in turn, support higher levels of investment in the usual situation of home-country bias in investment, encouraged by the high and rising rates of return on investment.

A falling consumption share is the other side of the coin to a rising savings share. The share of investment in output rises as rapidly as the consumption share falls, unless the public sector expands its share of expenditure.

Modern economic growth in the labour surplus economy is associated with strong comparative advantage in labour-intensive manufactured products. The rapid accumulation of capital in the modern sector and the increase in productivity associated with this and the labour force's learning of industrial disciplines and techniques makes production of a wider range of traded goods and services profitable in the modern sector. This causes comparative advantage to emerge in some more sophisticated manufactured products, without any weakening of competitiveness in production of labour-intensive traded goods. At this stage, there is no pressure for absolute contraction of labour-intensive industries in the traded-goods sector.

In the labour surplus economy, the fall over time in the wage share of income is associated with a widening of inequality in the distribution of income. But, the faster the rate of growth, the greater the rate of emigration from rural to urban areas, the quicker the absorption of the surplus rural labour into productive modern-sector employment and the earlier the turning point from an economy in which labour is in surplus to one in which labour is scarce.

4. Real-World Variations of the Stylised Surplus Labour Model

The most important departure of Chinese reality from the model is in the geographically differentiated nature of the labour market in the huge Chinese economy. Within China, there is imperfect mobility of labour amongst provinces and regions. The main consequence of the geographically differentiated labour market is that there is a 'turning period' over which real wages begin to rise strongly, rather than a 'turning point'.

Even in the early stages of emigration from part of the rural economy, higher average material living standards and consumption are likely to be reflected in some enhancement of the living conditions of potential emigrants, so that the reserve price of rural labour, and therefore wages of urban workers, rises to some extent from an early stage in modern economic development. Entry into the turning period will be marked by an acceleration of wage increases, rather than a sharp movement from stable to rapidly increasing real wages.

The third major departure is that, in reality, labour is highly differentiated by skills, resulting from differences in education, training and experience in the modern economy. Investment in education and the accumulation of skills through experience in the modern sector of the economy reduce the stocks of low-skilled labour available to the urban economy. This brings forward the turning period in economic development.

The fourth major departure is that the real economy does not contain only 'traditional' and 'modern' sectors. There is also a government sector that provides services and modifies demand and supply for various types of labour, affects living standards in rural and urban areas and supplies inputs that are critical to economic growth. The government sector's role is likely to increase with expansion of the modern economy and it brings forward the turning period by increasing demand and reducing supply of relatively unskilled labour.

5. The Turning Period and Chinese Development

Chinese official policy, embodied in the Twelfth Five-Year Plan covering 2011–15, emphasises reducing inequality in income distribution, reducing the energy intensity and greenhouse gas intensity of the economy, expanding the service- relative to goods-producing sectors and raising the quality of public services in rural areas. To the extent that official policy is successful, it will reinforce and extend the structural changes that are occurring with economic growth beyond the turning period.

I focus on four of the most important effects of structural change over the period ahead: (i) the rate of growth in output; (ii) China's external surpluses; (iii) changes in economic structure; and (iv) some near-term risks of greater macro-economic instability.

5.1 *The Turning Point and Growth*

Fang Cai, China's leading analyst of developments in labour markets, has recently summed up the evidence on rising wages:

In the period 2003 to 2008, the annual growth rate of monthly wages in real terms was 10.5 per cent in manufacturing, 9.8 per cent in construction, and 10.2 per cent for migrant workers. The real daily wages of paid agricultural workers in the same period rose even faster — 15.1 per cent in grains, 21.4 per cent in larger pig farms, and 11.7 per cent in cotton. Even during 2008 and 2009, when the Chinese economy was affected by the global financial crisis, the trend of growing wages did not stop. In 2010, the real wage of migrant workers increased by 19 per cent. Even this increase did not ameliorate the severe shortage of unskilled workers.
[Cai 2011]

In growth accounting terms, the turning period is likely to be associated with (although not caused by) a decline in the labour contribution to growth, may be associated with a fall in the investment contribution, although this is less likely to be the case in an economy that begins with a large current external payments surplus, and is unlikely to be associated with a fall in total factor productivity growth.

On the labour contribution, China's growth through the reform era so far has been favourably affected by a declining ratio of dependants to working-age

people and total growth has been raised by considerable expansion of the labour force. These positive influences on growth have been slowing and are about to go into reverse.

The Chinese 'demographic transition' is occurring unusually early and rapidly. Official Chinese and United Nations data point to the total population rising from 1.35 billion in 2010 to a peak of 1.46 billion and then declining. The unfavourable trend in dependency ratios has the labour force reaching a peak earlier—about 1 billion between 2010 and 2015—before falling by 130 million by 2050 (Zhao 2011). Professor Zhongwei Zhao (2011) has noted that the official and United Nations data probably understate the recent and prospective decline in fertility: he suggests that there is a risk of large-scale overestimation of the population and labour force in the official and United Nations estimates.

The high and rising absolute Chinese investment in education is focused on a declining number of young people, so that the educational level of the labour force is rising and will continue to rise at an unusually rapid rate. This, too, intensifies the scarcity of relatively unskilled labour.

The fall in the savings rate that accompanies the increase in wages and the decline in the profit share will not necessarily put downward pressure on the investment rate in an economy with a huge current surplus in the balance of payments. Investment will remain high if it is expected to be profitable—or, in the case of public investment, if the value of public goods or the employment and expenditure that it generates seems to warrant investment. There will be pressure on profitability in the labour-intensive industries, but not necessarily in more capital-intensive and technologically sophisticated parts of the economy. There, the effect of rising labour costs on profitability will be influenced by productivity growth. In the early years at least, there is unlikely to be a substantial fall in the capital contribution to growth.

On productivity, while the increasing scarcity and productivity of labour in the countryside diminishes the gains from rural–urban migration, the rise in real wages exerts powerful pressure towards more productive use of labour in both rural and urban areas. On balance, there is no reason to expect the rate of increase in total factor productivity to decline. On balance, productivity may

increase, with the gains concentrated in industries producing relatively sophisticated products.

How successful China is economically in this period of rapidly rising real wages will depend on the flexibility of the economy, its openness to foreign trade and investment and the world's most productive ideas about managing enterprises, the quality of the human resources created by the rapid expansion of the education system over the past couple of decades and the quality of the regulatory systems applied to the more complex economy that is emerging. If China does well in these areas, it is possible that an acceleration of total factor productivity growth will fully offset the effects on growth of any lower rate of capital accumulation.

I applied this assessment of labour, capital and productivity contributions within a growth accounting framework to Chinese growth prospects for the update of my Climate Change Review (Garnaut 2011a, Table 6; 2011b). This led to projections of average growth of a bit below 10 per cent per annum from 2009 to 2015 (roughly the average for the reform period) and a bit below 7 per cent from 2015 to 2030 (decelerating within this period as the gap between average Chinese productivity and the world frontiers declines).

5.2 *The Turning Point and External Balance*

It is likely that China's savings rate will fall more than its investment rate (if the investment rate falls at all). This will reduce the external surplus in trade and current payments as a share of the economy. The trade surplus has fallen considerably under the influence of strong domestic demand, weak external demand through the North Atlantic downturn and real appreciation in China. The trade surplus reached an annual peak of 7.5 per cent in 2007. It fell to 4 per cent in 2010. High and rising surpluses on the income account have caused the current account surplus to be larger and to fall more slowly.

China is now the world's largest source of savings and by far the world's main source of capital for international investment. The extent to which the Chinese turning period places significant downward pressure on global, long-term interest rates depends on the balance that is established among the downward effect on global interest rates of continued strong growth in the share of world

incomes accruing to a country that continues to have an exceptionally high savings rate, the upward effect of the fall in the savings rate and the ambiguous effect of changes in the investment rate. On balance, changes in Chinese contributions to net savings in the global economy are likely to weaken what has been a powerful downward influence on global interest rates through the early twenty-first century.

5.3 The Turning Period and Economic Structure

Comparative advantage in foreign trade after the turning point shifts out of labour-intensive products into more capital-intensive and technologically more sophisticated goods and services. These products require higher-quality inputs of human resources (education and training), infrastructure (including for communications), finance and regulatory arrangements. These requirements make heavy demands on the quality of various services provided by government. Weaknesses in these areas are more likely to emerge as bottlenecks to continuation of rapid economic growth after, than before, the turning point in economic development.

The centre of China's comparative advantage in international trade will shift rapidly from a fairly narrow range of labour-intensive products to a wider range of more capital-intensive and technologically sophisticated products. This will ease some dimensions of China's trade problems with the rest of the world (perceptions of competitive pressure on other developing countries and heavily concentrated pressures for adjustment on particular sectors in developed countries) and complicate others (competitive pressures will be felt across a much wider range of industries in developed countries).

It is likely that two sources of exceptional growth in Chinese demand for energy and minerals will diminish: the rate of urbanisation and the rate of growth of exports. The third, the rate of investment, may or may not fall in the early years, although it is likely to fall in the long term. Total demand for metals and energy will continue to grow with the economy, but at a diminishing rate.

There is a saying amongst Chinese economists that the prices rise for goods that China imports and fall for goods that China exports. That has been highly favourable for Australia's terms of trade. The Chinese economy that emerges

from the turning period will be less highly specialised in exports and in imports, with a small range of sources of energy and minerals being less dominant. Slower growth in Chinese demand for energy and minerals will allow global supply to 'catch up' with the demand conditions that have generated exceptionally high prices. Demand and supply side-effects together are likely to lead to substantial downward movement in Australian terms of trade, albeit to levels that are well above the norm for the last quarter of the twentieth century.

5.4 *The Turning Point, Inflation and Stability*

Whether or not the acceleration of real wage increases beyond the turning point is inflationary depends on the stance of monetary policy. The increase in real wages increases domestic costs relative to the prices of internationally traded goods; that is, increases the real exchange rate. The increase in the real exchange rate occurs no matter how the nominal exchange rate is managed. The avoidance of inflation as economic growth continues beyond the turning point requires firm monetary policy alongside appreciation of the nominal exchange rate.

Here, there are risks of errors in economic policy that may unnecessarily diminish the rate of economic growth and the rates of increase in real wages and living standards in rural and urban areas. If the authorities become worried about inflation while wanting to avoid an appreciation of the nominal exchange rate (perhaps in an attempt to protect the labour-intensive industries whose competitiveness is declining), they may seek to tighten expenditure policy in an attempt to hold inflation to low levels. This generates an additional tendency to surplus in external trade and payments. The payments surplus generates tendencies to monetary expansion and to the re-emergence of inflationary pressure. In the end, it is likely that the rate of growth will tend towards the maximum sustainable levels, with the real appreciation emerging after a lag through inflationary processes. In the meantime, the lurches in policy that are likely to be associated with realisation from time to time that policy is not achieving the desired result are likely to be associated with unnecessarily unstable growth in output.

The Chinese monetary authorities are aware of these risks, but are also constrained by some misconceptions amongst the political leadership that nominal exchange rate appreciation to an extent that removes significant

inflation risks would be damaging to employment and economic growth. The outcome has been moderate nominal exchange rate appreciation against the US dollar, at a rate that diminishes but does not remove the inflationary pressures associated with the turning period.

China maintained a fixed exchange rate against the US dollar from 1994 until July 2005. This fixed exchange rate period covered the Asian financial crisis, during which the market pressures were strongly in the direction of renminbi depreciation. The early years of the twenty-first century were associated with increasing current payments surpluses. The nominal exchange rate against the US dollar was lifted gradually by a total of a bit over 17 per cent to August 2008, when the Great Crash led to another fixed-rate period until June 2010. The US dollar tended to be a 'safe haven' and strong currency during and through the immediate aftermath of the Great Crash, but by late 2009 was dragging the Chinese currency down against other currencies (McKay 2011). Since June 2010, the nominal value of the renminbi has been raised by a bit above 7 per cent against the US dollar.

The successive appreciations against the US dollar have taken some of the edge from domestic inflation, but leave it at levels that are unacceptably high to the Chinese authorities and community, with consumer prices rising a bit over 6 per cent in the year to August 2011. Predictably, this has led to tightening of expenditure policies in the hope that it will reduce inflation. It has had some effect in lowering growth below potential levels, but not in lowering inflation below the levels that follow inevitably from rapid real wage increases and exchange rate adjustments that, in the circumstances, are small.

6. Chinese Structural Change and Australian Development

Sustained Chinese growth over the one and perhaps two decades ahead is likely to continue to expand growth opportunities everywhere through expanded scope for trade specialisation and two-way investment flows.

Australia relies exceptionally on foreign borrowing abroad for funding domestic investment and its heavily indebted private sector is likely to find that structural change in China increases the costs of debt. While this effect will be felt first within the private sector, it will affect public revenues through reduced private

profits. This will be a moderately negative influence on growth prospects. It will increase the risk that future financial crises that have their origins in the global private financial sector will have severe effects in Australia, unless there is change in Australian corporate financing, especially in the financing of bank lending within Australia.

Chinese growth and structural change have been the largest single cause of Australia's terms of trade over the past 5 years reaching exceptionally high levels. This, in turn, has provided the impetus to a private business investment boom of unprecedented dimensions, centred on the resources sector.

The resources boom has lifted the real exchange rate to unprecedented levels and substantially reduced incomes and investment in all other industries producing tradeable goods (notably manufacturing) and services (notably education and tourism). The exceptional expansion of Australia's most capital-intensive sector has also reduced the supply and increased the cost of capital in other parts of the economy (Rybczynski 1955). This has had a negative effect on incomes, investment and employment in many businesses producing non-traded, as well as traded, goods and services and on public revenues derived from those industries. The overall impact of the Chinese boom on Australian incomes and output has been strongly positive, but it has been accompanied by powerful negative effects on many industries and on the incomes of substantial numbers of Australians.

The Australian economy has become much more specialised in production of a narrow range of resources commodities, led by iron ore, coal and natural gas. Prices, and eventually investment, in these industries are vulnerable to change in levels and composition of Chinese economic activity, as well as to global supply responses to high prices in the resources boom. While the most likely prospect is for continued strong growth in the Chinese economy, growth will be subject to fluctuations as China grapples with macro-economic management challenges, including some that have their origin in the structural change of the turning period. Fluctuations in Chinese growth will transmit immense adjustment challenges for Australian economic policy.

Chinese structural change and the global supply response to high commodity prices are likely to reduce Australian terms of trade considerably over the period

ahead. There is no absolute shortage of iron ore in the ground and high levels of investment in Australia and elsewhere will lead to lower prices. Thermal coal prices are likely to be affected negatively by a combination of supply responses and Chinese domestic policies directed at reducing greenhouse gas emissions. This effect of Chinese environmental policies will be balanced by positive effects on demand for uranium and natural gas.

Australia's adjustment to lower terms of trade and resources investment, when it comes, will be costly and difficult. It will be eased to some extent by expanded opportunities in a larger Chinese market for many services and specialised manufacturing industries in which Australia is potentially competitive on a global scale, but temporarily rendered uncompetitive within the exchange rate and capital constraints of the Chinese-induced resources boom.

China is not the whole global growth story. Chinese trade and investment expansion has been one factor behind the acceleration of economic growth in much of the developing world in the early twenty-first century. To the extent that the Chinese boom is joined, and eventually succeeded, by exceptional growth in other developing countries, the downward pressures of Chinese structural change on the Australian economy will be ameliorated.

Many effects of Chinese growth on Australian economic opportunities and performance do not depend on Australia's bilateral relationship with China. However, Australian benefits from the Chinese opportunities will be enhanced by deft management of bilateral relations at government and private levels. This will become more important as the resources boom weakens and as opportunities increasingly take the form of two-way trade in complex services and manufactured goods, two-way investment and movement of people and knowledge across national boundaries.

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