

China's Monetary Policy Framework and Financial Market Transmission

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Photo: Jackal Pan – Getty Images

Abstract

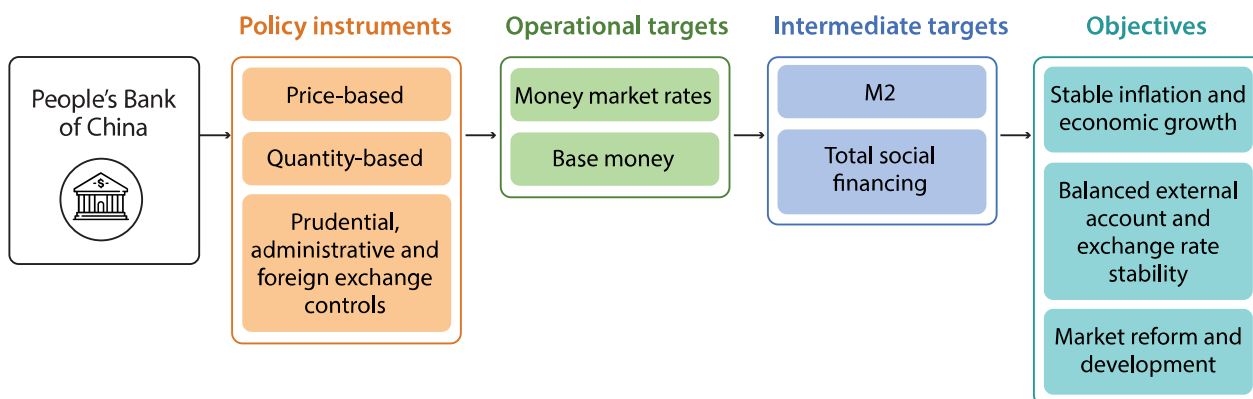
While it has evolved significantly over the years, China's monetary policy framework continues to differ in some important respects to those in most advanced economies. In contrast to these economies, the People's Bank of China makes significant use of quantity-based policy instruments, though interest rates now play a greater role than in the past. This article takes stock of China's current monetary policy framework and its implementation, and discusses the transmission of price-based monetary policy instruments to market and retail interest rates in the economy. In doing so, this article sheds light on the implementation of monetary policy in the world's second largest economy.

Introduction

China's central bank, the People's Bank of China (PBC), was established in 1948. Since the PBC's inception, China's monetary policy framework has changed significantly, including over the past decade or so. The monetary policy framework was initially built on central credit planning, where long-term credit was allocated to projects selected by national and local governments. Central credit

planning then gave way to a period of direct credit control between 1979 and 1997, where the PBC selected bank credit as its main intermediate policy target (Jones and Bowman 2019).

In 1995, the *Law of the People's Republic of China on the People's Bank of China* commenced, which outlines the PBC's responsibilities under the

Figure 1: China's Monetary Policy Framework

Sources: Amstad, Sun and Xiong (2020); RBA.

leadership of the State Council (China's primary administrative authority). These responsibilities are:

- to make and implement monetary policy
- to prevent and resolve financial risks
- to maintain financial stability (PBC 2003).

Shortly after, in 1998, the PBC abolished direct controls over bank credit and moved to indirect control of money and credit.

The PBC is obligated to support the objectives of the State Council, one consequence of which is that monetary policy is often used to complement fiscal policies, with operational independence restricted to the more technical aspects of monetary policy implementation. China's capital account settings also have implications for monetary policy. While gradual progress has been made on liberalising capital flows, China maintains restrictions on its capital account alongside a managed float exchange rate. Consequently, authorities face the common 'trilemma' of managing the trade-off between autonomous monetary policy, stability of the exchange rate and the degree to which capital is allowed to freely flow in and out of China. Thus, the PBC is more constrained in its use of price- and quantity-based instruments than is typical of the central banks of most advanced economies. This article discusses these instruments, their implementation and China's monetary policy framework more broadly.

The current monetary policy framework

With interest rate liberalisation now more advanced, interest rates have come to play a greater role in China's monetary policy framework (Yi 2021). However, given the PBC's wider set of objectives, the PBC still uses quantity-based tools extensively and also relies on prudential and administrative controls, and exchange rate management to influence its operational targets (Figure 1).

Objectives of monetary policy

The ultimate objective of the PBC is 'to maintain the stability of the value of the currency and thereby promote economic growth' (PBC 2022a). The PBC interprets stability of the currency in two ways: domestically, it means maintaining price stability – that is, inflation; externally, it means keeping the exchange rate at an 'adaptive and equilibrium level' (Yi 2018). However, the PBC has indicated it has other core objectives (economic growth, full employment, and broadly maintaining balance of payments) and two dynamic objectives (financial reform and financial market development). The maintenance of multiple objectives implies a trade-off, with the PBC having previously stated that the weight placed on any given objective can vary based on how it deviates from the PBC's targets (Zhou 2016).

Intermediate monetary policy targets

The PBC's intermediate targets – that is, those the central bank can significantly influence with a reasonable time lag – are broad money supply (M2) and aggregate financing to the real economy, also referred to as total social financing (TSF). Following the abolition of the mandatory credit plan in 1998, M2 and bank credit became the two most important intermediate targets for monetary policy. However, as the correlation between M2 and economic activity declined, the PBC adopted TSF as an additional intermediate target in 2012 (Yi 2018). Specific numerical targets for M2 growth have not been set since 2018, though the PBC has continued to communicate that growth in M2 and TSF should be aligned with nominal economic growth (Sun 2021; Keqiang 2023).

Over time, the exchange rate has also appeared to serve as both a monetary policy objective and intermediate target (Jones and Bowman 2019). While authorities often note that the renminbi exchange rate is determined by market forces, in practice they maintain a managed float. Authorities retain significant influence over the exchange rate via the daily Chinese yuan fix – the midpoint of the permitted ± 2 per cent daily trading range – as well as the use of other measures. These measures have included capital flow management measures such as adjustments to risk reserve requirements for foreign exchange forwards and adjustments to cross-border financing macroprudential policies. In recent history, exchange rate management has been most evident during periods of rapid and sustained movements in the currency.

Operational targets

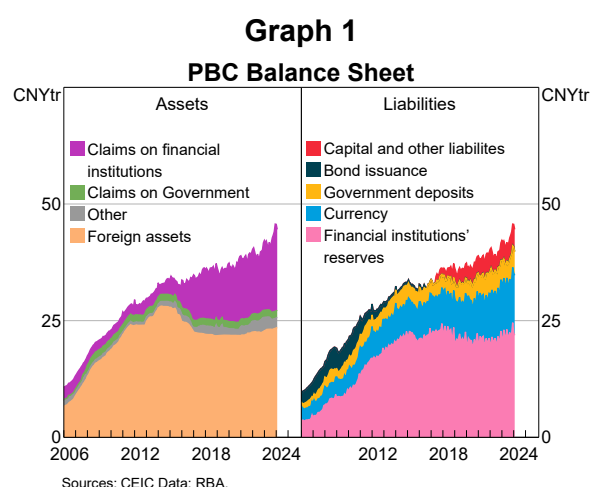
To achieve its intermediate targets, the PBC uses a hybrid operating target system that includes influencing both the monetary base (currency and banking institutions' deposits with the PBC) and short-term repurchase (repo) rates. The PBC has targeted the seven-day interbank repo rate as the de facto operational target since around 2017, as this instrument involves large trading volumes and is closely correlated with other short- and medium-term market interest rates.

Policy instruments

While the PBC has indicated a desire to transition from quantity to price controls, price-based instruments have complemented quantity-based instruments, rather than operating as primary policy instruments. Indeed, the use of policy rates has become smaller and less frequent in recent years, which may reflect a desire for greater control of credit growth (Yi 2018; Amstad, Sun and Xiong 2020; IMF 2023).

Quantity-based instruments

The PBC can adjust either side of its balance sheet to affect its intermediate targets (Graph 1). On the liability side, the PBC can adjust reserve balances (or issue debt); on the asset side, the PBC can buy or sell assets, such as foreign exchange, or lend to domestic banks and the government (Table 1). The PBC can use these tools to influence both base money and benchmark rates, like the seven-day repo rate, discussed below.



One of the PBC's more frequently used quantitative instruments is the reserve requirement ratio (RRR). The PBC generally uses adjustments to the RRR to manage the monetary base, adjusting liquidity conditions for financial institutions, rather than for financial stability reasons. Despite the RRR historically being used as a liquidity management tool to offset the flows of foreign exchange reserves in China, more recent use of the RRR has been highly correlated with easing in the PBC's price-based instruments, and still carries a strong signalling effect for monetary policy.

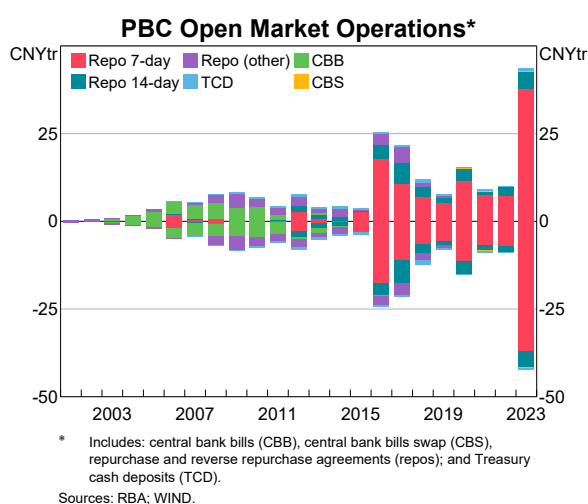
Table 1: The PBC's Quantity-based Instruments

Tool	Description
Reserve requirement ratio	The share of deposits a bank must hold as required reserves with the PBC.
Open market operations	Primarily repurchase (and reverse repurchase) agreements used by the PBC to affect interbank funding conditions.
Liquidity facilities ^(a)	Facilities used to support funding conditions and, in some instances, to provide targeted support to sectors.
Relending facilities	Facilities typically offering shorter term funding (less than one year) to banks, secured by high-quality collateral and targeted at specific sectors.
Rediscounting	The PBC purchases (discounts) unexpired discounted commercial bills of exchange held by financial institutions.

(a) See Table A1 in Appendix A for a summary of the PBC's liquidity provisioning.

Sources: PBC (2010); PBC (2014); PBC (2022b); RBA.

In addition to the RRR, the PBC uses regular open market operations (OMO) to manage interbank liquidity. These are primarily repo (and reverse repo) agreements (Graph 2).^[1] Repo maturities range from one week to one year (though the most common are seven-day), and they are secured against high-quality collateral, like government and policy-bank bonds.

Graph 2

Outside of OMO activity, the PBC has a range of facilities to manage liquidity in the banking system (see Table A1 in Appendix A). The most heavily used is the medium-term lending facility (MLF). The MLF was introduced in 2014 and provides medium-term (typically one year) funding to commercial and policy banks, with participants pledging high-quality collateral (such as Treasury bonds, central bank bills and high-grade bonds). Notably, the interest rate on MLF funds is the PBC's medium-

term policy rate; since 2017 the PBC has only issued funds at a 12-month tenor. In the past, facilities like the pledged supplementary lending facility have also been used to provide longer term funding to support government infrastructure projects.

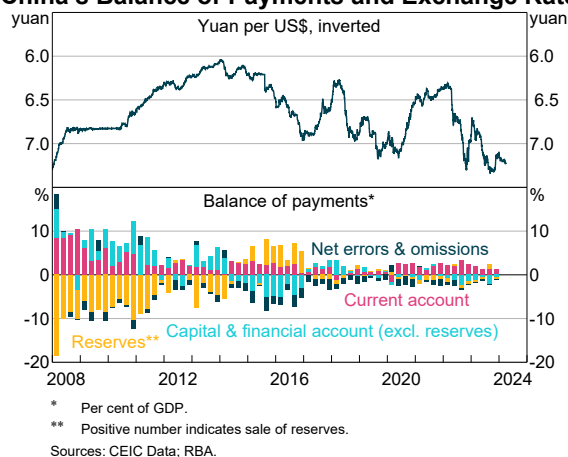
The PBC can also use 'structural' monetary policy tools. These refer to the PBC's relending and rediscounting facilities. Relending facilities consist of shorter term funding (less than one year) to banks, secured by high-quality bank loans or high-grade bonds. Relending facilities generally provide cheaper funding to banks when compared with other facilities, such as the MLF, and are primarily used to support specific industries. The PBC typically adopts a 'reimbursement' mechanism, whereby financial institutions make loans to eligible projects at a rate close to the loan prime rate (LPR; discussed below) or lower if the borrower's credit rating permits, and are then reimbursed by the PBC at the rate on the relending facility (PBC 2022d). The PBC's rediscounting program refers to the purchase of unexpired discounted commercial bills of exchange held by financial institutions to channel funds to banks, typically to support financing to specific sectors.

Movements in foreign exchange reserves are closely related to China's base money supply management and have a significant impact on the use of various monetary policy instruments (Amstad, Sun and Xiong 2020). When the PBC accumulates foreign currency reserves, as it did for the period between 2002 and 2014, the PBC credits banks' reserve balances with domestic currency, which increases

liquidity (Graph 3). If these increases are considered inconsistent with the PBC's objectives, they have typically been offset through either OMO or increases in the RRR – which, along with the PBC's liquidity facilities, forms its toolbox for managing liquidity.

Graph 3

China's Balance of Payments and Exchange Rate



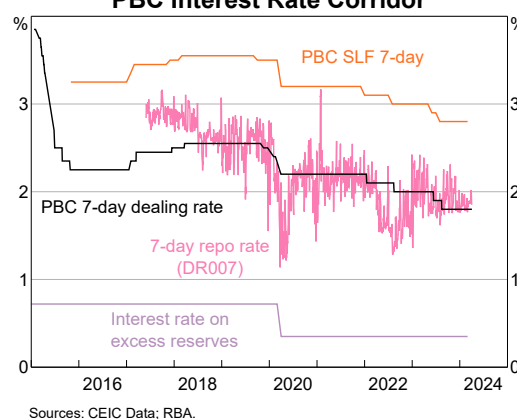
Price-based instruments

The PBC operates an interest rate corridor to guide its short-term policy rate (Graph 4). The short-term policy rate is the PBC seven-day reverse repo rate used in OMO. Through daily OMO, the PBC influences short-term rates (its operational targets), such as the pledged seven-day repo rate for participating banks and other eligible financial institutions. The corridor ceiling is the rate on the standing lending facility (SLF) – the rate at which the PBC will provide short-term funding to financial institutions – set at 100 basis points above the PBC seven-day reverse repo rate. The floor is the interest rate at which the PBC remunerates banks' excess reserves – currently 145 basis points below the seven-day repo rate.

The PBC's medium-term policy rate is the rate on the MLF. Benchmark deposit rates (discussed below) may also be considered one of the PBC's price-based instruments, though they are used less frequently than the PBC's other price-based and quantity-based tools.

Graph 4

PBC Interest Rate Corridor



Prudential and administrative controls

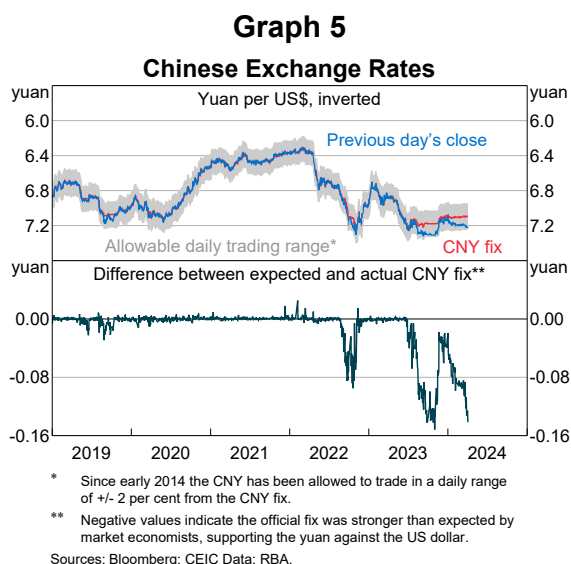
Along with price- and quantity-based tools, the PBC also uses a range of prudential and administrative tools to achieve its objectives, including window guidance and the macroprudential assessment framework (MPA). The term 'window guidance' refers to central bank actions to influence commercial banks' behaviour, typically without official acknowledgement. Recent reported examples include the PBC asking banks to purchase Chinese local government financing vehicles' debt instruments in late 2022, and advising some banks to slow the pace of lending in early 2023 (Bergman 2022; Reuters 2023).

At the beginning of 2016, the PBC introduced the MPA framework to help address macroprudential risks in the financial system. The framework uses a scoring system (0–100) for 16 indicators across seven categories to assess the soundness of banking institutions and their compliance with national directives (Jones and Bowman 2019). The MPA aims to influence each bank's loan and other credit expansion with the use of differentiated reserve requirements and remuneration on the reserves of that bank (Amstad, Sun and Xiong 2020).

The PBC also uses other prudential tools to support monetary policy, including policies aimed at directly influencing its intermediate targets. Recent examples include an adjustment to the macroprudential parameter that controls the quantity of cross-border financing for companies (including banks), and adjustments to mortgage rate floors (PBC 2022c).

Foreign exchange management

To achieve its monetary policy objective of keeping the renminbi exchange rate at an 'adaptive and equilibrium level', the PBC intervenes directly in the foreign exchange market and also uses a range of indirect measures. Foreign exchange intervention has become less frequent since 2016. More recently, former PBC Governor, Yi Gang, noted that the PBC has largely exited from regular intervention, though it reserves the right to intervene in extreme situations (Yi 2023). However, over the past couple of years the PBC has used the CNY fix and other indirect measures to support the exchange rate, suggesting intervention remains a tool the PBC is willing to use, albeit less frequently (Graph 5).



Transmission of Chinese monetary policy price-based instruments

Policy rate transmission to benchmark rates

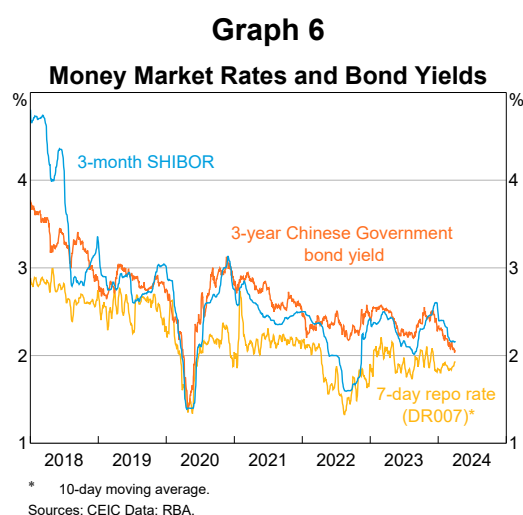
The PBC influences the short-end of the yield curve through short- and medium-term interbank liquidity operations, the MLF rate and adjustments to the interest rate corridor. These operations influence the PBC's short-term benchmark rate (the seven-day repo rate for participating depository institutions or 'DR007'), which is closely monitored as an indicator of market liquidity (Graph 4; Figure 2).

Adjustments to the PBC's MLF rate directly influence LPRs (Figure 2).^[2] LPRs are a benchmark that represents the average interest rate on loans that commercial banks provide to their most

creditworthy customers, and are the major pricing reference for financial institutions (Yi 2021). LPRs are quoted as a spread to the MLF, with the spread reflecting the cost of funds, risk premium and other factors. So, for example, when the PBC lowers the MLF, there is typically a subsequent decline in the LPR (though movements in the LPR need not necessarily be preceded by a movement in the MLF). Other factors can also affect the spread between the LPR and the MLF – for example, if there was a notable change in credit risk associated with lending to banks' best customers, a change in the MLF may not completely flow through to a change in the LPR.

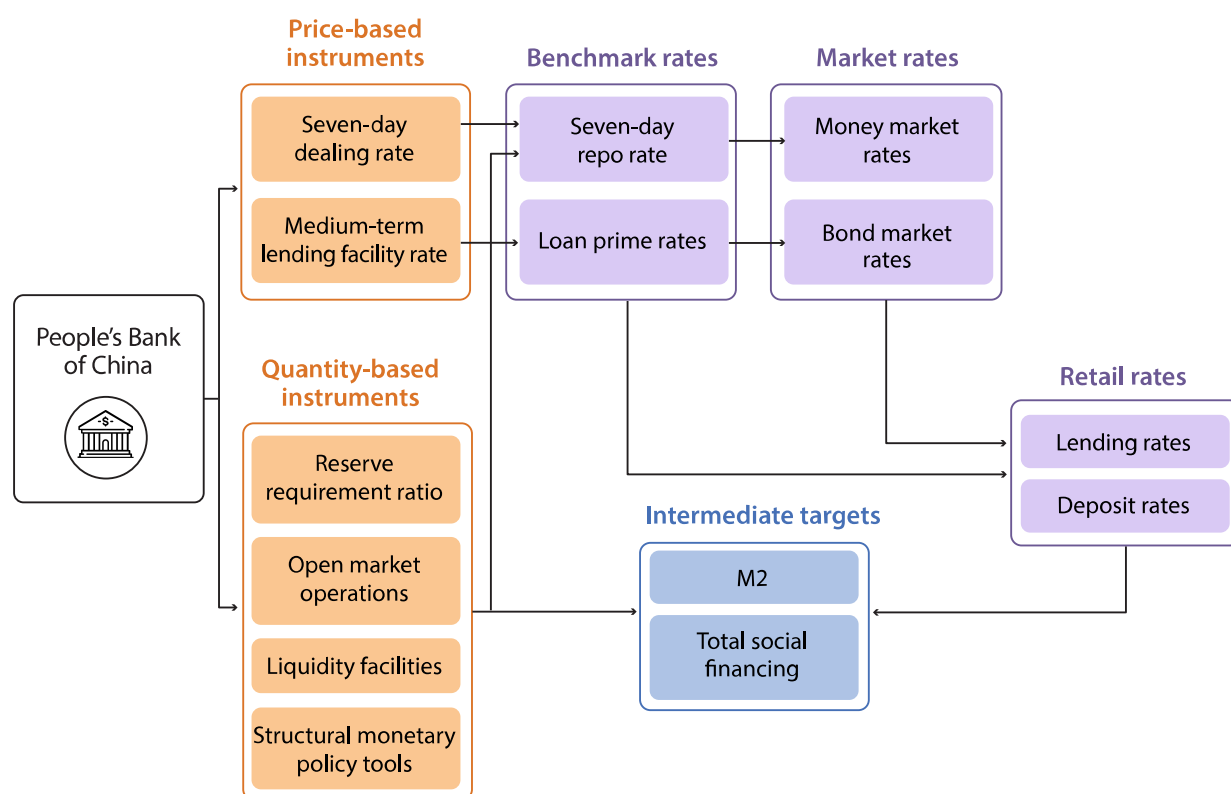
Transmission to market rates

Policy-induced changes to liquidity conditions in the interbank system influence money market rates (such as the Shanghai interbank offered rate, or SHIBOR) and, to some extent, movements in the short-end of the Chinese Government bond yield curve (Graph 6). Yields on medium- and long-term government debt have a loose relationship with money markets, though they are more heavily influenced by market expectations of the development of the macroeconomy and the stance of monetary policy (Yi 2021).



Retail lending and deposit rates

Since 2019, all new bank loans have been priced relative to the LPR, improving the transmission of changes in the MLF through to lending rates.^[3] While banks use an appropriate LPR as a reference rate for borrowers depending on the maturity of the

Figure 2: China's Interest Rate Structure

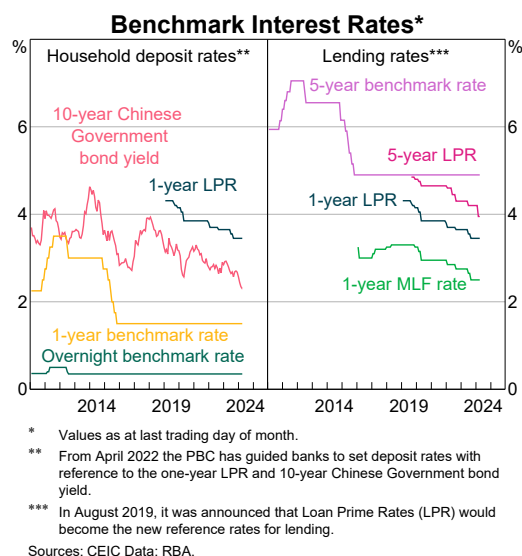
Sources: Yi (2021); RBA.

loan, the PBC determines a mortgage rate floor. Longer term loans to households, which largely consist of mortgages, are typically priced off the five-year LPR. For loans with maturities of less than five years, financial institutions are free to choose the relevant LPR.

The PBC's mortgage rate floor for first home buyers is currently 20 basis points below the five-year LPR. For other borrowers, the mortgage rate floor is 20 basis points above the five-year LPR. In an effort to support the demand for housing amid the weakness in the property sector over 2022, the PBC and the China Banking and Insurance Regulatory Commission allowed banks to provide first home buyers with mortgage rates below the PBC floor in cities that experienced three consecutive months of new housing price declines (PBC 2022e). Further measures announced in 2023 included refinancing of outstanding mortgages, guidance to lend to some sectors of the economy, and lower limits on mortgage rates on second homes (PBC 2023). These measures have likely contributed to pressure on

banks' profitability, as lending rates have declined further than deposit rates.

The LPR also has influence over bank deposit rates. Banks are given 'flexible' guidance to set deposit rates based on movements in the 10-year Chinese government bond yield and the one-year LPR. In practice, the one-year LPR has the most influence since most fixed-term deposits have a maturity of less than two years. This means the MLF rate exerts influence over both deposit and lending rates, though over the past few years adjustments in deposit rates have been slower – likely reflecting the importance of deposits in Chinese banks' funding structures. Deposit rates are also subject to an upper limit, which is determined by a regulatory body – the Interest Rate Self-discipline Mechanism – composed of financial institutions and overseen by the PBC. The one-year upper limit on demand deposits is currently set at 10 and 20 basis points above the PBC's benchmark deposit rate for large, and small and medium banks, respectively (Graph 7).

Graph 7

Conclusion

China's monetary policy framework has evolved considerably over the past few decades to involve the greater use of price-based instruments. The PBC's primary price-based instruments – the seven-day repo rate, and the rate on the MLF – influence broader market rates in the economy, ultimately affecting retail rates. Nevertheless, the PBC's prudential and administrative, and quantity-based instruments continue to play a more central role in China than elsewhere, with adjustments to the RRR and structural monetary policy tools continuing to be commonplace in China's monetary policy framework.

Appendix A: Liquidity facilities

Table A1: Overview of China's Liquidity Provisioning Facilities

Facility	Time of introduction	Purpose	Target banks	Tenor	Collateral required
Standing lending facility (SLF)	Early 2013	To meet unusually large liquidity demand	All banks	1 day – 1 month	High-quality bonds and credit assets
Pledged supplementary lending facility (PSL)	April 2014	A collateralised form of on-lending facility	Policy banks	Normally >3 years	Adjustable by the PBC
Medium-term lending facility (MLF)	September 2014	To supply base money over the medium term	Qualified commercial banks and policy banks	3–12 months	High-quality bonds
Targeted medium-term lending facility (TMLF)	December 2018	To supply base money over the medium term to provide liquidity to the private sector	Qualified commercial banks and policy banks	3 years (12 months can be rolled over on request)	High-quality bonds
Temporary lending facility (TLF)	January 2017	Temporary supply of base money	Five biggest state-owned commercial banks	28 days	No collateral required
Contingent reserve arrangement (CRA)	January 2018	Temporary supply of base money	National commercial banks	30 days	No collateral required

Sources: Amstad, Sun and Xiong (2020); RBA.

Endnotes

- [*] The author wrote this article while in the International Department. The author is grateful for comments provided by Brad Jones, Penny Smith, Jeremy Lawson, Jarkko Jaaskela, John Boulter, Kassim Durrani, Morgan Spearritt and Patrick Hendy.
- [1] The PBC's shift to repo use in its OMO activity replaced outright purchases and sales of government securities (which were dominant in the early 1990s) and central bank bills (CBB). There are several other instruments the PBC uses to manage liquidity conditions in the interbank market. The PBC may issue CBB to commercial banks to adjust the excess reserves of commercial banks, typically at three- and six-month maturities (Amstad, Sun and Xiong 2020). Central Treasury cash deposits (TCDs) – the Treasury's demand deposit held with the PBC – are also used. The PBC can deposit TCDs with commercial banks through an auction process, thus releasing base money during the period of the deposit.
- [2] In the 2019 lending rate reforms, the PBC announced that the LPR would become the new reference rate for lending in China and that it would adjust how the rate was calculated. Under the existing arrangement, a panel of 18 banks submit the quotes they offer to their most creditworthy customers, expressed as a spread to the PBC's one-year MLF rate. The China Foreign Exchange Trade System, which publishes the LPR, closely monitors LPR quotation. The reforms also increased the importance of the MLF rate since the reforms made the LPR the new reference rate for lending in China and specified that LPRs would be quoted as a spread to the MLF rate (Das and Song 2022; RBA 2019). See RBA (2019) for further details.
- [3] Prior to 2019, the LPR was expressed as a multiple of the equivalent-term official benchmark lending rate and was not generally used as a reference rate for pricing the loans of less creditworthy customers. The reforms improved the transmission of monetary policy by ensuring changes to the PBC's medium-term policy rate flow through more directly to lending rates. However, mortgage loans are only able to be repriced on a minimum cycle of one year, slowing the transmission of any potential monetary easing to the housing market (RBA 2019).

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