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Orient Capital Research

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Corporate Debt in China

High Leverage, Low Profits

Summary. China's corporate debt has skyrocketed from Rmb 25 trillion in 2000 to Rmb 202 trillion in 2014, an annual increase of 16%. Of greater concern is that nearly 40% of this debt is owed to other corporates. This type of "triangular debt" could lead to a debt-deflation trap whereby business comes to a standstill as corporates have a liquidity shortfall due to interlocking unpaid loans. This occurred in the 1990s before the economy was restructured.

The Debt Deflation Trap

We believe China is in danger of falling into a "debt-deflation" trap. According to Irving Fisher, a bursting credit bubble frequently unleashes a series of negative impacts on the real economy, including but not limited to:

- 1) Debt liquidation and distress selling.
- 2) Contraction of the money supply as bank loans are paid off.
- 3) A fall in the level of asset prices.
- **4)** A still greater fall in the net worth of businesses, precipitating bankruptcies.
- **5)** Hoarding of money.

One of the strongest evidence for this theory is China's booming corporate debt.

Non-financial corporate debt

According to data from CASS (Chinese Academy of Social Sciences), corporate debt of non-financial corporations in China has been rising in double digits since 2004 and has soared more than eightfold between 2000 and 2014, from Rmb25

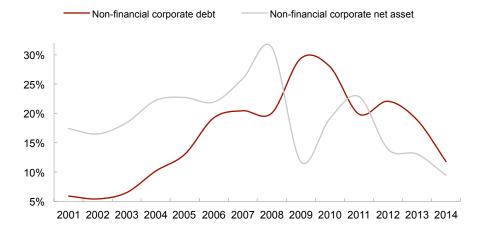
trillion to Rmb202 trillion. While there is some disagreement over the total size of China's debt, we estimate that non-financial corporate debt accounts for roughly 60% of China's total debt. Although net assets of non-financial corporations increased by 11 times for the same period, year-on-year growth has lagged behind that of total debt in the recent two years. There appears to be no slowdown in growth due to continued demand for capital among China's non-financial firms and a lack of internal cash flow to pay for investments. "We expect this to continue with a widening gap between the year-on-year growth of debt and net assets," said a senior bank executive, "In addition, the debt ratio of the non-financial sector is estimated to remain above 60% for at least the next five years."

(Rmb trillion) Non-financial corporate debt YoY(%) 202 200 29% 181 152 24% 150 19% 104 100 81 14% 63 43 50 9% 2010 2006 2008 2009

Figure 1: Non-financial corporate debt in China

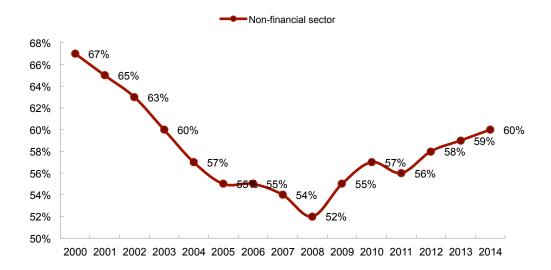
Source: CASS, OCR

Figure 2: YoY growth of non-financial corporate debt and net assets



Source: CASS, OCR

Figure 3: Debt ratio of non-financial sector



Source: CASS, OCR

Yet what is perhaps most alarming is the high percentage of interlocking debt among corporations. The amount of debt between corporations in the overall debt mix has increased steadily from 20% in 2000 to 40% as end of 2012. Meanwhile, short-term and long-term debt each accounted for 15% of total non-financial corporate debt, respectively.

High Cost to China's Economy

What is the cost of this debt to China's economy? There is both a state and a non-state sector cost. If we use the average corporate interest rate paid in 2014 by the

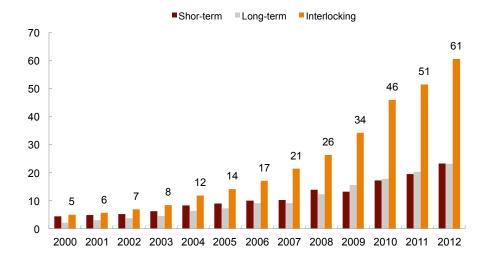
corporate customers of the Bank of China, 6.28%, the interest burden is Rmb 12.7 trillion. The state cost is estimated at Rmb 4.9 trillion, or 8.6% of the country's 2014 GDP of Rmb 56.9 trillion. The cost is likely higher as non-bank loans from the Shadow Banks would be at a higher interest rate.

	Rmb Trln	Avg Interest Corporate Loans	Annual Interest (Rmb Trn)
Total Corporate Debt	202	6.28%	12.7
SOE Debt	77.7	6.28%	4.9
Central SOE	42.8	6.28%	2.7
Local SOE	34.9	6.28%	2.2

Triangular Debt

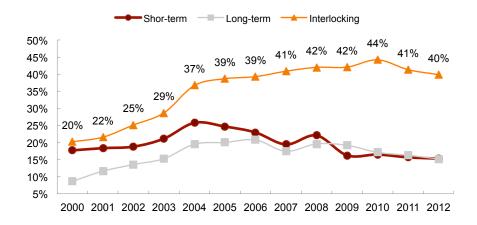
The high proportion of interlocking debt among corporations could lead to financial paralysis. This occurred in China in the 1990s when state firms owed each other money but were unable to pay – a problem known as "triangular debt." For instance, corporate A owes money to corporate B. Corporate B owes funds to corporate C while simultaneously corporate C owes money to corporate A. In such a case, if corporate B can't pay back its debt to corporate A, both corporate A and C can't meet their own liabilities. As a result, A, B and C have no reproducible assets; nor can they derive demand between each other. This results in an infinite loop.

Figure 4: Scale of different types of non-financial corporate debt



Source: CASS, OCR

Figure 5: Percent Breakdown of non-financial corporate debt



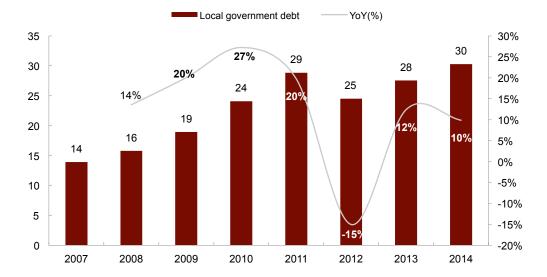
Source: CASS, OCR

Local Governments are to Blame

But there is a further twist to the corporate debt story. In many cases, the entity that caused the chain of debt was not a company – but an arm of the government itself. As the result of China's 2009 fiscal stimulus, caused by Beijing's policy to inject \$600 billion into the economy rapidly, local governments established off-balance sheet companies known as Local Government Financing Vehicles (LGFVs). The governments frequently contributed capital in the form of land to what was technically a private corporate – albeit with government backing. Many of these LGFVs ended up virtually as empty shells. Mainly as the result of these LGFVs, local debt officially totals Rmb 22 trillion, but is most likely closer to Rmb 30 trillion.

"In most situations, the local government is the originator of defaults between corporations. This is because most public expenditure is generated through debt due to certain restrictions on tax revenue and financing capacity of local governments," said a loan officer at a "Big Four" SOE bank. "However, the consequences of defaults is taken by banks in the form of non-performing assets, which will lead to a financial crisis."

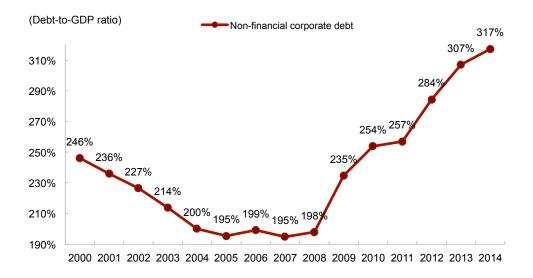
Figure 6: Local government debt and YoY growth



High Debt-to-GDP Ratio

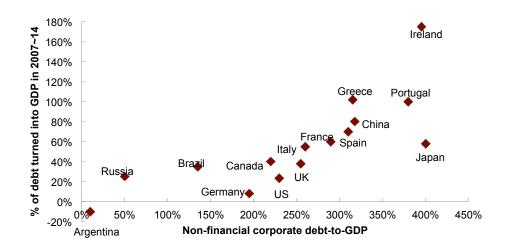
In addition, the total debt-to-GDP ratio of the non-financial sector has increased from 195% in 2005 to 317% at the end of 2014, moving closer to the country with the heaviest debt in the world, namely, Japan with almost 400% debt-to-GDP ratio.

Figure 7: China Non-financial corporate debt-to-GDP ratio



Source: CASS, OCR

Figure 8: Global Non-financial corporate debt-to-GDP ratio



Source: finance.ifeng.com, CASS, OCR

Total SOE Debt

Apart from the local government contribution to the corporate debt burden, state firms also have significantly added to corporate debt. This is in addition to total debt in the system caused by both official and non-official lending channels. "Apart from monthly new loans issued by PBOC, total debt at SOEs is another data point we have track to understand non-traditional financing scale, i.e. shadow banking," an economics Professor at Fudan University in Shanghai told us in an interview.

By the end of the third quarter of 2015, total SOE debt amounted to Rmb77.7 trillion (+19.2% YoY). SOE debt occurs both in the Beijing and local state firms. top 113 SOEs directly controlled by the State Administration of State Owned Assets (SASAC) in Beijing. They include giants in sensitive sectors such as China National Nuclear Corporation, China National Offshore Oil Corp. (CNOOC), China Mobile and others in power, telecommunications and raw materials and transportation. There are another 140,000 SOEs owned by local governments.

State corporate debt thus can be broken down between Rmb42.8 trillion at the central SOEs, accounting for 55% of total SOE debt, and Rmb34.9 trillion among local SOEs. The proportion of central SOE debt has gradually declined from 58%

to 52% in the past two years due to aggressive economic development by local governments. The scale of local SOE debt has grown much faster than that of central SOEs, 10.5% YoY for Central SOEs compared with 15.4% YoY for local SOEs on average for the past two years. In addition, the year-on-year growth rate of local SOE debt also exceeds that of local government debt (12%/10% YoY in 2013/14). This suggest there may have been a debt transfer between the local government and local SOEs based on the close relationship between the two groups.

Figure 9: Total State Firm (SOE) Debt

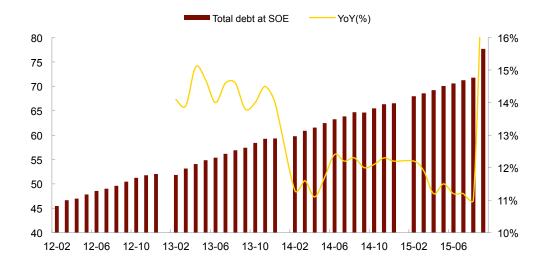


Figure 10: Central and Local SOE Debt

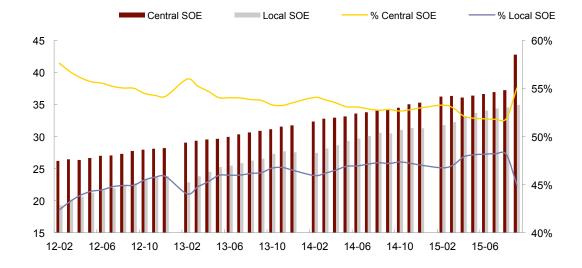
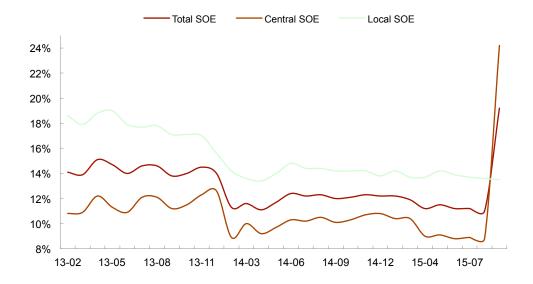


Figure 11: YoY growth comparison of central & local SOE debt



The increase in SOE debt raises a red flag for China's economy. First, SOEs, with a relatively high 65% debt ratio, are the backbone of China's economy. Second, a double-digit growth of debt has occurred *in spite of* shrinking revenue and profit in the past year. By the end of the third quarter, total SOE revenue declined 6.1% YoY to Rmb33.1 trillion. SOE Profits incurred a greater loss, declining -8.2% YoY to Rmb1.7 trillion. In contrast, total debt rose 19.2% YoY to Rmb77.7 trillion. Also, central SOEs saw a larger decline in both revenue and profit than local SOEs, dragging down the country average. Most important, profits made by China's SOEs only covered 2.2% of their debt, which puts a question mark on the sustainability of their cash flow.

According to a well-known economist in China, who was understandably reluctant to go on record, there is the threat of a chain reaction of debt defaults. "Although most SOEs don't have to worry about a cash crunch given unconditional support from SOE banks in the form of near-zero interest loans, uncontrolled expansion of debt is a sharp sword hang over the economic stability of China. It's hard to imagine the domino effect once China's banking system run into problem," he said.

68%
66%
65%
64%
12-02 12-05 12-08 12-11 13-03 13-06 13-09 13-12 14-04 14-07 14-10 15-02 15-05 15-08

Figure 12: Breakdown of Central and Local SOE Debt

Figure 13: YoY growth comparison of SOE Debt, Revenue and Profits

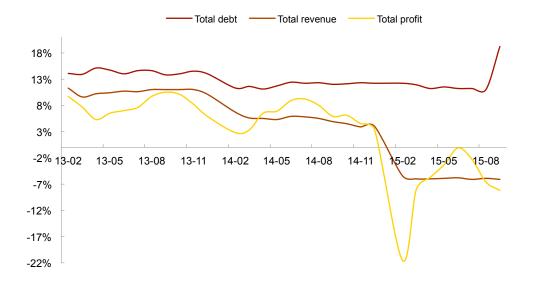
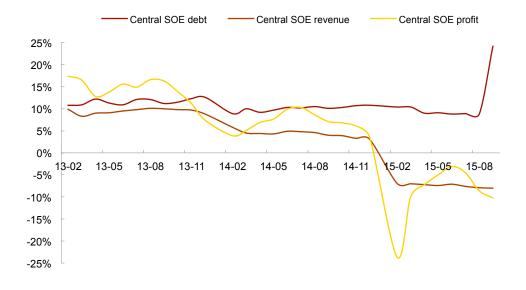


Figure 14: YoY growth comparison of central SOE Debt, Revenue and Profit



Local SOE debt Local SOE revenue Local SOE profit

17%
12%
7%
2%
-3% 13-02 13-05 13-08 13-11 14-02 14-05 14-08 14-11 15-02 15-05 15-08

Figure 15: YoY growth comparison of local SOE Debt, Revenue and Profit

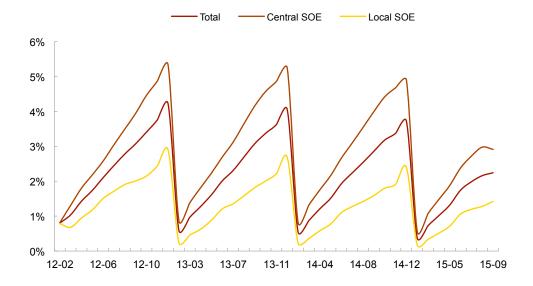
-13%

-18%

The biggest monthly increase of almost Rmb6 trillion SOE debt in September also signals the government's lack of preventative policies about the high leverage ratio of the whole society. There has been little public commentary apart from a report posted on Wall Street.cn, written by an analyst at Essence Securities named Luo Yunfeng. According to Luo, this means that not only is the government abandoning the previously announced deleveraging policy, it is actually increasing leverage. "It's possible that debt that was originally categorized as government debt has been reclassified as SOE debt."

It appears that the Chinese government is using the growth of state corporate debt as a means to disguise the growth of the overall debt in the country. Debt reduction has been the crux of current reform plans to increase the role of market forces. In contrast to the opinion's noted by Luo, we see this as a case of shifting government debt to SOEs rather than a step forward for the reform and the prospect of revaluing credit risk. Moreover, it will become difficult to distinguish between government and SOE debt in the future. Although, the expansion of government debt might slow down in the fourth quarter, "shifting" the debt actually suggests that things in China are orders of magnitude worse than the explicit data on government debt would suggest.

Figure 16: % SOE debt covered by profit



What is the Sector Impact of the Corporate Leveraging?

Steel Industry is Heavily Indebted

Due to severe excess capacity, the steel industry in China is believed to be the most indebted and has the greatest risk of default. According to an official with the China Iron and Steel Industry Association, the average debt ratio of steel industry has already exceeded 70%, considered a "red line" within the industry. In comparison, the number formally announced by the Association was only 69.4% -- just under 70%. Total corporate debt of member enterprises, which accounted for 80% of Chinese steel output, has stood above Rmb3 trillion for almost two years. This high level of debt has not declined even though there has been a continuous shutdown of small and middle-size steel manufacturing plants.

As a result of the high debt levels, bank loans are more difficult for the steel firms to obtain, so they are turning to the Shadow Banking market. Only Rmb1.3 trillion of Rmb3 trillion of steel-related corporate debt is from the banks; the rest is sourced from non-traditional financing channels bearing much higher interest rate, i.e.,

shadow banking, which undoubtedly worsens an already grave situation. According to the Vice President of one of China's largest steel firms, "It's hard to get any new loans from commercial banks now. For the first eight months, we incurred a loss of Rmb1 billion, equal to a loss of Rmb140 per tonne. Profitable conditions no longer exist this year since we achieved Rmb300 mn profit in 2014 through cost controls. In order to sustain cash flow, we are forced to borrow from unconventional channels with unaffordable interest rates.

Rising Losses will Increase Defaults

We believe this is a common phenomenon as we were told that more than 50% of steel companies experienced a loss for the first nine months this year. According to the data posted by the China Iron and Steel Industry Association, the total loss among their membership was around Rmb28bn for the first nine months, more than triple the same period last year. This huge loss will make repaying debt even more difficult.

Indeed, in October 2015, a state-owned steelmaker missed an interest payment, which aroused market concern about rising corporate debt defaults in China even among SOEs. Sinosteel failed to pay interest due last month on Rmb2 bn of 5.3 percent notes maturing in 2017 after saying it would extend the deadline as it plans to add one of its subsdiariy unit's stock as collateral. That came after the National Development and Reform Commission planned to meet note holders and ask them not to exercise a redemption option to force full repayment. Earlier this year, two state-owned companies, Baoding Tianwei Group Co. and China National Erzhong Group Co., also reneged on debt payments. "Besides steel industry, the coal mining and shipbuilding industries have the highest default risks. There may be more next year, first in the form of bond defaults within those highly indebted industries," said a senior officer at a Chinese rating agency.

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