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Economic Watch

China

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Economic Analysis

Asia

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How big a problem is China's rising indebtedness?

- **China's rising indebtedness has attracted increasing attention, especially after the credit binge associated with the massive stimulus package of 2009-2010**

  We estimate that China's total non-financial sector debt amounted to 208% of GDP (RMB 107.9 trillion) as of end-2012. (Our estimates of total debt are broadly in line with official and market figures, which typically range from 200-220%.) Debt of the household and non-financial corporate sector amounted to 155% of GDP (RMB 80.7 trillion), almost all of which is domestic, while debt of the central and local governments amounted to 57% of GDP.

- **Within the overall debt burden, obligations of the corporate sector have become a particular source of concern, both for their relative size and for the pace at which they have accumulated**

  China's corporate debt level is extremely high by international standards (127% of GDP compared to an average of 70% for other emerging markets), and has grown rapidly in recent years (31 percentage points of GDP since end-2008).

- **The source of China's elevated corporate debt stems from high investment rates, exacerbated by the government-led 2009-10 stimulus package**

  Much of the government-led stimulus package was carried out through the banking system, which led to easy credit and a lending boom. The stimulus package also encouraged firms to expand their production capacity, much of which was debt-financed.

- **Signs of financial stress can be found in an analysis of debt data for domestically listed companies**

  In particular, one-quarter of the enterprises in our sample of listed companies have insufficient cash flow from business operations to meet their interest obligations. Not surprisingly, industries with excess capacity appear most debt-ridden, including manufacturers of metals, machinery, and chemicals. Even if debt-servicing issues are resolved (see below), the debt overhang may constrain future investment and growth.

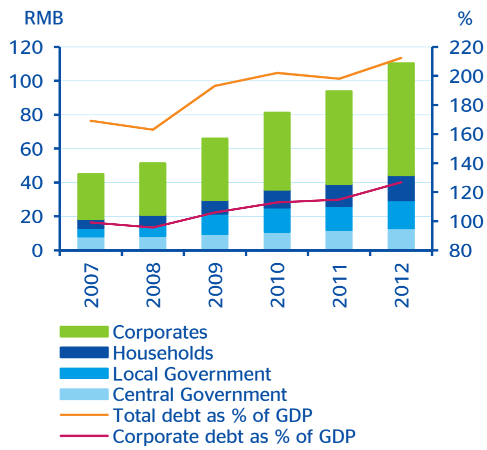
- **While the corporate debt burden is a serious concern, regulatory efforts to discourage a further buildup, along with the size of the debt burden concentrated in the SOE sector (where the government can provide direct assistance), should limit financing risks in the near term**

  The authorities have tightened lending standards, and have been implementing monetary and credit policies cautiously despite a GDP slowdown. Also, the government recently designated 19 "excess capacity" industries to scale down their operations. More generally, the debt burden is mitigated by the government and corporate sector's substantial financial assets, and limited external borrowing.

Introduction

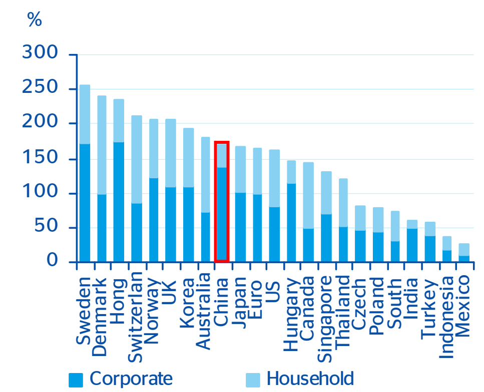
After weathering the financial crisis of 2008-2009, China's economy engineered a soft-landing thanks to a massive stimulus package and its related credit binge. However, the success of the government-led recovery, which was widely lauded by global policymakers and business leaders at the height of the global financial crisis, was not without casualties. One of the unintended legacies was a rapid build-up of debt in the economy (Chart 1). An area of increasing concern, and the focus of the present note, is the build-up of corporate debt which is high by emerging market standards (Chart 2). (See our July 2011 *Banking Watch* on the problem of local government debt.)

Chart 1
China's total debt has risen rapidly



Source: Wind, CEIC and BBVA Research

Chart 2
China's corporate sector debt is high by international comparison



Source: BIS, Haver and BBVA Research

China's debt landscape

We estimate that China's total non-financial sector debt amounted to RMB 107.9 trillion at end-2012 (207.7% of GDP). Private sector debt (including both household and non-financial corporate sector) amounted to RMB 80.7 trillion (155.3% of GDP). A further breakdown as a percent of GDP is provided below:

Central government

By our estimate, central government debt accounts for 25.2% of GDP, consisting of: official central government debt (15.0% of GDP), legacy bank restructuring costs (4.6% of GDP) and the debt of the former railway ministry (5.6% of GDP).

Local governments

We estimate that local government debt totalled 31.9% of GDP at end-2012, among which around 11% of GDP consists of borrowing of local government agencies. The remaining amount of local government debt consists of obligations of local government financing vehicles (LGFVs) from bank sources, the bond market, or the shadow banking system (trust companies).

Household sector

China's household sector debt, by our estimates, was around 28.6% of GDP at end-2012, comprising loans issued by banks (20.1% of GDP), microcredit company loans (1.2% of GDP), and private lending (7.3% of GDP). More than three quarters of household loans by banks consist of housing mortgages. Our estimate of household debt-to-GDP would place China broadly in line with the average for other emerging markets (29.7%), and well below that of advanced economies (80.9%), according to BIS data.

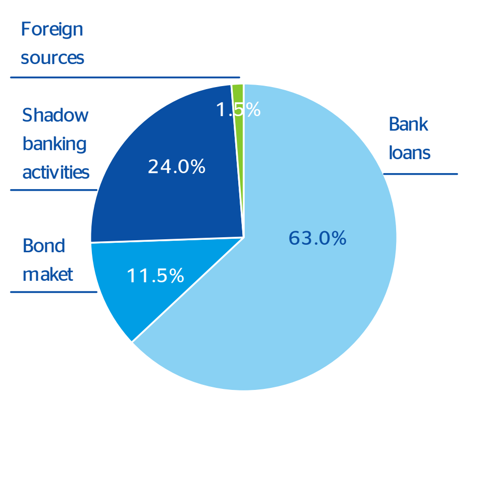
Non-financial corporate sector

According to our estimate, debt of the corporate sector (consisting of both SOEs and the private sector) rose to 126.8% of GDP at end-2012, up from 95.7% in 2008. The funding sources of the corporate sector are diverse, consisting of banks loans, the bond market, and the shadow banking system. External borrowing is small (2% of GDP) given restrictions on the capital account.

The figures above on corporate debt are broadly in line with international and market estimates. As an example, the Bank of International Settlement (BIS) estimates China's private sector debt (excluding households) at 139.3% of GDP. Meanwhile, market estimates typically range from around 120-150%. The higher estimates are due to the inclusion of certain debts that we have classified as local government, such as that of local-government financing vehicles (LGFVs).

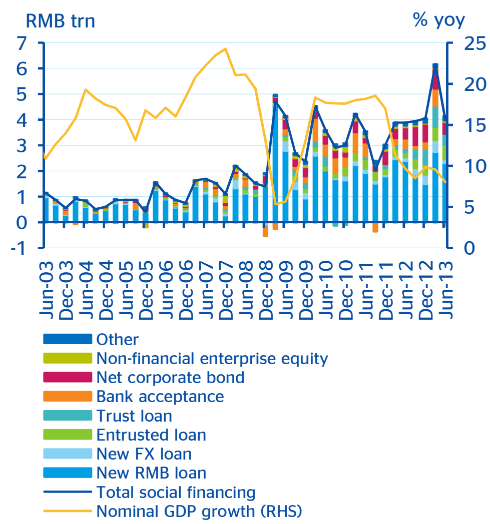
By funding sources, bank loans have been dominant, accounting for around two-thirds of total corporate debt (Chart 3). Only 1.5% of corporate debt (2.0% of GDP) is directly funded by external sources due in large part to the closed nature of the capital account (FDI inflows are substantial, but are officially reported as equity- rather than-debt related). With its rapid growth (Chart 4), the shadow banking system has become the second largest funding source, more than double the funding from the bond market, which might further add to the vulnerability of the financial system (see our March 2013 *Banking Watch* on risks from shadow banking).

Chart 3
Bank loans dominate, but shadow banking has become significant as well



Source: Wind, CEIC and BBVA Research

Chart 4
Rapid credit growth and slowing nominal GDP growth are a source of concern



Source: CEIC and BBVA Research

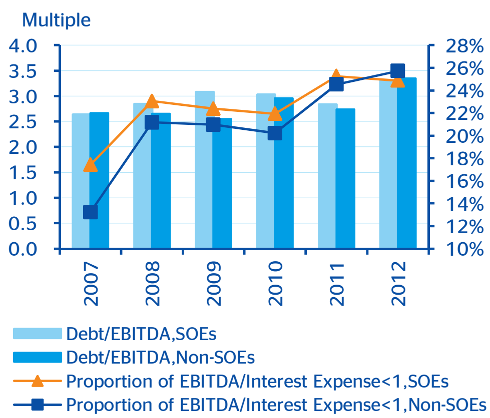
Corporate financial stress and growth headwinds

Our analysis suggests that corporate indebtedness has been at stress levels for several years, and has been rising fast (Chart 5). In particular, as of end-2012, 25% of the companies in our sample of domestically-listed firms (all 1,132 non-financial firms listed in the Shenzhen and Shanghai stock markets) had a ratio of EBITDA to interest expenses of less than one, implying that their operating cash flow was insufficient to service their interest payments. While the share of such companies has risen, it has been high for quite some time. Thus, the question is, how have such firms continued to service their debts? The most likely answer is a combination of drawing down their assets (many firms have large liquid deposits) and/or borrowing to refinance loans coming due (including forms of ever-greening by the banks). In any case, such practices are not sustainable and will come to an end sooner or later.

By industry, corporate indebtedness appears to be most severe in the ferrous and non-ferrous metals sectors, as well as the machinery and chemical sectors. In these sectors, both median EBITDA-to-debt and EBITDA-to-interest expenses are relatively low (Chart 6). These results are not surprising as they correspond to sectors known to have excess capacity.

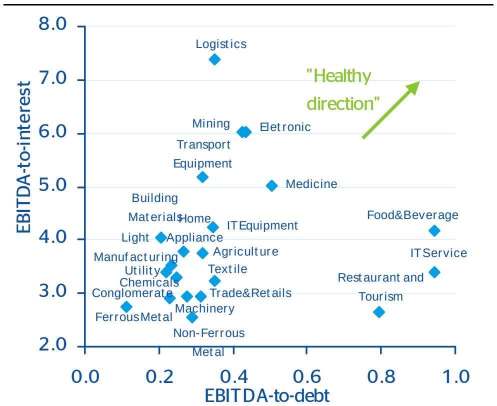
More generally, if not addressed, high corporate debt levels can be expected to act as a headwind to growth. In particular, to meet their debt payments firms would need to divert funds from investment or sell assets. Indeed, the recent slowdown in which manufacturing investment has been sluggish could suggest that such a process in underway.

Chart 5
Corporate debt stress ratios have risen to new highs (listed companies)



Source: Wind, CEIC and BBVA Research

Chart 6
Metals, machinery, and chemicals are among the more indebted industries



Source: Wind and BBVA Research

Defusing debt risks

Given that corporate debt has risen to such a high level and that GDP growth is slowing, it is more difficult now for the corporate sector to "grow out of" its problems as it has done in the past. While the corporate debt burden is a serious concern, regulatory efforts to discourage a further build-up, along with the debt burden concentrated in the SOE sector (where the government can provide direct assistance), should limit financing risks in the near term. To discourage a further build-up of local government and corporate debt, the authorities have tightened lending standards, and have been implementing monetary and credit policies cautiously despite a slowdown in GDP growth. In addition, the government recently ordered firms in 19 designated "excess capacity" industries to scale down their operations. More generally, the debt problem is mitigated by the government and corporate sector's substantial financial assets, and the limited scale of external borrowing.

Appendix: Methodology and data to estimate corporate debt burden

Estimating China's gross debt level

We estimate China's total debt level by aggregating financial data of different sectors: central government, local governments, household and non-financial corporate. We seek to encompass all forms of debt including bank loans, bonds, foreign obligations, as well as those generated by the shadow banking activities such as wealth management products (WMPs), trust loans, entrust loans, bank acceptance and private lending. (For details of China's government debt and shadow banking activities, refer to our July 2011 and March 2013 Banking Watches). We are unable to come up with an accurate estimate of firms' account receivables, however, which creates a downward bias of our estimate for corporate debt. Table 1 lists the main data sources used in our calculations.

Table 1
Data sources used in our calculation of debt

Data	Source
Bank loans	China Banking Regulatory Commission (CBRC)
Trust loans	The People's Bank of China (PBoC)
Entrust loans	The People's Bank of China (PBoC)
Bank Acceptance	The People's Bank of China (PBoC)
Non-financial corporate bonds	National Association of Financial Market Institutional Investors
Total debt of the central government	The State Council (Annual Government Working Report)
Restructuring cost of banks	BBVA estimation (based on news media reports)
Debt of Railway Ministry	The Railway Ministry (Annual Report)
Microcredit	The People's Bank of China (PBoC)
Private Lending	BBVA estimation (based on news media reports)
Local Government debt	BBVA estimation (Based on news media reports)

Source: BBVA Research

Estimating financial stress indicators

Our sample consists of 1,132 non-financial listed firms in the Shenzhen and Shanghai stock market. We gathered information from annual financial statements as provided by the Wind Database. We further classified firms by SOEs and non-SOEs based on their reported controlling shareholders (government/government agency vs. individuals).

To gauge debt-related financial stress, we calculate two ratios: EBITDA/Interest expense and EBITDA/Debt. (EBITDA = Earnings before Interest, Taxes, Depreciation, and Amortization, which was generally used to measure the operational profitability of underlying firms. In the same vein, EBITDA/Interest expense is a good measure of a firm's debt-servicing capability while EBITDA/Debt can be considered as the inversed leverage level of a firm. All of EBITDA, Debt and Interest expense data are extracted from the Wind Database. Moreover, to avoid the skewness in distribution, we use the medians of the indicators for different industries. We chose to use EBITDA, rather than profits, as a measure of operational profitability because the former is more representative of cashflow. We calculate the debt ratios using profits and generally found similar results and conclusions as reported in Charts 5 and 6, with the exception that SOE debt ratios were consistently worse than that of non-SOEs.

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