

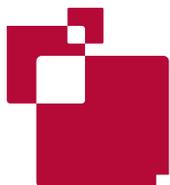
A COMPELLING CASE FOR CHINESE MONETARY EASING

GUONAN MA

Highlights

- Chinese monetary policy was excessively tight in 2014 but started loosening in late 2014, in an attempt to cushion growth, facilitate rebalancing, support reform and mitigate financial risk.
- There are three main reasons for this policy shift. First, there is evidence that the Chinese economy has been operating below its potential capacity. Second, among the big five economies, China's monetary policy stance and broader financial condition both tightened the most in the wake of the global financial crisis, likely weighing on domestic growth. Third, a mix of easy monetary policy and neutral fiscal policy would serve China best at the current juncture, because it would support domestic demand and help with the restructuring of China's local government debts, while facilitating a move away from the soft dollar peg.
- Such a warranted shift in monetary policy stance faces the challenges of uncertain potential growth, a more liberalised financial system, an evolving monetary policy framework, the legacy of excess leverage and a politicised policy debate.

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A COMPELLING CASE FOR CHINESE MONETARY EASING

GUONAN MA, APRIL 2015

BACKDROP TO THE CHINESE MONETARY POLICY DEBATE

Monetary policymaking can be tough and even controversial, as illustrated by discussions about whether and how the European Central Bank ought to pursue quantitative easing (Claeys *et al*, 2014) and whether and when the US Federal Reserves should start normalising.

Similar discussions started to heat up in mid-2014 about China's monetary policy stance (Ma, 2014a). They centred on the question of whether Chinese monetary policy was excessively tight at that time and thus ought to be eased in a timely and meaningful way. From late 2014, the People's Bank of China (PBC) apparently started to act more decisively to ease its monetary policy, most notably its two rate cuts and another broad reserve requirement ratio (RRR) cut during late 2014 and early 2015. Did the PBC make a big mistake, perhaps by succumbing to political pressure from vested interests? My view, in short, is no, as I will try to make a case for Chinese monetary accommodation in the rest of the paper.

This policy debate also broadened, sometimes in a confusing manner, to encompass the question of whether China should persist with painful but eventually rewarding economic reform or ease monetary policy to stabilise growth.

There are two views on this (Sina Finance, 2014). One camp believes that monetary accommodation hampers economic reform, worsens the structural imbalances in the Chinese economy and promotes unsustainable short-term pseudo-growth at the expense of sustainable long-term development. This camp's main arguments appear to be that reforms and structural adjustments are necessarily painful and that the recent economic slowdown is simply structural and healthy. According to this view, demand-side factors matter little in the recent

Chinese growth slowdown. Thus, an accommodative monetary policy is unwarranted and at odds with reform and restructuring. Instead, monetary easing is not only a show of no confidence in reform but also an attempt to sabotage reform. In short: no pain, no gain.

The less ideologically driven arguments point to a still buoyant Chinese labour market in spite of weaker growth as evidence for an economy near its lower growth potential. A shrinking Chinese labour force, a possible Lewis Turning Point, a bigger job-intense service sector and the attendant slower total productivity growth might all combine to trim underlying growth potential consistent with non-inflationary full employment (Ma, McCauley and Lam, 2012). Therefore, slower headline GDP growth can still be compatible with an economy operating at or near full capacity, questioning any need for monetary accommodation. Such concerns are valid and will be addressed in this paper.

The opposite, easing camp thinks that sensible, nimble monetary easing complements economic reform, cushions growth, facilitates structural adjustment and mitigates financial risk. Reform is not a sacred cow but a means to improve living standards for the majority of the Chinese population. And economic reform calls for sensible shifts in the monetary policy stance in response to business cycles. The Chinese economy is unbalanced, but one doesn't need to strangle it in order to rebalance it. On the contrary, an excessively tight monetary policy could aggravate structural imbalances.

According to the easing camp, the Taylor rule, the Mundell-Fleming model and the global beauty contest of monetary easing among G5 central banks (the US Federal Reserves, PBC, Bank of Japan, European Central Bank and Bank of England) all suggest an excessively tight monetary policy stance for most of 2014 and thus a need for a meaningful Chinese monetary relaxation. Both cyclically and

structurally, the case for timely and measured monetary accommodation is strong.

This controversy in China looks odd, especially viewed through the lens of the US, the euro area and Japan, where the consensus view among policymakers is that both aggressive demand-support policy measures and strong structural reforms on the supply side should go hand-in-hand. And why not? So the really puzzling question to begin with is why one should have to make a stark choice between them instead of sensibly combining the two. In my view, a healthy Chinese economy needs both structural reforms on the supply side to enhance potential growth, and a nimble monetary policy to exploit the potential and mitigate possible headwinds on the demand side.

To put the policy controversy into perspective, one might wish to first better understand the broader backdrop for the Chinese economy briefly sketched here. The debate over monetary policy took place against a complex background of many moving parts, such as diverging global monetary policies, volatile cross-border capital flows, slower domestic economic growth, falling domestic inflation, painful economic rebalancing, a gathering pace of financial liberalisation, signs of increased financial stress and an evolving monetary policy framework.

After three decades of double-digit growth from 1980-2010, the Chinese economy embarked on a transition to a new phase of its development in the wake of the Global Financial Crisis (GFC) (Ma, McCauley and Lam, 2012). This transition features a slower pace of growth, a shrinking current account surplus, and a catching-up service sector. GDP growth slowed from 10 percent averaged during 2000-2010 to 8 percent during 2011-2014 and is expected to decelerate further to 7 percent in 2015, while the current surplus fell from 10 percent of GDP in 2007 to 2 percent in 2014. Such external rebalancing is attained mostly through an even more lop-sided internal imbalance of a higher investment ratio and rising leverage.

In the midst of the heated monetary policy debate, the PBC since mid-2014 has no doubt started loosening its monetary policy, initially tentatively and later more forcefully. Is such a policy shift warranted and desirable? My answer is yes. I think that at the current juncture, a strong case can be made for meaningful Chinese monetary easing based on the following three sets of arguments, which the rest of this paper discusses in turn.

First, the standard Taylor rule suggests an excessively tight Chinese monetary policy stance for most of 2014, even if we take slower potential into consideration. Second, after the GFC, the PBC monetary policy stance tightened the most among the big five (G5) central banks, and the broader Chinese financial condition also became most restrictive among the corresponding G5 economies. Third, the classical Mundell-Fleming model suggests a sensible mix of easy monetary policy and neutral fiscal policy, as China is gradually moving towards greater currency flexibility, incremental capital opening and tighter local fiscal conditions.

A TAYLOR-RULE PERSPECTIVE

First, we look at the case for monetary easing in terms of inflation, output and financial stability objectives within the standard Taylor-rule framework. There is a broad consensus among economists that Chinese growth has been losing momentum in recent years (Figure 1). There have been clear signs of rising inventories, slumping property sales, falling CPI inflation, deepening producer price deflation, weakening corporate earnings, slowing investment and anaemic industrial production. Private consumption is still holding up, but just barely and may show early signs of weakening. If anything, some market commentators even suspect that the Chinese official headline GDP numbers overstate the underlying growth momentum (Nakamura, Steinsson and Liu, 2015).

An immediate question therefore is: if Chinese monetary policy was too tight for most of 2014, too tight relative to what?

'A healthy Chinese economy needs both structural reforms on the supply side to enhance potential growth, and a nimble monetary policy to exploit the potential and mitigate possible headwinds on the demand side.'

As a starting point, most economists and central bankers use the well-known Taylor rule to assess the central bank policy stance (Taylor, 1993). A standard Taylor rule essentially links a short-term nominal policy rate to two gaps for a given inflation target and real long-run equilibrium interest rate consistent with trend growth: the gap between actual and targeted inflation ('the inflation gap') and the gap between actual and potential output ('the output gap'). A positive output or inflation gap, or both, suggests a need to tighten by hiking the policy rate. If the actual policy rate is below that implied by the Taylor rule, the policy stance is considered too accommodating. If the actual policy rate is above that implied by the Taylor rule, the policy stance is considered too restrictive.

In reality, many factors help shape this 'Taylor rate' – hence the controversy in China over how tight the PBC monetary policy was before the latest monetary relaxation. In this light, three useful questions can be highlighted. What weight does the PBC attach to inflation? Has the Chinese economy been operating near full capacity? How should one gauge the monetary policy stance of the PBC?

First, how important is inflation relative to other policy objectives? The PBC for sure is no official inflation targeter, flexible or otherwise. The 1994 Chinese central bank law explicitly stipulates the PBC's four policy objectives: price stability, employment, economic growth and balance of payments. In practice, financial stability and credit allocation are also high on the PBC agenda. However, Girardin, Lunven and Ma (2014) estimate the PBC monetary policy reaction function and conclude that inflation

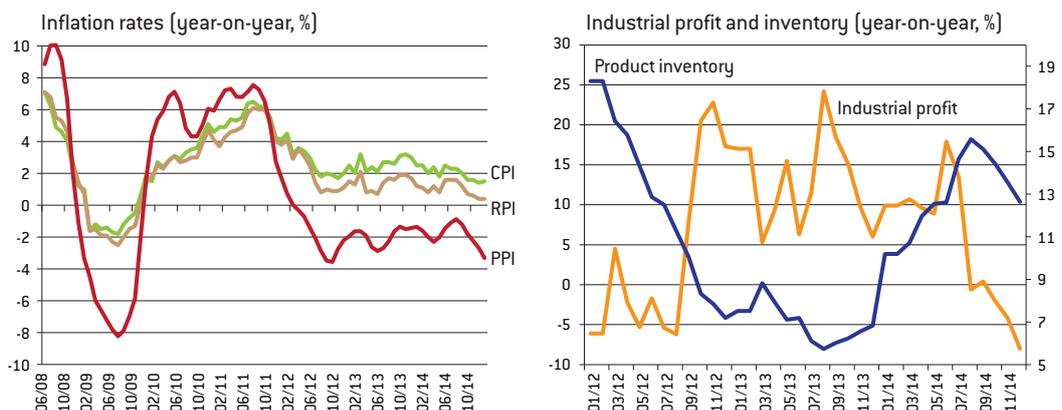
has been given greater weight relative to output from the 2000s. This was more so after the start of the Zhou Xiaochun PBC governorship in 2001.

Chinese CPI inflation fell noticeably, from an average 2.5 percent in 2013 to 2.2 percent in the first half of 2014 and further down to 1.8 percent in the second half of 2014, below the official 2014 target of 3.5 percent. It even sunk to around 1 percent in the first quarter of 2015, the lowest in five years. Retail prices also paint a broadly disinflationary picture. Producer prices have even registered outright deflation for more than two years (Figure 1). The pronounced disinflationary pressure emerged well before the collapse of international oil prices starting from the third quarter of 2014. In my view, inflation in China nowadays is probably too low for comfort. According to the famed Taylor rule, therefore, the PBC ought to ease monetary policy, all other things being equal.

Indeed, the intensified disinflation or even outright deflation pressure since early 2014 helped push up real interest rates even as the nominal policy rate stood still at a time of weakening growth. The first half of 2014 also witnessed rising nominal Chinese government bond yields. One can debate whether the deflation pressure is of a good or bad variety, but by doing nothing the PBC would imply a de-facto tightening of its monetary policy, which might have contributed to slower economic growth on the demand side beyond what is justified by the structural trends on the supply side.

Second, is the Chinese economy operating near full employment or potential? This is a tricky question.

Figure 1: Chinese inflation, industrial profit and inventory



Source: Bruegel.

The economic slowdown might simply reflect lower potential growth, which could arise from rebalancing pains, demographic headwinds, less low-hanging fruit in market liberalisation and a less accommodating global economy (Ma, McCauley and Lam, 2012). Unfortunately, Chinese growth potential, while likely trending lower, is not directly observable, and estimates of it can be elusive and with big margins of error (Morley, 2014; Ma and Hong, 2015; Blagrove *et al*, 2015). Some Chinese labour statistics seem to suggest that employment has held up well, as wages are still rising. Thus, weaker growth might not necessarily imply a widening negative output gap and rising unemployment, and hence there would be no case for policy easing.

In the absence of more consistent, reliable and accurate estimates of the underlying Chinese potential growth rate, what can help inform us about the likely output gap? In my view, the persistent and intensifying disinflationary and even deflationary pressures at a time of marked deceleration of economic growth are the most telling signs that the Chinese economy is operating well below its potential capacity. It adds to the already high real corporate debt burden, especially for Chinese manufacture borrowers.

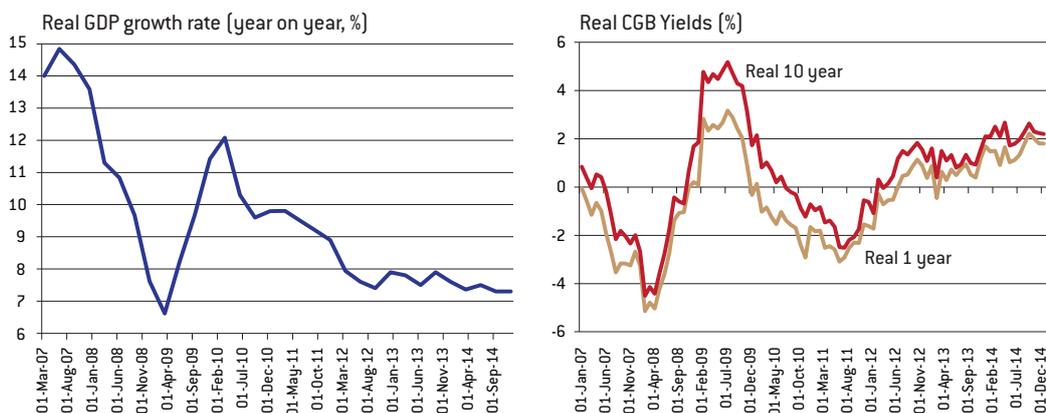
Still, rapid wage hikes and an apparent lack of corporate pricing power might also combine to hurt corporate earnings, resulting in declining returns on capital and thus weaker private investment spending. Rising real interest rates will tend to punish more the most productive and interest-rate sensitive sector in the Chinese economy: the small,

private firms. Thus lower rather than high nominal and real interest rates are warranted.

Moreover, it is not clear whether the reported buoyancy of the headline Chinese job market mainly refers to the unskilled segment only or broader labour market conditions. First, labour market data has been known to be the weakest link in Chinese statistics (Amstad, Ye and Ma, 2014; Ma, McCauley, Lam 2012). In addition, the starting salary for Chinese university graduates has appeared to be stagnant in recent years. Further, the latest Chinese MPI employment sub-index shows early cooling signs in the labour market. In fact, the first two months of 2015 already witnessed a sharp slowdown in new non-farm jobs. One might reasonably expect a much softer Chinese labour market in the rest of 2015. Therefore, monetary policymakers ought to anticipate rather than wait.

Whichever way one argues, slower potential economic growth should ultimately point to a lower real equilibrium or natural rate of interest, as assumed by the Taylor rule. Yet, oddly, what we witnessed instead was fast rising real borrowing costs for Chinese firms and home buyers amidst slowing growth, until the PBC acted more decisively to ease its policy stance from around mid-2014 (Figure 2). This rise in the ‘risk-free’ interest rate was a combined result of falling inflation and rising government bond yields: between 2012 and mid-2014, the 10-year Chinese government bond yield rose from 2.5 percent to 4.5 percent, as CPI fell from 4 percent to 2.5 percent. Therefore, a less stringent monetary policy stance is called for, whether the recent growth slowdown is structural or cyclical.

Figure 2: Real Chinese GDP growth and government bond yields



Source: Bruegel based on Bloomberg and CEIC.

In short, on the grounds of both ‘inflation gap’ and ‘output gap’, the Taylor rule recommends a shift towards a less restrictive monetary policy stance. Unless, of course, financial stability concern ranks higher on the PBC agenda. A too-low interest rate could fuel unsustainable shadow banking expansion, excess leverage and asset price booms. China has experienced a massive credit binge since 2007, with total credit to the non-financial private sector, including the fast expanding shadow banking, rising from 120 percent of GDP in 2007 to 180 percent in 2014 (Figure 3). If central and local government debts are included, the overall leverage in China could approach 250 percent of GDP. Thus an excessively loose policy could potentially add to the already growing financial imbalances.

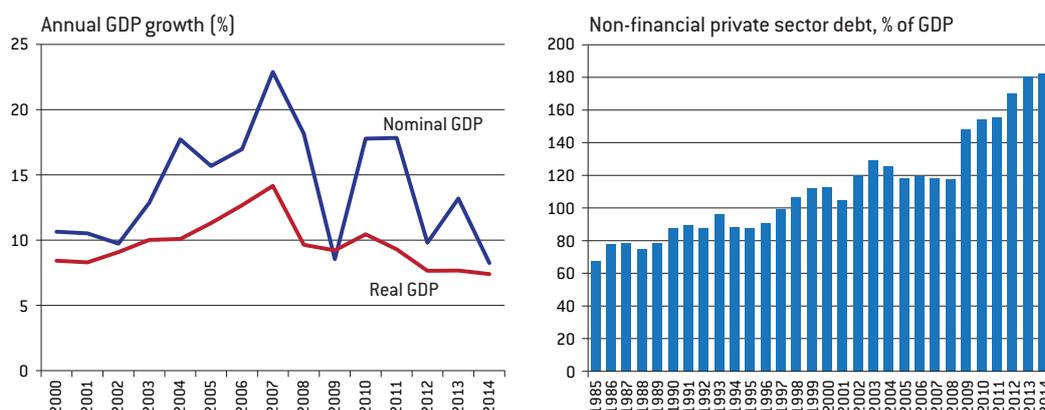
Nevertheless, excessively tight monetary conditions could also run the risk of a disorderly deleveraging. First, our knowledge about effects of monetary policy to lean against the wind for financial stability reasons is still limited, which could involve the less understood complex dynamics of intertemporal cost-benefit trade-offs (Ajello *et al*, 2015; Svensson, 2015). Second, macroprudential measures rather than monetary policy might be a better instrument in dealing with financial stability issues in most cases (Claeys and Darvas, 2015). Third, as nominal GDP slowed down from the 15-20 percent range in the 2000s to some 10 percent in the 2010s so far (Figure 3), an excessively restrictive monetary policy could most likely aggravate the already rising debt-service pressures rather than mitigating them and indeed could instigate a dangerous debt deflation spiral.

In any case, while the standard Taylor rule is silent on the weight placed on financial stability relative to that on both output and inflation, the increased financial stress, as witnessed by rising non-performing loans, more debt defaults and increased last-minute bailouts of troubled borrowers, intuitively calls for a more accommodative monetary policy to assist the tricky deleveraging process. Sticking to a tight policy in the face of increased financial fragility makes little sense.

Third, how can one tell whether the PBC has or has not loosened, after all? Gauging the Chinese monetary policy stance is far from straightforward (Girardin, Lunven and Ma, 2014; Ma, Yan and Liu, 2012). Essentially, the PBC has pursued a three-pronged target of money supply, domestic interest rate and exchange rate, defying any simple interpretation of its policy stance. Also, in contrast to most central banks in advanced economies, the policy rate is but one of many instruments in the PBC’s toolkit. The PBC had traditionally deployed multiple tools, including window guidance, soft loan quotas, regulatory rules, reserve requirements, issuance of PBC bills, open market operations, relending and interest rates, both market and administered — the interactions of which could reinforce or offset the policy effect (Ma, Yan and Liu, 2012).

Moreover, for most of 2014, the PBC shunned most of its traditionally favoured instruments and instead experimented with new policy tools. It suspended new issuance of PBC bills altogether from end 2013, stopped conducting regular open market operations for more than one year, and

Figure 3: Nominal and real GDP growth and private-sector debt in China



Source: Bruegel based on BIS and CEIC.

tested a few new weapons in its arsenal, such as the 'Short-term Liquidity Operations' (SLO), 'Standing Lending Facility' (SLF), 'Medium-term Lending Facility' (MLF), 'Pledged Supplementary Lending' (PSL) and 'Pledged Relending' (PRL), probably in an attempt to influence market-based interest rates in an environment of volatile two-way capital flows and more liberalised interest rates. The pros and cons of these new instruments aside, most PBC watchers find it harder than before to read the underlying PBC monetary policy stance.

Further, the PBC often communicated its policy stance in a confusing manner. Its policy statements are opaque and difficult to decode even for seasoned PBC watchers. The PBC has a history of intentionally surprising, shocking and sometime even misleading the market, which should be taken as a sign of low confidence on the part of the Chinese central bank. While many OECD central banks nowadays provide 'forward guidance' to reinforce and amplify the impact of monetary policy on the full market yield curve, by communicating to the public about the expected future path of the policy rate, the PBC appears to often dilute what it has just done, by issuing puzzling 'backward guidance', cautioning the market not to interpret its latest rate and RRR cuts as monetary easing (Ma, 2015).

Nevertheless, the signs of monetary easing since mid-2014 have been plenty and beyond doubt. Initially, the PBC selectively lowered its RRR and extended loans to small banks and policy banks via its refinancing facilities. It has even leaned on commercial banks to lend more to first-time home buyers at official mortgage rates. Liquidity has also been injected via its new facilities in an apparent attempt to keep a lid on the interbank interest rates. From late 2014, the PBC finally acted more decisively, by cutting outright benchmark bank deposit and lending interest rates and RRR. Some of these belated moves aimed to offset the tighter domestic liquidity arising from increased dollar outflows and thus may not be as expansionary as they look. Nevertheless, in combination, these moves must be interpreted as meaningful monetary relaxation.

The PBC can be more forthright in communicating its desire to hit lower and steadier short-term or

even mid-term rates, paving the way for the transition to a new monetary policy regime. A clear and firm PBC policy signal could also help flatten and stabilise the Chinese yield curve, which matters more for investment and consumption decisions. As a minimum, the PBC should avoid diluting the signalling effect of its own new policy moves.

Also, lowering the benchmark 18 percent RRR would help nudge down the long yields by adding permanent liquidity into the system and offsetting the tightening effect of the capital outflows seen in the fourth quarter of 2014, and would also go some way toward mitigating distortions and containing shadow banking by bringing some off-balance-sheet lending back onto the books. Failures to sterilise capital outflows would result in de facto monetary tightening at a time of weakening growth and falling inflation.

More importantly, by acting swiftly and decisively, the PBC can be in a stronger position to tighten again when the cycle turns. Monetary policy measures need to be taken early to counter the headwinds facing the Chinese economy, because it would typically take two to four quarters for a change in policy stance to take effect. Timely policy response is the best way to avoid excessive monetary stimulus. Some academics and investors tend to under-appreciate the fact that the mind-boggling credit binge in late 2008, mostly related to local government borrowing, was in part a sad response to the already emerging panic partially triggered by the decisively late monetary policy actions at that time (Tanaka, 2010). Then, much of this belated massive monetary expansion funded quasi-fiscal spending rather than helping cushion the Chinese economy via standard channels. So this time, China ought to ease in a timely way.

To sum up, in light of growth, inflation and financial stability, the standard Taylor rule suggests that China ought to ease its monetary policy in a timely and confident way.

A GLOBAL PERSPECTIVE

So far, I have made a domestic case for monetary relaxation, as our discussion has been mostly framed within the closed-economy version of the Taylor rule. Can a similar case be made for Chinese

monetary relaxation from a global perspective? While China's capital control still binds (Ma and McCauley, 2008 and 2013) and central banks set monetary policy mainly to cater for domestic needs in most economies, the question is still meaningful, because China is the top trader, second largest economy and third biggest creditor nation globally. Of course, China, known for its so-called 'export-led' growth model, hardly qualifies as a closed economy.

Reserve Bank of India Governor Raghuram Rajan has raised concerns about the international spillovers from 'competitive monetary easing' among major central banks (Rajan, 2014). Rajan's concerns make sense. By definition, the world is a closed economy and often dominated by a few major central banks that behave more like price setters than price takers. 'Price' in this context used to be some benchmark short rate only, but in the wake of the GFC also included the fuller yield curve. Thus strong policy measures taken by major central banks ought to produce global repercussions.

This in turn poses the interesting question of how loose or tight China's monetary policy might be relative to its major international peers. In particular, how did the PBC fare in the global race towards monetary accommodation from the 2007 GFC? Has the PBC outdone its global peers in the monetary loosening game? This is a question of global perspective, and there is no better benchmark than the club of the central banks that issue the four constituent currencies of the IMF Special Drawing Rights (SDRs): the US Federal Reserve (Fed), the European Central Bank (ECB), the Bank

of Japan (BoJ) and the Bank of England (BoE).

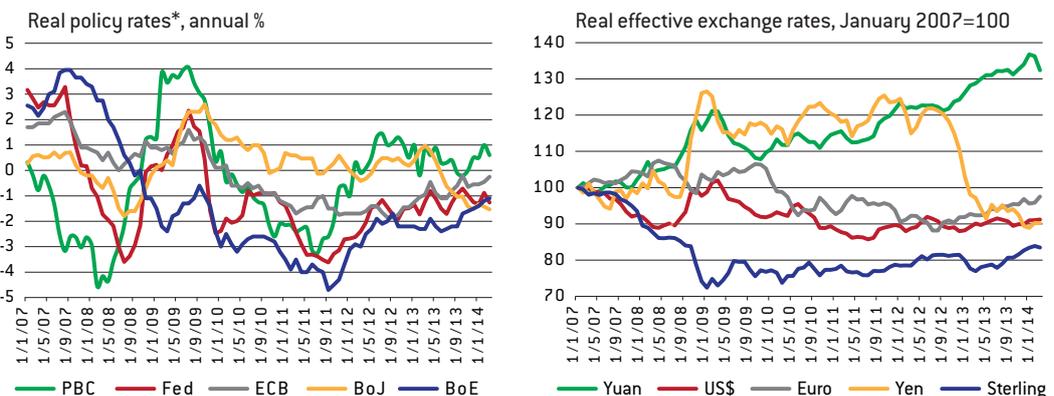
We know that most of these major central banks have substantially expanded their balance sheets in recent years. We also know that China experienced a massive credit binge since 2007. However, to better gauge the relative monetary policy stances of these five major central banks, we need to compare apples to apples more directly.

One way to do so is to look at two key price indicators: the real policy rate and the real effective exchange rate, taking into account three considerations. First, the Taylor rule suggests that the real policy rate should relate to the deviation of actual from target inflation, the output gap and the short-term rate consistent with non-inflationary full employment. Second, the best measure of the global strength of a currency is the real effective exchange rate. Third, these two price indicators interrelate and define the two core aspects of a central bank's monetary policy operations and stance.

Both the real policy rate and real effective exchange rate used here are *ex post*. I define the real policy rate as the policy rate less concurrent CPI inflation. I also use the CPI-based real effective exchange rate compiled by the Bank for International Settlements (BIS). To examine the relative monetary policy tightness of the G5 central banks since the GFC, I focus on the period between January 2007 and March 2014 before the PBC started easing and the US Fed hinted at normalising.

The left panel of Figure 4 shows that all G5 central banks except the PBC have negative real policy

Figure 4: Real policy rates and real effective exchange rates for G5 central banks



Source: Bruegel based on Datastream and BIS. Note: * Policy rate less actual CPI inflation. The official ceiling for the one-year deposit rate is taken as the policy rate of the PBC.

rates. Indeed, the four SDR central banks of the US Fed, ECB and BoE had persistently maintained negative real policy rates during the period, financial repression or otherwise. Even the BoJ managed to push its real policy rate into negative territory after 2013, as inflation rose in the wake of its 'Quantitative and Qualitative Easing'. Some other central banks (National Bank of Denmark, ECB and Swiss National Bank) even impose outright negative nominal policy rates. In any case, China no doubt had the highest real policy rates among the five major central banks during this period.

Of course, unconventional monetary policy went one step further to influence the long end of the yield curve. The exchange rates of the big four SDR currencies were thus indirectly influenced. In China's case, the PBC directly manages both its interest rate and exchange rate to some extent, given the still binding capital controls frustrating cross-border arbitrage. Either way, the real effective exchange rate serves to highlight another important aspect of monetary policy. And sustained and large movements in currencies redistribute growth across the globe.

The BIS real effective exchange rate data reveals that among the G5 currencies, only the Chinese renminbi (RMB) showed sizable appreciation (35 percent) from 2007 to mid-2014 (the right panel of Figure 4). Meanwhile, the other four SDR member currencies (the dollar, euro, yen and sterling) had registered 5 percent to 15 percent real effective depreciation. Note that the yen appreciated noticeably between 2007 and 2012 until the start of the so-called 'Abenomics', but by March 2014 had weakened by 30 percent from its peak in 2011. Since mid-2014, the divergent monetary policies of major central banks have led to broad and marked US dollar strength, pushing a still loosely dollar-anchored RMB even stronger in broad real effective terms (not shown in Figure 4). A much stronger and potentially overvalued renminbi likely redistributed growth away from China to the rest of the world.

Therefore, both the real policy rate and the real effective exchange rate suggest that the PBC maintained the most restrictive policy stance among the G5 central banks following the GFC. Among them, the BoE appeared to have pursued the most aggressive monetary easing to date, and the PBC was by far the most restrained, until it more decisively embarked on a cycle of monetary relaxation from mid-2014 and the US Fed stopped its asset purchases.

What are the implications of a marked monetary tightening by the PBC relative to the four SDR central banks before its policy shift? There are at least three as far as China is concerned.

First, China bore the brunt of the global demand and current-account rebalancing from 2007-14. Both rising domestic real interest rates and a strengthening real effective exchange rate at the same time have produced considerable pressures on the twin external and internal rebalancing. This tighter Chinese monetary policy stance has no doubt added significant deflationary headwinds to a slowing Chinese economy experiencing concurrently a rapid shrinking current-account surplus (Ma, McCauley and Lam, 2012) and a marked weakening in domestic demand. Indeed, such a rapid adjustment in the Chinese current account balance itself could have been one important factor behind China's marked leveraging-up over the past decade.

Second, this deflationary headwind was only partially countered by a massive credit binge that can be best viewed more as a quasi-fiscal stimulus than a proper monetary accommodation. China's relative monetary tightening thus might actually have aggravated its domestic imbalance, because much of this *de-facto* fiscal stimulus funded hasty investment projects often undertaken by local governments and state firms. A timely and measured shift towards monetary relaxation would better cushion growth through those more market-based, though not always very smooth, transmission channels.

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Third, China's relatively tight monetary policy has likely absorbed a big trunk of the international spillovers from the competitive monetary easing implemented by other major central banks, by not adding to the massive global monetary stimulus. This should in turn help dampen the volatility of those highly procyclical capital flows to emerging markets and ease the competitive devaluation pressure globally. China has so far endured the external deflationary shocks, acting as a source of global financial stability.

The bottom line is that in the wake of the GFC, the PBC stance was the most restrictive among the G5 central banks. In other words, the PBC was quite restrained, while the other big four central banks pursued more aggressive monetary accommodation. There is little doubt that the relatively tight Chinese monetary policy both redistributed global demand away from domestic to foreign products and weighed on Chinese domestic demand. Therefore, China ought to loosen its relatively tight monetary policy.

This global comparative framework can go one step further by constructing a broader 'Financial Conditions Index' (FCI) for the same G5 economies, and asking the question of whether China's financial condition be another suspect contributing to its marked growth slowdown on the demand side. The rationale is that if the same monetary policy stance is to have a similarly meaningful effect on economic agents depends in part on the transmission channels. An expansionary monetary policy might or might not help deliver a more relaxing financial environment facing business and consumers.

Given a monetary policy stance, the functioning of a financial system itself matters for growth performance as well. Europe's half-asleep banking sector is a case in point (Darvas, 2013). If the recent Chinese economic slowdown was primarily structural, laxer financial conditions would not help and might even worsen the structural problems that dragged down economic growth in the first place. Indeed, China over the past few years has witnessed concurrently weaker growth and rising credit as a ratio to GDP, in contrast to a 'creditless recovery' in the euro area.

To this end, my proposed crude and simple FCI aims to capture the broader financial environment that could actually influence behaviour of agents in the Chinese and big four SDR economies, by focusing on the price aspect of the financial environment. It is a weighted sum of five key financial asset prices — policy rate, one-year treasury yield, ten-year treasury yield, effective exchange rate and benchmark stock market index. Higher readings denote tightness owing to the first three rates and the effective exchange rate, so I use the inverse of the stock market index to capture changes in equity prices.

I place an equal weight of 20 percent on each of the z-scores of these five financial prices. Thus, increases in interest rates, the effective exchange rate and the inverse stock market index all result in a rise in the FCI, indicating a tightening of financial conditions. As in the discussion of G5 central bank monetary policy, I will focus on the post-crisis period from January 2007 to March 2014 before the latest Chinese monetary easing. A positive FCI reading thus suggests tighter financial conditions than the period average, while a negative reading indicates loosening. I consider two versions of the FCI, one based on nominal interest rates and the effective exchange rate and the other on their real (ex-post) counterparts. This way, the Chinese FCI can directly be compared both over time and to its international peers, in both real and nominal terms.

The central message from these G5 FCIs is that China's financial condition has tightened the most among the major economies from the start of the GFC (Figure 5 on the next page). Also, China started with relatively lax financial conditions on the eve of the GFC, but post-2011 tightened considerably, at least until around mid-2014 when the PBC started loosening. By contrast, the financial conditions in the G4 generally became less stringent over the same period, as shown by both their nominal and real FCIs.

Moreover, all of the five asset prices underlying the Chinese FCI indicate an unmistakable financial tightening over this period — rising short- and long-term interest rates, a strengthening renminbi, and a languishing Shanghai stock market that lost 27 percent of its value during this episode before

its latest strong resurge and stabilising government bond yields from the second half of 2014.

Finally, the paths of the nominal and real FCIs have differed somewhat among these big five economies in the post-2007 period, but all indicate tighter financial conditions in China both over time and relative to its international peers between 2007 and mid-2014. While the real FCIs of the five major economies have shown noticeable swings, their nominal counterparts except China's display steady, large and synchronised declines, indicating considerable easing of the financial conditions outside China.

In sum, China's financial condition was clearly the most restrictive during 2007-2014 among the G5 economies of China, the US, the euro area, Japan and the UK. Intuitively, this revealed that China's financial tightening, both over time and relative to its international peers, could have meaningfully weighed on its economy. Interestingly, our price-based FCI contrasts sharply with the observed Chinese credit surge in the wake of the GFC.

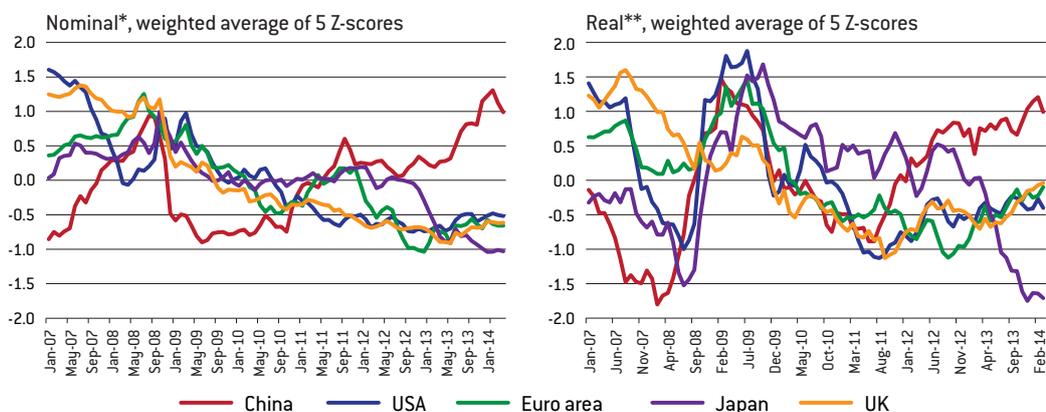
The tighter Chinese financial conditions could in part be policy-induced and in part relate to other institutional and fundamental changes in the Chinese economy, potentially contributing to slower economic growth. In any case, Chinese policymakers ought to take notice of such marked, sustained and broad-based tightness of the financial conditions. It would be very brave for anyone to

claim that the tighter broad Chinese financial conditions had little to do with the recent Chinese economic slowdown. Suffice to say that a tighter broad financial environment tends to hurt the private firms more and add to the financial woes of heavily indebted local governments in China. Therefore, as an insurance policy, China ought to ease its monetary policy.

Much more still needs to be learned about the causes underlying the more restrictive Chinese financial conditions against a background of falling growth and more liberalised market environments. This task is beyond the scope of this paper. For instance, a rigid 75 percent regulatory cap on the bank loan-to-deposit ratio and a punitive 20 percent reserve requirement ratio both might have added to financial tightness in the Chinese economy, prompting policymakers in Beijing to tweak these rules in an attempt to loosen the domestic financial conditions (Ma, 2014b). Another, complementary possibility is that the PBC easing remained behind the curve, as indicated by the Chinese business cycle.

All said, in the wake of the GFC, not only did the Chinese monetary policy stance tighten the most among the big five central banks, but also the broader Chinese financial conditions became the most restrictive among the G5 economies. Thus, the case for Chinese monetary easing is also compelling in the global context.

Figure 5: Financial condition indices (FCI) for G5 economies



Source: Bruegel based on Datastream and BIS. Notes: * A rise suggests tightening. A positive number indicates tighter than the sample average. The official ceiling for the one-year deposit rate is taken as the policy rate of the PBC. The benchmark stock market indices are Shanghai Stock Exchange Composite Index for China, S&P 500 for the US, Nikkei 225 for Japan, FTSE 100 for the UK, and a market cap weighted average of CAC 40, DAX 30, IBEX 35, FTSE Mid and AEX (January 2007=100) for the euro area. ** The real interest rate and exchange rate are nominal rates adjusted for current CPI inflation.

A POLICY NEXUS PERSPECTIVE

Finally, I will make a case for Chinese monetary easing within the framework of optimal monetary and fiscal policy mix. In this light, two main arguments are put forward, one from the open macro-economic model perspective and the other from the domestic fiscal and monetary policy interaction perspective.

First, a standard Fleming-Mundell model (Dornbusch, 1976) postulates that under the assumptions of open capital account and exchange-rate flexibility, a combination of loose monetary policy and neutral fiscal policy would be the best way for China to contain external deflationary shocks, cushioning growth while introducing two-way market expectations and volatility of the renminbi exchange rate and incremental capital opening. Since mid-2014, the PBC has considerably scaled down its routine foreign exchange interventions and widened the onshore daily trading band of the renminbi. Moreover, the Chinese capital account has become more open over time (Ma and McCauley, 2008 and 2013). The recent gathering pace of the renminbi internationalisation can be viewed as capital opening by stealth (Cheung, Ma and McCauley, 2011). Increased financial openness implies greater sensitivity of cross-border financial flows to price signals, which in turn will be influenced by the mix of monetary and fiscal policy.

So, what would be a sensible mix of fiscal and monetary policy in the context of a more open capital account, effectively appreciating and more

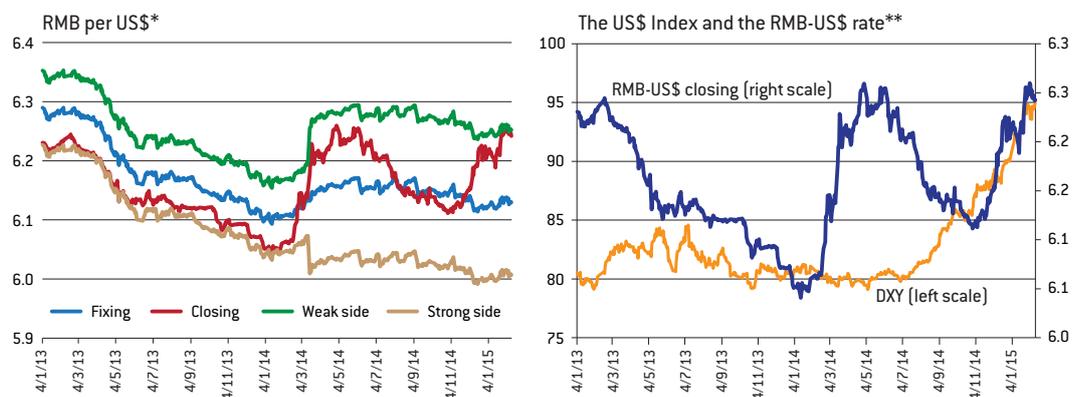
flexible currency, slowing domestic economy and broad strength of the US dollar? As discussed below, China's overall fiscal policy stance of central and local government combined is unlikely to be meaningfully expansionary in the next few years, therefore, a key policy choice is whether one should pursue relatively tight or loose monetary policy.

According to the classical Fleming-Mundell model, given a neutral fiscal policy, an expansionary monetary policy would discourage capital inflows and slow the broad-based appreciation of the renminbi in today's global environment. A less appreciated renminbi would therefore discourage swings in capital flows and support the ongoing difficult domestic rebalancing, while monetary easing directly cushions domestic demand. Thus to facilitate growth, rebalancing and currency flexibility at the same time, China ought to ease monetary policy.

Therefore, an accommodative monetary policy and neutral fiscal policy can combine to best promote both economic growth and fuller exchange rate flexibility of the Chinese renminbi, especially against a global backdrop of near-zero interest rates at major central banks.

What about the global environment of broad dollar strength that could trigger capital outflows from China, putting depreciation pressure on the renminbi vis-à-vis an almighty US dollar? At the time of writing, the renminbi has repeatedly been testing the weak side of the daily trading band, despite efforts by the PBC to signal a steadier RMB-USD

Figure 6: The RMB daily trading band and the USD Index



Source: Bruegel. Notes: * The daily trading band was $\pm 1\%$ before March 2014 and $\pm 2\%$ afterwards. ** The USD index is the US Fed narrow basket index. The RMB-USD is number of RMB per USD.

'There is real moral hazard risk associated with China's high and unsustainable level of local government debt. Local government officials have strong incentives to borrow to fund their pet investment projects, but then leave messy debts to their successors.'

rate via its daily fixing (Figure 6). In my view, if managed properly, this is a healthy adjustment for three reasons.

First, the renminbi will likely continue strengthening on a broad real effective basis, despite the prospect of some near-term weakness against a strong dollar. In 2014, the renminbi depreciated 2.5 percent against the dollar but gained 7 percent in trade-weighted terms, according to BIS data. The Chinese currency is likely to again outperform most advanced and emerging market currencies in 2015, remaining a source of global financial stability. More importantly, China should move further away from its loose dollar peg to gain policy autonomy under a more open capital account.

Second, greater two-way volatility vis-à-vis the US dollar is a crucial step to move further away from the already loose dollar peg which has historically served China well as a credible nominal anchor. Indeed, the Chinese inflation record has fared better under the dollar peg since 1994 than during 1978-1993. But its time is up, as the Chinese economy has simply become too big to be anchored to the US dollar or any single currency alone, even in a loose fashion. Effective stability of the renminbi better serves China's long-term interests (Ma and McCauley, 2011).

Third, some dollar outflows would facilitate orderly currency movements, allowing Chinese corporates to hedge and extinguish their dollar liabilities and the official sector to trim its dollar assets. McCauley et al (2015) estimate that the dollar debts of Chinese corporations could exceed US\$1.1 trillion. Shifting currency expectations owing to a mighty US dollar, a narrower expected policy interest rate differential because of monetary policy divergence between China and the US, and possibly higher currency volatility given a less interventionist PBC, have combined to result in a lower Sharpe ratio. This in turn could prompt some unwinding of Chinese corporate carry trade to be funded in part by orderly draw-down of the official reserves.

The next main argument concerns the question of what role fiscal policy can play in sharing the burden of cushioning economic growth and mitigating financial risk. My take is that a neutral fiscal policy stance might be the best course of action for policymakers in Beijing over the next few years, thus calling for reasonable monetary accommodation.

With a slowing economy and weaker property market, the fiscal automatic stabilisers have already kicked in, as witnessed by a marked slowdown in overall Chinese tax revenues. The Chinese central government has also undertaken selective tax and capital expenditure measures in an attempt to stabilise the economic momentum. The Chinese official 2015 budget targets a deficit of 2.3 percent of GDP compared to a 2014 out-turn of 1.8 percent and could actually reach 2.6 percent of GDP if the 2014 leftover budgetary funds are all to be spent in 2015. Over the longer run, the central government could either take over some public expenditure obligations from local governments or rebalance the fiscal revenue sharing and outlay obligations between the central and local governments (Ma and Wang, 2010).

Nevertheless, there is still the real moral hazard risk associated with China's high and unsustainable level of local government debt. Local government officials have strong incentives to borrow, from both banks and the shadow banking sector, to fund their pet investment projects, but then leave messy debts to their successors. This tendency has been aggravated by a mismatch between fiscal revenues and expenditure obligations between the central and local government. The financing needs of local government has been a driver behind the shadow banking expansion in recent years, partially offsetting the potential benefits promised by the ongoing interest rate deregulation.

Yet, since late 2013, most local governments in China have come under tighter cash-flow pressures, which are in part market-driven and in part

policy-induced. First, a cooler Chinese property sector from 2013 has significantly slowed proceeds from land sales, which mostly accrue to local governments. Indeed, some localities might face up the new stark reality of diminished availability of land for sales. Nationwide, the growth of government land sale proceeds plummeted from 40 percent year-on-year in the first quarter of 2014, to 26 percent in the second quarter, 17 percent in the third and merely 3 percent in the final quarter. The first quarter of 2015 even witnessed a plunge of 43 percent.

Second, to strengthen the fiscal discipline facing local governments, the policy of the central Chinese government has been to gradually tighten the budget constraints on local governments, by curtailing their borrowing via various financing vehicles, demanding greater transparency and disclosure of local fiscal conditions, and enhancing regulation of shadow banking.

These two factors have nevertheless combined and reinforced to translate into a *de facto*, sizable but necessary fiscal contraction, which may not be fully offset by a slightly more expansionary 2015 official budget. This fiscal tightening most likely shows up as weaker local investment expenditure, whatever the official 'proactive' fiscal policy means. Thus the overall *de-facto* Chinese fiscal policy stance might still be somewhat contractionary and at best neutral in 2015, calling for reasonable monetary relaxation to partially offset the possible contractionary effects of reduced local government borrowing on the economy.

Although concerns over fiscal dominance remain real, tighter monetary policy simply is not a credible response to the risks of moral hazard and soft budget constraints on Chinese local governments. On the contrary, monetary accommodation should help mitigate the contractionary impact of the currently tighter local government budgetary constraints in the short term and facilitate gradual restoration of fiscal discipline and rebalancing of the central and local fiscal resource and responsibility over the longer term.

In sum, both the insights from the Fleming-Mundell model and the need to mitigate contractionary impact of the tighter local government

financing both call for a sensible policy mix of a monetary relaxation and neutral fiscal stance. Therefore, the latest monetary easing by the PBC is well justified – and still more can be done.

CONCLUSION

Since mid-2014, the PBC has embarked on a cycle of monetary easing, in an attempt to mitigate the slowdown in growth, emerging deflationary pressure, tight domestic financial conditions, swings in cross-border capital flows and the contractionary consequence of the desired local fiscal restructuring. This paper makes a strong case that this shift in the Chinese monetary policy stance is warranted and desirable. Of course, whether Chinese monetary policy achieves its intended effects will depend on many factors outside the scope of this paper, such as the functioning transmission mechanisms.

Nevertheless, contrary to the view that monetary easing is a show of no confidence in reform, an act of sabotaging reform, and/or a policy move that might worsen structuring imbalances, I believe that a timely, measured but serious monetary policy accommodation is the best course of policy action that would serve well the Chinese economy over both the short and long terms. Specifically, meaningful monetary easing helps cushion growth, support reform, facilitate rebalancing and mitigate financial stress.

First, prompt monetary relaxation, not tightening, supports domestic demand, reduces the headwinds from *de-facto* fiscal contraction emanating from local government deleveraging, eases the relatively tight Chinese financial conditions and deflects global deflationary shocks. It helps mitigate adverse demand shocks, which have been non-trivial, and as a minimum, avoids rubbing salt into the wound.

Second, China's monetary policy accommodation might help accelerate liberalisation, by winning both broader political support and gaining greater space for implementing difficult reforms. While monetary policy is neither a magic bullet nor a substitute for the necessary institutional and structural reforms, monetary easing may well provide the reform-minded PBC the high moral ground

from which to accelerate financial liberalisation. By contrast, simultaneously maintaining both tight monetary and fiscal policy as an ill-advised tactic to force through tough reform programmes could be counterproductive, if not reckless.

Third, a timely monetary relaxation should help cushion an orderly slowdown of the Chinese economy, in turn facilitating the structural rebalancing task. The credit binge witnessed during the GFC was partially the consequence of the unmistakably late monetary policy response to the concurrently collapsing domestic and external demand at that time. And this rapid credit expansion mostly funded local government investment, likely worsening the domestic imbalances. Moreover, most of the credit allocation and industrial

policy responsibilities burdening the PBC should be de-commissioned, because monetary policy is not an apt instrument with which to address such structural issues.

Fourth, financial stability concerns have likely come to figure more prominently on the PBC agenda because a key challenge is how to manage the legacy of excess leverage and increased financial imbalances in China. One sensible response is measured monetary accommodation to maintain steady nominal growth. This would help pre-empt a potential vicious debt deflation cycle and dampen excess volatility in the financial system, while facilitating the tricky deleverage process, not vice versa.

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