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China

The unfolding effects of deleveraging

Jian Chang
+852 2903 2654
jian.chang@barclays.com
Barclays Bank, Hong Kong

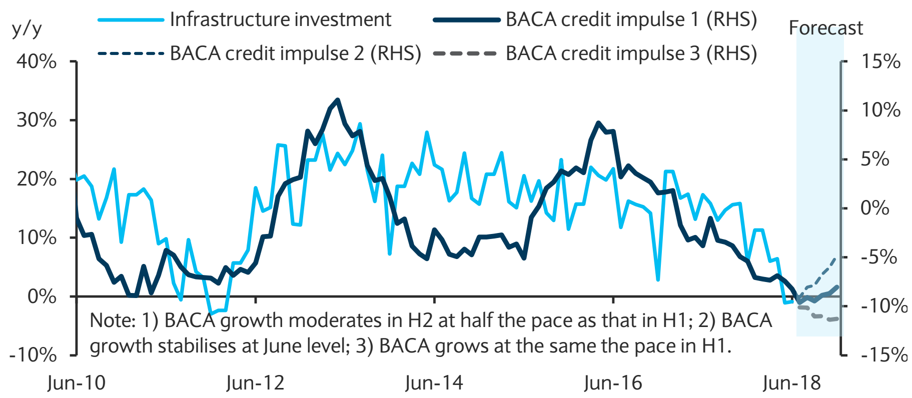
Eric Zhu
+852 2903 2655
eric.zhu@barclays.com
Barclays Bank, Hong Kong

Yingke Zhou
+852 2903 2653
yingke.zhou@barclays.com
Barclays Bank, Hong Kong

www.barclays.com

- This report looks at the impact of China's multi-year deleveraging and de-risking campaign and its priorities. We explain the aims of the actions undertaken and their effects on financial markets, credit channels, and the economy.
- We see three main targets of the de-risking efforts: 1) shadow banking and financial irregularities; 2) local-government and SOE debt; and 3) the property market. In our view, the government's actions can be divided into three phases: 1) deleveraging the financial system (2016-17); 2) extending deleveraging to the real economy sectors (2017-18); and 3) unwinding and easing (June 2018-present).
- We present an integrated flowchart of China's banking and shadow banking systems (Figure 8) and map the government regulations to the major components of China's broad credit universe (Figure 9) to analyse how the deleveraging measures have affected credit channels. We think the policy-induced credit crunch and defaults suggest policy over-tightening that has increased systemic risks. We estimate that shadow credit accounted for c.90% of the decline in credit growth in H1 18.
- Moreover, we think China's deleveraging campaign had already led to a meaningful slowdown in credit growth and domestic demand in 2017, and the cumulative tightening efforts in 2018 exacerbated the negative effects. In particular, our BACA credit impulse analysis suggests significant downward pressure on the credit-intensive "old economy" will persist in H2 18 without more policy loosening.

FIGURE 1
Credit impulse vs infrastructure investment



Note: BACA represents Barclays alternative credit aggregates Source: CEIC, Wind, Barclays Research

A visible shift to stability as the policy priority since late July…

The Chinese government has accelerated the pace of policy loosening in recent weeks as a policy-induced credit crunch threatens growth and financial stability, and an escalating Sino-US tariff war adds to the headwinds. Both the Politburo meeting (31 July), chaired by President Xi, and State Council meeting (23 July), hosted by Premier Li, urged "more expansionary fiscal policy" to boost domestic demand and stabilise the economy. At the Politburo meeting President Xi said China must "coordinate efforts and policies" to stabilise six areas - employment, finance, foreign trade, foreign investment, investment, and expectations (see "CPC central committee holds symposium on economic work", Xinhua, 31 July 2018). Just before this clearer policy tone was set by top leaders, the central bank and financial regulators had stepped up monetary loosening and regulatory fine-turning in mid-July, albeit still largely in a targeted fashion, in our view.

… deleveraging taking a back seat but the direction should be maintained as indicated at the latest politburo meeting

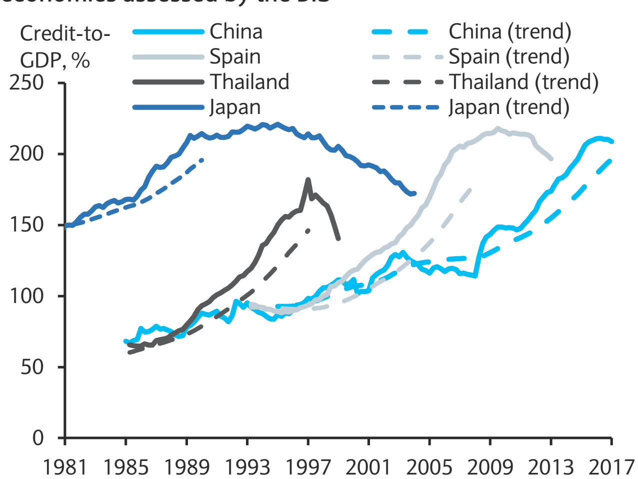
On the other hand, we note that until early July, the government, particularly the financial regulators and the Ministry of Finance, has displayed reasonable determination in carrying out the deleveraging campaign (Figure 2 and Figure 3), with continued emphasis on the need to exit "zombie" companies and tolerate defaults, as well as hinting at the possibility of lowering the GDP growth target (see Appendix 1 for official quotes). To be sure, the latest Politburo meeting also reiterated the need to "resolutely maintain its deleveraging drive while better managing its pace and intensity" and "better balance its financial risk prevention and boost support of the real economy" (see "Flexibility key to steady economy", ChinaDaily.com, 1 August 2018). Although we think the government is now prioritizing stability over its medium-term deleveraging agenda, we believe those statements should dispel doubts about a possible reversal or abandonment of the deleveraging goal.

How have we got to where we are?

As the Chinese government once again faces the delicate balancing act between "stabilising expectations and growth" in the short term and "structural reform and risk prevention" in the medium term, the question arises of what happens next? In this respect, we think it is useful to understand how China got to where it is now and assess the state of the markets and the economy. We describe China's deleveraging plan and its priorities, what actions have been undertaken and for what purpose, and the channels through which the various deleveraging measures have affected the financial system, financial markets, money and credit growth, and the economy.

FIGURE 2

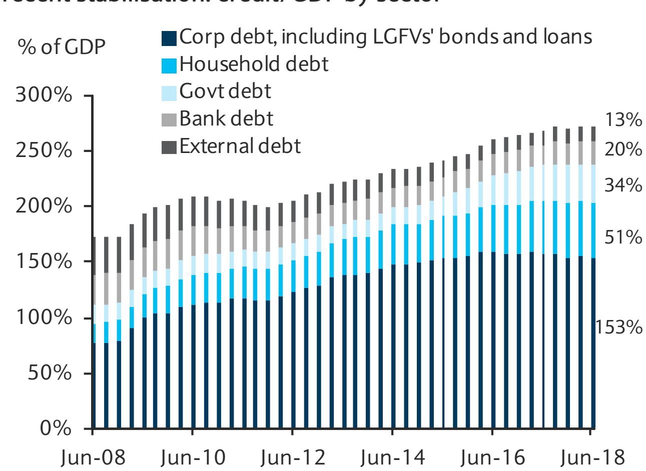
China's credit/GDP gap is one of the highest among the 44 economies assessed by the BIS



Note: The gap is defined as debt/GDP – trend. Source: BIS, Barclays Research

FIGURE 3

China's macro leverage remain elevated, despite some recent stabilisation: credit/GDP by sector



Source: Wind, Barclays Research

China's deleveraging and de-risking campaign (2016-present)

Objectives: Defuse major financial risks and control macro leverage

No debt-reduction targets were set except for central SOEs

While Vice Premier Liu He and his team appear to share the IMF/BIS diagnosis that a high-leverage and credit-fuel growth model leads to an unsustainable buildup of debt, and former PBoC Governor Zhou warned of a "Minsky moment" in October 2017, deleveraging has not necessarily meant "debt reduction" in China. Debt/GDP has been widely used by financial regulators to evaluate the economy-wide leverage, but the government has not set specific targets for macro-level leverage. Only for central SOEs was a debt-reduction target set in January 2018, calling for 2pp reduction in leverage (liability/asset ratio) by 2020.

The broad objective was to keep systemic risks and macro leverage under control

We think the objective, according to Vice Premier Liu in a speech at Davos in January 2018, can be described as "to bring China's systemic risks and macro leverage under effective control in about three years (2018-20)."[1] The December 2017 Central Economic Work Conference stressed that "prevention and defusing of major risks, particular financial risks" is the most important of the "three tough battles" that China needs to win by 2020[2]. That said, we think the recent omission of the three year deadline in the Politburo meeting statement, hints at possible consideration of more flexibility regarding the time needed to achieve the deleveraging goals.

Reducing local-government and SOE leverage was particularly highlighted

We note that the official slogan has been shifting between "deleveraging," "stabilising leverage" and "structural deleveraging." The phrase "structural deleveraging" (through setting different deleveraging objectives for different types of debts and debtors) was first used by President Xi this April[3], when he stressed that "local governments and enterprises, in particular SOEs, must deleverage as soon as possible and aim to achieve steady and gradual reduction in macro leverage." However, later in April the PBoC removed "deleveraging" from its Q1 Monetary Policy Report, first time since Q4 2015, as it "expects macro leverage to stabilise and structural deleveraging to take place gradually." Interestingly, the latest Politburo meeting re-employed the term "deleveraging".

Key de-risking targets: Financial irregularities, LG debt, housing

We identify three targeted areas to guide our analysis

In our view, China's deleveraging agenda can be traced back to 2015, when it was listed among the top three tasks in the government's "supply-side structural reforms," along with cutting capacity and de-stocking. We identify three areas targeted by the government in its deleveraging/de-risking campaign (2016 – present): 1) controlling the rapid expansion of the shadow credit sector and financial irregularities; 2) managing the rising level of local-government and SOE debt, and 3) preventing a housing market bubble.

Rapid growth in interbank business and shadow credit raised systemic risks

On shadow credit, the backdrop was the rapid expansion of interbank and off-balance-sheet businesses at banks and non-bank financial institutions (NBFIs; Figure 6), encouraged, in our view, by financial liberalization and a long period of stable funding costs following the liquidity squeeze in 2013. This created arbitrage opportunities, rising leverage in the financial system, rapid growth in shadow credit and heightened systemic financial risks during 2013-16 (see *China: Alternative credit aggregates*, 18 October 2016, for details).

Mounting LG/SOE debt and a potential housing bubble also threatened financial stability

On LG and SOE debt, and the housing market, we believe the government became increasingly concerned about systemic fragility from mounting local government/SOE debt levels and a potentially destabilising bubble in the housing market. Although China's overall and corporate debt/GDP ratio has shown some stabilisation in recent quarters (Figure 3),

In our view, the deleveraging agenda were agreed at the National Finance Work Conference, which is held every five years (see China: National Finance Work Conference emphasized deleveraging and risk control, 17 July 2017).[1]

[2] The other two "tough battles" are poverty alleviation and pollution control (see *China: Annual conference confirms shift in major tasks while emphasising both quality and growth stabilisation*, 21 December 2017).

[3] Source: "Central Economic and Financial Affairs Commission puts forth structural deleveraging for the first time," People's Daily, 2 April 2018

risks remain from: 1) the significant increase in local-government debt since the last national audit in 2014 despite the CNY3.2trn LG debt-swap program (Figure 7); 2) stabilising, but still elevated, non-financial corporate sector debt, especially among SOEs; and 3) rising household debt, with mortgage loans doubling since 2015 amid a booming housing market. In *China: A different policy-driven housing cycle,* 6 February 2018, we analysed the government's stance, policy tightening initiatives in 2016-17, and how policies have run counter to the government's intention to stabilise house prices.

Box 1: What do we mean by leverage and deleveraging?

Because "leverage" and "deleveraging" can be interpreted differently in different contexts, we think it is useful to define what they refer to in our analysis of China's deleveraging campaign:

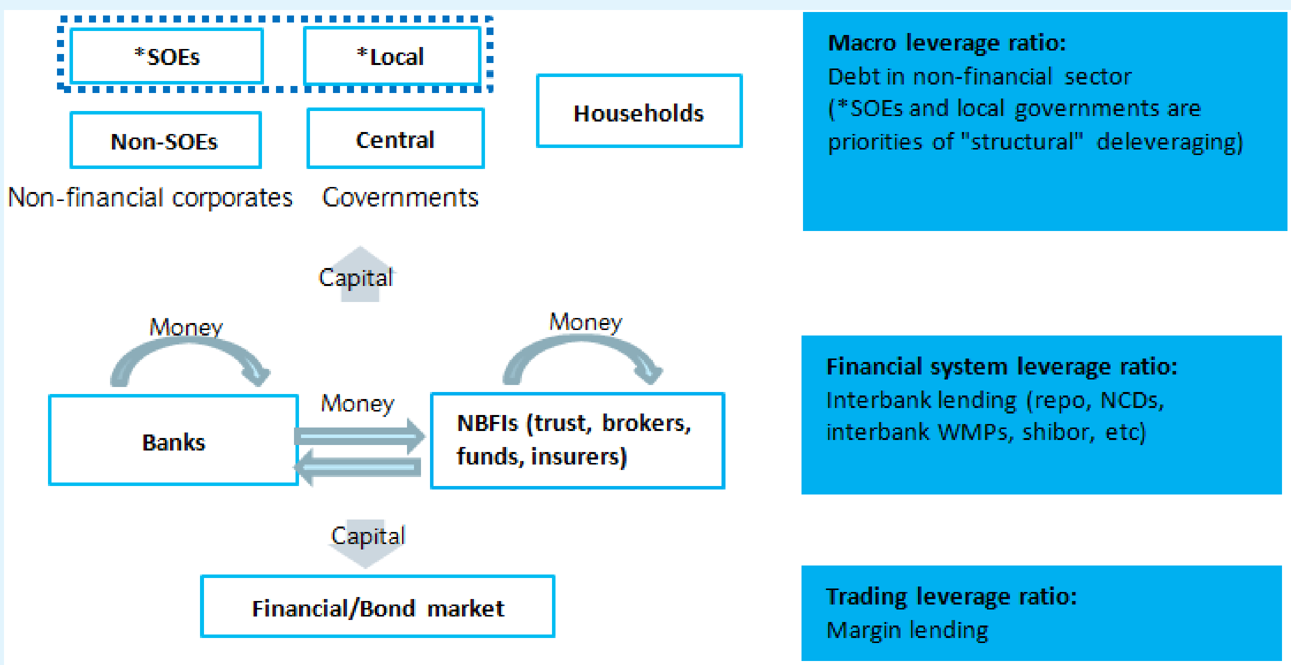
1. **Trading leverage**: the level of borrowing by financial institutions, including bonds and other investments.

2. **Financial (system) leverage**: the liabilities (particularly interbank lending and wealth management products) of financial institutions and the financial system as a whole.

3. **Macro (real economy) leverage**: the aggregate debt load of the economy, which typically encompasses the nonfinancial sector and includes government, corporates and households.

While these three measures of leverage look at different market entities and use different metrics, they are related, as trading leverage is often considered an aspect of financial leverage. As FIs raise funds (mainly through interbank lending) to add leverage to their financial market investments, the borrowing is reflected in both trading and financial system leverage. Meanwhile, real economy leverage, the most commonly used measure among overseas investors, is linked to FIs' assets and liabilities, given that nonfinancial debt is borrowed mainly from the financial system.

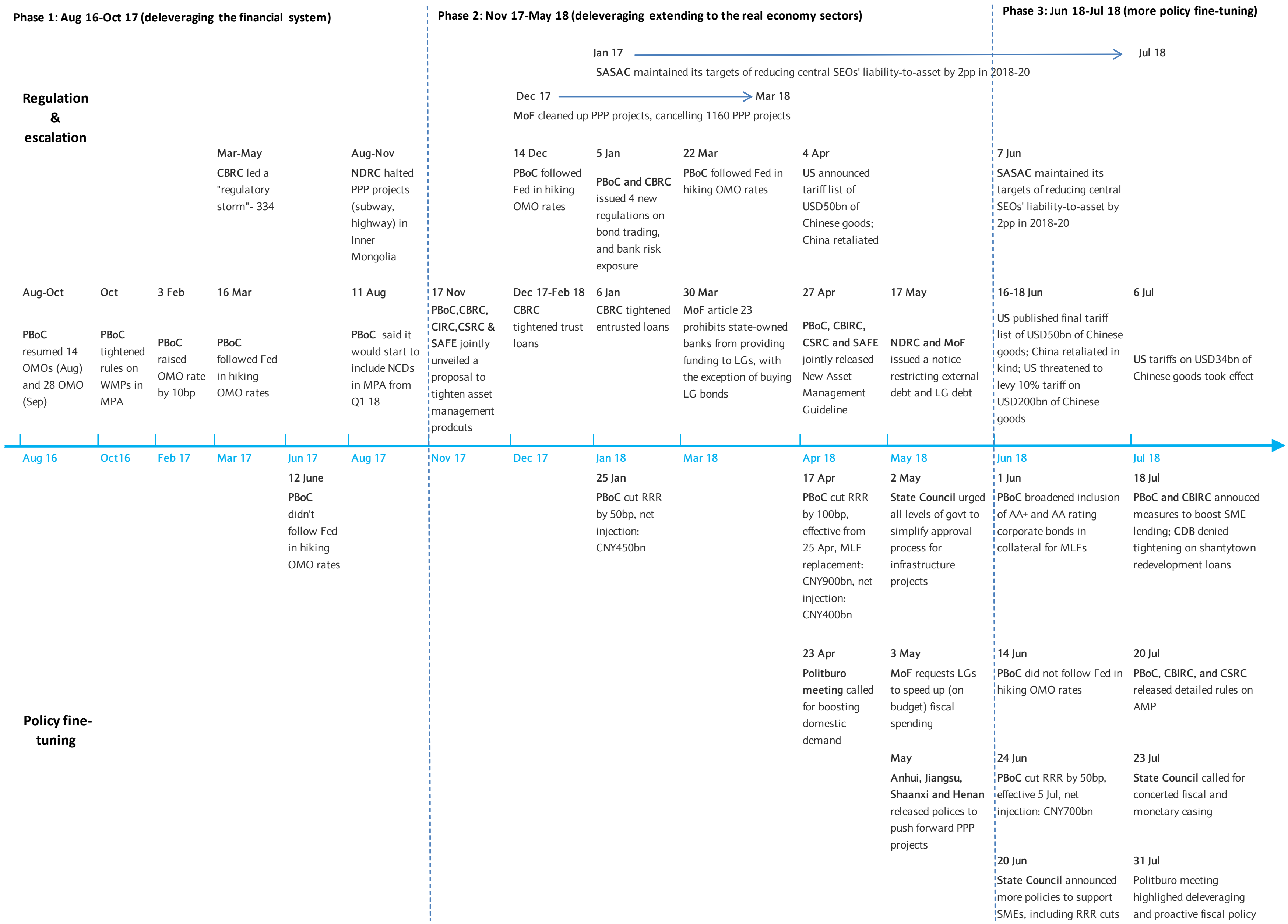
FIGURE 4
Different dimensions of deleveraging



Source: Barclays Research

FIGURE 5

Policy actions by various government bodies since the beginning of the deleveraging campaign in mid-2016



Source: PBoC, CBIRC, Xinhua, Barclays Research

Policy actions: from deleveraging/tightening to stabilisation/fine-tuning

The deleveraging campaign started in mid-2016…

We believe deleveraging efforts began in mid-2016 (see Box 1 for different dimensions of deleveraging), when the PBoC started to guide interbank interest rates higher. That was followed by a series of tightening of regulations by the bank regulator (from H1 17). Next came a more sweeping push toward deleveraging across all government departments, especially after the National Finance Work conference in July 2017 and further power consolidation achieved after the 19th Party Congress last October, when a consensus was built and policy execution enhanced, in our view. The fiscal authorities also stepped up control of LG debt management (from H2 17), with SAFE and NDRC issuing guidelines on external debt this year. It is probably not too surprising that as the cumulative impact of the tightening actions started to bite, the government's priority shifted from deleveraging to stabilisation.

… and can be divided into three phases…

In Figure 5, we document the major policy actions by various government bodies, including both regulatory tightening (since mid-2016) and policy fine-tuning (since Q2 18), as well as a moves in the escalating trade war during this period. To analyse the government's intention behind its policy actions, we divide the deleveraging efforts into roughly three phases (see Box 2 elaborated major actions):

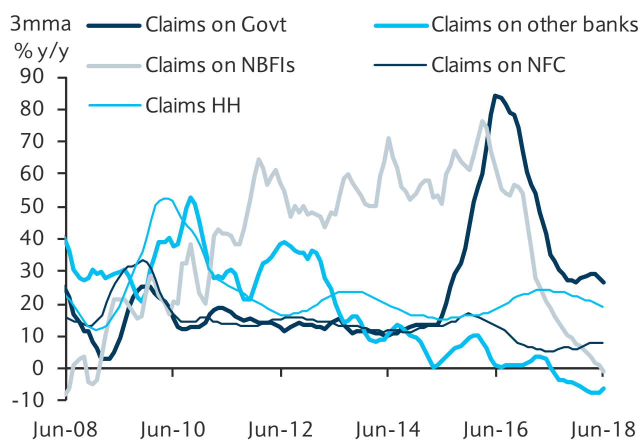
- Phase 1: August 2016 – October 2017 (deleveraging the financial system)
- Phase 2: November 2017- May 2018 (deleveraging extended to the real economy)
- Phase 3: June-July 2018 (policy priority shifted from deleveraging to stabilisation)

… as the campaign extended from the financial system to real economy sectors

We construct Figure 5 and Figure 8 to show how the Chinese government's actions have moved from "financial deleveraging" to "macro/structural deleveraging." As discussed in *China: Evaluating financial deleveraging*, 19 March 2018, during 2016-17 deleveraging mostly involved "double tightening" of both monetary and regulatory policies. In 2018, the regulations have all worked in the same direction – tightening financing conditions for SOEs, local governments and property developers. With stronger and more forceful regulatory tightening (especially those by the CBIRC and MoF) taking the front seat in the deleveraging efforts and showing visible negative effects on market and the economy, monetary policy has no longer been employed as a deleveraging tool. In contrast to H2 2016-H1 2017, the PBoC has adjusted its stance and turned more accommodative, and shifted to an increasingly clear easing bias during the course of 2018, in our view.

FIGURE 6

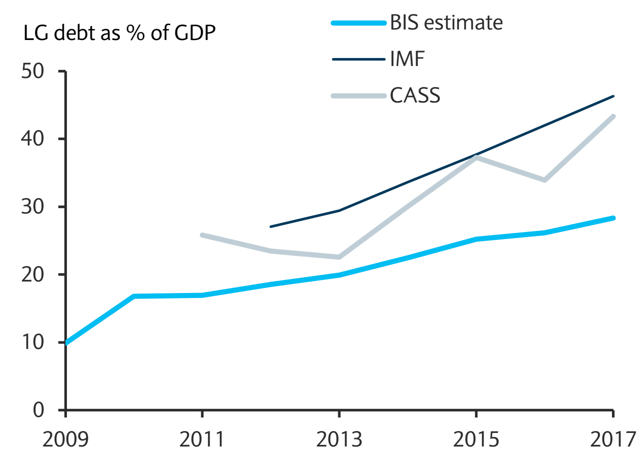
Banks' claims on NBFIs surged in 2012-16



Source: Wind, Barclays Research

FIGURE 7

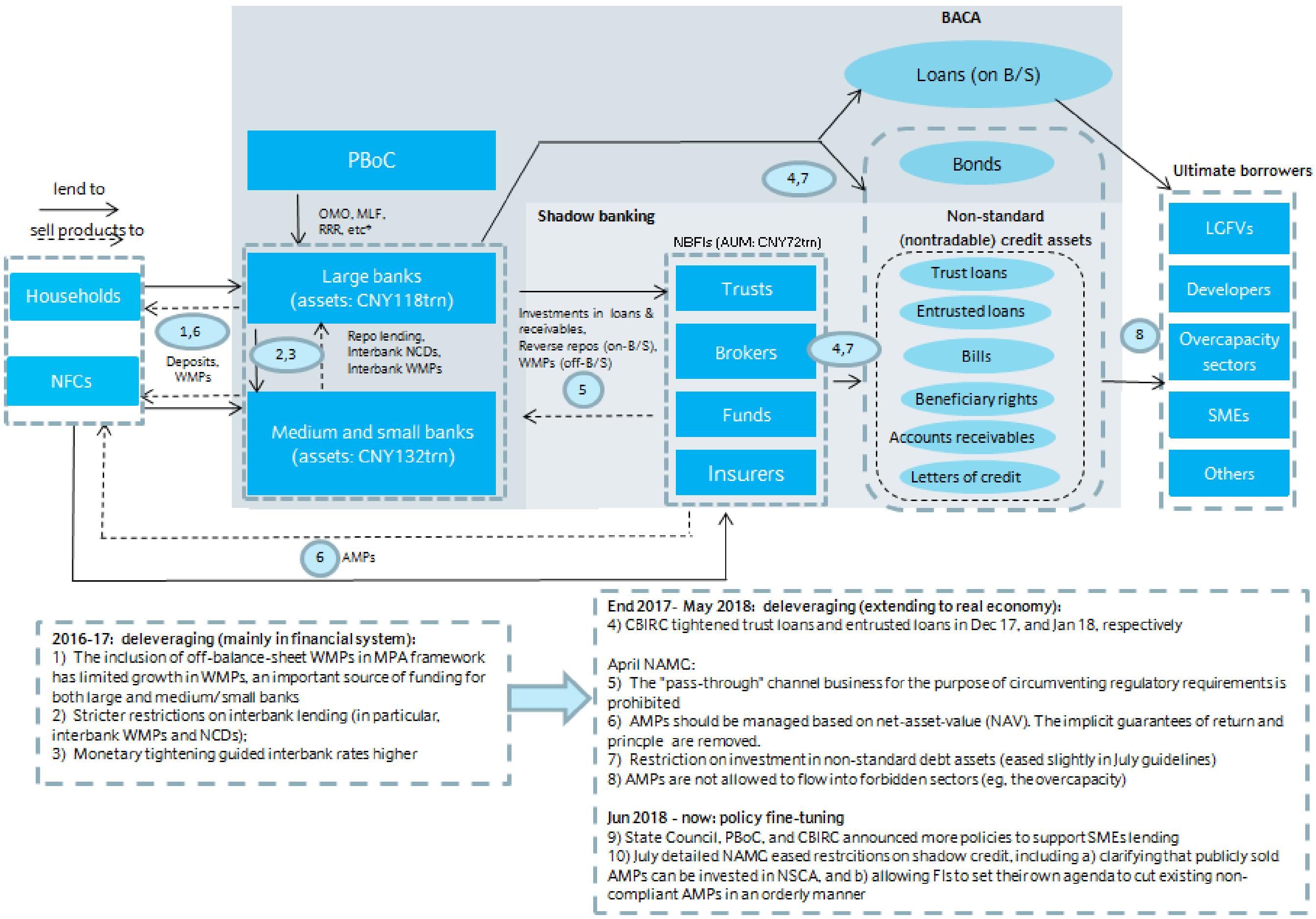
Local-government debt continues to rise



Source: BIS, IMF, Chinese Academy of Social Science (CASS), Barclays Research

FIGURE 8

An overview of money and credit flows in China's financial system



Source: Barclays Research

FIGURE 9

The target areas for regulations covering various sources of financing

Regulatory tightening										Policy fine-tuning				
Credit	Channels	CBRC (22 Dec)	CBRC (5 Jan)	NAMG (27 Apr)	MoF(#23)	NDRC (17 May)	SASAC	Property	Defaults/risk preference	PBoC (19 Jul)	CBIRC (19 Jul)	Detailed NAMG (20 Jul)	State Council (23 Jul)	PBoC MPA adjustment (25 Jul)
Loans	Large/medium firms						x							√
	Small/micro firms							x	x	√	√			√
	Households							x						
Corporate bonds	High grade						x							
	Low grade (eg, developers, LGFVs)				x		x		x	√			√	
Shadow credit	Entrusted loans		x	x	x			x				√	√	
	Trust loans	x		x	x			x				√	√	
	Bills			x	x			x				√		
	NTSC			x	x			x				√	√	
External debt	Bonds					x x		x x	x x					

Note: ✓ represents policy easing; X represents policy tightening. NAMG is short for New Asset Management Guidelines, and NTSC is short for non-traditional shadow credit.
Source: Barclays Research

Box 2: Banks, shadow banks and the money and credit channels

We develop an integrated flow chart of China's banking and shadow banking system shown in Figure 8, drawing on our work in *China: Alternative credit aggregates*, 18 October 2016, and *China: PBoC watching: The evolving policy framework,* 14 December 2017. This allows us to understand: 1) the money flows from the central bank to banks and then to NBFIs; and 2) the channels through which the financial system extends credit (especially shadow credit) to non-financial borrowers.

Within China's financial system, an interbank ecology developed that connects various financial institutions and channels money from banks to NBFIs. Typically, the first point in the chain are the large commercial and policy banks, which have regular access to low-cost funding from the PBoC via open market operations (OMOs) and other liquidity facilities. The large banks channel some of this liquidity to the medium and small banks, mainly through interbank repo lending, or by purchasing interbank wealth management products (WMPs) and negotiable certificates of deposit (NCDs). The money is then channelled (from medium/small banks, or directly from large banks) to NBFIs – ie, fund-management companies, securities firms, trust companies, insurers – through repo lending or banks' entrusted investment/"pass-through" (typically packaged as asset management products, AMPs). Note that the interbank chain can be even longer as small- and medium-sized banks often channel money to peer banks through purchasing interbank NCDs and WMPs.

Both banks and NBFIs lend to the non-financial sector. In addition conventional loans and bond financing (ie, purchasing corporate bonds), during 2013-17 banks channelled credit through off-balance-sheet lending, packaged as wealth management products. The assets underlying these quasi-loans usually are characterized as non-standard credit assets (NSCA)[4]. On the other hand, NBFIs use proceeds from the issuance of asset management products to lend to the non-financial sector by investing in bonds and loan-like NSCAs.

In fact, for the "pass-through" business, banks mainly use NBFIs as investment channels to lend to the ultimate borrowers (ie, bank still bear the ultimate risk, after paying a fixed "channelling fee" to NBFIs), which is intended to mainly circumvent capital requirements and/or meet regulatory and loan requirements imposed on on-balance sheet lending. Such NBFI lending, coupled with banks' WMP businesses, are generally regarded as China's shadow banking sector, which provides credit to many borrowers who have limited access to conventional loans and bond financing (due to regulatory restrictions or risk preferences), including LGFVs, property developers, SMEs.

Deleveraging impact on financial market and credit channels

Deleveraging: Diverging effects on financial markets

Phase 1: Deleveraging mostly affected the interbank and bond markets

Phase 1 focused primarily on deleveraging interbank lending and reducing FI liabilities…

We think the first phase of deleveraging primarily targeted high leverage and arbitrage practices in the interbank and bond markets, with a clear regulatory focus on reducing FIs' liabilities, particularly interbank lending and products (see Figure 8 and Box 3 for detailed policy measures). During this phase, we saw a significant reduction in major interbank items (eg, interbank WMPs, Figure 10) and FI's leverages (measured by AUM/equity, Figure 11).[5]

… which led to rising interbank rates and bond yields

We note that the central bank believed higher interests rates were more conducive for deleveraging during this period and therefore guided, or tolerated, higher interbank rates between August 2016 and mid-2017 (see *China: PBoC watching: The evolving policy framework,* 14 December 2017). Bond yields rose notably in 2017 (CGB 10y: +77bp, Corporate AA-10y: +66bp), reflecting: 1) the transmission from rising money market rates to bond yields; and 2) bond selloffs (eg, October 2016 and March 2017) amid FIs' balance sheet adjustments in response to tighter regulations.

[4] According the PBoC and CBIRC, standard credit assets (invested through FIs' asset management products) refer to assets that are tradable in the interbank market and on securities exchanges (and any other exchanges acknowledged by the government), while all other nontradable credit assets are defined as non-standard credit assets. By such definitions, standard credit assets include bonds and asset-backed securities (ABS), while non-standard credit assets can take many forms including trust loans, entrusted loans, bankers' acceptances, letters of credit, accounts receivables, beneficial rights, equity financing with repurchase terms.

[5] In contrast, credit flows where the funds were raised from households or corporate depositors and invested in credit assets were largely unaffected. As shown in Figure 10 although interbank WMPs outstanding fell markedly in 2017 (-45% after doubling in 2016), WMPs outstanding continued to rise (+ 14% y/y in 2017 versus +12% in 2016).

Phase 2: Deleveraging leads to credit crunch, defaults and diverging market trends

Phase 2 extended the campaign to the non-financial sector, with increased tightening of shadow financing

We think the deleveraging campaign was explicitly extended to the non-financial sector from late 2017. The official focus expanded to FIs' asset side, as more financial regulations were rolled out to tighten shadow financing channels, a major source of funds for LGFVs, developers, and smaller and lower-rated borrowers with limited access to bank loans.

Rising defaults threaten financial stability

Consequently, this phase saw rising defaults and risk premiums…

The continued squeeze on (re)financing availability due to the shadow credit crackdown resulted in a surge in defaults (with a par value of CNY33bn,: +51% y/y YTD) and a higher risk premium for smaller and lower-rated companies, as well as a reduced willingness among banks and other investors to provide loans and/or bond financing to such borrowers. Indeed, along with the sharp fall in shadow credit growth, we note that bank loans to small- and micro-sized companies slowed, and the share of bond issuance from lower-rated corporates fell markedly (Figure 20 and Figure 21).

… while local governments also came under increasing refinancing pressure

Moreover, the MoF's binding and stringent regulations around LG financing (Article 23) added to the debt repayment pressures on local governments, especially given that CNY840bn of LGFV bonds will mature in 2018 and a further CNY1,310bn will mature in 2019. Weaker investor sentiment and high refinancing pressures have generated significant stress around LGFVs. Indeed, in June the city of Leiyang in Hunan province delayed wage payments to civil servants citing a shortage of cash. Partly addressing the rising risks, the State Council meeting on 23 July specifically guided financial institutions to meet the "reasonable" financing needs of LGFVs and provide continued funding for ongoing (infrastructure) projects.

The defaults mostly occurred among SMEs and private firms – a somewhat unintended consequence of the campaign

We note that SMEs and private firms account for more than 90% of the 32 onshore bond defaults this year, and the defaults are concentrated in the machinery, environmental protection, and construction sectors. No LGFVs and only two local SOEs (in the coal sector) have defaulted (Figure 13). In our view, this shows one of the unintended consequences of the deleveraging campaign – SMEs and private firms have been hurt, but "zombie" SOEs – the government's original target – remain in business. In response, the government and financial and fiscal authorities have recently accelerated efforts to support SME financing.

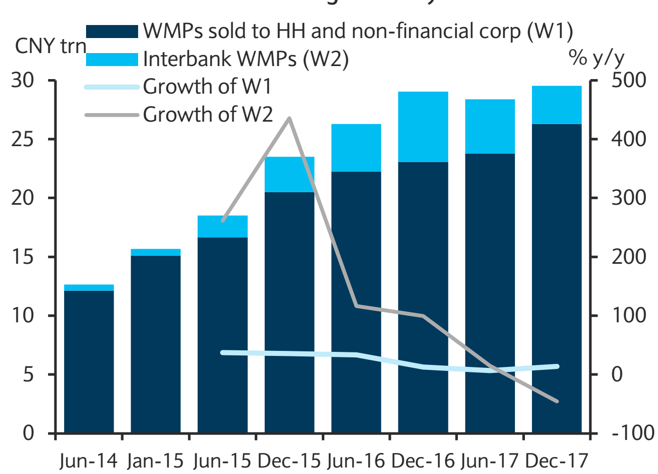
Diverging trend in the credit and rates markets

Phase 2 also saw rising yields on lower-rated corporate bonds as risk-averse investors sought CGB/CDB bonds

The combination of tighter regulatory policy and accommodative monetary policy during this period has led to divergent trends in the onshore credit and rates markets. Lower-rated corporate bond yields have risen significantly this year, with the yield on 10y AA rated corporate bonds up c.30bp since the beginning of 2018. In contrast, the yield on 10y

FIGURE 10

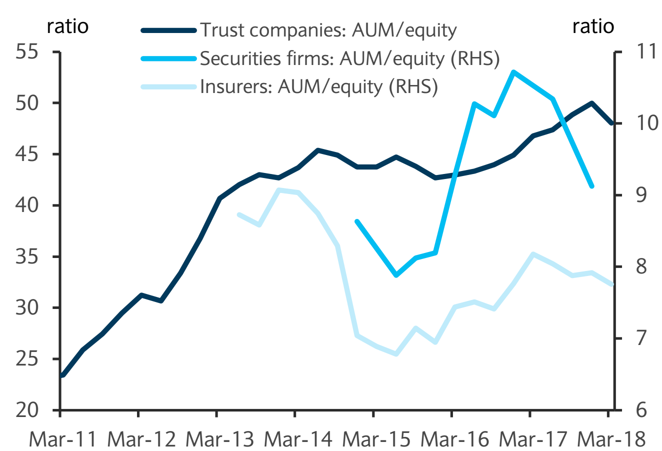
Interbank WMPs contracted significantly in 2016-17



Source: Wind, Barclays Research

FIGURE 11

FI leverages began to decline in 2017 (trust in 2018)



Source: Wind, Barclays Research

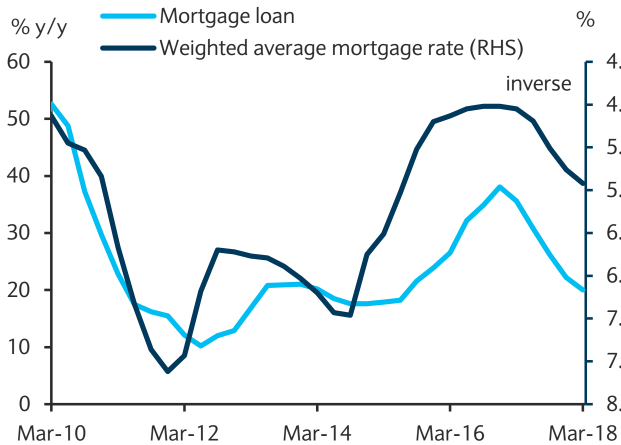
Chinese government bonds has declined 45bp during that time, and the yield on 10y China Development Bank bonds has fallen c80bp (Figure 14 and Figure 15). In the onshore money market, the R007 and DR007 rates have fallen by c.80bp and c.40bp, respectively.

The PBoC has maintained an accommodative monetary stance for most of 2018

In our view, the PBoC has been undertaking de facto easing for most of 2018 amid more regulatory tightening, decelerating credit growth, and a significant tightening of monetary conditions (Figure 16 and Figure 17). It has accelerated the pace of easing since June 2018 amid surging defaults and escalating tariffs, including 1) broadening the collateral eligible for the MLF to include AA+ and AA rated corporate bonds on 1 June; 2) refraining from following the Fed rate hike in mid-June (its first such inaction since June 2017); and 3) a 50bp targeted RRR cut on 24 June, the third this year; 4) adjusting MPA parameters, credit quota, and offer MLF injection and incentives to support targeted credit extension in July.

FIGURE 12

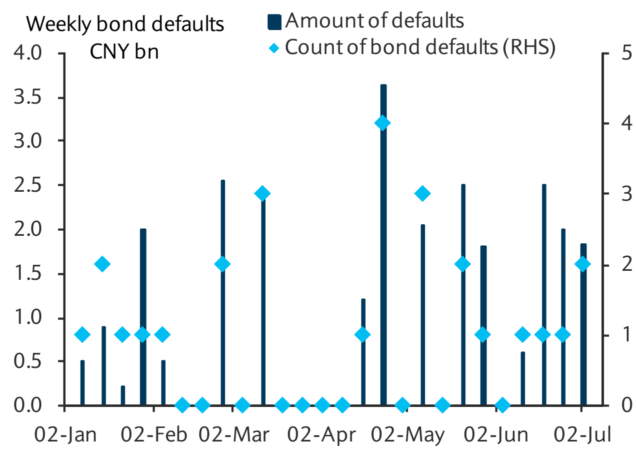
Housing market: rapid rising mortgage loan (2014-16)



Source: Wind, Barclays Research

FIGURE 13

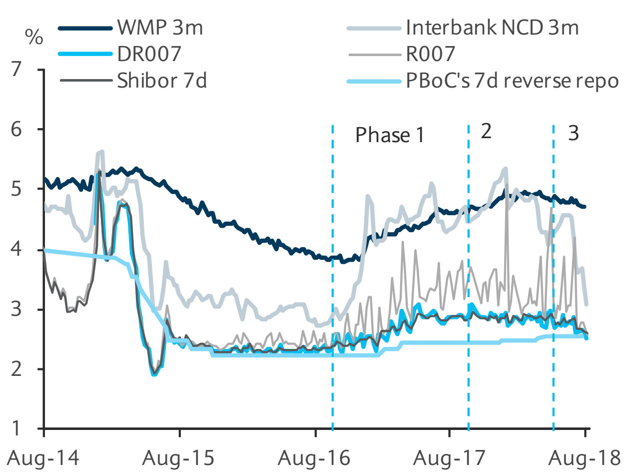
Credit defaults accelerated in Q2 2018



Source: Wind, Barclays Research

FIGURE 14

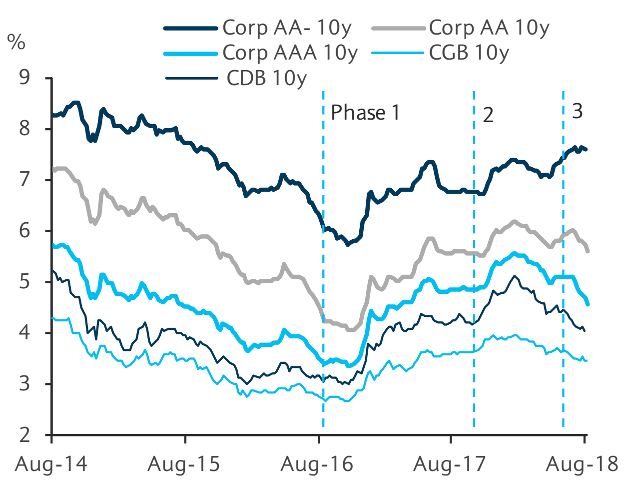
Money market rates



Source: Wind, Barclays Research

FIGURE 15

Bond yields



Source: Wind, Barclays Research

Deleveraging led to tighter monetary conditions and credit deceleration

A deleveraging de-risking policy-induced credit crunch

Our BACA broad credit growth measure slowed during Phase 1, but official TSF growth did not decelerate until Phase 2

Deleveraging in Phase 1 has led to significantly slower growth in both M2 growth and our BACA measure of broad credit growth since mid-2016, and much tighter monetary conditions since the beginning of 2017. However, it was not until in Phase 2 that the official total social financing (TSF) data started to show signs of a visible slowdown. This reflects the different coverage of the credit measures, as BACA includes some shadow credit components not covered by TSF (see *China: Alternative credit aggregates* 18 Oct 2016).

… which reflects the tightening of trust and entrusted loans starting from end-2017

The visible slowdown in the official TSF measure reflects the start of the crackdown on trust and entrusted loans – key channels in China's shadow credit system – during December 2017-January 2018. Trust and entrusted loans collectively account for c.85% of shadow credit, according to the TSF definition, and about 60% using our BACA definition. The New Asset Management Guidelines (NAMG, with the final version issued in April 2018) further tightened regulations around the supply and demand of shadow credit through four main actions (see Figure 8) while uncertainty on some details have also paralyzed the market.

Most financing channels for LGs and developers were tightened stringently

Elsewhere, the cumulative impact of the tightening actions by other government bodies (eg, MoF, NDRC), particularly on LG debt and the property market, further restricted the financing options available to targeted borrowers (Figure 5 and Figure 9). These regulations include MoF Article 23, which prohibits state-owned banks from financing local governments, a CBRC notice tightening lending to developers, and a joint MoF-NDRC guideline limiting offshore bond issuance (especially by developers and LGFVs; Figure 22 and Figure 23). SASAC's 2pp leverage reduction target (2018-2020, 2017: -0.4pp) has limited SOEs' borrowing demand.

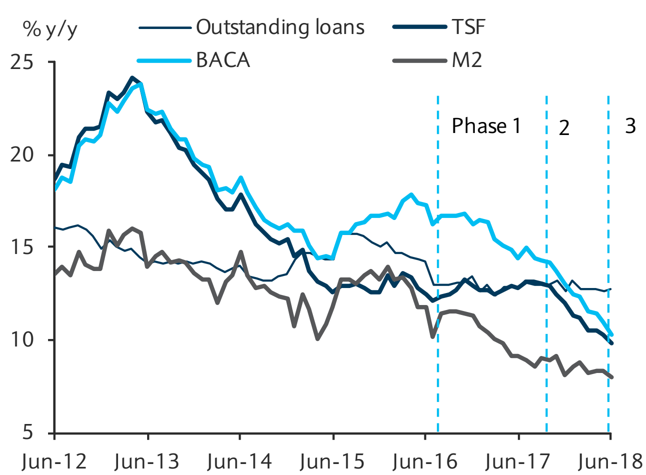
Mapping government regulations to major components of China's broad credit

We try to gauge which financing channels could be targeted for potential loosening of tighter regulations

In Figure 9, we map the regulations by the different government bodies to the major components of China's broad credit universe, including loans, bonds, and both traditional and non-traditional shadow credit channels (TSC and NTSC, for details see *China: Alternative credit aggregates*, 18 October 2016). This allows us to examine qualitatively how the tightening measures have affected the various credit channels, and to gauge potential loosening measures to either unwind some of the regulations or offer targeted support to improve the monetary policy transmission and credit extension as the government did in July (Box 3).

FIGURE 16

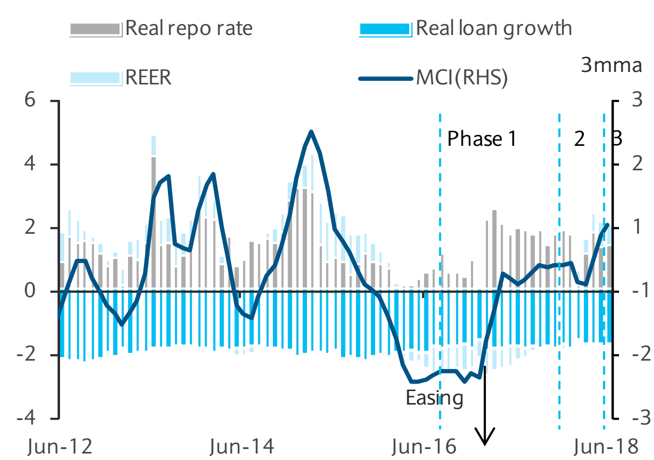
Money and broad credit growth continued to decelerate



Source: Wind, Barclays Research

FIGURE 17

Monetary conditions have tightened dramatically



Source: Wind, Barclays Research

Clearly shadow credit channels have been tightened most, while loan and bond financing were partially affected…

We make several findings from Figure 9: 1) shadow credit is clearly the most stringently tightened component as it is a common target of most of the new regulations, including CBRC rules on trust and entrusted loans, NAMG, MoF regulations on LG financing, and various regulations on property financing; 2) standard bank loans have not been targeted, though they still could be indirectly affected given SASAC's leverage ratio rules for large SOE borrowers, and the general restrictions around lending to developers; 3) bond financing saw a visible negative impact, especially in the lower-rated segment, owing to the crackdown on shadow credit that restricted options for smaller, private and LG re-financing, and also slowed LG bond financing (Figure 24 and Figure 25); and 4) rising risk aversion, both in the loan and bond markets, particularly as defaults rose and sentiment deteriorated in Q2.

… which is reflected in the divergent trends in the credit components

These impacts are consistent with trends in the credit data (Figure 18 and Figure 19), with both traditional and non-traditional shadow credit tumbling, government bond issuance slowing, and loan growth edging lower. By our estimate, shadow credit growth contributed 2.5pp to the 2.8pp slowdown in BACA growth in the year to July, while government bonds and bank loans exerted drags of 0.6pp and 0.3pp, respectively, and corporate bond financing added 0.6pp, partly reflecting a low base for the y/y comparison (Figure 18).

The pace of OBS lending returning to loan books will be slower than expected due to other regulatory constraints…

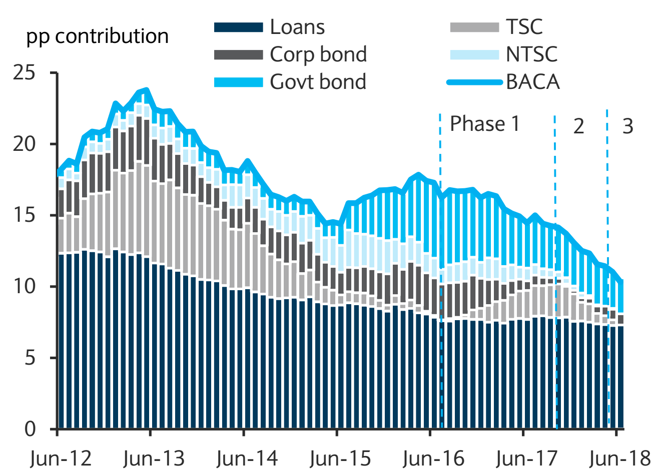
The sluggish growth in loans is in contrast to the expected pickup, given the intention of the regulations was to gradually bring off-balance-sheet (OBS) lending onto balance sheets. We note that under the approach we used in *China: Alternative credit aggregates*, we estimate that outstanding traditional and non-traditional shadow credit in the form of NSCAs amounted to about CNY36trn at end-June 2018, which could result in significant refinancing pressure as FIs continue to unwind these instruments. Moreover, in practice, several major constraints (eg, capital adequacy ratios, loan quotas, lending restrictions, rising risk aversion) have limited the banks' on-balance-sheet credit creation, and would require more regulatory easing to improve the money and credit transmission channels.

… some of which have been addressed by recent targeted easing measures

Indeed, some of the vulnerable areas discussed above are exactly the targets of the credit-supportive moves by the PBoC and CBIRC during June-July 2018 (Figure 9). The recent measures eased some financing pressures, by allowing banks more flexibility in unwinding their shadow banking businesses and offering banks incentives to expand their lending to SMEs and buy more lower-rated corporate bonds.

FIGURE 18

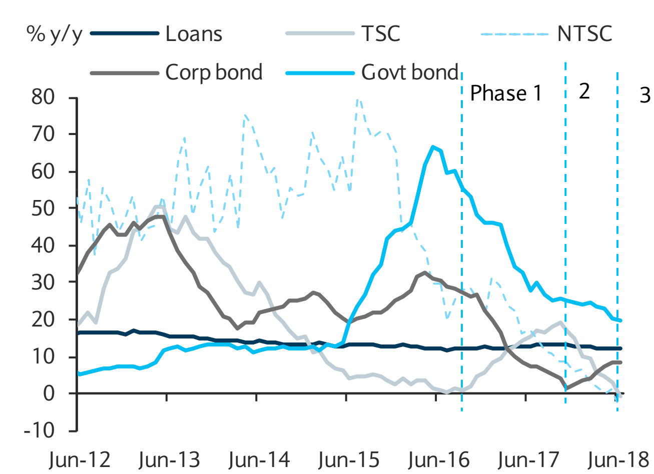
Broad credit growth breakdown



Source: Wind, Barclays Research

FIGURE 19

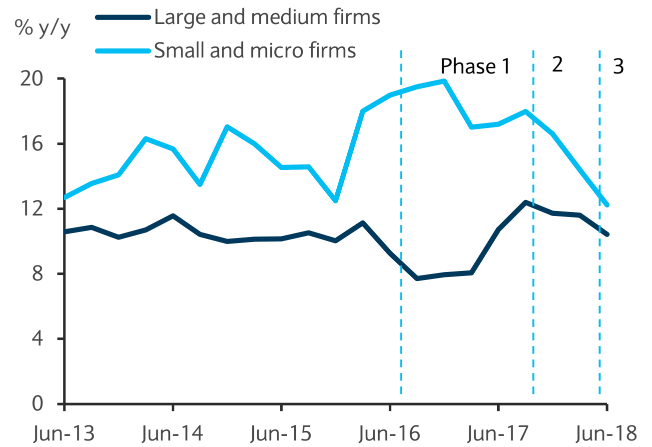
Broad credit growth, components of BACA



Source: Wind, Barclays Research

FIGURE 20

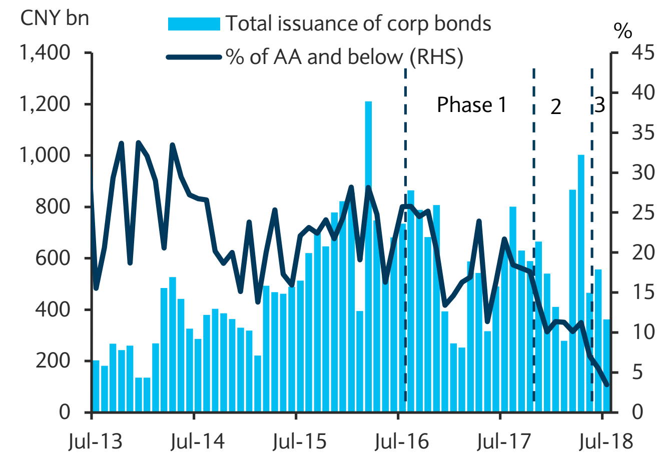
SME lending slowed: Loans by firm size



Source: Wind, Barclays Research

FIGURE 21

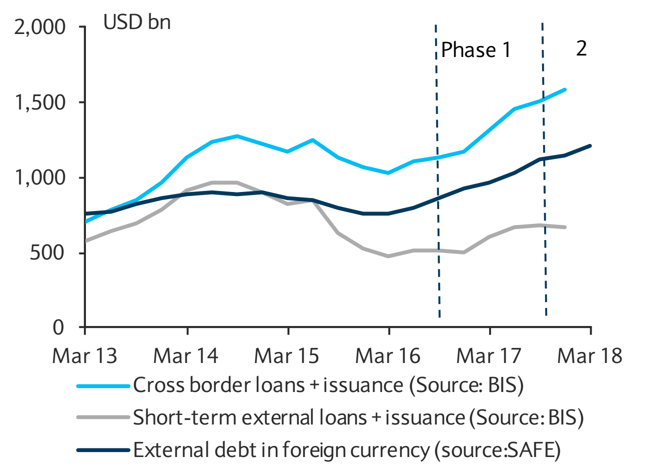
Lower-rated bond issuance tumbled



Source: Wind, Barclays Research

FIGURE 22

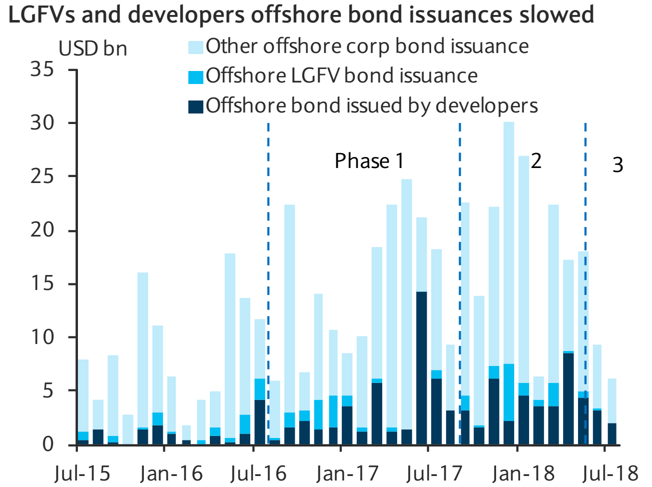
External debt increase has picked up pace



Source: Wind, Barclays Research

FIGURE 23

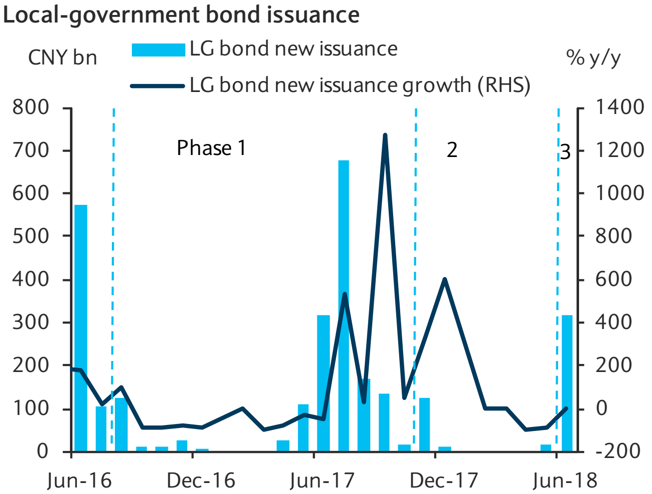
LGFVs and developers offshore bond issuances slowed



Source: Wind, Barclays Research

FIGURE 24

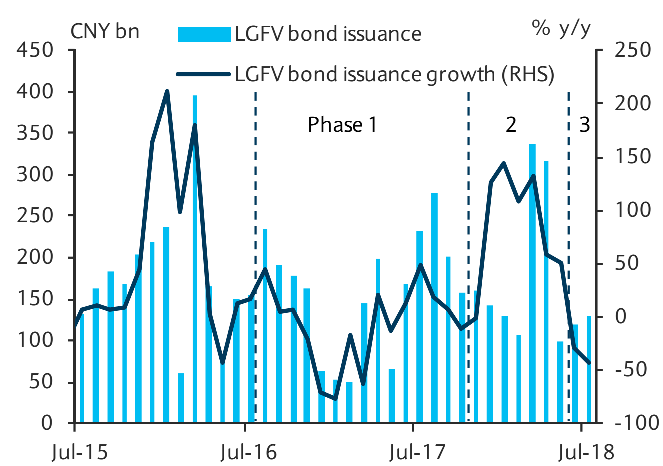
Local-government bond issuance



Source: Wind, Barclays Research

FIGURE 25

LGFV bond issuance



Source: Wind, Barclays Research

Credit crunch threatens growth stability

Credit deceleration matches slowing domestic demand in 2017

In contrast to some observations, we think the relationship between credit and economic growth continues to hold…

In hindsight, the deleveraging campaign's negative effects on growth were visible in 2017, with both BACA broad credit growth and China's domestic demand slowing meaningfully, although official TSF growth was largely stable and headline GDP growth held up. We believe the relationship between credit and growth in China continues to hold (although China's transition to a consumption-led economy is gradually changing this relationship), when looked at using suitable indicators for comparisons, in contrast to the view that the link between China's credit impulse and growth weakened in 2017 ("Sizing Up China's Debt Bubble," Bloomberg, 28 February 2018).

…as BACA growth and domestic demand both weakened in Phase 1

Specifically, growth in our Barclays Alternative Credit Aggregate slowed markedly in 2017, falling from peak of c.18% y/y in April 2016 to 13% in December 2017 (Figure 18). This is in contrast to the official TSF growth, which was steady at c.13% during most of H2 17, before nose-diving in December 2017. This deceleration in credit growth coincided with a 1pp decline in domestic demand's contribution to GDP growth, which fell to 6.3pp in 2017 from7.3pp in 2016, according to NBS data, evidencing the relationship between credit and GDP growth. Within domestic demand, investment's contribution to GDP growth fell 0.7pp in 2017, to 2.2pp, from 2.9pp in 2016.

Phase 2 saw a sharper slowdown in credit growth and domestic investment, especially infrastructure investment

In Phase 2, the stronger deleveraging efforts across all government agencies, and its cumulative effects, finally dragged down the official TSF growth, resulting in a more visible credit crunch and investment deceleration in Q2 18. BACA growth continued to slow and fell to a new low of 10.3% y/y in June. [1] TSF growth fell from the recent peak of ~14% y/y in March 2016, to 12% by December 2017 and to 9.8% in June 2018. Meanwhile, infrastructure investment growth tumbled to 3.3% y/y in H1 18, partly reflecting the NBS' efforts to improve data accuracy, including an effort to gradually downward adjust the earlier inflated infrastructure investment figure, in our view. In our view, the significant policy-induced credit crunch in Q2 threatened financial and growth stability, and required some policy unwinding and easing measures to stabilise investor sentiment and investment growth.

Credit impulse remains a useful indicator for credit-intensive "old economy"

Our credit impulse measure is a useful leading indicator for the Li Keqiang index and the NBS manufacturing PMI

To examine the effects of slowing credit growth on the economy, in *China: Another turn in the credit cycle*, 13 July 2017, we introduced a credit impulse measure for China[6] and examined the relationship between the credit impulse and economic indicators, including investment, the PMI and GDP growth. We found that the BACA credit impulse appears to have tracked some of the economic indicators well, and lead the Li Keqiang index by six months and the NBS manufacturing PMI by nine months (Figure 26 and Figure 27). It tends to move in sync with infrastructure and SOE investment.

The H1 credit impulse suggests PMI could fall below 50 by the end of this year

While the lead-lag relationship tends to vary across indicators, we think the credit impulse provides useful information about the direction of the economy, particularly the credit-intensive "old economy." The reasonably strong correlations between the BACA credit impulse and selective indicators during this deleveraging-driven downcycle suggest that we could see a further moderation in the NBS manufacturing PMI in the coming months. Based on the historical relationship between the two indicators, we estimate that the PMI could fall to about 50 by end-2018. Furthermore, given that the BACA credit impulse fell into

[6] The credit impulse is calculated as the difference between the change in credit stock between month t and month t-12 (scaled by nominal GDP over period t-12 to t), and the change in credit stock between month t-12 and month t-24 (scaled by nominal GDP over period t-24 to t-12), i.e.

$$\text{credit impulse} = \frac{\text{Credit stock}_t - \text{Credit stock}_{t-12}}{\text{GDP}_{t-12,t}} - \frac{\text{Credit stock}_{t-12} - \text{Credit stock}_{t-24}}{\text{GDP}_{t-24,t-12}}$$

contraction territory in H1, our analysis suggests that it could be difficult for government to achieve its growth target of c.6.5% in 2018 without more policy loosening.

We expect the slowdown in broad credit growth to ease in H2 on policy fine-tuning

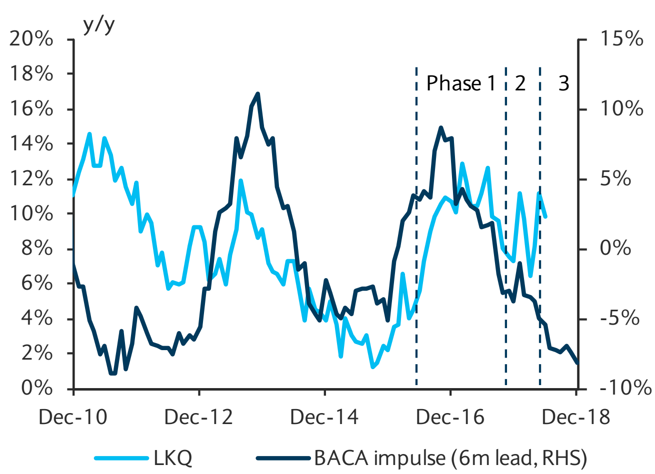
We think it was this risk that prompted the 23 July State Council and the 31 July Politburo meetings to send clearer messages on easing, calling for fiscal measures to stabilise investment and demand, while remaining committed to deleveraging at a measured pace. In light of the recent policy fine-tuning, we expect the slowdown in BACA growth to ease to c.10% in Q3 and c.9.5% in Q4 (Q2: 10.9%, Q1: 12.1%). Given the slower pace of decline in BACA growth, we forecast the credit impulse will remain subdued in Q3 and recover in Q4, although we expect it to remain in negative territory in H2. This suggests investment is likely to remain weak in Q3 before rebounding in Q4. Reflecting this, we maintain our 2018-full year growth forecast of 6.7%, with risk tilted slightly to the downside owing to possible escalation of the US-China trade dispute.

We see two risk scenarios – one optimistic and one pessimistic

Given the uncertainties involved in forecasting credit impulse, we present two risk scenarios: 1) an optimistic scenario that assumes credit growth stabilises at current level; and 2) a pessimistic scenario that assumes credit growth continues to slow at the same pace as in H1. Under our optimistic scenario (Figure 1, BACA credit impulse 2), we expect the credit impulse to start to recover in Q3 and improve in Q4 18, and reach roughly the year-earlier growth rate. This should, in turn, support investment and growth. Under the pessimistic scenario (Figure 1, BACA credit impulse 3), we expect the credit impulse to continue to decline in Q3 and Q4, and put downward pressure on investment and growth in H2.

FIGURE 26

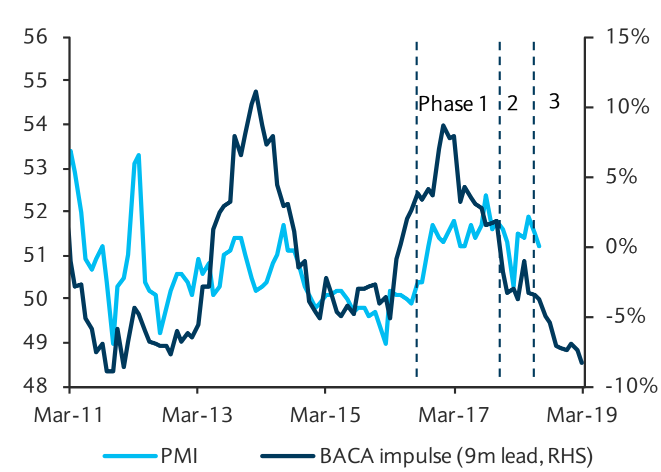
Credit impulse vs the NBS PMI



Source: Wind, Barclays Research

FIGURE 27

Credit impulse vs the Li Keqiang Index



Source: Wind, Barclays Research

Box 3: Policy actions: from deleveraging/tightening to fine-tuning

To analyse the government's intentions behind its policy actions, we divide the deleveraging campaign into roughly three phases (Figure 5 and Figure 8):

- **Phase 1: August 2016 – October 2017 (deleveraging the financial system)**

High leverage and arbitrage in the interbank and bond markets were the main target in this first phase, in our view. The PBoC launched monetary and regulatory tightening to push deleveraging of the financial system, in particular during H2 16 and Q1 17. Notable actions included: 1) raising policy rates and maintaining tight liquidity; and 2) adding interbank and off-balance-sheet items into its newly launched Macro-prudential Assessment (MPA) framework. At the same time, the bank regulator (CBRC) rolled out a series of tightening guidelines that targeted off-balance-sheet and interbank financing activities, as represented by the '3-3-4' campaign'[7] launched in March-April 2017. For a detailed discussion, see Box 1 of *China: Evaluating financial deleveraging*, 19 March 2018.

- **Phase 2: November 2017-May 2018 (deleveraging extended to the real economy sectors)**

After a consensus among policymakers was reached for "preventing and defusing major risks" to be the objective in July 2017, more government bodies joined the deleveraging campaign, targeting the three areas – financial irregularities, LG/SOE debt and the housing market. We list the most restrictive and representative tightening actions by regulator below, in order to help assess the effects of deleveraging in the next section. First, regulatory tightening of the asset management businesses (proposals unveiled in November 2017, draft released in April 2018, implementation details amended in July), which was a major shadow financing channel for local governments (LGs) and developers. In this respect, the CBIRC also tightened rules on trust and entrusted loans. Second, the MoF has tightened guidelines on LG debt management since H2 17, including a clean-up of PPP projects, which led to the cancellation of 1,160 such projects during December 2017-March 2018. Third, the MoF's Article 23 (March 2018), which prohibits state-owned banks from providing any form of funding (including shadow credit) directly or indirectly, via SOEs or LGFVs, to local governments; . Fourth, the NDRC issued guidelines (May 2018) to manage external debt risks and restrict offshore USD bond issuance by LGs and developers.

- **Phase 3: June-July 2018 (policy priority shifted from deleveraging to stabilisation)**

As the deleveraging campaign resulted in falling credit growth, rising risk premiums and increasing defaults, threatening growth and financial stability, we believe the pace of policy fine-tuning has accelerated since late June. This has seen the financial regulators trying to address some of the issues restricting credit creation, while at the same time the government has been calling for more concerted efforts to support growth. Key actions include:

1. (to provide more liquidity) the PBoC cut banks' RRR and expanded its Medium-term Lending Facility;
2. (to reduce risk aversion) the PBoC broadened the collateral eligible MLF loans to include lower-rated bonds and used access to additional MLF funds to offer banks an incentive to increase SME lending and invest in lower-rated bonds. In addition, the CBIRC has been guiding banks to lower the financing costs of SMEs;
3. (to give more flexibility in unwinding shadow lending) the PBoC and CBIRC loosened implementation details related to the New Asset Management Guidelines;
4. (to ease capital restrictions on loan growth) the PBoC adjusted its MPA structural parameters to create room for loan growth, and reportedly expanded loan quota; and
5. the State Council and Politburo meetings urged a more expansionary fiscal policy and a need to ensure liquidity to support infrastructure projects and reasonable LG financing.

[7] The so-called '3-3-4' campaign refers to an industry-wide inspection launched by the CBRC in March-April 2017, which aimed to clamp down on illegal and irregular banking conduct and practices. Based on a series of directives issued by the CBRC, "3-3-4" classifies the types of activities targeted by regulators: three areas of violations (in laws, regulations, and bank's own ordinances; three types of arbitrage (regulatory, interbank, and related-party arbitrage); and four areas of misconduct (in transactions, compensation, fee charges and innovation).

Appendix 1

Official comments on deleveraging

Officials	Select quotes
The Politburo meeting 31 Jul	· China will enhance policy coordination and take targeted measures to address the challenges. The Politburo emphasized continued focus on reducing debt but will carefully control the pace and strength of deleveraging measures and coordinates policies.
FSDC The second meeting 03-Aug	· "Currently, financial conditions are generally improving and the macro leverage ratio is stabilising. Market expectations have changed - financial institutions are more aware of compliance, and steps have been made to contain rapid expansion and illegal fundraising activities in the financial sector."
FSDC The first meeting 03-Jul	· "China is fully capable of tackling major financial risks and will push forward with its preset plan." · “Structural deleveraging is advancing in a well-ordered manner, highly risky financial businesses are shrinking, rampant expansion of some institutions has been restrained, and financial disorder has been contained.”
Guo Shuqing (Chairman of CBIRC) Lujiazui Forum 14-Jun	· “We should take timely and forceful actions to prevent financial risks.” · “The prevention and mitigation of financial risks is not only a tough battle but also a protracted one.” · “We can endure certain costs when tackling financial risks.” · “Financial regulators have prioritized State-owned enterprise and local government deleveraging.” · “With the rapid growth of shadow banking and cross-sector financing, the administrators have started to crack down on irregular financial activities and stemmed the flow of banking and insurance funds from the real economy to financial markets.” · “As for interbank business, regulators should target interbank WMPs and investment, and focus less on interbank deposits and interbank certificates of deposits.” · “The entrust loans and trust loans have not been regulated until the beginning of this year.” · “Priority concerns of Chinese leaders to fight financial risks include accelerating the adjustment of corporate structures and establishing a responsibility and financial loss sharing mechanism among enterprises, banks and the government.” · “It is also important for the country to properly handle corporate debt defaults by implementing differentiated financial policies for different companies based on their state of operation.”
Guo Shuqing Meeting of CBIRC 29-Mar	· A statement after the meeting noted that the newly formed authority, CBIRC, would “steadily drive reductions in enterprise leverage ratios, dismantle shadow banking, firmly strike against illegal financial activities, curb the trend of real estate bubble formation, cooperate in the rectification of hidden local government debt and strengthen various forms of risk prevention and dissolution”
Yang Weimin 05-Jul	· “Chinese government could de-emphasize GDP growth targets” · “China should continue to push forward supply-side reform as long as there is no economic or financial crisis.”
Yang Weimin Lujiazui Forum 14-Jun	· “Preventing and defusing financial risks is one of the top three “tough battles over the next three years.” · “Financial regulators, state-owned enterprise regulators, real estate regulators, and local governments should work together to win the battle of preventing and defusing financial risks.” · “It is necessary to accelerate the risk elimination pace as the real estate market has accumulated some risks previously”.
Yang Weimin Interview during NPC 05-Mar	· Yang said that slower growth is a natural process for a country that has experienced rapid economic expansion and there is no need to panic about the moderation in the GDP growth rate. China will continue to foster stable growth, push forward supply-side reform, resolve major financial risks, properly deal with local government debt and promote healthy development of the property market.
Vice Premier Liu He Official meeting 15-May	· He called for “establishing a comprehensive regulatory system to ensure that all of society understands that 1) doing business means having capital, 2) borrowing money means making repayments, 3) investment means undertaking risk, and 4) doing bad things means paying a price.”
Liu He 27-Mar	· "Prevention of financial risk is a top priority. We must strengthen the overall coordinating role of the State Council’s Financial Stability and Development Commission, and tackle the financial risks at a controlled pace.”
Central Financial and Economic Affairs Commission 02-Apr	· The statement noted that its top priority is to solve problems that may threaten economic and social stability and trigger systemic risks. It noted a need to adhere to stability and progress. · “Local governments and enterprises, especially state-owned enterprises, should reduce their leverage as soon as possible, and strive to achieve a stable and gradual decline in the macro leverage ratio.”

Note: The text inside quotation marks was translated by the authors. FSDC is short for Financial Stability and Development Committee. Yang Weimin is the former deputy director of the Office of the Central Financial and Economic Affairs Commission Source: China Daily, Xinhua, Barclays Research

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