How, When, and Why Will China’s High Saving Rate Fall?

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Abstract
China’s external saving rate is unsustainably high. Scenarios for its reduction range from benign (China chooses to consume and invest more domestically) to catastrophic (global trade war). I take the cautiously optimistic view that Chinese policymakers will recognize the urgent need to use the tools at their disposal to select a good outcome and avoid a bad one.

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1 Introduction

The economist Herb Stein once said that if something can’t go on forever, it will stop.

The long decline in the American personal saving rate provides a fine example. Personal saving (figure 1) fell from around 6-7 percent of disposable income in the early 1990s (roughly typical of other developed countries, and close to the previous American average) to a negligible 2 percent in 2004-2007 (according to national accounts data). This decline was clearly unsustainable for many reasons, including the looming retirement of the Baby Boom generation, whose oldest members first became eligible for full Social Security benefits in 2010.

Consistent with Stein’s Law, since the end of 2007 the U.S. personal saving rate has returned roughly to its historical norm (so far in 2010 it has averaged about 6 percent). That adjustment mostly reflected an unprecedented collapse in household spending; this drop was so large that the global financial crisis that began in the summer of 2007 might have been neither global nor a crisis if not for the shock caused by the sudden retreat of the previously reliable American consumer. But it is doubtful that even the late great Herb Stein could have predicted that this particular unsustainable trend would be reversed so abruptly or with such dire consequences.

Until 2007, the Chinese national saving rate had been a mirror image of the American one: During the long decline in U.S. saving (which declined at the total national level as well as at the personal level), China exhibited an ever-rising national saving rate (see figure 2), which also coincided with rising external saving (as I will call a current account surplus) while America’s decline in national saving went with an increase in net international borrowing. These opposing trends were the most important contributors to the growing global financial imbalances that have concerned observers for a decade.

Most analysts think that Chinese external saving (that is, saving that flows out of the country to investments in the rest of the world) is now unsustainably high, relative either to the rest of the world’s ability to absorb that saving flow productively, or relative to the size of the Chinese economy. Furthermore, however unsustainable China’s external saving had been before the beginning of the ongoing global economic crisis, such flows have become even more problematic now that weak aggregate demand (soon to be exacerbated by fiscal austerity in many countries) has left most rich countries in or near a ‘liquidity trap’ situation where China’s trade surplus can be plausibly interpreted as a “beggar-thy-neighbor” policy, exporting unemployment from a booming China to countries with already high unemployment rates and low GDP growth.

So, if the Chinese saving rate is unsustainably high, how will it come down? And will that adjustment, when it comes, be as painful as the American adjustment has been?

An optimistic scenario is that a combination of vigorous policy measures by the Chinese government and a natural propensity of spending eventually to catch up with income will produce a relatively rapid “glide path” to a sustainable external Chinese saving rate. Some plausible pessimistic scenarios are much more unpleasant – and will become increasingly likely if visible progress in reducing China’s imbalances is not made soon.
Figure 1

Household saving rate for the US (1990-2009)

Source: IMF, World
Figure 2

National Saving Rates:
China (Pink), Korea (Brown), Japan (Blue)
2 Causes and Effects

2.1 Saving and Exchange Rates

The most vehement, and most politically sensitive, criticism of Chinese economic policy in recent years has not been that China’s external saving rate is too high but that China is a “currency manipulator.”

In a narrow sense, this is undeniable: The Chinese central bank has purchased vast reserves of foreign securities over the past fifteen years. Purchases of foreign assets (or, for that matter, of foreign goods) cannot be accomplished without affecting the exchange rate. But every government makes choices about how much to purchase of foreign securities and how much domestic debt to sell on foreign markets. The charge of currency manipulation per se is therefore vacuous: It amounts to an accusation that China has a currency.

This is not, of course, what the accusers mean. The real charge is that the Chinese government has contrived to keep the Chinese currency lower than an “appropriate” level by some kind of manipulation, thereby making its products cheap on the world market and boosting its exports. This charge has a surface plausibility to it; over a short period, any country’s central bank can manipulate its currency by creation or destruction of domestic currency. And the Chinese government has contributed mightily to its reputation as a currency manipulator by seeming deliberately to use this short-term power to dampen short- and medium-run swings in its currency more than many other countries do.

But no country can print currency to keep the real value of its exchange rate low “forever.” Indeed, the “forever” prohibited by Stein’s Law is, in this case, actually fairly short. As everyone knows, sustained excessive money growth leads fairly quickly to inflation and, if continued long enough, eventually to hyperinflation. While the channels from currency creation to inflation might operate somewhat more slowly for China than for countries with more open capital markets, there can be little doubt that even for China, the magnitude of sustained net purchases of foreign assets over the past decade could only have been financed by the existence of by large amounts of real domestic savings seeking an outlet.

The word “outlet” suggests a useful analogy. Think of the Chinese central bank as the operator of a dam with a lake of Chinese savings behind it. On any given day, the Chinese central bank can control the outflow of the water (savings) in the lake. (The savings are flowing “downstream” to investments in the rest of the world.) The Chinese central bank has repeatedly and visibly demonstrated its ability to fine-tune the day-to-day flow out of the lake, which gives unsophisticated observers the impression that it has unlimited power over the exchange rate.

But over a longer period (certainly over the course of a year or more) the total flow of water through a dam depends entirely on the amount of water that flows into its lake. A snowy season in the lake’s mountain watershed must eventually yield a correspondingly higher outflow from the dam. This is roughly the position of the Chinese central bank: Enormous accumulations of Chinese savings are trying to flow out. Since the
exchange rate is essentially a measure of the rate of flow, the Chinese central bank cannot “manipulate” the exchange rate to an “artificially” low level over a long period any more than the dam operator can choose to drain his lake below the point where it is empty.

The conclusion is that, over the long run, it is the high Chinese external saving rate, not “currency manipulation,” that has caused the Chinese currency’s exchange rate to remain low.

This perspective is strongly reinforced by the experiences of other countries which have gone through similar experiences, most notably Japan. In the 1970s and early 1980s, Japan’s currency did not appreciate nearly as much as might be expected from its rapid pace of economic growth. Foreign critics, especially representatives of industries facing competition from Japanese exporters, accused Japan of manipulating its currency; indeed, the rhetoric directed at Japan then is virtually identical to that directed at China today. But what these criticisms did not take into account was that Japan’s external saving rate had increased greatly over the same period. As with China today, Japan in the 1970s and early 1980s had a currency that was depressed not by currency manipulation but by extraordinary pressure for an outlet for surplus domestic savings.

Japan botched the inevitable reduction in its external saving rate. China today is justifiably anxious to avoid making the mistakes that Japan made; a fear that the next 20 years in China could resemble the past 20 in Japan is said to haunt Chinese policymakers, who are determined to learn whatever lessons are necessary to prevent a repeat of Japan’s experience. Since the Chinese government is not very communicative about what it thinks those lessons are, outsiders can only speculate.

One lesson China should learn from Japan, as well as from the vast sweep of evidence from other countries over a long sweep of time, is that an appreciating currency is an inevitable consequence of economic growth. This is perhaps the nearest thing to a certainty in international economics; the theory is compelling, and the data even more so. Unless China wants to give up its economic growth, it needs to recognize the reality that its currency will ultimately have to appreciate very strongly.

This is a painful reality for China because it means that the vast accumulations of foreign asset holdings that it has built up over the last decade will inevitably lose much of their value before China can make use of them. But the past accumulations cannot be undone now; a substantial chunk of these investments will be lost as the Chinese currency appreciates.

From the Chinese policymaker’s point of view, this is perhaps the most persuasive reason China should scale down its investments in foreign assets: China will never get much of this money back. I do not mean that foreign countries will expropriate Chinese holdings; rather, I mean that, like Japan in 1985, China faces an inevitable and unavoidable appreciation of its currency at some point, and the sooner the authorities realize that and take steps to boost domestic demand, the smaller will be the losses they ultimately realize on those foreign investments.

This is not to say that good management of policy from here onward can do nothing to manage and minimize those losses. I briefly discuss this topic below. But it is to say that it would be better for China to bite the bullet now, itself, than to have relative
currency appreciation forced upon it by monetary policy actions of other countries over which it has no control.

2.2 Causes of High Saving

Policy options for addressing the high Chinese external saving rate should be informed by some notion of the reasons for its rise.

The standard Ramsey-Cass-Koopmans theory of economic growth is of little help; it implies that capital should be flowing from rich developed countries to poorer developing countries, the opposite of the pattern that has characterized the global financial system in the last two decades.

Indeed, the problem is even worse: Not only does the standard model tend to imply that funds should be flowing to countries whose absolute level of income per capita is low, it implies even more strongly that countries that have fast growth rates should be borrowing from the rest of the world, rather than lending to it (assuming that residents of such countries know their country is growing fast). The model says that people anticipating future income that is greater than today's should borrow against their future riches to finance current spending.

So, relative to textbook economics, China's high saving rate is a "puzzle." Many explanations of the puzzle have been proposed. But some of those explanations are highly specific to China; the one-child policy, for example, or factors related to the collapse of Communism as an economic philosophy (and its replacement by a 'capitalism with Chinese characteristics' starting in 1978), or perhaps some aspect of Confucian values (such as high status associated with saving), or some combination of these elements.

Each of these explanations has some plausibility on its face, but none is satisfactory, because any explanation that is specific to China ignores the cardinal fact that China's experience over the past 20 years is in many ways a close replica of the experiences of many other countries that went down the same path earlier. Japan, South Korea, Hong Kong, Taiwan, and Singapore all preceded China in, first, embarking on a path of rapid and sustained economic growth and, as growth continued, in racking up ever-higher saving rates. Theories that rely on factors that are unique to China are worse than useless: They are very nearly untestable, relying (as they do) on a single datapoint.

As the first country to follow the path that China is now on, Japan's experience is especially noteworthy. As Fumio Hayashi of Tokyo University has shown, Japan did not have an exceptionally high saving rate, by international standards, in the 1950s, although during that decade it had already embarked on the path of rapid economic growth that would catapult it into the club of the world's rich countries in record time. Though it started with a moderate saving rate, as Japan's economic growth miracle continued, its saving rate mounted ever higher. (Conversely, in the wake of the drastic slowdown of growth that started in the 1990s, Japan's national saving rate has steadily declined).

South Korea is another instructive example. Although the South Korean growth miracle can be dated to the late 1950s or early 1960s, as late as 1976 the development economist Jeffrey Williamson wrote an article entitled "Why Do Koreans Save So Little?"
Williamson’s data was somewhat out of date, and did not anticipate that by the late 1980s South Korea’s sustained growth boom would have resulted in a national saving rate that was among the highest in the world. The relationship holds on the down side as well; in the wake of the productivity growth slowdown that began in the 1970s, saving rates in the industrialized world as a whole fell. Systematic statistical evidence confirms the anecdotal experiences sketched above: The positive correlation between saving and growth across countries does not show synchronized timing; growth increases and saving subsequently rises (or growth falls then saving falls).

But the reason growth produces saving is not a question on which economists have reached a consensus. One possible explanation is that consumption “habits” tend to prevent spending levels from rising very quickly when income is growing fast; this theory has the advantage that it does not rely on contingent cultural phenomena like the one-child policy (and the further advantage that the theory was formulated before China’s growing saving rate was evident, so is immune from the criticism that it was invented specifically to explain the Chinese datapoint).

While the consumption habits are an increasingly common feature of macroeconomic models, they are not uncontroversial, partly because microeconomic studies have failed to find much evidence of habits at the level of individual households. Other explanations of the causality from growth to saving therefore remain worth investigating.

2.3 Saving and Uncertainty

Another commonly cited explanation for China’s high saving rate is that it reflects precautionary saving motives on the part of Chinese households who now face greater uncertainty than during the era when the “iron rice bowl” guaranteed a stable (if low) standard of living to everyone.

There is likely at least a kernel of truth to this explanation; the extraordinary transformation of economic life in China over the past 30 years has surely fostered a sense that the future is full of surprises. It is a striking regularity that modern industrial states have all created comprehensive social welfare systems as they have made the transition from poor to rich; one natural explanation of this is that either the perception or the reality of economic uncertainty grows as countries become richer. Perhaps there was some truth to Marx’s assessment that the defining feature of capitalism is that “all that is solid melts into air.”

Other countries that have created effective social safety nets (including retirement income security and public health care systems) had long periods of time to develop those systems; China has not. Whatever the reasons, there is little dispute that China’s system for insulating households against economic uncertainty and guaranteeing a decent standard of living for the elderly are modest compared to the social insurance systems of other countries. This lends plausibility to the proposition that the large rise in Chinese saving may reflect an increase in the precautionary motive for saving.

Returning again to the theme that any satisfactory explanation must fit the experiences of other countries as well as China, the obvious question is whether precautionary
saving increased in Japan, Korea, Taiwan, Hong Kong, Singapore, and other fast-growing countries that experienced rising saving rates during their growth spurts.

This is not quite as implausible as it may sound. Broadly speaking, each of these countries decided to engage in a monumental transformation in the structure of its economic life, abandoning traditional lifestyles in pursuit of a very different economic model that required radical changes in the structure of employment. It is perhaps not implausible to argue that those radical changes, and particularly the employment of an ever-increasing fraction of the population in export-dependent industries, constituted a bargain: The price of rapid growth is rapid change, and the drawback of rapid change is that it is inexorably associated with uncertainty. In recent work with Olivier Jeanne, I have argued that if growth is associated strongly enough with uncertainty, then the apparent causality from growth to saving can be explained. (A somewhat related idea in a recent paper by Damiano Sandri argues that it is the precautionary saving of entrepreneurs, rather than households, that is the key to understanding the growth-saving causality. Sandri shows that if entrepreneurs cannot borrow to finance expansion of their enterprises, and the concentration of their personal wealth in their firms leads them to want to accumulate some outside safe assets in case of entrepreneurial disaster.)

In the end it seems likely to me that both explanations – some habit formation and some increase in precautionary saving – will be necessary for a satisfactory explanation of the puzzle. It is also possible that other explanations that have not received much attention will turn out to be important. Perhaps in coming years, more and better microeconomic data on consumption and saving patterns across Chinese households will shed light on the question.

3 Options

Whatever the reasons for China’s saving rise, policymakers have a variety of tools that can be used to achieve both either a short-run or a long-run decline in external saving.

3.1 Short-Term

Even if the long-term rise in China’s saving rate is attributable to long-term causes, the fragility of the current global economic situation calls for short-term policy actions to ward off brewing sentiment in China’s trading partners to do something themselves to address the problem. If paired with appropriate long-term policies (discussed below), short-term policies could help China to buy the time necessary for longer-term policies to have a sufficient effect.

There is no shortage of options. The most straightforward of these would be is to further increase the rate of Chinese domestic investment spending. Though this would not necessarily affect the overall rate of national saving, the current account surplus can be defined as national saving minus national investment. If more of domestic saving is absorbed by domestic investment, the result is smaller external saving.
While China’s stimulus package of 2008 and 2009 is viewed as a success, the withdrawal of that stimulus could be a significant drag on domestic investment in the next couple of years. China surely still has a large unmet demand for public infrastructure, both in rural and in urban areas and spending on public works projects is an effective way to absorb the labor flows that are always a matter of concern to Chinese public policymakers. And the financial position of the central government is healthy and could surely support a substantial increase in public investment.

If the appetite for public investment spending is declining, private investment spending could surely be spurred, at relatively modest fiscal cost, by temporary investment tax credits or similar tax policies designed to favor business spending on plant and equipment. If policymakers are (perhaps justifiably) concerned about fueling a bubble in property prices, the policy could be fine-tuned to encourage only investment in equipment and research, neither of which is as prone to fueling a bubble.

A more aggressive policy would be to impose some kind of tax, either direct or implicit, on purchases of foreign assets. The legal niceties of such a tax might be considerable.

Another path would be to attempt to stimulate household spending. One lesson from experience in the United States and other countries is that different types of taxes and transfers can have very different effects on spending. At one end are policies like the “cash-for-clunkers” program in the U.S., which is the household equivalent of an investment tax credit. While there is some debate about the duration of the stimulus provided by this program, there is no question that it spurred spending on motor vehicles during the brief period of its existence. Similarly modest tax credits or expenditures could probably induce similar spurts in Chinese household spending.

Another lesson is that different kinds of households have quite different propensities to spend out of a dollar of tax cuts. The evidence in the U.S. suggests (unsurprisingly) that a lump sum cash transfer is much more likely to be spent by a low-wealth or low-income household than by their richer equivalents. Still, even low-wealth households may choose to save rather than spend a substantial portion of cash transfers, so tax cuts or transfers are a more uncertain method of boosting spending than some of the other options mentioned above.

3.2 Long-Term

3.2.1 Build A Better Social Insurance System

Over the longer term, China’s return to a sustainable pattern of external saving will probably need to include at least three elements. One is the credible creation of a better social insurance system than exists today. (I use the word “credible” here because people are unlikely to change their saving behavior in response to unenforceable and vague promises that future governments will take care of them.)

The fastest way to create a credible program would be to institute a “Pay As You Go” retirement security system, in which tax payments from current workers fund the pensions of the current elderly. Theory and evidence suggest that this could prove a powerful tool for reducing the saving rate; people who know that they will receive at
least some minimum floor of income when they are too old to work will not worry so much about saving today in order to fend off disasters in old age. Of course, some caution is necessary in setting up such a system to ensure that promises do not exceed the government’s future ability to pay. But much has been learned about optimal social insurance provision since the first such systems were set up, and a well-designed system that combines the best features of the plans available in other rich countries could have large benefits both for the welfare of the Chinese people and for global financial stability.

Provision of health insurance is much more complex, but a good place to start would be to mandate a system that covers “catastrophic” health costs that are so large that they could bankrupt an ordinary family. Most of the problems that plague public health care systems in other countries derive from the fact that those systems tend to cover not just catastrophic costs but everyday costs as well. China would be wise to be careful to avoid the mistakes other countries have made in health policy, but very few analysts think that insurance against catastrophic risks is the source of those problems.

A final leg of a solid social insurance system is an unemployment insurance program that provides newly unemployed workers with time-limited payments (contingent on a requirement that they actively search for new jobs). While China’s low unemployment rate in urban areas may make this seem to be a low priority, it should be a high one, both because even in a period of strong employment growth workers may feel substantial insecurity about what might happen if growth tapers off, and because it is much more easier to design and implement a sound system when the unemployment rate is low and the program does not seem urgent, on the principle that one should fix a leaky roof while the sun is shining, not in a thunderstorm.

3.2.2 Financial Development

An ideal of virtue in ancient Greece was to attain the “golden mean,” a balance between too much and too little of each quality. The U.S., the U.K., and some other countries surely went too far in making it easy to borrow, but the proper conclusion is not that borrowing is always and everywhere a bad thing. Economic theory says that many people’s lives can be improved by prudent use of credit markets, to smooth out their living standard both over the life cycle and across the pockets of economic turbulence that affect everyone’s life on occasion.

The tricky problem for government authorities is how to permit prudent extension of credit while guarding against the adverse consequences of credit bubbles like the one that inflated and then collapsed over the past decade in the United States. A chief lesson of that crisis is that the major shock came from an aggregate shock (the decline in house prices) rather than from the prudent extension of credit to kinds of people who have not been able to borrow before. Indeed, an underappreciated fact about the current foreclosure crisis in the United States is that the bulk of the value of the housing loans that went bad were to high-income people buying large and expensive houses. Much of the expansion of credit availability in the period 1950-2000 (before the bubble period) was to low-income or minority households who had not been able to borrow before, and
as a whole that expansion of credit (particularly for student loans and housing) was welfare improving.

A separate form of financial development that could be equally effective in reducing China’s external saving imbalance would be to improve the corporate governance, transparency, and efficiency of its financial institutions. It is hard to avoid the suspicion that at least some of the demand by Chinese savers for foreign assets reflects a lack of trust in the domestic financial system, and its ability (or willingness) to invest deposits wisely within China. Financial intermediation is a difficult challenge everywhere, but the opaque nature of much of the Chinese financial system surely makes the challenge harder than it should be. Improved shareholder rights, improved information about and access to the inner workings of Chinese firms, stronger and more reliable penalties for financial malfeasance, and swifter adoption of international norms for accounting and financial reporting could substantially ease the demand for foreign saving, and boost domestic investment from its already impressive heights.

Finally, recall Sandri’s theory that underdeveloped financial markets require entrepreneurs to do much more saving than would be necessary if financial markets were more sophisticated. A tidbit of evidence is that some recent research, in fact, finds that small firms in China appear to underinvest, relative to some plausible benchmarks – exactly what would be expected from the Sandri model. If this theory has some truth to it, better development of financial markets would lead to a policy trifecta: a reduction in (net) saving, an improvement in economic efficiency, and greater profits for small but growing Chinese firms.

4 Prospects

The physicist Neils Bohr is said to have remarked that “prediction is difficult – especially about the future.” Curiously, economics is a field where prediction about the distant future can sometimes be easier than prediction about the near-term. Thirty years from now, I have little doubt that China will have moved a considerable distance along the path laid out above, especially in the provision of social insurance and the development of its financial markets. The more challenging question is how quickly that movement will proceed, and whether progress will come fast enough to head off the building pressures for change before they take a destructive turn.

Those pressures should not be underestimated. The United States has not experienced such a sustained period of high unemployment since the Great Depression, and political developments there are not moving in a direction likely to lead to rapid improvement. If economic stagnation continues, the Federal Reserve will likely have to step in again and more forcefully in financial markets, perhaps by pursuing more aggressive quantitative easing (as Ben Bernanke hinted last week) or perhaps by resurrecting its “credit easing” policies that were so successful at the height of the crisis. Either path would likely result in a further sharp drop in the dollar; indeed, whatever the Federal Reserve may say, a drop in the dollar would be part of the point of any such policy. And in the end, the Fed is accountable to the American people and not to foreign investors, no matter how
much foreigners may complain about its policies. It would surely be a serious mistake to think that any kind of foreign pressure will prevent the Fed from pursuing the policies it thinks are needed to reflate the economy.

But if the Fed, for its own domestic political reasons, fails to act forcefully enough, it is by no means implausible to expect that a frustrated Congress will pass strongly protectionist legislation, specifically targeted at China. The World Trade Organization and other international organizations, in the end, have little real power to prevent such a development. And if the United States does pursue such a path, there can be little doubt that other countries would follow suit.

In this context it is worth pausing to recall the last era of globalization, which came to an abrupt and unhappy end. The last time large imbalances in global capital flows commanded today’s degree of widespread attention was in the decades immediately before World War I. Those prewar flows were predicated on an assumption that ever-expanding trade in goods, services, and capital was a permanent feature of the world economy. Optimists even proclaimed that commercial self-interest in preserving trade flows would be sufficient to prevent any serious armed conflict. In the end, the forces sustaining trade in goods and capital were considerably more fragile than the optimists had reckoned; the system came crashing down with shocking speed, and global trade and capital flows did not reattain their fin-de-siecle levels until near the fin of the next siecle.

Pessimism, like optimism, can be overdone. *Pace* Herb Stein, it is not obvious that increasing global trade in goods and services is something that cannot go on (effectively) forever. But, given the lessons of history, neither is it obvious that it will not stop.

## 5 Conclusions

The Japanese experience with high growth and the resulting high saving did not end well. Japan has now completed two decades of stagnation since the bursting of its property and stock price bubbles, whose final mad period seems to have been due to an attempt to maintain its extraordinarily high national saving rate while redirecting that saving from purchases of foreign to purchases of domestic assets. If Japan had instead reduced its saving rate to a manageable level, or if it redirected those savings into physical infrastructure investment (instead of just the bidding-up of prices of existing assets), maybe the past 20 years would have been considerably more cheerful in Tokyo.

News reports suggest that the Chinese government is profoundly conscious of the Japanese example, and is determined to avoid Japan’s mistakes. This is encouraging, because China is so much larger than Japan that the consequences of errors would have a major impact on the entire world economy. But outside observers do not seem to have a clear grasp of what lessons the Chinese government has learned. I hope that they learn the right lesson: It would be better to bite the bullet now, when rewards would be high and costs low, than to dither until outside forces cause an outcome that is neither in China’s interest nor anyone else’s.