FEATURE ARTICLE: CHINA’S CREDIT CONUNDRUM

CHINA'S CREDIT CONUNDRUM

In the wake of the global financial crisis, the Chinese government and its central bank reacted quickly, pulling out all the stops to try to help the country navigate the rough seas brought on by the subprime mortgage crisis originating in the United States. China's policy framework, its choice of structure for its RMB 4 trillion fiscal stimulus package, and the monetary policy decisions by the country's central bank, allowed the country to end up relatively unscathed from the financial crisis compared to many of its peers. Today however, the country is starting to pay the price. As a result of China's financial crisis response, combined with its accommodative stance since, the country has amassed an unprecedented volume of public and private debt worth close to US$27 trillion.

The country's response to the financial crisis is not the only reason for the country's mountain of debt. The government's target growth rate of 6.5% is a tall ask given that the country is also trying to undergo a transition from a dependence on heavy industry, manufacturing, and exports, and focusing more on consumption and services. For the past decade, the government has relied on credit-fuelled investment growth to meet its lofty target, particularly given the downward pressure in the domestic economy as well as subdued global growth.

To many, the mountain of debt represents a serious threat to China's stability, and in turn, the world's economic health given China's status as the second largest economy in the world. Doomsayers are sceptical of China's ability to wean the nation off the debt without triggering a serious economic slowdown and, in turn, pandemonium in financial markets. Optimists, however, tout the fact that the majority of China's debt is state-owned, so the government can come up with crafty ways to manage the debt, potentially avoiding a crisis altogether.

In this month's feature article, we delve into the current state of China's rapid expansion of and, in particular its addiction to, credit. We touch on why the country has been able to avoid a debt-fuelled crisis to date. We consider the current volume of debt to be unsustainable, so we explore what we deem to be the likely scenarios going forward and their financial market implications as the country tries to walk the line of balancing growth and keeping the volume of debt under control.

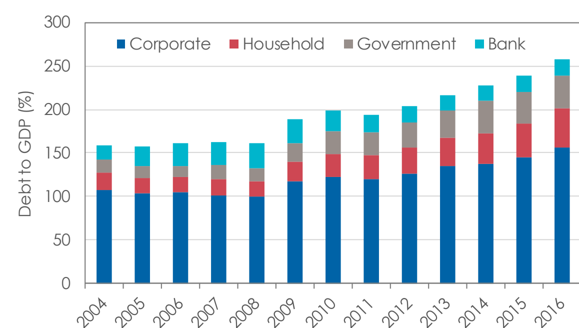
1.1 Debt by Numbers

Total Debt

As a result of the initial policy response to the financial crisis from the Central Government, and the three additional fiscal stimulus packages and continued easy monetary conditions since, Chinese debt has increased significantly over the past decade. The total Chinese debt to GDP ratio has increased from 144% in 2007 to a level of nearly 260% at the end of 2016. Household and bank debt have increased moderately, while corporate debt has increased such that the corporate debt to GDP ratio has increased from 100% in 2008 to 156% in 2016.

This is because of the nature of the Central Government's stimulus package (lending rather than direct government funding), the largest jump in debt has been the increase in corporate debt.

Chart 1: Growth and Composition of Chinese Debt, 2004 - 2016



Source: Bloomberg, Whitehelm Advisers

Debt Service Ratios

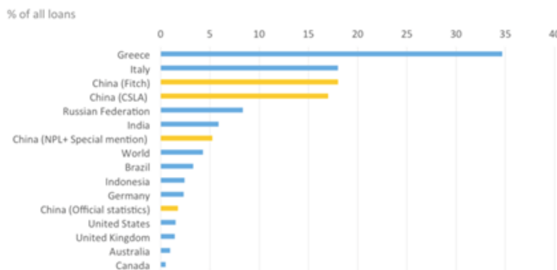
High debt service ratios (which measures the share of GDP that is required to pay down the debt) can have a significantly negative impact on consumption and investment, given that a higher proportion of income is required to make debt repayments. This is of particular concern for China, given its very high growth rate targets. China's DSR has been estimated to be as high as 40% (per analyses from Société Générale). This means that trillions of dollars have been used to pay back the principal and the interest on debt, rather than being used more productively – for paying employees and growing businesses for example. This makes every unit of new debt less productive, as many Chinese companies now owe more in interest than they earned before tax. Additionally, it now takes approximately four yuan of new debt to generate one yuan of additional GDP. This is a remarkable worsening, given that before the financial crisis, the ratio was almost one to one. China's DSR has been able to track as high as it currently is because of the central bank's and the government's implicit backing of the nation's banking sector.

Non-Performing Loans

The Chinese government reports that only 2% of all Chinese loans have been deemed non-performing, which puts it in line with the level of many developed

countries, such as the United States, Australia, and Canada. Third-party estimates are much higher than the government's with both Fitch Ratings and Credit Lyonnais Securities Asia (CLSA) reporting that the actual rate of NPLs is as much as ten times the 'official' figure, sitting somewhere between 15% and 20%. This instead puts China in the company of Italy, a country that is currently bailing out its banks.

Chart 2: China's Level of NPLs, Official and Third-Party Estimates, as of 2015



Source: World Bank, CLSA, Fitch, Economist

The high level of China's NPLs reflects the pace at which credit was extended, paired with the slowing performance of the Chinese economy. Additionally, the interconnectedness of the government, the corporate sector and the nation's banks has led to excessive risk-taking as there has been an implicit guarantee that the only risk that exists is sovereign risk.

1.2 Why has China been able to avoid a crisis so far?

According to many different metrics, alarm bells are ringing to suggest that such high levels of debt could lead to a severe financial market crisis. Yet, such alarm bells have been ringing for several years now, and the country has yet to see any slowdown in the rate at which it is amassing debt, or any real signs of an imminent crisis. Why is this?

Government Backing

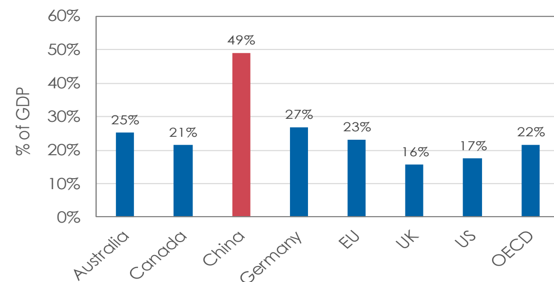
As compared to developed economies, China's financial system remains tightly controlled and underdeveloped. Nearly all the major banks and many large corporations are state-owned, and thus are implicitly backed by the Central Government. Additionally, the debtors and creditors are owned by the same body, which means that the government can devise some interesting strategies to deal with the growing debt burden.

Unlike other developed countries, the government could undertake a gradual debt restructuring, rather than having the market dictate the speed and orderliness of such a restructure. Having the combined implicit support of the PBoC and the government makes a bank run less likely, as depositors are more confident in the banking system as a result. They are led to believe that the only risk they face is sovereign risk.

High Savings Rate

China's extraordinarily high domestic savings rate enables it to sustain much higher levels of debt than countries with lower savings rates. While the high savings rate drags on consumer spending and growth, it means Chinese employees will, on average, put half of their pay check in the bank every month. As a result, China's banks can rely on this high deposit rate as a stable form of funding for its lending practices. Chinese banks are able to largely fund themselves through domestic deposits rather than relying solely on debt capital markets.

Chart 3: Gross Domestic Savings Rate (% of GDP), as of 2015



Source: World Bank, Whitehelm Advisers

Small Foreign Debt

Another positive result from the high savings rate is that China's debt is funded by domestic savings in local currency as opposed to foreign currency. As at the end of 2016, China's total foreign debt was just shy of 15% of GDP, and it has more than US$3 trillion in currency reserves, translating to a foreign-debt coverage of 200%. This makes the debt far more stable given its immunity to currency movements compared to countries that rely on foreign savings. Additionally, this gives the Chinese government a far greater number of options to deal with the volume of debt than if the debt was predominantly foreign-currency denominated external debt.

Capital Controls

China's extensive capital control measures act as a deterrent, or in some cases, an inhibitor, to capital outflow, and include increased scrutiny of all overseas direct investment applications and caps on the size of foreign mergers and acquisitions. Additionally, measures have been implemented to curb mainland Chinese from buying insurance and property in Hong Kong and increasing scrutiny on onshore FX transactions. Keeping capital in the country has had a similar effect to the high savings

rate, in that it provides further funding for Chinese banks.

1.3 What are the risks and implications?

In the previous section, we discussed why the Chinese economy has, to date, been able to avoid a full-blown debt crisis. In this section, we touch on some of the points of weakness in the economy that could lead to just that.

Economic Slowdown

Calendar year 2016 got off to a pretty shaky start as several data releases pointed to an economic slowdown in China. Given the country's growing prominence on the world stage, uncertainty regarding the future growth of the economic juggernaut sent ripples around the globe, documented by a very weak start to the year in global equity markets. A significant increase in capital flight from China resulted, which drove commodity prices and equity markets lower. Regulators intervened in China to calm nerves and revive growth, and equity markets were back on track by March. The world's response to indications of weakness provided a preview as to what to expect if and when we see signs of further weakness in the Chinese economy. The stock market crash was not deep enough or long enough to have a significant impact on Chinese household wealth. A more severe equity market crash as a result of signs of an economic slowdown, could have more serious implications for the country.

Concentration of Corporate Debt

Most of the country's corporate debt is concentrated in state-owned heavy industries, which are in turn heavily dependent on the construction sector, particularly on construction related to real estate. Some of China's biggest borrowers are oil and natural gas companies, metals and mining companies, power utilities, property developers, and construction and engineering firms. These companies account for approximately 60% of the country's outstanding corporate debt, and are among the most highly leveraged. According to Bloomberg, the heavy industry, building materials, and utilities businesses have average debt-to-equity ratios as high as 85%, 120% and 130% respectively. Given the dependence of these sectors on the real estate sector, any slowdown in growth, and in turn the real estate construction boom, will result in significant headwinds for such corporations.

Increasing Interest Rates Globally

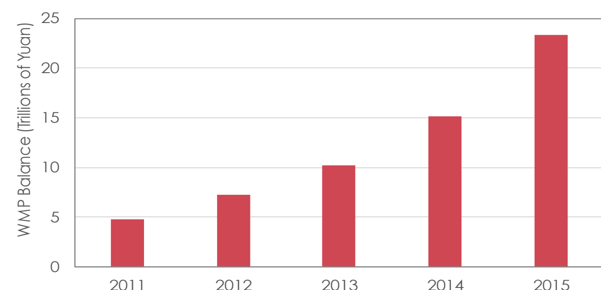
As a reflection of signs emerging of both localised and global growth, the US Federal Reserve has been increasing its federal funds rate as of late. After nearly eight years at 0%, the Fed first raised the interest rate by 25 basis points in December 2015, followed by two additional equivalent increases in December 2016 and March 2017. After its rate hike in March, the Fed announced that there could be as many as two additional rate increases before the end of 2017, with a longer-term projection of 3.0% for the federal funds rate.

Why is this important to China and to our discussion in this feature article? Higher interest rates outside of China will encourage capital flight from China, potentially sparking a liquidity crisis. Capital flight has been an area of focus for the Chinese government as it has implemented measures to try to curb the volume of it. For many years, China restricted bank loans to be less than 75% of the banks' deposit base to ensure that they had plenty of cash in reserve for moments of tight liquidity. Because of the credit-fuelled growth however, that level is now close to 100%, which means that any sort of increase in capital flight could lead to a sudden shortage in funding – the most typical red flag for an imminent banking crisis.

Shadow Banking Sector

A major concern regarding Chinese debt is the ambiguity of reporting surrounding the nation's shadow banking sector, which developed as banks tried to circumvent some of the strict regulations that were being implemented. Wealth management products (WMPs) are essentially the building blocks of the shadow banking sector, and have tripled in volume in the past three years. WMPs are issued by banks, and have become a key tool for lenders to attract funds. Investors are attracted by the yields on the products of 3-5%, rather than the 1% yield on one-year bank deposits. WMPs can be comprised of a broad range of underlying investments, including bonds, equities, property, derivatives, and can often have exposure to some of the nation's struggling industries.

Chart 4: Balance of WMPs Outstanding, 2011 - 2015



Source: China Central Depository & Clearing Co, Ltd, Bloomberg

WMPs are increasingly becoming intertwined in that they are investing in each other. Given that banks use them to sidestep financial regulations, the WMPs are already inherently riskier, and bad investments in one WMP could infect others. Widespread panic resulted in the financial crisis because of the interconnectedness of the sub-prime mortgage market, and investors were uncertain as to who was vulnerable as a result. A similar scenario could unfold if there was a loss of confidence in WMPs.

1.4 Scenario Analysis

In our view, China's current volume of debt is unsustainable. In the following section, we outline a few scenarios that we believe could play out in the coming years, ranging from a hard landing to a softer one.

1.4.1 A Hard Landing

Like most previous economic meltdowns, the 2008 financial crisis was triggered by the bursting of a private sector debt bubble. As should be clear by now, the concern in China is the potential for a string of corporate debt defaults to lead to house-of-cards style collapse in the corporate debt sector and the economy more broadly.

The implicit government guarantee on debt and WMPs has instilled a belief in the Chinese people that their investments are 'safe' or 'protected' – that they can chase higher yield without considering the risks at play. A string of corporate defaults would shatter this assumption, potentially leading to many investors pulling out of riskier investments such as WMPs. Given the reliance of Chinese banks' on the shadow banking sector as a source of funding, a run on the sector could cause funding to dry up for many Chinese banks. Smaller banks are even more exposed to such a funding crisis because they are typically even more reliant on wholesale funding from WMPs.

While a string of defaults might not be enough to trigger a full-blown economic meltdown alone, if it is combined with a general tightening in liquidity (higher interest rates or capital flight), the result could be much more damaging. Such a scenario would be likely if the government tries to implement deleveraging measures, and the market perceives them to not be well-implemented. Credit events could be triggered, causing periods of tight liquidity and an increase in volatility in the short term. Suddenly interbank borrowing would be much more difficult, and larger banks would be left scrambling to find funding.

A resulting credit crunch would be felt across the entire country. Households and businesses alike would find it incredibly difficult to access credit, and would likely face higher costs on their existing loans. Households would have less of an ability to spend, hampering consumption. Businesses that are unable to access funding would find it difficult, if not impossible, to grow or expand, and could even have trouble keeping their doors open. This spells trouble for a country that is desperately trying to spur both consumption and investment to meet its annual growth target.

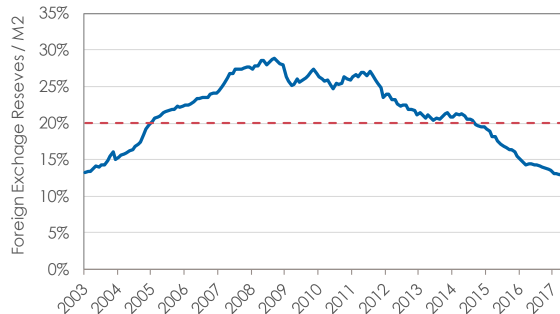
China's large volume of foreign exchange reserves are often cited as the potential saviour to prevent any economic hardship, in that they could be used to weather any financial market storms. China's foreign exchange reserves currently sit just north of US$3 trillion, the largest stockpile of any country in the world. This fact alone however does not paint the full picture of their effectiveness during a time of panic.

First, China's foreign exchange reserves have been reducing as of late. From a high of US$4.0 trillion in mid-2014, the balance has fallen by almost US$1 trillion in just three years. All the while, the country's M2 money supply (includes cash and checking deposits, as well as savings deposits, money market securities, mutual funds, and other term deposits, i.e., all assets that can quickly be converted into cash or checking deposits) has been expanding fairly consistently. China has continued to expand its domestic money supply in an effort to keep liquidity in the financial sector, a logical technique used by most developed countries when managing liquidity and stimulating growth. On a day-to-day basis, this amount of foreign currency reserves is sufficient to keep the economy running smoothly. Trouble arises in a situation of extreme capital flight, which would be triggered by a risk event, like a debt-fuelled crisis in which Chinese residents panic. The risk lies in that the M2 money supply represents money that could leave China in the case of extreme capital outflows (triggered by a risk event, like a debt-fuelled crisis). While such a scenario is highly unlikely (as very tough capital controls would likely be enforced quickly), it does show that the foreign currency reserves would be inadequate to defend against capital flight in the case of a panic.

The ratio of US dollar reserves to the M2 money supply has been falling as the foreign exchange reserves has been declining. As of the end of April, the ratio was 13%. This is well below the peak the ratio hit in 2014 of 27%, as well as below the IMF's recommended threshold of 20%. The IMF has set such a threshold in recognition of the fact that sufficient reserves *'can engender confidence in the national currency, counter disorderly market conditions, support the conduct of monetary policy,*

build assets for intergenerational purposes, or influence the exchange rate.'[1]

Chart 5: China's Ratio of Foreign Exchange Reserves to M2 Money Supply



Source: Bloomberg, Whitehelm Advisers
Note: The red line represents the IMF's advised ratio of foreign exchange reserves to M2 money supply of 20%.

1.4.2 A Softer Landing

Given our base case for China being that the current level of debt is unsustainable, even a softer landing will require the Chinese government to find ways to decrease the country's dependence on credit. Changing the focus and implementing both prudent regulatory reforms and accepting and managing a lower rate of economic growth would provide for a softer landing.

Regulatory Reform

One such method that has been discussed at length is the facilitation of debt-to-equity swaps in which banks can convert bank loans into equity stakes of debtor companies. Such a solution has proven to be successful in the past, particularly in the 1990s Asian financial crisis, when approximately 30% of the country's bad loans were resolved through debt-to-equity swaps. When the Chinese economy recovered from the financial crisis, the swaps delivered positive returns for the shareholders.

The Chinese share market is still relatively new and underdeveloped, but if the government were to implement regulatory reform (which is currently underway) to open up its share market further, equity financing could be a valid option for China's struggling companies and banks to get their feet back under them. Going forward, allowing companies to rely on equity financing rather than debt financing would be an effective way of reducing the country's reliance on debt.

However, do such deals for SOEs and corporates only perpetuate the key issues at play, in that companies that are structurally inefficient and unproductive get yet another new lease on life? Would the government be willing to let companies write off debt at the risk that they will quickly amass it again and the shareholders are left footing the bill? The Chinese government has said that they would implement measures to avoid such a situation. First, 'zombie' companies would not be allowed to enter into such swap agreements, and neither would companies that actively contribute to the overcapacity in industrial sectors such as steel and coal. While this is good news for those on the equity side of the swap, it poses an issue in that Chinese banks would still be left with the worst quality loans on their balance sheets.

Managing a Lower Growth Rate

Reducing credit and maintaining growth is a tough (if not impossible) predicament to be in, and one that Credit Suisse addresses in a recent research report[2]:

'In the long run, if the government wants to keep growth around current level, credit growth will have to keep at around 14%, and it is difficult to bring down the country's leverage with credit growth at this pace. In contrast, if credit growth slows to 7%, nominal GDP growth may fall to as slow as 2% based on historical relationship.'

While accepting a lower rate of growth seems like a logical solution going forward, it is a highly sensitive political issue. The current GDP growth rate target has been set at its current level of 6.5% because it has been deemed the minimum level of growth for the country to meet the government's 2010 pledge to double the country's per capita GDP by 2020. Per the pledge, such an achievement would allow the country to claim the status of being a 'reasonably rich society'. It is widely believed that the government will not lower its growth rate target at its upcoming Communist Party Congress, and it will be an issue that gets benched until at least 2018. The focus will continue to be on the country's transition from its 'old' economy, which was dependent on heavy industries, to one more dependent on service sectors. Ultimately, this is a hard transition to make when the country is up against a debt ceiling.

Based on hundreds of years of historic evidence, the most likely scenario from the current point of high indebtedness is one of stagflation, years of low growth, low inflation, a high debt burden, and ineffective monetary policy. It sounds a lot like the predicament that Japan is currently in (and arguably many of the major developed economies). Japan's monetary policy has been rendered quite ineffective

[1] *Refer to IMF's Assessing Reserve Adequacy – Specific Proposals, April 2015*

[2] Refer to Credit Suisse's 20 March 2017 report: *China: Leverage and De-leveraging*

because of the country's large debt volume and the Japanese tendency to save rather than spend, despite interest rates being at historic lows. China's debt levels are still well below that of Japan's (close to 400%), but when we consider that China's debt has nearly doubled in eight years, it is not hard to imagine China facing a similar fate to Japan.

1.5 Conclusion

China is facing a predicament of its own creation. The country's response to the financial crisis and subsequent considerable expansion of credit growth, as well as the lack of regulatory reform and the continued accommodative monetary policy since, has put the country in a perpetual cycle of waxing and waning concerns of an imminent debt-fuelled financial crisis.

The credit-fuelled investment growth is often touted as the likely culprit for the next financial crisis. The country is seeking to maintain its high rate of economic growth, yet at the same time, scale back its debt binge. Sceptics will point out that it will take more than just a scaling back of the volume of debt issued, it will actually need a massive deleveraging of the corporate sector to walk itself away from the precipice that many say it is currently on.

Deleveraging can take many forms, it can be relatively orderly or incredibly painful. The government is currently trying to implement reforms and regulations that will make it the former, but the shear difficulty of the task in such a large country could result in the latter.

This feature article is a condensed version of a more in-depth article. If you are interested in accessing the longer-form version, contact Nicole McMillan at Nicole.McMillan@WhitehelmCapital.com.