PINETREE

November | 2010

Management Insights

China's Push into High Tech Goods - Say 'Goodbye' USA and 'Sayonara' Japan

By Marshall Auerback, Corporate Spokesperson, Pinetree Capital Ltd.

In his latest column on China, David Leonhardt expresses the common hope that China's burgeoning consumer society can become the world's global salvation (http://www.nytimes.com/2010/11/28/magazine/28China-t.html?_r=1):

"For the rest of the world, the Chinese consumer is one of the best hopes for future economic growth. In the years ahead, when the United States, Europe and Japan will have no choice but to slow their spending and pay off their debts, China could pick up the slack. Millions of Americans — yes, millions — could end up with jobs that exist, at least in part, to design, make or sell goods and services to China. This possibility helps explain why Democrats, Republicans, economists, business consultants, corporate executives and labor leaders all devote so much time to urging China to consume more. One subtext of the recent G-20 meeting in Seoul was the encouragement of Chinese consumption."

Would that it was so easy: there is no historical precedent for the consumer quickly picking up the economic growth baton for a country that has become so "top heavy" in regard to a mercantilist model, such as Beijing has adopted. The fact that China's consumption is such a small share of GDP makes it even more unlikely it could happen in a meaningful way in that country. The fact that high income households who account for much of Chinese consumption have a huge exposure to Chinese real estate, which is a bubble, makes it even less likely that the Chinese consumer can pick up the baton amidst a downdraft in capital expenditure. In any case, in regard to real estate, a reversal of this policy would simply shift the locus of unstable overinvestment from the industrial sector to the real estate sector which is unwanted by the Chinese policy makers and would probably prove to be unsustainable in any case.

The adjustment process has been further complicated by news that China's biggest banks are reaching their annual lending quotas and are now being asked to stop expanding their loan books through the remainder of this year. The Chinese economy is more dependent on high and rising credit flows than ever before. The reason for this is that, unlike most economies, the Chinese command economy directs its resources through the use of credit. In most economies when the government embarks upon fiscal stimulus it increases its expenditures. Typically, such government expenditures occur on the government's balance sheet and, over the long run, most such expenditures are financed by tax revenues. Not so in China. Instead, the Chinese channel credit through their state-controlled banking system to state-influenced entities like local governments, provincial governments, SOEs and crony capitalists.

These recipients of credit are influenced by the government to borrow and spend, largely on fixed investment projects. What is “self-financed” in most economies through tax revenues and retained profits is done through government-engineered credit flows in China. In effect, like the Soviet Union, the state-controlled banking system acts as the fiscal agent of a Chinese government in control of a command economy.

When the Chinese authorities want to stimulate their economy they have recourse to the credit mechanism and use it to target higher fixed investment expenditures. Repeated efforts to keep the Chinese economic growth rate high have contributed to a high and rising total debt to GDP ratio and a high and rising fixed investment to GDP ratio. After several iterations of this policy fixed investment is now extraordinarily high and there are many inefficient investments. Though some state-owned enterprises and enterprises of crony capitalists are efficient (or are monopolies) and have high and even rising profit margins, a great many are inefficient and have very low and apparently falling profit margins. This large “inefficient” business sector is more credit dependent than usual.

If it is indeed true that inflation is raising domestic costs in China and squeezing profit margins, the wherewithal for internal finance in China should be falling further; consequently, this dependence on external debt finance should be on the rise. In an economy with so much credit dependency an abrupt slowdown in credit growth should cause an outright contraction in now dominant investment expenditures, threatening an outright contraction in the economy.

Policy makers in Beijing have no tolerance for such a severe slowdown in economic growth. This is especially the case given the political dynamics arising out of an upcoming leadership change. Therefore, it is likely that, under pressure from local and provincial authorities, SOEs and crony capitalists, there will be evasion of the recently reported bank and trust lending restrictions, and that, after attempted year end targets are reached, there will be a policy relaxation. The authorities will probably back off at the end of December and allow credit dependent borrowers to “catch up” and meet their funding needs.

Clearly, there is little room for maneuver, which is another reason Beijing has proven so reluctant to countenance a significant revaluation of its currency. We have noted on numerous occasions that the trade imbalance between China and elsewhere, especially the U.S., are largely due to China’s huge fixed investment ratio as a percentage of GDP than its exchange rate. The currency peg has created the conditions for the capex boom, but the resultant fixed investment is creating the conditions for the likely economic discontinuity. That will be more so in the future since China’s net business fixed investment is almost two times that of Europe, Japan and the U.S. combined versus less than a third a decade ago. The world’s increment to capacity is being built in China. That capacity will try to find a home, either through exports or through import substitution.

China has gone from an economy focused on low value high labor content tradeables to the pre-eminent rust belt industrial economy with half the world’s cement and steel capacity. Now it is moving one step further up the ladder to high tech and capital goods, much as Japan did through the 1980’s and Korea did though the 1990’s. Here is some documentation.

China's Push into High Tech Capital Goods Markets
"That process is now in overdrive. In 2006, China's leadership unveiled the "National Medium- and Long-Term Plan for the Development of Science and Technology," a blueprint for turning China into a tech powerhouse by 2020. The plan calls for nearly doubling the share of gross domestic product devoted to research and development, to 2.5% from 1.3% in 2005." "One area of hot pursuit: green technology. China's "Torch" program fast-tracks industries, attracting entrepreneurs with offers of cheap land for factories, export tax breaks and even a free apartment for three years."
"While the state seeks new technology, it also uses control of banking to feed cheap credit to industries it wants to foster. The government sets interest rates for China's bank depositors low relative to rates of growth and inflation. That means Chinese households, through the banks, effectively subsidize the state's industrial darlings."
Wall Street Journal, November 18, 2010

China: To the Head of the Pack in High Speed Rail
"China Touts „Complete Package" for California Railway (Update1)" "China can offer a 'complete package,' including financing, as it competes to build a high-speed railway in California costing more than $40 billion, according to the nation's railway ministry.
Bloomberg News, September 16, 2010

It is also bidding for a Brazilian contract in competition with the former industry leaders Europe and Japan.

"What other nations don't have, we have," He Huawu, the ministry's chief engineer, said in a Sept. 14 interview in Beijing. "What they have, we have better."
Bloomberg News, September 16, 2010

So what does China have that no one else has? China has the biggest – and home grown – high speed rail system in the world. By 2014 it will have twice the high speed rail track as the rest of the world combined. This push is paralleled in their design capabilities.

"*Huhang high-speed railway to open to traffic in late October" "In a speed test of a Chinese-made new generation of high-speed trains called the "Harmony" CRH-380A, the train hit 416.6 kilometers per hour on the Huhang high-speed railway, which runs from Shanghai to Hangzhou, creating a new record for the world's fastest high-speed rail operation speed. It also signifies that China is leading the world in high-speed rail technology."*

"China sets its first world speed record on June 24, 2008. At that time, the Beijing-Tianjin CRH3 high-speed train hit a top speed of 394.3 kilometers an hour."

"China has become a strong nation in high-speed railways with the world's most complete high-speed rail system technology, strongest integration capability, longest operating mileage, fastest operation speed as well as the largest high-speed railway scales in building, leading the new trend of the world's high-speed rail development."
Bloomberg News, September 29, 2010

A similar phenomenon can be seen in solar power. According to Axiom Capital, 70% of this projected solar capacity through 2012 will be in China. Given what I have heard about investments in solar in China, as well as the complexity and opacity of its economy, Axiom's capacity projections may be conservative. In any case, despite the projected glut, Chinese companies have in place the financing for a much larger capacity expansion in the years that follow.

Solar is probably a microcosm of what China's historically unprecedented fixed investment bingeing will do to global markets for many industrial tradeables. In the end, because it is a command and not a market economy, China will be able to suffer the margin degradation better than its competitors. It will come to dominate these glutted markets. Trade imbalances will get worse.

Even the US Federal Reserve is manifesting increasing concern about the problem. The Fed tries to avoid making statements bearing on the dollar exchange rate. The Fed tries to avoid political confrontations of all kinds.

Therefore, it is very striking that Bernanke has come out with such a forceful criticism of the exchange rate and trade policies of the Asian mercantilists. One has to conclude from this the Fed now judges that, if we stick to the current course, trade imbalances, particularly with Beijing, will become greater and the American political system will not tolerate the consequences.

A Fed shy of getting into political controversy is only likely to do so when faced with the inevitable. It suggests that they recognize how deep and intractable the trade imbalance problem has become given the now overwhelming dominance of China in the creation of new global economy. In a recent speech in Frankfurt otherwise used to defend "quantitative easing", Federal Reserve Chairman Bernanke took aim at "large, systemically important countries with persistent current account surpluses". He obviously had China foremost in his mind.

Sounding much like the economist, Franklyn Graham, Bernanke said the "sense of common purpose has waned" and "tensions among nations over economic policies have emerged and intensified, potentially threatening our ability to find global solutions to global problems". He documented how mercantilist Asian economies are intervening to prevent or slow appreciation in their currencies. He likened these mercantilist economies to the U.S. and France in the 1930s whose similar policies contributed to the Great Depression.
Throughout economic history countries with especially high investment to GDP ratios have embarked on inefficient investments. In the 1820s they built too many canals. In the railroad boom in the UK in the 1840s they built three railroad lines between Leeds and Liverpool but the traffic could barely support one. Throughout the 19th century railroad boom after railroad boom led to busts. We saw a repeat of the same across a broad spectrum of industries during the 20th century, right up to the present day.

The oil boom of the 1970s led to gluts of rigs and tankers that were idled for a decade.

The bubble decade in Japan produced unneeded private investment that, in the two decades since, has been scrapped and replaced.

In emerging Asia in the late 1980s and 1990s excesses of residential investment led to gluts that took a decade to work off.

At the end of that decade as a result of the tech stock bubble companies built vast corridors of fiber that would remain dark.

In the past decade the U.S. did in residential construction what emerging Asian countries did a decade earlier.

It is always this way. The fact that China has a fixed investment to GDP ratio of 50% when no country in economic history has had this ratio above 42% -- and then only for a brief moment -- makes it likely that there will be more gluts and more white elephants in China than anywhere else in history.

Today, the global economy is characterized by huge trade imbalances. Everyone has focused on exchange rates. That is the wrong focus. China's net business fixed investment now may be equal to two times the combined fixed investment of Europe, Japan, and the United States. That capacity has to go somewhere. Some of it has to go abroad. Some of it has to substitute imports China now buys from abroad. This will be the cause of even greater trade imbalances.

Despite China's unprecedented building boom, it still faces vast overcapacity in construction industries, such as cement and steel. Although the excess production does not provide a tangible economic benefit, it does provide a boost to GDP, thereby providing a false impression of healthy economic growth. But China has consumed only 65% of the cement it has produced over the past decade. Similarly, the world steel association has produced data illustrating that China is currently producing more steel than the next seven largest producers combined. The Association estimates that Beijing has as much as 200 million tons of excess steel capacity – more than Japan and the EU's combined year to date production, according to the European chamber of the World Steel Association ("Overcapacity in China – Causes, Impacts, and Recommendations" – 2009).

Because China is a command economy and not a market economy the loss of profitability that over-investment leads to will not correct the excesses automatically. State-owned enterprises and crony capitalists will get even greater subsidies. State-controlled banks will provide more and more bailout financing to the distressed. The production machine will be expanded to meet the objectives of local and provincial governments with grandiose objectives and a five-year plan set out by a central government with overriding social and geopolitical objectives.

Part of the new "Plan" is that China will move to the front of the technological frontier, thereby reducing its dependence on foreign technology. In an article earlier this week in the Wall Street Journal it was reported that the "Plan" commanded that the share of high-tech R&D spending in the Chinese economy double from 1.3% to 2.5%. Faced with this "directive" the push is on to move to the technological frontier in the green energy space. Consequently, there is overinvestment now in all things solar-related.

The investments of China's publicly-owned solar companies in solar capacity might come to several times global demand, judging from information gauged from a plethora of publicly quoted solar companies. This data likely understates the magnitude of the overcapacity, as there presumably are non-public companies and state projects as well.

There are other areas where one sees increasing evidence of this push as well:

Nuclear

China is forging ahead with a large homegrown nuclear power industry. Again, its huge domestic demand base is allowing it to move to the head of the pack in efficiency. Soon China will be a major force in export markets in competition with Europe, Korea, and other countries.

"China Builds French Reactor for 40% Less, Areva Says" "Areva SA said the EPR nuclear reactor costs 3 billion euros ($4 billion) to build in China, 40 percent less than the price tag Electricite de France SA has put on building one in Normandy."

"Chinese nuclear builders' grasp of the technology is 'very worrying' for European companies, Areva Chief Executive Officer Anne Lauvergeon told a hearing at the French Senate today in Paris. She also said Chinese companies are more efficient."

"The third-generation reactor designed by Areva is being built in France, Finland and China at varying budgets and construction schedules. Once considered key to the success of France's atomic exports, the design has been criticized as too big and costly after the country lost to a Korean group for a $20 billion order in the United Arab Emirates last year."
Bloomberg, November 24, 2010

Aircraft

Given China's military and geopolitical objectives, eventual massive inroads into the commercial aircraft market is a given. China's Comac (Commercial Aircraft Corporation of China Ltd.) will be producing its first domestic passenger jet in 2012. A second that will compete with Boeing is scheduled for production in 2016. It is the objective of China that Boeing will lose much of the Chinese commercial aircraft market and face competition in other markets.

Will China succeed? They did it in Telecom. Huawei, a Chinese state-founded company, has gone from being a fledgling a decade ago to one of the top three global telecom companies along with Nokia Siemens Net Works and Telefon AB LM Ericsson.
Market Implications

With a fixed investment ratio of 50% of GDP there is a massive amount of inefficient investment being built in China. Much of it is in rust belt industries; hence, Premier Wen's complaints about "blind, stupid, duplicative" investment. One finds it in other sectors. There is China's Great Mall with almost no one in the stores. In fact there are fully-stocked retail stores all over China that are almost empty. There are the tens of millions – maybe 65 million – empty flats. There is the empty city of Ordos in Inner Mongolia. There are highways to nowhere, airports out there in the middle of nowhere, and there will soon be more transport infrastructure between cities than is needed – China's version of three railroad lines between Leeds and Liverpool when barely one was needed. And soon China will have solar capacity that may be several times the needs of the whole world.

There will likely be a global political reaction to all of this. The Obama administration has made a big deal about reindustrialization of the U.S. economy. At the top of its list of new industrial initiatives has been “green energy”, including solar. It is also the case that U.S. companies that are moving into this space are building their projects in low wage economies abroad that provide subsidies and tax incentives and impose fewer regulatory impediments.

If the U.S. can get nowhere with a “green energy” initiative because of massive overinvestment abroad dominated by China, there will be continued deindustrialization of the U.S. This is going to create a political backlash that will change the current rules of the game that make such overinvestment outside the rules of the market possible.
All that said, the Chinese education system is producing far more skilled personnel for the 21st century than any other country. Its technical achievements are impressive. Its huge spending on fixed assets gives it a learning curve to travel and vast home grown economies of scale. Though much of its fixed investment will be inefficient, certainly not all of it will be. And much of that efficient investment will be in the high tech and capital goods industries where capacity is just beginning to come on stream. Even if China had a fixed asset to GDP ratio of 25% rather than 50% as market forces might call for, it might still have major investments in these sectors and become a global leader in these fields.

Given this and China’s unwillingness to accept the lower (or negative) growth consequences of a lower ratio of fixed investment to GDP, the world will continue to feel pressures from China toward even greater trade imbalances.

In the absence of any significant policy changes, one should therefore expect further disembowelment of Japan’s export-oriented industrial base, and similarly, increased protectionism in the US, as China’s invasion of the tradeables space frustrates America’s desire to reindustrialize. The result could well be a trade war.

Of course, China’s reluctance to move more rapidly toward a domestically-based consumer led economy will ultimately create huge challenges for the country. Russell Napier of CLSA has produced some very interesting figures pertaining to China’s longer term demographics (“Bretton Woods on Speed” CLSA Asia-Pacific Markets, Nov. 17, 2010). Napier notes that the total population is slowing but is still positive. The factor is that the number of people in the 15 to 34 year old demographic range is down significantly. If Napier is anywhere close to correct, then China’s trainable work force is now already in decline. For Napier this means wage inflation which means overall inflation, which is consistent with the recent reports coming out of Beijing. More than half the provinces have increased the minimum wage by more than twenty percent.

But this might not even be the most significant factor. The warranted or equilibrium rate of growth for any economy is the sum of labor force growth plus productivity. In many countries during the development phase there is a large pool of surplus labor in subsistence agriculture. These people can be transferred to the modern sector with little loss of GDP from the end of their prior work. They act like a kind of army of unemployed. Adding these people to the pool of labor in the modern sector resulted in a high rate of labor force growth. This is how both Italy and France managed very high rates of growth in the early post war period. They had a third of their populations in exceedingly low productivity agriculture at the end of the war.

Now China has been able to maintain a high rate of labor force growth in the modern sector because of its well of underemployed in subsistence agriculture. According to Napier that well might well be more depleted than is commonly appreciated because of the demographics problem mentioned above. What this means is that China's warranted rate of growth is also correspondingly lower. Additionally, as China approaches the technological frontier its productivity growth should decay to that of the economies at the technological frontier.

To be sure, China is not there yet but it is advancing rapidly, as the examples above illustrate. Put these two together and the warranted rate of growth of China could be crashing once the capex bubble bursts. Even now one queries the quality of the GDP growth at ten percent. Clearly, much of the original push in GDP came from adding capital per worker. You can do that for a period; in a market economy, however, there are diminishing returns to capital per worker and that prevents capital intensity from rising and rising. In China, however diminishing returns matter less to the command economy puppeteers. They have been pushing with credit the ratio of fixed capital to everything else higher and higher. So one does not actually see the decaying warranted growth rate…yet.

This happened in the bubble years in Japan in the 1980s. It also occurred with the Asian tigers in the 1990s. Then there was a recession. When those recessions occurred, the economies got very weak because the very high ratio of fixed investment to GDP could not be sustained; it had to come down. In Japan it came down gradually, hence multiple recessions. In the case of Emerging Southeast Asia it came down hard and fast. But in both cases the prior high rates of economic growth never came back; the growth rates fell by a lot and permanently, because the prior rates were artificially high due to unsustainable rises in capital intensity. Could a similar fate await China?

Marshall Auerback, Corporate Spokesperson
Pinetree Capital Ltd.

As company Corporate Spokesperson, Mr. Auerback is a member of Pinetree's Board of Directors and has some 28 years of global experience in financial markets worldwide. Mr. Auerback plays a key role in the formulation and articulation of Pinetree's investment strategy. Currently, Mr. Auerback is a Senior Fellow at the Roosevelt Institute, a research associate for the Levy Institute and a fellow for the Economists for Peace and Security. He has previously served as an advisor to a number of fund management organizations, such as PIMCO, the world's largest bond fund management group, RAB Capital and David W. Tice & Associates. Mr. Auerback graduated magna cum laude from Queen's University in 1981 and received a law degree from Corpus Christi College, Oxford University in 1983.

Pinetree Capital Ltd. The Exchange Tower, 130 King Street West, Suite 2500
T. 416.941.9600 F. 416-941-1090 E. media@pinetreecapital.com