

China Debt Dynamics

Why Now is the Optimal Time to Invest in NPLs

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ShoreVest is pleased to announce this first issue of China Debt Dynamics – a distribution in which as a specialist in Chinese distressed debt and structured credit, we intend to share our knowledge and opinions as market developments occur, and as we otherwise formulate our opinions on the future direction of the distressed credit space.

We believe now is the optimal time to invest in Chinese non-performing loans (NPLs). But we are frequently asked "Why now? Is this the right time to invest?" Our first issue of "China Debt Dynamics" is designed to answer these questions.

The best time to enter a market is when the supply/demand dynamic is in favor. We believe this is currently the case regarding Chinese NPLs given a positive confluence of factors, including:

- **Large Opportunity Set** we estimate "excess" debt in the economy to be approximately US\$3.1 trillion (and still growing), which is about 6x higher than the last cycle;
- Willing Sellers banks are increasingly encouraged by regulators to dispose of NPLs under a
 market-based approach, and continue to make significant provisions to allow for more
 appropriate reserve prices to facilitate these sales;
- Orderly Deflating of the Credit Excess authorities are orchestrating a multi-pronged, market-based approach to reduce "event risk", particularly regarding property assets/prices;
- **Information Asymmetry** NPLs are characterized by a large amount of information within each portfolio that must be thoroughly understood to accurately price. ShoreVest's 12yr+ experience, network, and proprietary databases allow for this;
- **Sparse Competition** foreigners are attracted but largely absent, and local competitors have smaller funding pools with much short-duration profiles as compared to ShoreVest;
- **Conducive Legal System** continued development of the legal process ensures creditors rights are enforceable (and far better than the last cycle);

Let us explore each of these topics in more detail in the remainder of this document.

Large Opportunity Set – sweet spot 2017-2020

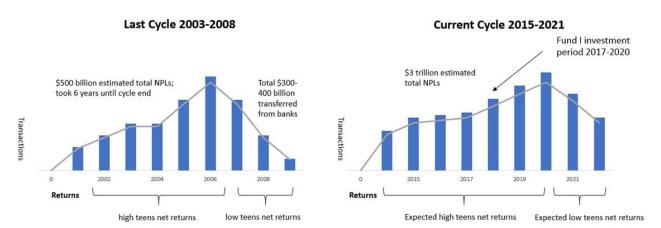
From a broad macro perspective, we encourage investors to consider that the world is going through a rolling process of deflating its credit excesses.

The US began this process in 2008, and after eight years, has only recently been showing signs of sustainable recovery. The Eurozone entered its process in 2011 and is still adjusting six years onward. It is simply now China's turn and it is still in the early stages of this process.

We would note here that the **last NPL cycle in China took six years** from the first NPL sale to the last, and that was thanks to a government bailout expediting the process which we do not believe will be the case this time.

For context, should this cycle follow a similar path, we are now at the beginning of year three (2015-2021). Importantly, our experience in the last cycle was that it was more difficult getting deals done in the first two years of the cycle as the market had not really developed the infrastructure to get into the "groove" of selling. And we also note that in the last year of the past cycle, it was difficult to achieve high-teens net IRRs to investors as there were too many buyers.

The point is that should this cycle follow the trajectory of the last cycle, **the best years for NPL** investment in China will be 2017-2020 which is exactly the investment period of ShoreVest Fund I.



Large Opportunity Set - ~US\$3 trillion in excess debt

A credit excess is created by the speed and magnitude of credit that is created – if too much credit is created in too short a time period, excesses inevitably occur and NPLs emerge. **We believe we are at the beginning of this NPL emergence in China.**

To illustrate the credit excess that has been created in China, let's review several key indicators below, including the (1) flow of new credit; (2) stock of outstanding credit; (3) credit deviation ratio (i.e., "excess" credit), and; (4) Incremental Capital Output Ratio (ICOR – efficiency of credit allocation).

Excess Credit – Flow Far Higher Than Others in Recent Bubbles:

In the below chart, we show the amount of credit created as a percentage of GDP in the 5 years prior to major downturns globally.

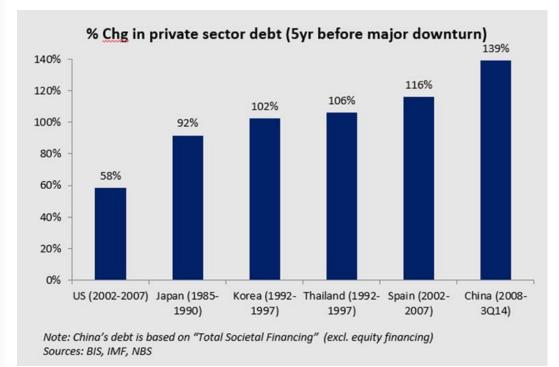
The US created 58% of GDP between 2002-2007, and the GFC followed.

Japan created credit equivalent to the entire size of it economy between 1985-1990 and subsequently experienced 20+ years of deflation (admittedly due to the lack of restructuring).

Thailand created a significant real estate bubble between 1992-1997 and ended up with ~45% NPL ratios.

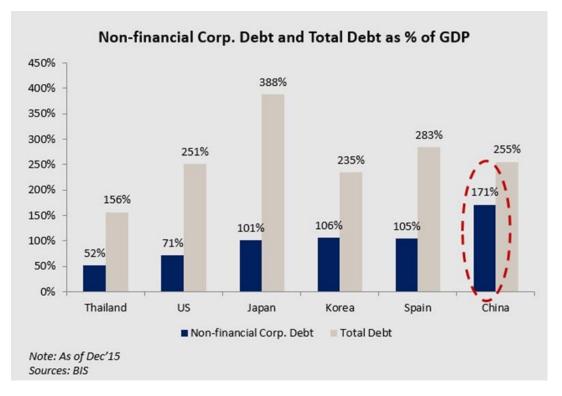
Spain created 116% of GDP between 2002-2007 and still is trying to address a 20% unemployment rate.

China created 139% of GDP in new credit between 1Q2009-3Q2014 (when GDP peaked), far greater than what was created in other major credit bubbles globally.



Excess Credit – Stock of Corp Debt/GDP is Highest Globally:

This unprecedented flow of new credit creation in China was predominantly in infrastructure and corporate credit. The result is that **China's corporate debt-to-GDP is too high and must be addressed, which authorities are now doing** through a variety of measures discussed in more detail below.



Excess Credit – Credit-to-GDP Gap Implies \$3tn in Distressed:

Another important data point to assess the amount of credit in the economy that is "excess" is the Credit-to-GDP Gap (or credit deviation ratio), as reported by the Bank of International Settlements (BIS). The credit-to-GDP gap measures the difference between the current credit/GDP ratio in an economy versus its long-term trend of what is necessary to optimally support long term GDP growth. It is akin to measuring the amount of credit that is productively deployed into an economy.

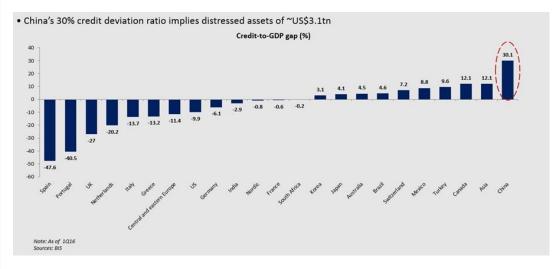
This metric is used by the Basel III framework in determining countercyclical capital buffers for a country's banking system when credit creation becomes too fast (ie., high credit growth requires higher capital ratios for banks...).

A credit deviation ratio above 10% of GDP in an economy is considered risky and requires the maximum additional 2.5% of tier 1 equity capital as a countercyclical buffer under Basel III.

A credit deviation ratio above 10% of GDP is increasingly problematic as any new credit extended above that level produces progressively *less* GDP and is a source of future NPLs.

As seen in the bar chart below, much of the Eurozone currently has a negative credit deviation ratio. This is a reflection of the excess capacity that was created prior to the GFC, and those countries' subsequent efforts to rid their systems of this excess capacity, resulting in a period of credit contraction and the emergence of NPLs.

Out of the 43 countries currently measured by the BIS, China has the largest credit deviation ratio (by orders of magnitude) at 30% of GDP. This is equivalent to US\$3.1 trillion in potential distressed debt and NPLs.



Excess Credit — ICOR Shows Declining Investment Efficiency

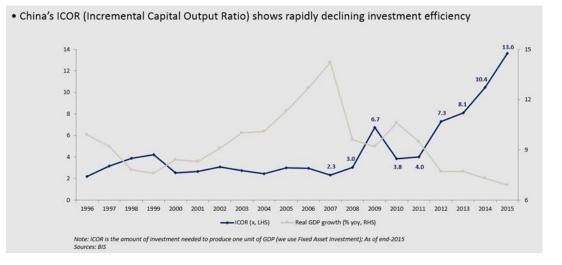
Finally, to show that the **pace of credit creation will necessarily slow (thereby exposing misallocated credit and driving the emergence of new NPL formation)**, we turn to the deterioration in China's Incremental Capital Output Ratio (ICOR).

ICOR is the measure of the number of units of input (we use fixed capital investment) required to produce one unit of GDP.

For the 15 years prior to the credit impulse in 2009-2014, China's ICOR has been consistently between 2-4. Meaning that Rmb2-4 in fixed asset investment created Rmb1 in GDP.

But as a result of the credit-driven economic growth model and the excessive credit that has been created (and the subsequent excess capacity in the industrial economy), **China's investment** efficiency has deteriorated to the point that ICOR is now over 13.

Said another way, every Rmb1 in new fixed asset investment is creating only Rmb0.07 in GDP. Meaning that new credit creation is having an increasingly lower transmission into GDP growth. Simply put, credit growth must necessarily slow. And as new credit growth slows, NPLs are bound to emerge.



Willing Sellers – Banks Must Shed Bad Assets

We believe that China's authorities are committed to a market-based solution to reducing the credit excesses in the economy and the distressed debt on banks' balance sheets. There are essentially three alternative paths for NPL resolution:

- Government Bail Out (China 2002-04; not acceptable) unlike the last cycle when China orchestrated a government bailout, many of the banks are now publicly traded. Authorities have been deliberate in that they do not want to bail-out equity holders, many of whom are now foreign equity investors. It also embeds moral hazard as the belief of a "sovereign put" promotes reckless risk behavior which also produces poor quality GDP.
- **"Extend and Pretend" (Japan 1990-2013; not acceptable)** after witnessing the lack of restructuring by the Japanese authorities during their credit bubble of the early 1990's and the ensuing 20+ years of deflation, the Chinese authorities have been vocal that this is not a viable path.
- Market Based (US 2008-2010; preferred) a multi-pronged, market-based approach to
 reducing unproductive debt in the economy is necessary to realign the economy and restore
 longer-term growth. We have had multiple discussions with directors of the CBRC who have
 consistently said they are committed to a market-based approach and would only consider a
 government bailout or "extending" in a crisis situation. Chinese authorities are already in the
 process of this market approach, with NPL sales being a key ingredient.

Regulators have been encouraging increased recognition of NPLs (including reclassifications of certain exposures), increased loan loss provisioning, and expanding conduits for sales of bad assets. All of which combine to increase the supply of investible opportunities for ShoreVest.

As an example, the China Banking Regulatory Commission (CBRC) published two administrative rules last year, further restricting off-balance sheet maneuvers by banks to understate or "warehouse" NPLs, including:

CBRC - Encouraging Free Market Resolution of NPLs:

In article #56, the CBRC required Asset Management Companies (AMCs) to acquire NPLs at fair market value, and restricted them from pre-setting prices with selling banks. Further, AMCs are prohibited from assisting banks in simulating transfers of NPLs off their balance sheets.

CBRC - Restricting NPL-Concealing Vehicles or Transfers:

In article #82, banks are prohibited from warehousing NPLs through transfers of beneficial rights or assuming any explicit or implicit repurchase obligations. To protect retail investors, the CBRC further requires that such beneficial rights shall not be sold to individual investors and the selling banks shall not use any wealth management funds under their management to purchase such beneficial rights to credit facilities extended by themselves.

CBRC – appointment of Guo Shuqing a clear sign to address NPLs:

It is clear to us that **China is serious and wants to be proactive** in addressing (and ridding) NPLs from bank balance sheets. As another example of this, it was announced only a few days ago that Guo Shuqing will be appointed as the new Head of the CBRC, soon replacing Shang Fulin. Mr. Guo is currently the Governor of the Shandong Province. He is a reputable executive and respected economist in China. He was formerly the Vice Governor of Guizhou Province, Vice President of Bank of China, Chairman of China Construction Bank, and former head of the CSRC (China Securities Regulatory Commission).

Mr. Guo is considered a reformer in China, having amended numerous policies during his 18-month term as the head of the CSRC. And when Shandong experienced the fastest rate of increase in NPLs in 2014, Mr. Guo started the first local AMC in Shandong to promote the resolution of bad debts.

We believe Mr. Guo's appointment is a clear sign that the CBRC will be focused on accelerating NPL resolutions going forward.

Provisions Increasingly Allow For Disposal:

NPLs are not just a drag on the economy, they are also a significant drag on banks' capital and cashflows. This is because NPLs can be well in excess of 150% risk weighted for the purposes of calculating Tier 1 ratios, so as regulators encourage recognition, capital ratios become challenged. And NPLs are a negative-spread asset, as there is a cost of funding the asset, but interest ceases to be accrued once NPL status is recognized. It is in the banks' financial best interest to remove NPLs from their balance sheets.

As NPLs emerge, **banks have been taking increasingly larger provision expenses** in the past couple of years, and this will continue for the foreseeable future in our view. In the last two years alone, the banking system has taken approximately \$325bn in new provisions (Rmb1.2tr in 2016 (~\$170bn) and Rmb1.07tr in 2015 (\$156bn)). Loan books are increasingly being marked-to-market, allowing for reserve pricing of NPLs to be ever-more appropriate for sale. We are seeing this translate into increased deal flow as we enter 2017.

Orderly Deflating of the Credit Excess

In our view, given the sheer size of the credit excess, there will be many avenues used by the Chinese authorities to orchestrate an orderly deflating of the bubble, including (but not limited to):

- NPL portfolio sales deal flow is increasing and we expect this to accelerate further as banks take more adequate reserve pricing and Mr. Guo takes over to lead the CBRC and encourage NPL disposals;
- Establishing more provincial and local AMCs more AMCs increase the number of channels and conduits for the disposal of NPLs (total AMCs have gone from 132 two years ago to now 156, with local AMCs going from 11 to 35);
- LGFV debt swap program designed to "amend and extend" local government debt and develop a municipal bond market. This program has gone a long way in realigning poorly structured loans to project-based borrowers;
- Development of the corporate bond market diffuses credit risk away from bank balance sheets, and extends maturities to better match debt amortization schedules with borrowers' cash flows. Authorities are now in the process of developing internationally acceptable credit ratings, credit enhancement, and credit insurance to institutionalize this market;
- Developing an NPL-backed ABS market since restarting in May 2016, 6 banks have issued 14 NPL-backed ABS totaling Rmb15.6bn (\$2.3bn) and we expect issuance to accelerate going forward. Of note though, is that while this is another avenue to address risk, only "higher quality" NPLs are suited for securitization as ABS information is general. Our target NPLs require a much deeper loan-level dive to adequately price;
- Encouraging IPOs we understand 100s of IPOs are in queue to access equity capital rather than relying on bank borrowing;
- Debt-for-Equity Swaps so far, swaps have targeted only SOEs with leading positions in industrial sectors and involved over-leveraged balance sheets but not NPLs. Neither this borrower type nor loan type are our focus, so this helps reduce system risk but does not hurt our deal flow. Deutsche Bank estimates that Rmb1.0-1.5tr (\$215bn) will be swapped, which is relatively small compared to total SOE debt of Rmb65tr (\$9.5tr);
- Encouraging consolidation (M&A) ultimately, we believe consolidation will also occur as

companies with healthier balance sheets absorb poorly placed competitors.

With all of these activities occurring in a coordinated and deliberate manner, we believe the **probability of "event" risk is quite low**; meaning a risk "event" where the market gets flooded with NPL portfolios, property prices collapse, and social unrest ensues. China continues to build its arsenal of tools to avoid any such major risk in our view.

Will these developments limit deal flow? No...:

Another question we get from LPs is whether all of these activities will limit our access to dealflow. The short answer is "no".

The reason that all of this is good for us at ShoreVest rather than bad (from the perspective of reducing the number of problem credits available for investment), is at a minimum three-fold:

- 1. **Market Size is Huge:** The potential size of the distressed universe is by our estimates approximately US\$3 trillion. Meaning the pie is so big that there are far more distressed assets than can be addressed by only one avenue of resolution (such as NPL investment by ShoreVest and others);
- Order and Consistency is Best: By having multiple approaches to resolution, the process of deflating the credit bubble will be more orderly such that our analysis of available data to do proper sourcing, underwriting, pricing, and acceptable timing for resolution is far more predictable, thereby allowing us to achieve our targeted IRRs more consistently and effectively. Extreme volatility would disrupt this process;
- 3. Avoiding Property Collapse Essential: Most collateral held against loans in China is property-related (i.e., residential/commercial/industrial of many businesses, not just property developers). If property prices were to collapse because all of the distressed universe floods the market, then we could end up trying to "catch the falling knife" as fire-sales of property collateral would compromise our ability to underwrite/price/resolve NPLs. The multiple-avenue approach to deflating the credit bubble should allow for property prices to remain stable or deflate at an orderly pace.

On this last point regarding property prices, while admittedly property prices have risen quite fast in China (National Bureau of Statistics 70 City Index shows a 10.4% rise year-on-year in January), we should point out that **consumer leverage in China remains among the lowest globally**. Household debt/GDP is only 40% (as compared to US at 80% or Australia 124%), and household debt/disposable income is only 56% (as compared to US 103%, Thailand 137%, or Australia at 168%). The point is that the rise in residential property prices has not been from the use of leverage, thereby making a property collapse from forced sellers far less likely than what occurred in the US or parts of Europe.

The current approach is by far the best possible path for ShoreVest to have more than enough NPL opportunities in which to invest (by large orders of magnitude) while producing replicable, achievable, and consistent returns for our LPs.

Order, predictability, and time-for-resolution are our friends.

Information Asymmetry – Knowledge is Everything

Investing in NPLs is among the most "local knowledge" investment styles that exists. It is all about skillfully and efficiently navigating large volumes of information to find value. This large amount of information has to be thoroughly understood in order to accurately underwrite and price an NPL portfolio, requiring a thorough understanding of structure, underlying collateral, and judicial process.

The current deal flow involves portfolios with dozens-to-hundreds of corporate borrowers, thereby providing a 12yr+ experienced team like ShoreVest the opportunity to **find value that other market participants won't easily find**. We prefer working on harder-to-diligence portfolios and leveraging our relationships with sellers to hand-pick portfolios that work for us but are outside of the range and skillset of competitors (particularly when competition begins to increase at some point).

With over a decade navigating the NPL space in China, the ShoreVest team's access to an expansive network of information sources, augmented with years of experience culminating in a new customized database implemented last summer, allows for us to capitalize on the information asymmetry in China.

This approach is producing an ever increasing opportunity set. We are currently actively following in our database close to US\$20 billion (purchase price) of over 200 NPL portfolios for sale.

Sparse Competition - Attractive Space; Few Experts

Given the sheer size of the opportunity set and the increasing deal flow, **foreign competitors are highly attracted to the opportunity but remain largely absent** at this point. Indeed, we are contacted regularly by foreign competitors desiring some level of relationship with ShoreVest. We expect some will take the path that many did in the last cycle by slowly building (meager) teams who never become nimble enough to take advantage of what is a very local business because they report to a remote and unfamiliar-with-China investment committee.

And for the most part, **local Rmb-funded competitors have relatively small funding pools with much shorter-duration profiles** (i.e., 1-3yr liquidity) from high net worth investors as compared to ShoreVest. We view this asset/liability duration mismatch as risky for those competitors, as NPL workout periods can be 3-5yr in duration. In this way, it is quite probable that these groups will be an additional stressed-selling source for ShoreVest to access deals in a few years from now. Moreover, in most cases these local competitors don't have the human capital with appropriate and relevant experience. This is why information asymmetry is an attractive investing characteristic for ShoreVest.

Conducive Legal System – Continuous Improvement

Contrary to the opinion of many Westerners, the legal process and ability to enforce creditors' rights has progressed at very rapid pace in China. The anti-corruption campaign by the current government has made a significant positive impact to be sure. And with a 12-year track record navigating the legal system, the **ShoreVest team has years of experience around enforcement and exit timings** on literally thousands of loans, **making our underwriting far more precise now than ever before**.

Still, many investors remain concerned over the rule of law in China, with many misperceptions. This is exactly the opportunity for ShoreVest's team given our experience participating in the resolution of thousands of NPLs, many of which were through legal actions.

Please see below frequently asked questions/concerns by LPs, and the reality of our experience and expertise:

Legal Environment Survey: Mis-Perceived Risks

Concern: China has no rule of law?

- Reality: The property law in China has been very established and the Chinese legal system has been improving.
- Practical cases: ShoreVest team members have filed countless lawsuits and exited

NPLs through courts' auctions.

Concern: There are no creditors' rights in China?

- Reality: Even though the legal system is risky for those who lack experience, creditors' rights are widely respected in society and enforceable through the legal system.
- Case in point: ShoreVest's team has successfully exited thousands of NPLs through many legal actions.

Concern: Chinese NPL investments are too "hairy" for foreign investors?

- Reality: Yes, but only for those who don't understand the Chinese legal system. Knowing and underwriting risk appropriately to ensure downside protection is essential.
- Case in point: ShoreVest's partners have been investing in Chinese NPLs for over 12 years. Legal actions have been used as a tool to increase the value of the loans.

Concern: Relationships are all that matters?

- Reality: Credit and capital are still the basics of business, though relationships do sometimes play an important role.
- Case in point: In the Qingdao NPL deal, relationships didn't shield a borrower who engaged in fraudulent transfer of assets.

Concern: Governments side with state-owned enterprises at the expense of any other party?

- Reality: No preference to SOEs in the courts despite government's concerns about social stability; outcomes can be affected in cases when many SOE employee jobs are at risk, but this is fairly predictable.
- Case in point: In the current market almost all NPLs we buy are privately owned companies, but even during the last cycle when many NPLs were to SOEs, ShoreVest's team was able to enforce loans.

We remain enthusiastic about the opportunity to invest in Chinese NPLs and firmly believe the **time is now optimal to implement our proven investment process.**

The opportunity set is very large, sellers are willing and encouraged by regulators, there is a multipronged orderly process being implemented by authorities, information is asymmetrical and not readily apparent or accessible to competitors, competition is sparse, and the legal system is now structured to ensure creditors rights can be judiciously pursued. **We believe the supply/demand dynamic is compelling.**

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