MACRO-ECONOMIC IMPLICATIONS OF THE TURNING POINT

Ross Garnaut

Vice-Chancellor's Fellow and Professorial Fellow in Economics,

The University of Melbourne

Presented at:

DEBATING THE LEWIS TURNING POINT IN CHINA

An International Workshop Jointly Organized by:

Institute of Population and Labor Economics (CASS)

and China Center for Economic Research (PKU)

Beijing, 6th April 2010

MACRO-ECONOMIC IMPLICATIONS OF THE TURNING POINT

It is now four years since Yiping Huang and I introduced into the discussion of China's economic development, the idea that China "in the period ahead" would move into a Lewisian "turning point". At this point, the national labour market would tighten. Beyond the turning point, real wages would rise rapidly, forcing change in the structure of the economy (Garnaut, 2006; and Garnaut and Huang, 2006, Chapters 1 and 2 in Garnaut and Song (eds), 2006). That idea became part of a larger discussion of labour market changes in the course of Chinese economic growth, involving Song (see the acknowledgements in Garnaut and Huang), Cai, Wang and Minami amongst others.

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 Chapter 9). It has been brought back to mind by the extraordinary strength of the Chinese economy's response to the expansionary monetary and fiscal policies that were introduced in late 2008 in response to the global recession.

This paper examines the implications of the "turning point" for macro-economic dimensions of Chinese economic development and its interaction with the global economy. This short version of the paper, for discussion at the conference on April 6, is conceptual, focussing on the main economic ideas. The version of the paper for publication will have substantial empirical content.

THE SURPLUS LABOUR ECONOMY

The idea of the "turning point" comes from a highly stylised model of economic development in a labour surplus economy. The model was first developed by Jamaican American economist Arthur Lewis, who, surprisingly given the mainly East Asian famous applications of the model, had in mind labour market conditions in his home country (Lewis, 1954). The model was elaborated and applied in an East Asian context by Fei and Ranis (Ranis and Fei 1961, 1963, Fei and Ranis 1964a, 1964b, 1966). It was embedded in Minami's influential book on Japanese postwar economic development (Minami, 1973).

The labour surplus economy of the model is dualistic, with a highly productive and dynamic "modern" or "urban" or "industrial" sector, and a relatively unproductive and stagnant "traditional" or "rural" or "village" sector. In the stylised labour surplus economy of the model, the marginal product of labour in rural areas is well below the living standards that poor residents of rural areas enjoy. (In some versions of the model, the marginal product of rural labour is zero). The marginal product of labour in urban employment is positive and well above levels in the countryside. It follows that migration of labour from rural to urban areas increases total product and obviously output per person. Such rural-urban migration is a main source of growth in average productivity and total output.

Living standards in rural areas can remain above the marginal product of labour because they are supported by village institutions, which lead to some sharing of incomes and employment. There are risks and costs of moving from the rural to the urban sector for employment. Assessments of these costs and risks, on top of the customary rural standard of living, establish the “reserve price” of labour, or the urban wage at which migrants are prepared to migrate.

When a worker moves from rural to urban employment, the total output of the economy rises: there is an increase in urban output, but no reduction in rural production. Average output rises in rural areas (with the same output and less people). 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. The reserve price of rural labour remains low, and for a while is unresponsive to increased urban demand for labour and emigration.

The availability of “infinite” supplies of labour from rural areas has important implications for the structure of growth in both the urban and the rural economies.

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 also contributes to a rising profit share in the economy as a whole. Profits are saved disproportionately. The higher savings, in turn, support high 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. To maintain the maximum sustainable rate of growth, the share of investment in output must rise as rapidly as the consumption share falls---unless the public sector expand its claims on resources to avoid Keynesian deficiencies in aggregate demand.

An excess of investment over rising savings will generate tendencies to deficits in external trade and current payments. This may be sustainable (in which case the deficits raise the sustainable rate of growth) or unsustainable.

An excess of rising savings over investment will lead to unnecessarily low growth. It will not lead to increasing unemployment of domestic resources, except where it is associated with a dramatic fall in modern sector growth in output and demand for labour.

With rising returns on investment and a rising profit and therefore savings share of income, it can be expected that the rate of investment will rise over time. The combination of rising total factor productivity and rising investment rates causes the rate of growth to accelerate.

In the rural sector, the marginal product of labour remains well below the customary minimum income level. Expansion of the modern sector and migration from the village introduces no pressure to economise on the use of labour in production. Average standards of living rise in the village, without noticeably affecting the customary income level.

Comparative advantage in international trade is strongly in labour-intensive products. The proportion of exports from the modern sector rises over time. Comparative advantage gradually comes to encompass some more sophisticated products of the industrial sector, without weakening competitiveness in production of labour-intensive traded goods. Rising productivity may make a wider range of activities profitable, extending further up the lists of capital intensity and technological sophistication, but there is not at this stage any pressure for contraction of labour-intensive industries in the traded goods sector.

There is no inevitable and natural tendency to either surplus or deficit in external trade. The rate of savings will rise over time and will probably eventually be high. The rate of investment will also rise over time, possibly to high levels. Rising savings may fall short of, exceed or rise above rising investment rates. This may lead to surplus, balance or deficit in foreign trade. Savings in excess of investment—surplus in foreign trade—may be seen as a lost opportunity for faster economic growth and earlier emergence of the point at which all of the surplus labour has been absorbed into the modern sector—the turning point in economic development.

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. The faster the rate of growth in investment and output, the faster the rate of increase in inequality. 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 in economic development.

THE TURNING POINT

If the rate of economic expansion in the modern sector is fast enough for the rate of emigration to exceed the natural increase of the rural population, sooner or later the surplus labour in the rural economy will disappear. At this point, any further emigration raises the marginal productivity of labour in rural employment. The rate of increase in living standards in the rural sector accelerates. The real wage rate increases in both the rural and the urban sectors. This is the “turning point in economic development.’

From the turning point, the wage share of income rises. The rate of consumption can be expected to rise with the wages share, and the rate of savings to fall with the profit share.

The return on investment in labour-intensive investment falls. The combination of lower profitability and lower savings (and the home bias in investment) is likely to reduce the rate of investment.

At first sight, it may seem that the rate of growth of output will fall with the investment share. There are two circumstances in which this will not happen. One is if, prior to the turning point, the rate of growth was unnecessarily low, causing savings to fall short of investment, and the external trade and payments to be in surplus. In this case, there may be rebalancing from investment demand to consumption, without any reduction in the rate of investment. The second is if the rate of total factor productivity growth increases to balance a reduced rate of capital accumulation.

There are reasons to expect some increase in productivity growth beyond the turning point. Higher wages are likely to force economisation in the use of labour, and to raise productivity growth in both rural and urban sectors.

Higher productivity growth offsets the tendency to lower growth in output associated with a lower rate of investment. The rate of economic growth may be faster, similar to or slower than in the labour surplus economy.

The tendencies towards decline in the savings rate are likely to be more powerful than the tendencies for decline in the investment rate, so there may be some tendency to move in the direction of deficit in foreign trade.

Beyond the turning point, there is a reversal of the tendency for economic growth to exacerbate the widening of income inequalities. At last, rural communities and workers come to enjoy fully the fruits of modern economic growth. The faster the rate of growth after the turning point, the more rapid the rise in rural standards of living, and of workers' income levels everywhere. The faster the rate of growth after the turning point, the more rapid the reduction in the dispersion in income distribution.

The critical contribution of rapid growth before the turning point to reduction in inequality, is its bringing forward in time the point at which labour becomes scarce and labour incomes rise. The critical contribution of rapid growth to reduction of inequality after the turning point is to accelerate the increase in real wages and rural living standards relatively to incomes from ownership of capital.

The changes in labour's share of income before and after the turning point can explain the "Kuznet curve": the observed tendency for modern economic growth at first to exacerbate and later to reduce inequality in the distribution of income.

There is no inevitability about the labour surplus economy reaching the turning point. It will only reach this point if growth in the modern sector is sufficiently rapid and sufficiently labour-intensive to absorb surplus labour from the countryside more rapidly than it is augmented by natural increase. If the labour surplus economy grows too slowly relative to population increase, or policy distortions cause growth to be associated with low increases in demand for labour, modern economic growth can be associated with ever-increasing dispersion in the distribution of income.

From the turning point in economic development, real wages rise rapidly. This is associated with an appreciation of the real exchange rate. Whether or not this is inflationary depends on the stance of monetary policy: the avoidance of inflation 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. The authorities may seek to tighten expenditure policy in an attempt to hold inflation to low levels, while avoiding appreciation of the nominal exchange rate. This generates a tendency to surplus in external trade and payments. For a while this reduces the rate of growth below sustainable levels. 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 sustainable levels, with the real appreciation emerging after a lag through inflationary processes.

Comparative advantage in foreign trade after the turning point shifts rapidly out of labour-intensive products, into more capital-intensive and technologically more sophisticated goods and services. In the nature of things, these more technologically complex 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 quality of government. Weaknesses in these areas are more likely to emerge as bottlenecks to continuation of rapid economic growth.

REAL-WORLD VARIATIONS ON THE STYLISED SURPLUS LABOUR MODEL

Like any model, the labour surplus economy embodies simplifications of reality. Some of these simplifications materially affect its application to analysis of contemporary Chinese economic development. Here we examine some of the most important departures of the real from the stylised economy.

The most important departure of reality from the model is in the geographically differentiated nature of the labour market in the huge Chinese economy. There are many rural and many urban economies, with imperfect mobility of labour amongst them, reflected in differing wage levels and material standards of living. As a consequence, labour may be drawn for a while from one source at which the reserve price is particularly low, and wages may need to rise when surplus labour from that source is fully utilised. Relatively low-skill labour may become relatively scarce and real wages rise in some cities, when it is available at lower costs in others.

The main consequence of the geographically differentiated labour market is that there will be a “turning period” over which real wages will begin to rise, rather than a “turning point”. Real wages will rise rapidly in some cities, forcing reduction in the profit share of income, increases in consumption, and structural change out of simple, labour-intensive production, while labour-intensive production continues to prosper and expand elsewhere. Similarly in the rural economy, labour will become relatively scarce, living standards rise rapidly and production will shift out of labour-intensive activities in some villages when labour remains abundant in others.

Almost certainly, Huang and I were observing the early part of the turning period in 2006.

The surplus labour model’s second major departure from reality is the assumption that there is a stable conventional standard of living for rural residents. 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 so wages in urban workers, will rise to some extent from an early stage in 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, but not in the model, labour is highly differentiated by skills, resulting from differences in education, training, and experience in the modern economy. The model focuses on relatively unskilled labour, the availability of which is diminished by increases in education and training and experience. Changes in these factors affecting the quality of human resources influence the turning period during which relatively unskilled labour becomes scarce and its wages rise.

The fourth major departure is that alongside the modern and traditional sectors, there is a government sector that provides services and modifies demand and supply for various types of labour, and affects living standards in rural and urban areas, and supplies inputs that are critical to economic growth. The government sector's command over resources and also its role in providing essential inputs for development is likely to be relatively small in the early stages of development of a labour surplus economy. Government's potential command over resources expands with the modern sector, and its role in continued rapid growth becomes more important over time.

The main effect of the first two departures of reality from the model is to turn the turning point into a turning period.

The main effect of the third departure is to bring forward in time the turning period and to shorten its length.

The effect of the fourth departure is wide and complex. Provision of various rural services can raise the reserve price of emigrant labour and therefore the urban wage for unskilled labour. Provision of education services can reduce the pool of surplus labour and bring forward the turning point. Public sector demand for labour augments demand from the modern industrial sector, and brings forward the turning point.

Government policy can affect population growth and over time the amount of unskilled labour in the countryside. It can affect the labour-intensity of modern sector economic growth. The effectiveness of government provision of various inputs into the development process affects the rate of growth before the turning point, and especially after, as growth comes to make larger demands on infrastructure, education and skills, financial services, and sound regulation of private economic activity.

HOW CLOSE IS CHINA'S TURNING PERIOD?

Huang and I (2006) went through a number of factors influencing the turning period in China's economic development, and concluded in a preliminary way that it would soon begin, if it had not already done so. The looming demographic transition deriving from the large and sudden decline in fertility a generation ago; the strength of modern sector economic growth; the improvement in rural education including for girls; and the evidence of labour shortage in some rural as well as urban areas all pointed in this direction.

The thorough and exciting work of Cai Feng and his colleagues at the CASS since then tends to confirm and extend that preliminary judgement.

Since 2006, two contradictory tendencies have intervened. The global financial crisis led to sharp reduction in demand for labour in the export-oriented coastal cities in late 2008 and early 2009. For a while, the greatest migration in human history went into reverse, as redundant workers returned to the countryside. This was followed by the world's greatest ever exercise in Keynesian expansionary policy, to counteract the effects of global recession. Its success meant that by the middle of 2009, the flow of migrants from rural to urban areas had been restored, and with it the progression towards the turning period in China's economic development.

Government policy over recent years has emphasised more strongly the provision of infrastructure and services away from the old centres of modern economic dynamism in the coastal cities. This is likely to have enhanced growth in demand for labour. To the extent that it has been successful in raising living standards in rural areas, it will have been a source of upward pressure on wages independently of the turning period.

THE TURNING PERIOD AND CHINESE DEVELOPMENT

What are the implications of the turning period for China's continuing economic development, for China's interaction with the global economy, and for economic policy?

As China enters deeply into the turning period, there will be large and continuing increases in real wages and in the wage share of income. There will be sharp reversal of the powerful tendency since the 1980s towards increased inequality in income distribution. Consumption and its share of expenditure will rise.

There will be a reduction in the savings rate.

There is likely to be an increase in the rate of total factor productivity growth. In the nature of things, this will be 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 growth in total factor productivity growth will fully offset the effects on growth of a lower rate of capital accumulation. It is possible that the rate of growth in total output could be maintained at something like the average rates of the decades of reform, at least until the approach of the developed countries' frontiers of productivity and living standards reduces the scope of rapid productivity growth through "catching up".

China's comparative advantage in international trade will change rapidly, away from simple and labour-intensive manufactures, towards capital-intensive and technologically complex goods and services. This will accelerate trends that have already begun. This will expand opportunities for export-oriented growth in poorer labour surplus economies, at a rate and on a scale that could be transformative for the prospects for the densely populated parts of the developing world.

The change in China's comparative advantage will reduce protectionist responses in the traditional areas. But these had declined anyway over the past half dozen years, as the implications of China's sustained rapid growth and entry into the World Trade Organisation were absorbed, and developed countries came to accept the final decline of nineteenth century industries. China's new comparative advantage will be more broadly based, dissipating adjustment pressures over a larger part of the global economy. However, the increase in the scale of China's foreign trade will ensure that adjustment problems in slow-growing old industrial economies will remain sources of stress.

It is likely that China's savings rate will fall more than its investment rate. (It is not impossible that, at least for a while, the investment rate could rise). This will reduce the external surplus in trade and current payments. This will ease current international pressures over payments imbalances and exchange rates. It would be wise for China to ensure that total domestic demand—the sum of demand from private and public investment and private consumption—expands enough to ensure that this is the case.

It is possible that the necessary increase in domestic demand will require an increase in the investment rate for a while. Together with the expected acceleration of productivity growth, this would require an increase in the growth rate in total output, above the high rates of the early twenty first century. That will surprise the world and also the Chinese authorities, but it may be necessary to maintain internal and external balance in the period ahead.

Here lies one of the economic policy risks to economic stability and growth in the period ahead. Rising real wages past the turning point, and the pressure of strong increases in demand for other non-traded goods and services, would be inflationary unless accompanied by a combination of firm monetary policy and an appreciating renminbi. To seek to maintain a fixed exchange rate against the United States dollar into the turning period, would postpone the structural adjustments, including the reduction in inequality. It would unnecessarily postpone enjoyment of the fruits of sustained economic growth.

It would not, however, avoid the adjustments. Payments surpluses would eventually overwhelm the efforts to sterilise their monetary effects. The adjustments would occur through inflation. The inflation and the delays in reduction in inequality may be destabilising to domestic society. The delays in reduction in the external payments surplus would certainly be destabilising for China’s productive interaction with the international economy and society.

REFERENCES

Fei, J. C. H and Ranis, G., 1964a, *Development of the Labor Surplus Economy: Theory and Policy*, Richard D. Irwin, Homewood Illinois.

Fei, J. C. H and Ranis, G., 1964b, "Development of the Labor Surplus Economy: Theory and Policy", *Economic Development and Cultural Change*, 41, pp. 147-174.

Fei, J. C. H. and Ranis, G., 1966, "Agrarianism, dualism and economic development", in I. Adelman and E. Thorbecke (editors), *Theory and Design of Economic Development,* Johns Hopkins University Press , Baltimore.

Garnaut, R. and Huang, Y., 2006, "Continued Rapid Growth and the Turning Point in China's Economic Development", in R. Garnaut and L. Song (eds), *The Turning Point in China's Economic Development*, Asia Pacific Press, The Australian National University, Canberra.

Garnaut, R. with Llewellyn-Smith, D., 2009, *The Great Crash of 2008*, Melbourne University Publishing, Melbourne.

Garnaut, R. and Song, L., (editors), 2006, *The Turning Point in China's Economic Development*, Asia Pacific Press, The Australian National University, Canberra.

Lewis, W. A., 1954, "Economic development with unlimited supplies of labour", *Manchester School of Economic and Social Studies*, vol. XXII (May), pp. 139–191.

Minami, R., 1973, *The Turning Point in Economic Development: Japan's Experience*, Kinokuniya Bookstore Co. Ltd, Tokyo.

Ranis, G. and Fei, J.C.H., 1961, "A Theory of Economic Development", *The American Economic Review*, Volume 51, Number 4, p. 533-565.

Ranis, G. and Fei, J.C.H., 1963, "The Ranis-Fei Model of Economic Development: Reply", *The American Economic Review*, Vol. 53, No. 3, pp. 452-454.