China's Debt Bubble

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In recent years, the global drama of debt and deleveraging arrived in distinct phases. First came the U.S. subprime crisis, followed a couple of years later by the European debt crisis. Now, there are ominous signs that the third act may take place in China. While a Lehman-style collapse remains unlikely, even a gradual deflating of China's debt bubble could have significant consequences for the rest of the world. In this paper, we discuss China's debt problems (past and present), what appears to be a recent shift in government policy, and the economic and market implications of what may come next.

Inflating the Bubble

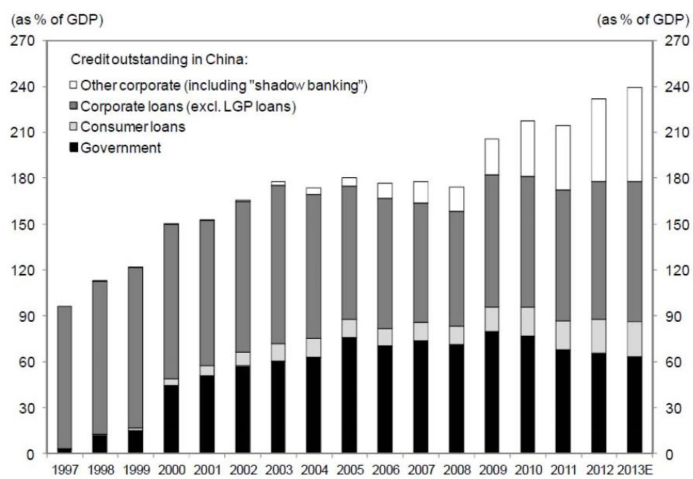
In the three decades prior to the Global Financial Crisis, China's "economic miracle" was rooted in a familiar economic playbook. Similar to many prior emerging market success stories, China's economy enjoyed turbocharged growth on the back of cheap labor producing cheap exports that were sold to the developed world. From 1978 to 2007, China's GDP grew at an average rate of over 10% per year[1]. But the Global Financial Crisis threatened to derail China's growth train, as the developed world's demand declined sharply and suddenly. Rather than accept the economic slowdown plaguing much of the rest of the world, China's leadership chose to embark on a massive monetary and fiscal stimulus blitz to reignite domestic growth.

With the export growth window closing fast, China pulled a different lever to stimulate economic growth – domestic credit. The Chinese government's direct control of the domestic banking system allowed them to succeed in sparking credit growth where so many other countries failed. Chinese banks now had a mandate to create as many new loans as possible, with the safety net of an implied government backstop in the event that loans went bad. This combination resulted in a lending boom the likes of which the world had never seen. This borrowing and spending meant that China's GDP growth fell only to 9.2% in 2009, before reaccelerating to double digits the following year. Without a doubt, China's unprecedented economic stimulus played a major part in not only stabilizing China's growth, but also in pulling the rest of the world out of the Great Recession.

The Size of the Problem

But in sharp contrast to many of their developed markets peers, China's stimulus policies may have worked *too* well. As seen in the chart below, while China's official government debt has remained relatively low and stable, other areas of credit, including corporate loans, consumer loans, and "shadow banking" (discussed in detail later), have all exploded post-2008. Overall credit in China has jumped from $9 trillion to $23 trillion since the Lehman crisis. To put that in perspective, China has created the equivalent of the entire US commercial banking system in the last five years!

Exhibit 2: China's Post-Crisis Credit Boom



Source: CEIC, GS Global ECS Research.

Unlike the United States in the run up to the Global Financial Crisis, China's debt problems are largely at the local government and corporate levels, as opposed to the household level. In fact, China's corporate

[1] Source: The World Bank

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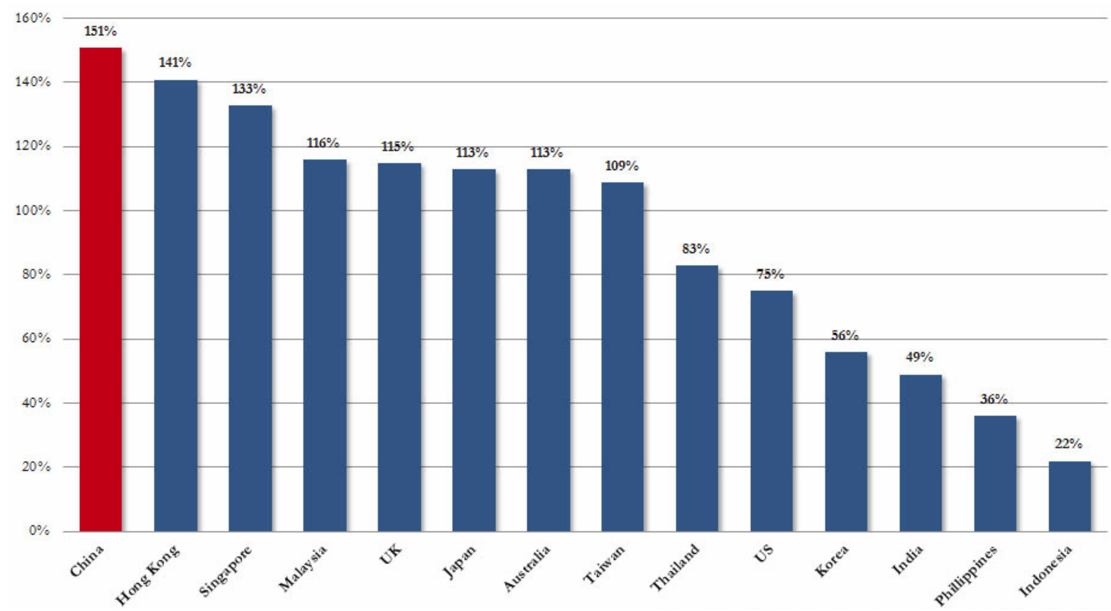
Corporate Debt as % of GDP



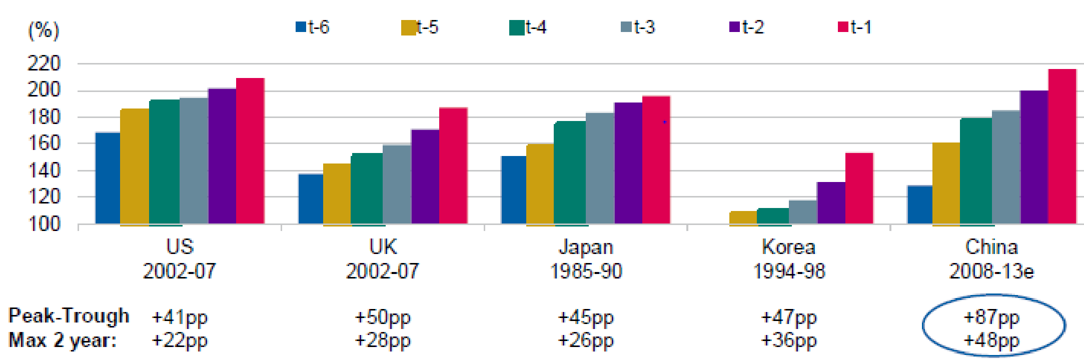
Source: Central Banks, Gao Hua Securities Research, Goldman, Zero Hedge

debt as a percentage of GDP now exceeds all other countries, and doubles that of the United States.

As large as it is, the absolute size of China's debt is not as concerning as its growth rate. As shown in the chart below, the ratio of credit to GDP has jumped by roughly 87% over the past five years, compared to a 41% increase in the US leading up to the subprime bubble, and the 45% increase in Japan that preceded its bubble bursting.

There is mounting evidence that China's debt growth has become excessive and non-productive. Like any investment, bank lending is typically a function of the risk-reward trade-off. But if the perceived risk is zero (i.e., a government bailout, if needed) then even the most marginal and risky projects get funded. As China's economy has begun to slow, a growing number of projects are failing to produce the cash flows needed to service their debt, and many are borrowing new funds simply to pay off old loans. The end result is that China is taking on more and more debt, to produce less and less growth. Morgan Stanley estimates that it now takes China 4 yuan of debt to create

Trends in Pre-Stress Credit/GDP



Source: Fitch, PBOC, IMF International Financial Statistics

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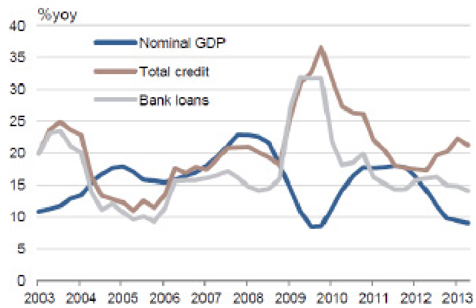
1 yuan of growth, up significantly from the roughly 1:1 ratio in the early and mid-2000's[1].

Chart 2: More Credit for Less Growth



Source: PBOC, NBS, CEIC, SG Gross Asset Research/Economics

Historical Precedent

This is not China's first battle with debt problems. In the most recent example in the late 1990's, China's state-controlled "big four" banks[2] were being crippled by a fast-rising number of non-performing loans, largely related to the Asia Financial Crisis. In 1998, the Ministry of Finance issued 270 billion yuan of special government bonds and used the money to replenish the capital of major state-owned banks. In the next year, four asset management companies (i.e., "bad banks") were established, and 1.4 trillion yuan of bad loans were transferred from the state-owned banks to these new companies. Essentially, the Chinese government removed the problem loans from bank balance sheets, providing them with a fresh start. At the time, this was seen as a clean and effective solution.

The solution this time, however, may not be so simple. For starters, China's "big four" banks are now public companies with significant foreign ownership. Therefore, bailing them out (and diluting current shareholders in the process) will be more difficult. Furthermore, while Chinese banks have never been particularly transparent, it is more difficult to hide the problems of a public company than a state-owned enterprise.

Perhaps the biggest issue with China's previous bank bail-out model was that it was actually funded over time by Chinese households through "financial repression." While capital injections and asset transfers helped, the government also allowed banks to repair their balance sheets by artificially fixing deposit rates (i.e., their cost of funding) far below lending rates (i.e., what banks earn on loans). This spread between deposit rates and lending rates allowed banks to slowly replenish their capital over time. Unfortunately, deposit rates were also fixed well below the rate of inflation in China, meaning that households were guaranteed to lose money in real terms on their savings accounts (i.e., "financial repression"). Thus, money was essentially transferred over time from the household sector (via lost interest on savings) to the banking sector. If China is truly serious about rebalancing their economy towards more household consumption growth, however, this approach can not be used again.

Shadow Banking

Further complicating China's debt bubble this time around is the rise of the shadow banking sector. To their credit, the Chinese government seemed to recognize a few years ago that they had overstimulated the economy in 2008-2009. They began to place loan restrictions on the "big four" banks in an effort to restrict the flow of credit. While this initially suppressed the supply of "official" bank loans, it did nothing to quell the ever-growing demand for credit in an economy that was booming again. With loans from the "official" banking sector now in shorter supply, borrowers increasingly turned to the "shadow" banking sector.

Shadow banking is a catch-all term used for any type of lending that is originated outside of the official banking sector (i.e., traditional bank loans). In China, the rise of the shadow banking sector makes intuitive sense. The large state-owned banks have

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[1] Source: Morgan Stanley, China's Minsky Moment.

[2] China's "big four" banks are Bank of China, China Construction Bank, Industrial and Commercial Bank of China (ICBC) and Agricultural Bank of China.

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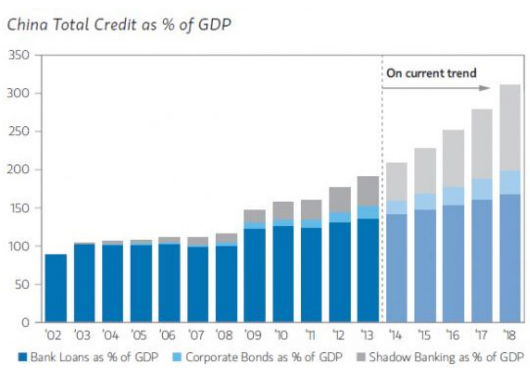
strict government-imposed limits on both the volume, and more importantly, the interest rate, at which they can make loans. Given that they can't charge higher interest rates for risky borrowers, banks are incentivized to ensure that the loans they do make are as safe as possible (typically to large state-owned enterprises). But this has resulted in the rest of the economy essentially being starved of traditional bank credit. UBS estimates that 97% of China's 42 million small businesses don't have access to a traditional bank loan.[1] Combine this with a Chinese household sector that is looking for a return on savings that exceeds the rate of inflation (i.e., not a traditional bank deposit) and you have the building blocks for a shadow banking sector.

But while shadow banking might make sense in China given the current circumstances, it also comes with a good deal of risk, particularly at its current rate of growth. The combination of the exploding shadow banking sector and the current restrictions on traditional bank lending have led some to estimate that 50% of all lending in China now happens outside of the traditional banking system.

Display 2: China's Excessive Debt



Source: MSIM Global Multi-Asset Team analysis. Data as of February 6, 2014. For illustrative purposes only. Forecasts and estimates may not necessarily come to pass due to changing market and economic conditions.

The shadow banking sector is complex and opaque, which is part of what makes it so dangerous. While there are a number of eerie parallels between the "originate and distribute" US financial system pre-Lehman Brothers and what is happening now in China, we will highlight a few in particular.

Trust Products

Chinese savers who are looking for higher returns than the negative real rates promised by bank accounts, often end up investing in trust products. Likewise, borrowers who are deemed too risky for a traditional bank loan (often real estate developers) turn to trust products for funding. The end result of pooled investor money indirectly financing risky real estate projects bears a striking resemblance to US subprime mortgage-backed securities.

Wealth Management Products

Even more popular in recent years than trust products have been Wealth Management Products (WMPs). Offering a higher interest rate than a traditional bank account, WMPs are sold by banks to retail investors as low risk investments (essentially a high yield savings account). WMPs are very similar to the Structured Investment Vehicles (SIVs) or Collateralized Debt Obligations (CDOs), which were used by US banks to keep loans off their balance sheets. Banks raise a pool of assets from selling various WMPs to fund a range of investments across the risk spectrum. These risks are often poorly disclosed (if at all) to the underlying investors, who may believe they are simply putting money in the bank.

Credit Guarantees

As discussed earlier, Chinese state-owned banks are incentivized to make only the safest of loans. Therefore, if higher risk borrowers have any hope of securing a low interest traditional bank loan, they often need a guarantee. Many Chinese companies mutually guarantee each other's debt. There are also a large number of financial services companies whose business consists of guaranteeing debt for a fee. As with credit default insurance in the US, the entity making the guarantee may have trouble delivering on their promise if required to do so.

[1] Source: Bloomberg, Shadow Loans Hard To Squelch in China City Hit By Suicide, March 26, 2013.

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The Government Safety Net

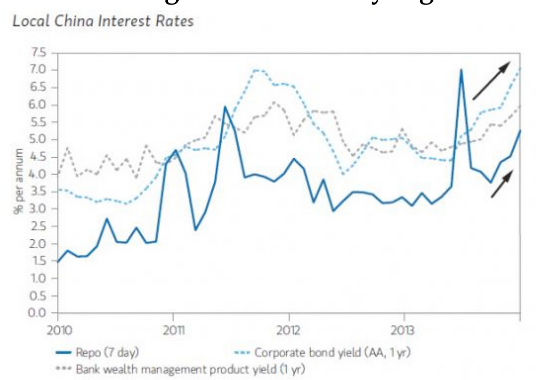
Many people inside and outside of China are aware of the inherent risks of the current debt bubble, but very few see signs of imminent danger. This is due in large part to the explicit or implicit support of the Chinese government, and their refusal (until very recently) to allow even the most delinquent of borrowers to default. Unfortunately, this government support, while stabilizing in the short-term, is very destabilizing in the medium to long-term, as economic imbalances are allowed to grow unchecked. There are many loans in China that seemingly would never happen without the government's assumed support for the borrower. For an economy to establish any kind of real credit market, however, there needs to be some risk of default. Otherwise, credit is continually extended to marginal borrowers on uneconomic terms and feeds massive imbalances that must ultimately correct.

A Change in Policy?

We may be at the beginning of this correction. China's new leadership regime, led by Xi Jinping who came to power in 2012, has talked openly about economic reform and the need for more "market-oriented" policies. While official statements have been relatively vague, in recent weeks there have been tangible signs that the government stance towards credit markets and defaults has indeed changed. The most notable was China's first corporate bond default on March 7, 2014. A company called Chaori Solar became the first modern Chinese company to officially default on its debt obligations when it missed a scheduled interest rate payment to its bond holders. This was a relatively small bond ($160 million) issued by a relatively small company ($1.2 billion market capitalization), but Chaori Solar's size belies the magnitude of the precedent it set.

The fact that a Chinese company was struggling to meet its debt obligations was nothing new. The fact that the government actually allowed it to default, sent shockwaves through the Chinese financial system. For the first time in the modern era, there was a hole in the government safety net. Since then, a handful of other companies have also defaulted. But allowing defaults appears to be just one facet of the government's plan to instill a greater degree of market discipline. Interest rates have been allowed to rise slowly (increasing the cost of debt), and the value of the yuan has been managed downwards to discourage "hot money" flows into China.[1]

Rates Rising as PBOC Slowly Tightens



Source: Nomura Asia Insights dated January 17, 2014. Past performance is not indicative of future results.

As expected, the market's reaction to these recent events has been negative. The Chinese equity market continued a slide that has been ongoing for a quite a while in anticipation of some of these problems. But the real volatility has been seen in commodity markets. Copper and iron ore have seen some of the largest daily declines on record, as these two commodities in particular have been widely used as collateral to obtain bank financing (yet another form of Chinese shadow banking).

[1] A growing degree of leverage in China has been driven by short-term speculators (i.e., "hot money") borrowing in a low cost foreign currency (e.g., the US dollar), converting the proceeds into yuan, and investing in higher yielding Chinese assets. This is sometimes referred to as the "carry trade" because part of the expected return is due to a continued rise in the yuan vs. the dollar (i.e., the investment currency vs. the funding currency). If the Chinese government forces a decline in the value of the yuan, or at least more volatility, then the attractiveness of this trade declines.

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Where Do We Go From Here?

The Chinese government seems to be preparing the economy for a landing, the only question remains whether it will be hard or soft. Clearly, the government will attempt to manage the deleveraging of their financial system as best they can. Fortunately, they appear to have sufficient resources at their disposal to manage this process adequately and avoid the dreaded hard landing. For one, the vast majority of China's debt is denominated in their own currency. Many past debt crises have been exacerbated by the fact that too much of a country's debt was denominated in a foreign currency that they could not control. In addition, despite all of the debt problems in other areas of the economy, China's official government debt-to-GDP remains at a very manageable level (26%). Thus, there is a lot of room for the Chinese government to take private sector debts onto their own balance sheet. Furthermore, China's relatively closed economy actually helps in this situation. As it is still very difficult for Chinese citizens to get their money out of China, the risk of a sudden and sharp outflow of capital is relatively low.

Unwinding a debt bubble of this magnitude, however, will undoubtedly present difficult and unexpected challenges along the way. For one, there appears to be a good deal of Ponzi risk with some of the trust and Wealth Management Products discussed earlier. Some of the loans extended by these products have gone bad, and thus the only way they can pay off maturing investments is with capital from new investors. If investor confidence is sufficiently shaken in these products by a handful of defaults, a sudden lack of fresh capital could lead to even more defaults. This dynamic speaks to a larger issue of funding mismatch with many of these shadow banking products. Many of these products have very short maturity cycles (3-12 months) yet use the proceeds to extend long-term loans. Thus, they are wholly reliant on investors continuing to roll over their investments, and any break in that cycle could prove problematic.

Another broad risk factor is that linkages within complex financial systems, particularly shadow banking (i.e., unregulated) systems, are very difficult to understand and appreciate. In other words, allowing what appears to be an isolated default may result in unforeseeable collateral damage to other related entities. This risk is particularly elevated in China as many companies in the same region guarantee each other's debt, creating a potential domino effect should even one company fail.

Another wildcard in this equation is the role of confidence. As the world learned in 2008, highly leveraged financial systems are hugely dependent on market confidence for their survival. And confidence is very tricky in that it is self-fulfilling in both directions. If everyone believes the financial system is stable, then it most likely is. But if some critical mass of market participants begin to doubt the solvency of the financial system (whether this belief is rational or not), it can quickly snowball into a liquidity crisis.

All of these potential risks mean that China will try to strike a balance between free market forces and centralized control. While this means more defaults, it also means that there will be many more bail-outs (either direct capital injections or rolling over of loans) than defaults. But how will they decide who is saved and who is not? Perhaps just as important, how will they communicate their approach to the marketplace, if at all? This will be a very delicate balancing act, that will likely see alternating phases of austerity and stimulus as the government perceives the economy getting too hot or too cold.

Conclusion

This may well be the end of China's debt-fuelled growth model of recent years, but this does not necessarily mean that a hard landing is imminent for the world's second largest economy. Meketa Investment Group sees three main scenarios for how this will play out:

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- Hard landing - China slams on the breaks too quickly and underestimates the leverage and interconnectedness of the shadow banking system. There is widespread loss of confidence in the financial system and the dominoes fall faster than the government can change course. This is the worst case scenario, but also the least likely.

- No landing – initial attempts at tightening cause enough pain that the government quickly changes course and loosens policy again. This is also unlikely as this would only postpone (and exacerbate) the current problems, and the new regime appears to have decided that a small crisis now is better than a big crisis later.

- Soft landing – this is the most likely outcome. China successfully manages to deflate the debt bubble without major blowups, but this limits the single main source of economic growth in recent years (credit), and necessitates propping up a number of “zombie” institutions (a la Japan) that continue to suck scarce capital away from more productive uses. The end result is a Chinese economy that does not collapse, but grows at a much slower rate than it has in the recent past and, perhaps, slower than many experts (and the Chinese government itself) currently forecast.

Investment Implications

A Chinese economy less reliant on debt to finance its growth is ultimately beneficial, not only for China, but for the rest of the world. Clearing out some of the mal-investment of past years will result in a healthier and more robust Chinese economy. But the transition will not be painless.

Slower Chinese growth, particularly in debt-reliant areas such as construction and real estate, will likely put continued downward pressure on commodities like iron ore and copper (with added pressure from the unwinding of commodity financing deals). This, in turn, will have repercussions for commodity-producing nations such as Brazil, South Africa, and Australia that rely on Chinese commodity demand for much of their growth.

The Chinese stock market may remain under pressure, although after lagging the rest of the world for the past few years, some degree of pain is already priced in. Chinese banks, in particular, will see a material uptick in nonperforming loans and will likely need a formal bailout of some kind.

More than anything, we expect to see heightened volatility going forward in all things directly or indirectly tied to the China story (i.e., everything from base metals to luxury goods), as the government continually shifts from austerity to stimulus and back again. While the next few years will be bumpy, we expect a slower growing, but ultimately healthier, China to emerge.