A Learning Resource Report

Reading Materials for Participants of The International Forum

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Who Will Pay for China's Economic Growth?

China's economy has achieved the highest sustained growth in the world. It is open to world trade, which represents more than 40% of its GDP; capital is free to enter the country and China's household savings rate of more than 40% is one of the highest.

 How can China have a sustained economic growth rate of 8.6% per annum, if the stock prices of its most prominent companies have fallen by a third since 1993 (as measured by the Hong Kong, Hang Seng China Enterprises Index)? And if its banks have bad loan ratios estimated by foreign analysts to be at 50%?

The 40% savings rates provide the cash for China's banks to keep lending more money to Chinese companies who invest in further increases in manufacturing capacity. However, many of China's companies are not making a profit, particularly the state-owned enterprises (SOE's), and are unlikely to be able to repay their loans to the banks. "..bad banking practices will continue to breed incompetence and inefficiency, which crowd out good credit, at the expense of both the banks and the economy"

- Will China succeed in reforming its banks and creating efficient capital markets to channel savings? How long might this take? Will it happen in time to avoid a crisis?
- How do demographics compound the problem for China's "borrowed growth"?
- What are the implications on China's domestic market and banking system if the RMB is revalued?

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Part I: China's Borrowed Growth

By WEIJIAN SHAN

China's economy is a paradox. On one hand, it has been growing at an average annual rate of 8.6% since 1980, outperforming any other country at any time in history for such a sustained period of time. On the other, Hong Kong's Hang Seng China Enterprises Index, which tracks the stocks of some of China's most prominent companies, has fallen by one-third since its inception in 1993.

It's hard to understand how China can grow at such a record rate while investors lose by putting their money into the country's best listed companies. Even more inexplicable is the fact that the fastest growing economy has been and remains probably the most inefficient major economy in the world, as measured by the bad-loan ratio of its banking system.

At the micro level, if a firm makes chronic losses, it is likely to suffer from productive inefficiency. At the macro level, if resources continue to flow to such producers, allocative inefficiency arises from such misallocation. Both types of inefficiency are reflected in the level of bad loans in a country's banking system, to the extent bank lending represents the bulk of resource allocation in an economy. This measure is particularly applicable for China, since bank loans made up 97.8% of the total financing for companies for the first half of this year.

Foreign analysts estimate that the bad loan ratio of Chinese banks is

about 50%, or twice the official estimate. That is arguably the highest of all major economies in the world. Even if you believe the official numbers, the Chinese banking system makes the largely insolvent Japanese banks look well capitalized by comparison.

This is why the economy with the highest growth rate in the world is also the most inefficient. This paradox gives rise to strikingly divergent views on China's future. Books with titles like "China's Century" and "The Coming Collapse of China" present plausible scenarios.

Of course, China is not the first country to turn the accepted logic of economics on its head. Once upon a time, there was another economy whose rapid growth confounded the experts. Although the Soviet Union's inefficiencies were also well known, it became the world's second largest economy. Then it literally collapsed, with the gross domestic product of the post-Soviet states falling almost 50% during the early 1990s, to less than 10% of the size of Japan's. Today, the Russian economy is only about one-third the size of China's. So was the Soviet growth real?

In retrospect, the Soviet economy was simultaneously real and unreal. After the Soviet Union broke up and foreign products flooded in, demand for Russian-made products dropped precipitously. Without demand, much of the productive assets became worthless overnight. The economic power of the former Soviet Union evaporated like a puff of smoke as its doors opened. So growth was real when the economy was closed, but turned unreal when exposed to foreign competition.

Closing the doors, however, is a necessary but not sufficient condition to achieve high growth in an inefficient economy. North Korea is as closed as it gets, but its people are starving. The Soviet Union also had a high savings rate, another necessary condition.

Economist Paul Krugman caused a controversy in 1994 with his

observation that the growth of Singapore's economy could be explained by increases in measured inputs, particularly the supply of educated labor and capital, but not by productivity increases. The difference from the Soviet model was that Singapore was already fairly efficient.

Similarly, China enjoys a high household savings rate -- at more than 40%, one of the highest in the world. But unlike the former Soviet Union, China has become a relatively open economy, with foreign products ubiquitous throughout the country. And products "made in China" are also found in every department store in the West. Trade represents more than 40% of China's GDP, higher even than Japan.

The other necessary condition for Soviet-style growth, autarky, does not apply to China. However, one part of China's economy does remain closed. Capital, with the exception of hot money, is essentially free to come into the country, but it is not free to leave. Chinese citizens can buy foreign products and services, but they cannot convert their money into foreign currency for the purpose of investing abroad.

That is crucial to explaining China's growth, as a simple model shows. Consider an economy with only three players: a firm, a bank and a worker. It is an open economy which exports all it produces and imports all it consumes. Its currency is freely convertible under the current account, but its citizens are not permitted to invest capital abroad.

In the first period, the firm invests \$10 in production facilities, which it borrows from the bank. It receives an order for 100 units of some widgets and is paid \$90 in advance, or 90 cents each. The firm pays the worker \$1 for each hour worked and it takes the worker an hour to make a widget. So labor costs the firm \$100 for the entire job. The firm organizes production and makes delivery to order. Not counting capital expenditure, it makes a loss of \$10 in this period. The worker saves \$40 of his \$100 earnings and spends the rest on imported stuff.

The bank began with \$10 in equity and \$10 in assets consisting of the loan to the firm. But after accepting the \$40 savings deposit from the worker, at the end of the first period its balance sheet shows assets and liabilities of \$50 each, with \$40 in cash.

In the second period, the firm receives a larger order, for 200 units of widgets. It increases production capacity with a capital expenditure of \$15, \$5 more than required to meet current demand, as it wishes to build more capacity for the future. But the price has fallen so it will be paid 85 cents for each unit produced, or \$170 in total.

Let's also assume the firm only needs to pay \$190 for labor, because there has been a productivity gain so that it now takes only 0.95 of an hour to make a widget. The firm needs \$205 to organize production, requiring financing for the difference of \$35. The bank lends the firm \$35 and ends up with a period-end balance sheet of \$126 including \$76 deposit by the worker as he continues to save 40% of his earnings.

Notice that this is an inefficient economy: The firm loses \$10 in the first period and \$20 in the second, for a cumulative loss of \$30 over two periods, not counting capital expenditure. Yet the firm can count on the bank to continue lending.

This inefficient economy has achieved remarkable growth. At the end of the second period, production capacity is up 150%, GDP 100%, personal income 90%, bank assets 152%, and savings 90%. Personal wealth has reached \$116. There is a productivity gain of 5%. In addition, external trade has risen sharply and the country enjoys a healthy trade surplus which swells its foreign exchange reserves.

More complexity can be added to the model without changing the basic results. Allowing the bank to pay and charge interest will simply mean that

the firm makes bigger losses, the bank makes bigger loans and the worker accumulates savings a bit faster. Creating a government which collects taxes and spends its revenue by investing in the firm either directly or through injecting capital into the bank makes no difference to economic growth, except that part of the personal savings of our worker-cum-taxpayer becomes "public wealth." The government will even be able to run a budget deficit and inject more money into the economy than it receives from taxation, further boosting growth.

Now replace the firm, the bank and the worker with unprofitable stateowned firms, state-owned banks and a large labor force, and you are staring at China's economy. Growth can continue as long as households continue to save at a high rate and the government maintains capital controls so those savings aren't allowed to flow out of the country in search of better returns associated with more efficient economies.

In this model, removal of capital controls would create a financial crisis. The bank cannot hope to collect its loans from the firm to pay back the depositor because the firm has made only losses. Without another source of capital, the bankruptcy of either the bank or the firm will bring down the other. To keep itself going, this country will have to go to the International Monetary Fund for help.

This is essentially what happened to Korea in 1997-98. After two decades of nonstop economic growth driven, to a large extent, by relentless and unprofitable capacity expansion fueled by cheap lending of Korean banks, it seemed that Korea's success was real and sustainable. Seoul removed capital controls in the mid-1990s. The failure of Korean banks to further lend and to collect their loans in the wake of capital flight in 1997 bankrupted many, as well as their chaebol customers.

The IMF provided a rescue package on the condition that Korea restructured its banks. Eventually, Korea spent \$130 billion, or more than

one-third of its GDP, to clean up its banking system. To this day, the Koreans call this debacle the "IMF Crisis," as if the IMF was to blame for it.

For Korea, the wealth destruction in terms of write-offs of bad loans, equity lost in bankruptcies and capital injected for bailouts dissipated years of economic growth. What had been real growth came unraveled and Korean citizens paid the cost.

In general, an inefficient economy produces lower average returns on capital in real terms than a more efficient one if capital is not allowed to flow freely. This can be seen in the persistent differential between the stock prices of Chinese companies traded in Chinese and overseas markets. For example, shares of Jiangsu Expressway bought on the domestic stock exchange are almost three times as expensive as the same shares traded on the Hong Kong Stock Exchange. The average price differential of all dual-listed Chinese companies is about two-to-one. In other words, the average return on capital in China, given the same risks, is about half of that outside of China.

China is probably unique in the world today in possessing both of the necessary conditions for an inefficient economy to achieve fast growth. But these conditions also make China's growth simultaneously real and unreal.

Part II: Turning China's Growth Illusion into Reality

By WEIJIAN SHAN

China's growth is simultaneously real and unreal. Real, because a high savings rate and capital controls mean that the country is investing in production capacity, particularly by the state-owned sector. Unreal, because these factories are inefficient, and thus their construction is a tremendous waste of scarce resources. Does this mean China is heading for a financial catastrophe, and if so how can it avoid such a crash?

The true cost of inefficiency may be hidden in China, but it is huge and still growing. The state-owned sector only contributes to less than 30% of China's industrial output but accounts for more than half of the country's fixed asset investments. The price is paid in the accumulation of bad loans in Chinese banks.

Standard & Poor's estimates that it will cost some \$518 billion, or more than 40% of China's GDP, to clean up China's banking system. These costs plus the equity write-off of those companies which will go bankrupt without continued funding from banks translate into years of negative growth. China's growth therefore can be regarded as being borrowed at a very high cost -- which will need to be repaid sooner or later.

Suppose China lifts capital controls and allows the yuan to become freely convertible. It will likely trigger a capital outflow. That will endanger state-owned banks as well as highly leveraged but unprofitable state-owned companies. Even if the government bails them out, banks will no longer be able to finance unprofitable firms. Not only will the wings of China's growth be clipped, it will not fly again until both banks and firms are made truly competitive on their own.

Can capital controls sustain China's "borrowed growth?" The answer is

no, because its high savings rate will likely decline in about 10 years time, if not sooner, for two reasons.

First, Chinese baby boomers, born in the 1950s and '60s, will begin to retire. The one-child policy begun in 1980 means that the ratio of the number of workers supporting pensioners will drop off a cliff. As China's pension system is substantially underfunded, the aging of the population will mean less savings and more withdrawals.

Second, Chinese may be culturally frugal, but this is starting to change. The younger generation consumes more, saves less and has even learned to consume on borrowed money. No country can sustain a household savings rate of more than 40%, and China will not be an exception.

Furthermore, China has joined the World Trade Organization. Under the WTO framework, China has committed itself to letting foreign banks conduct local-currency business without restrictions, beginning in 2007. Foreign banks are unlikely to fund inefficient producers. Unless China's own banks adopt sound banking practices, it will become difficult for them to compete for deposits. Therefore, the game will be over for inefficient producers.

Finally, China has committed itself to full convertibility of the yuan, without which many of China's economic ambitions will not be realized. For example, Shanghai has long aspired to be an international financial center. But it will not succeed until China allows the free flow of capital across its borders, a prerequisite for any international financial center.

So does this mean that the Chinese economy will eventually collapse, when the payback time inevitably comes for the "borrowed growth?" Yes, if China's economic policies continue to favor, protect and subsidize inefficient firms through its already weak banking system. It will just be a

matter of time.

However there are reasons to be cautiously optimistic. To be sure, the Chinese economy is not healthy, contrary to popular perception, and requires urgent treatment. However, anyone who considers the Chinese economy to be terminally ill should consider how much sicker it was 25 years ago, when reforms began. China was a closed, Soviet-style command economy, but now its products compete in world markets. The Chinese economy is more viable and dynamic today than at any time in its history.

In the past two decades, successive Chinese leaderships have not just thrown stimulus measures at the economy to maintain growth; they have also pushed for reforms. As a result, the Chinese economy is far more efficient -- at least on the production side, if not on the resource-allocation side -- than when reforms began in 1978. As recently as 1991, a U.S. manufacturing worker was 40 times more productive than his Chinese counterpart. By 2000, that gap had narrowed to only 10 times. Chinese labor productivity has increased four-fold in the past decade.

China's achievements in structural reform have been considerable, putting Japan to shame. And Beijing seems to be picking up the pace, as shown by the decision at last year's Communist Party Congress to privatize the vast majority of state-owned firms, shut down the hopeless ones and clean up banks.

Reform of the banking sector is the most fundamental of all reforms. Without sound banking practices, banks will continue to create bad loans and breed inefficient corporate customers, state-owned or private. It comes as no surprise that most of China's private companies are poorly run, in addition to being subscale and speculative. In fact, more than 70% of all bank loans made to small- and medium-size companies eventually become bad. Most of the bank scandals in China involve unscrupulous

private entrepreneurs. As a result, banks are reluctant to lend to private firms as they tighten credit approvals. Lending on the basis of creditworthiness is the ultimate way to improve corporate efficiency as companies will be forced to focus on cash flow in order to access bank capital.

Realizing that the WTO clock is ticking, Chinese policy makers have turned their attention to cleaning up banks. A number of important measures have been taken. A large amount of nonperforming loans have been transferred to several government-financed asset management companies, which have successfully sold initial batches to foreign buyers of distressed debts. Banks have been ordered to have their books audited by international auditors and to reduce and reveal bad-loan numbers.

However, much more needs to be done. All Chinese banks are woefully undercapitalized and to recapitalize them will stretch government finances. While it is possible for banks to reduce bad-loan ratios by quickly growing their loan books, or the denominator of the ratio, the challenge is how to prevent new loans from turning bad as they near maturity. To do so, banks must build a culture of lending on the basis of cash flow as opposed to collaterals, relationships or policy guidance.

This is a lot harder than adopting the risk-control procedures of the best international banks, as it requires training and proper incentive systems. But all will fail if the government continues to interfere in lending and personnel decisions because of perceived political and policy necessities. There is so far no sign that the government is prepared to relinquish those powers.

The good news is that banking regulation is expected to tighten and substantially improve, with the establishment of the new banking regulatory commission. Both the governor of the central bank, Zhou Xiaochuan, and the top banking regulator, Liu Mingkang, are tough-

minded bankers-turned-regulators of impeccable integrity with intimate knowledge of international best practices. They can get the job done.

The challenge to Chinese banks is to find creditworthy companies to lend to. There has been an explosive growth in retail lending. Although there are more bad credits than good ones among domestic firms, China is blessed with a large "foreign funded" sector which operates side by side with the inefficient state-owned sector and has already transformed China into a dual economy. China has brought in \$400 billion to \$500 billion in cumulative foreign direct investment in the past 10 years, more than the rest of Asia combined. Foreign firms are responsible for 65% of China's three-fold increase in exports in 10 years. Most foreign-funded firms are well-run and competitive, and highly creditworthy.

But most of them will tell you that China is a very tough market. In the two decades before 1997 Asian crisis, well-capitalized American and European firms had gone through a process of downsizing and "corecompetence" building to improve their competitive edge. Ironically, it was precisely during this period that they collectively lost significant market share to highly leveraged and over-diversified Korean chaebol and Japanese keiretsu whose competitiveness was largely derived from access to cheap financing by their home banks. Similarly in China, badbanking practices will continue to breed incompetence and inefficiency, which crowd out creditworthy companies, at the expense of both the banks and the economy. To date, few foreign firms compete successfully in China's domestic market and most only set up factories in China to make products for export.

However, there are signs that market forces are in the process of correcting this distortion. As the pressure to reduce bad loans intensifies and regulation tightens, Chinese banks have begun to favor foreign firms, which report a surge in lending by Chinese banks to them in the first half of this year. The leveling of the playing field in bank lending will go a long

way toward addressing the distortion in resource allocation.

If the Chinese economy looks surreal, it is. China is like a world champion on performance-enhancing steroids, financed by banks wasting household savings. This cannot continue indefinitely. Only by freeing itself from bad habits will China be able to grow sustainably and compete like everyone else without the crutch of capital controls. To be sure, getting there will involve pain. But the heavy costs of "borrowed growth" compound by the day.