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China's Growth Challenges 2010-2035

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Abstract

A recent commentary published in the *Financial Times* sought to compare China's expansion with that of Japan in the period between 1955 and 1970. During the 1960's Japan's economy grew by 10% on average each year, driven by government investment into infrastructure and by cheap labor moving from agriculture into industry. The author argued that as this flow of labor slowed and urbanization leveled out pressure on wages grew, company profit margins were squeezed and the stock market went nowhere in real terms for ten years. If Chinese workers are unable to grab a bigger share of the economic pie before the urbanization process is complete, then China can look forward to labor-strife and inflation.

This paper reviews the Japanese experience and looks at an alternative explanation of some of the drivers. It looks at the similarities and differences of the Chinese experience to date as well as some of the challenges posed by the current industrialization policy, China's demographics, issues surrounding the concept of urbanization and how it should be understood in a China context. The paper concludes by looking at the options open to China to sustain growth beyond investment and develop a sustainable consumer society over the next twenty-five years.

Japan's Economic Expansion 1955-1970

In the 1960s heyday Japan's economy grew 10% on average, and this was propelled by the movement of labor from agriculture into manufacturing. In 1950 half the labor force was in farming and by 1960 one in three workers was still a farmer. As manufacturing grew, population began to move and labor was available at an attractive price, given levels of under-employment in agriculture that was lower than the marginal product in manufacturing. Manufacturing growth therefore led to high profits rather than increasing real wages. The high profits were supposed to drive a high rate of investment.

Over this period real growth domestic product (GDP) per capita doubled in real terms from \$7,904 in 1961 to \$15,845 by 1969.

Population migration is seen as being the result of growth in manufacturing that draws in ever greater numbers. The growth in manufacturing is attributed to the low real wages made possible by 'disguised' unemployment in the agricultural sector.

This is the process that Arthur Lewis described in a 1954 paper as a typical process in an underdeveloped economy with the twin characteristics of agriculture and industry. However, it is also possible that the Lewis model does not capture fully the impact of population flows.

Hiroshi Yoshikawa of the University of Tokyo argues that population movement between the sectors was a major factor driving demand for industrial products and that such movement was a cause, as well as an effect, of economic growth. Demand for products, he says, does not emerge automatically as production expands.

In this case, low real wages were not critical for high economic growth, as the Lewis model suggests. Instead, it was the growth of consumer demand that sustained the profitability of investment. The steady rise in real wages rather than a low wage becomes a significant factor propelling growth.

The high economic growth of the period ended in 1970 when the large pool of 'under-unemployed' in the agricultural sector had mostly dried up, but reduced population flow, rather than the rising wages, was the key factor. The rate of new household formation dropped sharply, coinciding with the saturation of consumer durables in the domestic market.

Japan had to change and it did so; growth slowed but real GDP per capita doubled over the next 20 years from \$15,845 in 1969 to \$31,825 by 1989. (Over that same period US real GDP per capita increased 1.5x from \$21,021 to \$31,876). The issues that have dragged on the Japanese economy since then are rather different, though may yet become relevant for China in time.

China Experience – Lessons to be learned

Like Japan of the 1950s and 1960s, China's economy has a distinct duality with mass-industrialization supported by a large and comparatively low cost labor force moving from agriculture into manufacturing. China's manufacturing sector has seen significant growth in investment and profitability. Since 1985 the proportion of the economy accounted for by investment has increased from 37% to 48% in 2009. At the same time, private consumption has fallen from 52% in 1985 to 36% in 2009.

As in Japan, high profits have driven high investment and the government lent support both by the provision of loose credit and by infrastructure projects of its own. The importance of all this investment cannot be underestimated, because unlike Japan in the 1960s, China's economy is genuinely an emerging one. There was little infrastructural, industrial or administrative framework in place to underpin growth at the beginning of China's expansion. For example, in 1993-4 manufacturers in Guangdong province had to cope with a 2 week wait for a truck load of goods to pass through the Shenzhen sea ports. In Hong Kong it took between 24 and 48 hours. Chinese ports now match those standards.

The contrast with Japan can also be seen in terms of relative poverty. Real GDP per capita back in 1985 was around \$500 in China. After almost 25 years of high investment and high manufacturing profitability, GDP has risen 7.6x to \$3,766 in 2009. The rate of growth is exceptional, but we can also see (even when adjusting this number in terms of equivalent buying power to \$6,828) just how far behind in the development stakes China still is.

There is one other difference to bear in mind. Much of Japan's industrial output was geared toward meeting domestic demand, because the products were uncompetitive both on quality and price. China's economy is also largely domestically driven, but it is a major producer of exported goods, and this sector has been a significant factor in driving industrialization.

Taking the key conclusions from the Japan example, we need to look at China's labor pool, the growth in real wages and the rate of household formation in order to take a view on how long China can sustain growth according to its current model.

China's future growth

There are four ways economies can grow: additions to the labor force, moving workers into higher value-added activity, adding more capital per worker by investing in infrastructure, equipment and education and finally, by combining labor and capital more efficiently.

The first two factors have been the primary drivers in China's story so far and they make up the so-called "demographic dividend."

- **Population, labor and mobility**

China's population expanded at an annualized growth rate of 2.1% from 545 million in 1950 to 911 million in 1975. The one child policy was formally introduced in 1979 to address rising food and fuel prices and a pessimistic view of population pressures. Policy efforts to slow population growth have been effective with annual growth of 0.7% per year since 2000. Based on current demographic patterns of gender and age, recent estimates from the United Nations Population Division using their middle case forecast show the population peaking at 1.46 trillion between 2030 and 2035 and then declining slowly thereafter.

The big population issues for China are primarily ones of ageing and gender mismatch. China's labor force was estimated to be 924 million at the end of 2005, rising to 998 million by 2015, but falling thereafter back to current levels between 2030 and 2035. As a proportion of the overall population, the labor force is believed to have peaked last year at 72%.

The decline of the labor force size is mirrored by a rising dependency ratio – the number of children under 15 years old and elderly over the age of 64 that must be supported by each worker, aged 15-64 years old. This stood at 0.8 dependents in 1965 when 90% of those dependents were children, and it is now at 0.4. Over the next 40 years the dependency ratio is expected to climb to 0.63 but then only 40% will be children and 60% will be elderly. The rise of the numbers of retirees is another aspect of China's success, as life expectancy has improved from 41 years in 1950 to 72 years today.

The issue of gender mismatch has two strands to it. The population has become increasingly skewed toward men. China's recent population census quoted a newborn gender ratio of 1 girl to 1.17 boys (compared to a global average of 1.07). At this rate, UBS estimates that by 2020 there could be 30-40 million men of marriageable age unable to find a wife. This is likely to have further social and demographic consequences. The second strand concerns the labor force. There is a marked preference on the part of manufacturers for female workers aged 18-27 as being more manageable, harder working and more dexterous. This pool of workers is already shrinking.

A final aspect to be taken into consideration about China's labor market is that of mobility. China's industrial base relies heavily on migrant labor as does the construction industry. However, there are obstacles to making this mobility permanent. Migrant workers leave home for around seven years, but then they return home. Administrative obstacles include residency permits (the 'hu kou' system entitling those in possession of a right a residency to local education, health, and pension provision), the desire to get married around the age of 30, and finally, China's unique land allocation

system. In the 1980s, following the break up of the farm communes, families were allocated a plot of land with a long term claim, so migrants have something to return to, and being only children, they return to care for their parents and to ensure the claim stays within the family.

- **Wages, productivity and urbanization**

The result in the first instance of these urbanization-related demographic processes is a steady upward pressure on wages. Minimum wages have risen sharply in 2010, having been static in 2008-9. Tianjin is preparing to increase the city's monthly minimum wage by 16% to 1,070 Yuan (\$162). Shanghai by more than 10% over the current 1,120 Yuan (\$170), Beijing by 20.8%, Jiangsu by 15% and Guangdong by 19% to 1,300 Yuan (\$197).

This has given rise to fears in some quarters that Chinese workers may be pricing themselves out of the market. And in some sectors that is true. Uncompetitive enterprises are being pushed into lower cost countries such as Indonesia, Bangladesh and Vietnam. And the government is not sorry to see them go because they are looking to upgrade China's manufacturing base and see a higher return on and more efficient use of capital. Shanghai's mayor Han Zheng was recently quoted in the China Daily saying, "If the companies cannot afford such increases, it means their business model is not suitable for the development pattern in Shanghai."

If the amount a worker can make rises faster than their wages, then per unit of production, the cost of employing them actually falls. In China's case, wages need to move up more quickly if consumption is to be supported, and for Chinese manufacturers, labor costs represent around 4-6% of total costs. Raw material costs are a much more pressing consideration. The pressure is on for companies to move into higher value-added products where the higher cost of labor can be passed on and to invest in higher grade equipment to boost worker productivity. This means increased focus on the third growth driver by adding more capital per worker.

There is also pressure from government for businesses to relocate away from the coastal provinces and move inland as part of the Go West policy that China is promoting to spread wealth and regenerate the rural areas. If labor markets are tightening and migration is slowing there is an extra incentive for companies to work with the government on this goal. This requires further investment in infrastructure to create the road, rail and electricity networks necessary to support this industrial re-location.

A side effect is also likely to be an increase in urbanization in these rural areas. Perhaps more accurately, we could expect to see a greater rate of new household formation in provinces where industrialization has lagged.

Urbanization is often touted as a means of forecasting consumer growth. On its own, the ratio tells us little. China's urbanization ratio is estimated to have reached 48% in 2010 and is expected to exceed 'the critical 50% mark in 2012-13 where consumption will drive consumption significantly' according to the Chinese Academy of Social Sciences. China has set a goal of 65% urbanization by 2050. This would put it level with North Korea today, itself hardly a poster-child of consumer growth. There's clearly more to urbanization than mere congregation of people.

The concept of urbanization is difficult to pin down in a Chinese context because the data are so murky. The murkiness includes such issues as the changing definition of an urban area with zoning complicating the picture. Identifying urban residents is difficult because, as we have seen, migrant workers are not really residents. They don't own homes in the city and are not likely to; the money they earn goes back to their families in their home provinces.

Urbanization in China as a driver of growth is perhaps better described as urban re-development or re-generation, as residents are moved out of housing in the center of cities to new homes on the periphery with supporting infrastructure while the center is converted into commercial real estate. Thus, when looking at what is happening in China we are less interested in the headline numbers of urban-dwellers be they new migrants or re-designated rural folk. We want to see what is happening to the existing population: new household formation, modern homes, aspirational lifestyles and a good old-fashioned desire to keep up with the neighbors, to drive spending.

The China Experience – a Future Path

The comparison between Japan's experience and what might happen to China is interesting, as ultimately, China will become better off and growth will slow as the consumer market becomes saturated. UBS estimates that declining population and rising dependency ratios will take off around 2% of GDP growth per annum from here by around 2025. This would mean trend growth falling to 7.0% - 7.5%, down from 9.0% - 9.5% today. That would still have China as one of the fastest growing economies in the world, and by that stage, it will be a substantially richer one.

The notion of household formation driving domestic demand is one that has played out in the wealthier provinces of China and is likely to play out in rural areas. In this case it will be an issue of industrial migration rather than population migration. Companies will need to migrate toward the pools of labor and consumers rather than the other way around.

There are issues that also need to be tackled, not only to stimulate demand, but to address the question of whether China will get old before it gets rich. Higher wages are a consequence of this trend, but they are also an important factor in sustaining it. The matter of the demographic 'crunch' of higher dependency ratios and higher pension costs is still some way into the future, between 2025 and 2035. China's pension system is still in its early days and the extent and amount of coverage on offer in ten years' time is still unknown. But in the absence of an adequate system, high household savings are the norm. So, another challenge in developing and sustaining a consumer society is a method whereby higher disposable income are not only generated but also spent.

Questions about what this will cost and how China can afford to pay for it also lie well into the future. Reform of the taxation system to increased personal taxes rather than reliance on business taxes will be one area. Government borrowing will be another area of change: public debt levels are still low at a central government level and a long term debt market, along the lines of the US Treasury market, does not yet exist. This means China lacks a transparent sovereign yield curve, which in other countries allows economic agents to value debt appropriately.

Some Conclusions

The Japanese development experience between 1955 and 1970 provides some useful pointers in trying to work out how China's development process will play out, but we need to bear in mind that there are some significant differences, indicating the dynamics will also be different.

China's income distribution, high savings, reserves of labor and engagement in the global production chain all suggest that we shall see higher economic growth for a longer period. The demographic profile that shows a declining pool of surplus labor and an ageing population does point to the end of China's expansion under its current model. But these pressures are expected to play out gradually over the next twenty-five years, not the next two. We need to consider what is happening to mitigate these effects and keep China on its developmental path.

Policy is being shaped by the need to rebalance the economy away from over-reliance on investment to promote broader consumption, and it is being shaped to engage a wider geographical area in economic growth rather than having it concentrated in the coastal areas. China's Go West policy includes investment in agriculture, infrastructure and consumer subsidies to boost rural incomes and make these areas more attractive for companies to re-locate.

Efforts are also being made to promote consumer spending both by increasing disposable income and by encouraging a reduction in precautionary savings. Rising wages have been mandated at the minimum level and the government is happy to market forces to determine appropriate wage levels above the minimum. Administrative changes including labor law and welfare provision seek to improve the sense of job and financial security. Discussions are also underway to introduce flexibility in pension portability and the 'hou kou' system of residence permits.

We therefore expect that aggregate economic growth in China must surely slow, but even in twenty years, it will still be one of the world's high growth areas. We also expect that this growth will be driven by greater numbers of people and that household formations and income will be more significant features of this growth, rather than the fixed asset investment bias of today. We believe that this growth will be accompanied by more deregulation in financial markets, in the banking sector and in the currency, because a consumer-led economy will demand greater financial flexibility.

China's structure has been dynamic over the last thirty years, and we expect that China's economic and social structure (and ultimately its political structure) will continue to evolve. For investors, we believe that a realistic view needs to be taken. The China opportunity is a real life-changing event for all of us that will be punctuated by periods of uncertainty and doubt followed by optimism and ebullience.

However, there is nothing new about the desire of people to improve their standard of living: to desire food, clothing, shelter, education and healthcare for their families and to live in greater comfort with adequate provision for old age. We believe this underpins the China story.

Main Sources

Anderson, Jonathan. How To Think About China, Part 2: The aging of China. UBS Investment Research, Asian Economic Perspectives. January 2008

Tasker, Peter. Rising Wages will burst China's Bubble. Financial Times. January 10, 2011

United Nations. World Population Prospects: The 2008 Revision. Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat.

Yoshikawa, Hiroshi. High Growth in the 1960s. Social Science Japan, Newsletter of the Institute of Social Science, University of Tokyo. March 1999

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