

A SUPPLEMENT TO CHINA MONETARY POLICY REPORT

Promoting LPR Reform Orderly

**Monetary Policy Analysis Group of
the People's Bank of China**

September 15, 2020

Abstract

Market-oriented reform of interest rate is one of the most core reforms in China's financial area. It is an important part of building a socialist market economy with Chinese characteristics and deepening financial supply-side structural reforms. It is also a key point in building a modern central banking system. Also, the reform is a requisite for developing the system of benchmark rates and market-oriented interest rates, as well as improving the independent operation mechanism of financial institutions.

While China's market-oriented interest rate reform has been steadily advancing, there was still a problem of "dual-track" in interest rates for a long time. It is an urgent requirement to shift from a "dual-track" to a "single-track" mechanism. In accordance with the arrangements of the CPC Central Committee and the State Council, the People's Bank of China (PBC) firmly held loan rates as the key to reform, focusing on promoting the unification of loan rates and market interest rates. On August 17, 2019, the PBC announced the launch of reforms to improve loan prime rate (LPR) formation mechanism, so as to unblock the transmission channels of monetary policy and promote the reduction of loan rates.

After the reform, LPR has been quoted by each LPR quoting bank in accordance with the loan rates issued to their prime clients on the 20th of each month (postponed on holidays), by adding a number of basis points to open market operation interest rate (mainly referring to the interest rate of medium-term lending facilities, MLF). The number of LPR quoting banks has been expanded from 10 to 18. In addition to the current one-year LPR, the over-five-year LPR has also been introduced. At the same time, the PBC has incorporated the application of LPR in Macro Prudential Assessment (MPA), promoting banks to embed LPR in Fund Transfer Pricing (FTP). From March to August, 2020, the PBC has promoted the shift in the pricing benchmark of outstanding floating-rate loans in line with market-oriented and law-based principles. In the process of LPR reform, the PBC has coordinated and promoted relevant measures, strengthened the self-regulatory management of deposit interest rates, promoted explicit indication of annualized loan rates, and actively participated in the reform of international benchmark interest rates. All of the work above has formed a joint force for deepening the market-oriented reform of interest rate.

After a year of continuous advancement, LPR reform had achieved important results. First, LPR fully embodies the characteristics of market basis. As LPR quotes being gradually declining, they have played a directional and guiding role. Second, LPR has become the pricing benchmark for banking loans. The vast majority of newly issued loans by financial institutions used LPR as pricing benchmark, and the shift in pricing benchmark of outstanding floating-rate loans has been completed in August 2020, with more than 92% loans being shifted. Third, the transmission efficiency from central bank's monetary policy operation to loan rates has enhanced significantly. The implicit floor for loan rates has completely removed, and banks' internal pricing and transmission mechanism have become increasingly market-oriented. Fourth, the effect of reducing loan rates has achieved remarkable results by means of reform. Enterprise loan rates have dropped significantly, and banks have continued to extend

support for micro, small, and medium-sized enterprises (MSMEs). The structure of financial system has been further optimized. Fifth, the LPR interest rate derivatives market has developed rapidly. Financial institutions continue to enrich their interest rate risk management measures. Sixth, the market-oriented reform of deposit interest rates has been effectively promoted, with deposit interest rates gradually merging with market interest rates.

In summary, China's LPR reform has achieved important results, mainly based on following experiences: First, to grasp the main contradictions. Clarify the logic and ideas of market-oriented reform of interest rate, and firmly grasp the key point of loan rates to achieve key breakthroughs, then drive the overall progress. Second, to design a scientific plan. Based on conditions of China's financial system, which is dominated by the banking system, the reform is promoted by reforming and improving LPR formation mechanism, enhancing the direction and guidance of LPR for loan rates, driving the loan interest rates more market-oriented, and further promoting market-oriented reform of deposit interest rates. Third, to clarify the progress of the reform. Propose a clear and realistic timetable for banks to use LPR as pricing reference, promptly promote the shift in pricing benchmark of outstanding floating-rate loans, effectively guide and manage market expectations, and avoid long delays in reforms that may lead to a deadlock. Fourth, to insist on overall planning. It not only breaks down on the institutional barriers in the transmission of interest rates through reforms, but also achieves the realistic goal of lowering loan rates, and moreover, it also promotes the optimization of financial structure and addresses the difficulties and high costs of financing faced by Micro and Small Enterprises (MSEs.)

In the next step, the PBC will continue to focus on deepening LPR reforms in accordance with the arrangement of the CPC Central Committee and the State Council, promote the realization of the shift from a “dual-track” to a “single-track” mechanism, and continue to improve the monetary policy management and transmission mechanism. The PBC will also improve the benchmark interest rate and market-oriented interest rate system, deepen financial supply-side structural reforms, so as to facilitate the high-quality development of economy, and form a new development pattern.

Contents

Part I Market-oriented Reform of Interest Rate Faces the Issue of “Dual-Track” Mechanism.....	1
I. The Issue of “Dual-Track” Mechanism of Loan Rates Needs to be Solved Urgently	1
II. Seize the Time Window to Promote LPR Reform.....	4
III. International Experiences and Comparisons of Benchmark Interest Rate Reform	5
Part II Promote the Resolution of the Dual-Track Interest Rate Problem with LPR Reform	10
I. Perfect the Interest Rate Regulation System.....	10
II. Improve the Formation Mechanism of the LPR.....	11
III. Smooth the Monetary Policy Transmission Channel	13
Part III Measures to Promote LPR Reform.....	18
I. LPR Management Mechanism	18
II. LPR Formation Mechanism	19
III. LPR Transmission Mechanism	23
IV. Coordinate and Promote Relevant Measures	30
Part IV LPR Reform is Remarkably Effective.....	34
I. LPR has Become More Market-oriented	34
II. Interest Rate Transmission Mechanism has Effectively Improved	35
III. Internal Pricing of Financial Institution Becomes More Market-oriented	38
IV. Interest Rates have Significantly Reduced by Means of Reform	39
V. The Shift in the Pricing Benchmark for Outstanding Floating-rate Loans has Successfully Completed.....	40
VI. The Rapid Development of LPR Derivatives and Other Financial Products.....	41
VII. The Market-oriented Reform of Deposit Interest Rates has been Promoted Further	43
Part V Important Experience on the LPR Reform	45
I. Clarify the Logic and Grasp the Main Contradiction	45
II. Design the Plan Scientifically Based on China’s Conditions	45
III. Push Ahead with the Reform and Clarify the Progress	48
IV. Insist on Overall Planning to Achieve Multiple Goals	49

Box

Box 1 Historical Review of China's Market-oriented Reform of Interest Rate and the Problems Faced.....	2
Box 2 Progress and Challenges of LIBOR Reform	6
Box 3 Research on the Implicit Floor for Loan rates	13
Box 4 The LPR Reform is Suited to China's National Conditions	15
Box 5 The Formation Mechanism for the LPR is based on Adding Some Basis Points to the MLF Rate	18
Box 6 The LPR Quotation Mechanism is Not Easy to be Manipulated.....	20
Box 7 Promoting LPR Reform Precedes the Improvement of the FTP	25
Box 8 Empirical Evidence Proves that LPR Reform Has Effectively Enhanced Interest Rate Transmission Efficiency	37
Box 9 LPR is More Suitable than Government Bond Yield to be China's Benchmark Lending Rate	46

Table

Table 1 Interest Rate Cuts in Major Economies before the LPR Reform (Jan.2019-Aug.2019)	5
Table2 Incorporate the Use of LPR into the MPA	24
Table3 LPR Quotes	35

Figure

Figure 1 The Pre-reformed LPR was Basically Pegged to the Benchmark Lending Rate	12
Figure 2 Conducting Medium-term Lending Facility Regularly	18
Figure 3 Benchmark Lending Rate and LPR	34
Figure 4 Enterprise Bond YTM and Implicit Floor for Loan Rates	36
Figure 5 Loans Interest Rate and DR007	36
Figure 6 Views from Sample Institutions on the Level of Competitiveness in Loan Market	38

Figure 7 Views from Sample Institutions on Monetary Policy Transmission after the LPR Reform	38
Figure 8 FTP Development of Locally Incorporated Financial Institutions.....	39
Figure 9 Share of LPR Application and the Removal of Implicit Floor for Loan rates	40
Figure 10 LPR Swaps Trading	42
Figure 11 LPR 1Y_1Y Swap Closing Price (%) and One-year LPR	42

Part I Market-oriented Reform of Interest Rate Faces the Issue of “Dual-Track” Mechanism

Since mid-1990s, the PBC has been promoting interest rates market-oriented reform. As of 2015, controls over deposit and loan rates have been broadly removed, but there was still a "dual-track" interest rate problem, namely the coexistence of the benchmark deposit and lending rates and market rates. It is necessary to seize the timing so as to break down the institutional barriers in interest rate transmission channel by deepening the market-oriented interest rate reform.

I. The Issue of “Dual-Track” Mechanism of Loan Rates Needs to be Solved Urgently

After years of continuously advancement, there is still a "dual-track" interest rate problem, which pushes the reform to the "critical battle" stage. No matter from the perspective of increasing the effectiveness of monetary policy or from the perspective of deepening financial reform, it is necessary to improve the monetary-policy transmission channels through reform, promote the shift from a “dual-track” to a “single-track” mechanism of loan rates, thus facilitates the decline of loan rates.

First, economic vitality needs to be stimulated. Since 2019, the downward pressure on the global economy has increased, and the developed economies including the U.S and Europe have shifted to an easing monetary policy. China's major macroeconomic indicators remain in a reasonable range. However, affected by Sino US economic and trade frictions and domestic industrial restructuring, China is facing new risks and challenges, and the downward pressure on domestic economy has increased. COVID-19 has greatly impacted the production and operation of some industries, especially MSMEs, and has intensified the business difficulties. In this context, seizing the timing to promote the shift from a “dual-track” to a “single-track” mechanism of loan rates will benefit the effective transmission of monetary policy to the credit market, promote the reducing of enterprises real interest rates, increase financial support, activate the vitality of micro entities, speed up the work resumption of enterprises, so as to provide support for winning the war of epidemic prevention and resistance and restoring the vitality of the economy.

Second, clogged transmission of interest rates impedes the effect of monetary policy. Before the LPR reform, banks mainly referred to the benchmark lending rate for their loan pricing. In particular, some banks set the implicit floor for loan rates with a certain multiple (such as 0.9 times) of the benchmark lending rate through concerted

practices, which hindered the market-oriented interest rates management and transmission, and especially hindered the decline of loan rates in the overall downward phase of market interest rates. The traditional way, which is to reduce the benchmark lending rate directly, may face the risk of releasing too strong signals of policy adjustment, stimulating the emergence of the real estate bubble, and may form a new implicit floor for interest rates, which would also hinder the effective transmission of market interest rates.

Third, advancing the shift from “dual-track” to “single-track” mechanism of loan rates is the key issue of deepening the market-oriented reform of interest rates. According to the credit money system, banks create deposits by expanding assets such as loans, so loan demand is the direct constraint of banks’ money creation, and loan rates become the key factor to determine deposit interest rates. With the deepening of the market-oriented reform of loan rates, the central bank can influence the loan rates by adjusting the policy interest rates, thus affecting the loan demand, transmitting to the deposit interest rates, and finally promoting the market-oriented reform of all the deposit and loan rates. Thus, the loan rates play a key role, and have a far-reaching effect. To promote the market-oriented reform of loan rates and address the issue of “dual-track” of loan rates, it is necessary to cultivate and apply more market-oriented loan pricing reference interest rates, to gradually phase out the benchmark lending rate. Therefore, it is a scientific and reasonable way to promote the market-oriented reform of interest rate by loan rates first and deposit interest rates in order, reforming and improving the formation mechanism of LPR, promoting the loan rates market-oriented reform, improving interest rate transmission channels and promoting the declining of financing real interest rate.

Box 1 Historical Review of China's Market-oriented Reform of Interest Rate and the Problems Faced

China's market-oriented reform of interest rate began in the mid-1990s. In 1993, the Third Plenary Session of the 14th Communist Party of China (CPC) Central Committee put forward the basic idea of market-oriented reform of interest rate: "The central bank adjusted the benchmark interest rate in time in accordance with the supply and demand of funds, and allowed commercial bank deposit and loan rates to float freely within the specified range." In 2003, the Third Plenary Session of the 16th CPC Central Committee further pointed out: "to steadily advance market-oriented reform of interest rate, establish and improve an interest rate formation mechanism determined by market supply and demand, and the central bank uses monetary policy tools to guide market interest rates." The inter-bank lending rate was officially deregulated in 1996. Since then, the PBC has insisted on combining the "breaking down" of interest rate control with the "establishment" of market interest rates, and adhere to the principle of

“deregulation, formation and adjustability” to gradually promote market-oriented reform of interest rate.

First, orderly lift the restriction on interest rates. The PBC has lifted the restriction on interest rate in the order of "money and bond market interest rates first, then the deposit and loan rates". The deposit and loan rates are loosed in the order of "foreign currency first, then the local currency; loan first, then the deposit; long-term, large amount first; then the short-term and small amount ". On October 24, 2015, there was no longer a floating ceiling on deposit interest rates for commercial banks, marking that China’s administrative control on interest rates has been basically deregulated.

Second, improve the market interest rate formation mechanism. At the beginning of the establishment of the money market and bond market, the PBC had cultivated benchmark interest rates such as bond repurchase rates based on actual transactions. In 2007, the PBC introduced the Shanghai Interbank Offered Rate (SHIBOR). In October 2013, LPR and its centralized quotation and release mechanism was established.

Third, improve the open market operation mechanism. The PBC has increased the frequency of open market operations, carried out daily operations, introduced the Standing Lending Facility (SLF) whose interest rate played the function of the upper limit of the interest rate corridor, and created the Medium-term Lending Facility (MLF) to provide medium-term liquidity.

Fourth, establish a self-regulatory mechanism for market rate pricing. In September 2013, the self-regulatory mechanism for market rate pricing (hereinafter referred to as the “Interest Rate Self-Regulatory Mechanism”) was formally established to conduct self-regulatory management of interest rates of financial market such as the money market and credit market.

In the process of advancing the market-oriented reform of interest rate, there are still many problems and challenges.

First, there is a "dual interest rate" of benchmark deposit and lending interest rates and market interest rates. Although the loan rates control has been deregulated, the loan rates of financial institutions still mainly refer to the benchmark lending interest rate. In particular, some banks set the implicit floor for loan rates through concerted behavior, resulting in the downward market interest rate that cannot be effectively transmitted to the loan rates.

Second, the interest rate transmission mechanism within the bank is obstructed. There are two departments in the decision-making mechanism of banks, namely the asset-liability department and the financial market department, which has “two brains” in pricing decision. The dominant asset-liability department has a relatively low market-oriented basis, and the financial market department with higher market-oriented basis can hardly impact on loan rates decisively.

Third, there is upward

pressure on deposit interest rates after the deregulation of deposit interest rates. Due to the widespread existence of banks' idea that deposit is the foundation of bank development and tend to pursue larger scale, as well as some regulatory indicators also pay more attention to general deposits, banks, especially small- and medium-sized banks, have a strong impulse to attract deposits with high interest rates. If deposit interest rates rise, it is not conducive to reduce social financing costs. **Fourth, the central bank's policy interest rate system is not clear enough.** After the deregulation of deposit and loan rates control, in order to reduce the degree of dependence of financial institutions on the benchmark interest rate of deposits and loans, the central bank needs to establish a clear and complete policy interest rate system to convey the central bank's interest rate control signal, and guide the operation of market interest rates.

II. Seize the Time Window to Promote LPR Reform

In 2015, when the interest rates control was deregulation, the PBC clearly proposed that it would continue to publish the benchmark deposit and lending rates, but this was only a temporary and transitional measure. After years of exploration, most banks have established fine models for loan pricing, which could determine the loan price independently according to the cost of capital, risk premium and other factors. Some banks have experimented internally with the pricing model of loan rates by referring to LPR or MLF interest rates. In recent years, the PBC's ability to manage interest rate through market behaviours has been continuously enhanced, and the loan rates is more sensitive to the money market interest rate and the central bank's operational interest rate. Therefore, certain conditions have been met for deepening market-oriented reform of loan rates. Taking the experience of international interest rate market-oriented reform and China's actual situation into account, the difficulty of interest rate market-oriented reform lies in that, since China's potential economic growth rate remains at a high level, with the lifting of financial repression, interest rate would have an endogenous force to rise, approaching the potential growth rate. The essence of interest rate market-oriented reform is to give pricing autonomy to financial institutions. However, it will go against the requirements of reducing social financing costs if financial institutions raise interest rates in pursuing of profits.

At mid-2019, the situation at home and abroad also provided a rare time window for promoting the market-oriented reform of loan rates. **From the perspective of macro economy performance,** China's economy was facing downward pressure, especially after the outbreak of COVID-19. The reforming and improving of LPR formation mechanism would smooth the transmission channels from monetary policy to loan rates, result in the reduction of financing cost in the real economy and provide greater support to the real economy. **From the perspective of the trend of market interest rates,** the PBC has adopted various monetary policy tools and has kept the interest rates in the money market and bond market operating smoothly, which has also created a

favourable financial environment for reducing the loan rates. **From the perspective of banks' tolerance**, since 2018, the PBC and China Banking and Insurance Regulatory Commission (CBIRC) has strengthened supervision over shadow banking and P2P, etc., which has contributed to the reduction of banks' cost of liabilities, led to the recovery of banks' interest margins, and left appropriate room for reduction of loan rates to reduce the burden of the real economy. **From the perspective of the international environment**, the global economy is facing increased downward pressure, and major developed economies have turned to an easing monetary policy. The external environment is conducive to driving down China's loan rates. **From the perspective of public opinion**, the CPC Central Committee and the State Council have proposed many times to lower the interest rate of loans. The whole society has formed an anticipation of downward loan rates, which is conducive to promoting banks to lower the interest rates in the market competition. In this context, increasing market-oriented basis of the loan rates is conducive to promoting the loan rates to continue to decline with the market interest rates, and to letting the market to better play the decisive role in resource allocation.

**Table 1 Interest Rate Cuts in Major Economies before the LPR Reform
(Jan.2019-Aug.2019)**

Country	2019/01	2019/02	2019/03	2019/04	2019/05	2019/06	2019/07	2019/08	Cumulatively
USA								↓0.25	↓0.25
Australia						↓0.25	↓0.25		↓0.50
New Zealand					↓0.25			↓0.50	↓0.75
Korea							↓0.25		↓0.25
India		↓0.25		↓0.25		↓0.25		↓0.35	↓1.10
Indonesia							↓0.25	↓0.25	↓0.50
Brazil								↓0.50	↓0.50
Turkey							↓4.25		↓4.25

Sources: Official websites of central banks, Wind, etc

The PBC comprehensively judged the situation at home and abroad, seized the rare time window, and announced the reform and improvement of LPR formation mechanism on August 17, 2019. If the reform was not launched in time, it would be more difficult to conduct reform and to lower the social financing costs through market-oriented reform after the outbreak of COVID-19.

III. International Experiences and Comparisons of Benchmark Interest Rate Reform

a. International Benchmark Interest Rate Reform is Promoting Gradually

London Interbank Offered Rate (LIBOR) is the most important international interbank benchmark interest rate. Due to the price manipulation and other problems, the Financial Conduct Authority (FCA) decided not to persuade, or compel, banks to submit to LIBOR after the end of 2021. Major economies have embarked on the reform of international benchmark interest rates, so far, the U.S., UK, Eurozone, Switzerland, Japan and Australia, etc. have identified the new alternative interest rates of their IBORs quote rates. These new benchmark interest rates are issued independently by each economy, which are based on the actual transactions and administered directly by the central banks with only one maturity of overnight.

Up to now, the derivatives benchmark transition plans have been clarified, but the benchmark transition plans for cash products are during the research. International Swaps and Derivative Association (ISDA) is responsible for researching derivatives benchmark transition plans, and has distributed officially at the end of 2018; after several rounds of consultation, details are also clarified gradually. The Alternative Reference Rates Committee (ARRC) has scheduled the benchmark transition plans for new issuance of LIBOR floating rate notes, bilateral business loans, syndicated loans, adjustable rate mortgages, and securitizations, but it is only applicable to newly signed contracts, and the shifting of legacy contracts is still to be arranged.

International organizations promote international coordination. Recent years, international economic and financial organizations, including the G20 Finance Ministers and Central Bank Governors Meeting, Bank for International Settlements (BIS) Market Committee (MC), Financial Stability Board (FSB), Basel Committee on Banking Supervision (BCBS), conducted international coordination with respect to benchmark interest rate reforms by holding meetings. International Accounting Standards Board (IASB) has published “Interest Rate Benchmark Reform- Phase 2 (exposure draft)”, revised the relevant international financial reporting standards based on recent benchmark reform developments.

Box 2 Progress and Challenges of LIBOR Reform

After July 27th, 2017 when FCA announced that it would not persuade, or compel, banks to submit to LIBOR, LIBOR reform has promoted gradually. In general, LIBOR reform is dominated by central banks, who are making efforts to solve the problem that the quote mechanism doesn't have strong trading basis. They actively promoted the reform by a “new first, then legacy” way, as well as facing some challenges.

Firstly, central banks play a key role. In the process of promoting the

international benchmark interest rate reform, each economy strengthened its supervision and control over the benchmark interest rate. All new benchmark interest rates are administered directly by the central banks except Swiss SARON, in order to strengthen its benchmarking and credibility.

Secondly, all of the new benchmark interest rates have solid trading basis. To avoid being manipulated, most of the new benchmark interest rates are the overnight transaction rates which have a solid trading base, such as the USD SOFR, GBP SONIA, EUR €STR, JPY TONA and CHF SARON. In addition, relevant regulatory authorities also expanded the computing base, improve the calculation method and take other measures to make sure the new benchmark interest can reflect the price of funds much correctly.

Thirdly, promote the reform in a “new first, then legacy” way. At present, the benchmark transition plans of derivatives and some kinds of cash products have been clarified, and separate the new and legacy contracts are the generally adopted practice. Countries used different supplement agreements or transition arrangements to the new and legacy contracts separately, but the benchmark transition scheme for the legacy contracts still needs further research to determine.

Fourthly, actively explore the ways to construct term rates. The new benchmark rates chosen by the authorities are overnight rates. However, there's still market demand for other term rates, and it's necessary to study a reasonable method to construct the interest rate of each term based on the overnight interest rate. Some working groups such as ARRC have researched and put forward two methods to construct the term rates named backward-looking approach and forward-looking approach. Till now, there are several regulate authorities and market institutions that have issued or prepared to issue the recommended term rates.

b. The Benchmark Interest Rate Reform in INDIA

Since India has released its control on the loan rates, it has tried to launch four benchmark lending interest rates, which has a certain value to China's market-oriented reform of interest rate.

1. Prime Lending Rates (PLR) and Benchmark Prime Lending Rates (BPLR)

Reserve Bank of India (RBI) started market-oriented reform of interest rate in 1994, chosen the PLR as the pricing benchmark. The commercial banks were

authorized to determine their own loan rates according to the PLR. However, there were great differences in loan pricing methods among banks as well as the loan rates provided to borrowers by the banks. In 2003, RBI improved the PLR, and suggested commercial banks to issue the BPLR, which was determined by the capital cost, operating cost and regulatory cost (the cost that can meet provision requirements, capital requirements and other regulatory indicators).

The problems with PLR and BPLR were: first, monetary policy transmission efficiency through the two rates are low, although BPLR had made some progress, some banks still refused to adjust their loan rates when policy rates go down. Second, BPLR should be the lower bound of the loan rates in theory, but there were several cases that the loan rates break through the lower bound. Third, the loan interest rate pricing methods of banks were still not transparently.

2. Base Rate (BR)

Considering the drawbacks of BPLR, in 2010, RBI started the new exploring of benchmark interest rates, and replaced BPLR with BR. According to the pricing principles issued by RBI, commercial banks should determine BR according to the cost of deposits, operating fees, reserve cost and profit margin. The actual loan rates shall not be lower than BR; commercial banks could determine the specific loan rates by adding a spread to BR according to borrower's credit. The problems with BR were: first, the loan rates were not transparently priced because the calculation methods were not unique; second, the BR were only used by commercial banks when they issued the new loans, the outstanding loans stay unadjusted, which made the monetary policy rate transmission to outstanding loans inefficient.

3. Marginal Cost of Funds based Lending Rate (MCLR)

In 2016, in order to promote the transmission efficiency of monetary policy, RBI launched MCLR. MCLR was published monthly, and the frequency was higher than that of BR, which was published quarterly. The commercial banks were required to determine the MCLR under the cost of funds as well as the marginal cost of funds. According to the newly revised pricing principle, MCLR was generally determined based on the marginal cost of funds, the operating cost, reserve cost and tenor premium.

In theory, MCLR could make the monetary policy rates transmit to the loan rates truly and quickly. However, it was not performing as expected in practice. There were mainly two reasons: first, the MCLR usage was not high, some of the loans were still priced refer to the BR, which was higher; second, although the publishing frequency was higher for MCLR, many banks didn't adjust their pricing timely.

4. External Benchmark Lending Rate (EBLR)

As the monetary policy transmission was still sluggish, RBI changed the pricing benchmark in October 2019. Instead of setting the pricing benchmark within the bank, they used the EBLR as benchmark interest rate. As stipulated, banks can choose the following EBLR as their pricing benchmark: RBI policy repo rate; Government of India 3-Month Treasury Bill yield published by the Financial Benchmarks India Private Ltd (FBIL); Government of India 6-Month Treasury Bill yield published by the FBIL; or any other benchmark marker interest rate published by the FBIL. Commercial banks calculated their loan rates based on EBLR as well as cost of CRR, operational expenses and profit margin.

The advantage of EBLR was that it helped monetary policy transmit more efficiently, and made loan rates pricing more transparent; the disadvantage of EBLR was that the volatility of EBLR was higher than the banks' lending cost, when the interest rates were on a downward stage, banks' net interest margin would be cut down.

The experience of India's benchmark interest rate reform shows us: first, there should be a clear and enforceable timetable for the benchmark interest rate pricing transition, especially for the outstanding loans pricing benchmark transition, which should be pushed forward quickly, in case the benchmark transition pace would be too slow and the expectation would be confusing. Second, choose an external public market interest rate as the benchmark lending rate, which is better than the internal pricing benchmark determined within the commercial banks, to avoid the problem of non-transparent formation mechanism. Third, develop the interest rate derivatives market, enrich the trading instruments, improve the market depth, to make it easier for the banks and borrowers to hedge their interest risks.

Part II Promote the Resolution of the Dual-Track Interest Rate Problem with LPR Reform

The MLF rate, as the medium-term policy interest rate, plays an important role in guiding and adjusting the medium-term market interest rates. Against this background, we can optimize the LPR quoting mechanism, establish the mechanism where LPR is linked to the MLF rate, increase the degree of LPR's market orientation basis, tear down the institutional obstacles in interest rate transmissions by means of reform, remove the implicit floor for loan rates, strengthen the independent pricing capacities of financial institutions, promote the reduction of real loan rates, and facilitate the market-oriented of deposit interest rates.

I. Perfect the Interest Rate Regulation System

a. The Monetary Policy Operational Framework with Structural Liquidity Deficit

Within the framework of structural liquidity deficit, the central bank, by maintaining an appropriate level of Requirement Reserve Ratio (RRR), can let the deposit growth in the banking system automatically lead to an increase in the demand for required reserves and maintain the pressure on the money market. By injecting liquidity, the central bank effectively controls the market interest rate and keeps the money market interest rate running within a reasonable range. In this process, the PBC injects short-term liquidity to continuously cultivate the short-term policy interest rate by conducting repos in the open market on a daily basis, and injects medium-term liquidity to continuously cultivate medium-term policy interest rate by conducting MLF operations at a fixed time point every month. On the premise of always maintaining the structural liquidity deficit, the RRR shall be adjusted in a timely and appropriate manner according to the requirement of monetary policy regulation and the speed of the increase in the demand for required reserves brought by deposit growth, so as to realize the monetary policy operational framework of structural liquidity deficit.

b. Improve the Central Bank Policy Rate System

The open market operation (OMO) rate as the short-term policy interest rate, together with the MLF rate as the medium-term policy interest rate, jointly forms the policy interest rate system of the central bank and convey the signal of the central bank's interest rate regulations.

The PBC conducts liquidity adjustments and monetary policy transmission by conducting OMO mainly through 7-day repos on a daily basis, so as to release the central bank's short-term policy interest rate signals and regulate market interest rates. Conducting OMO with primary dealers, the central bank can influence the money market interest rates through two channels: one is to directly affect the

market interest rate level by forming the bid-winning interest rate through bidding; the other is to indirectly regulate market interest rates by altering the total amount of liquidity in the banking system through OMOs, and thus affecting the supply and demand of market funds. The primary dealers can pass on the signal of “volume” and “price” of the liquidity they receive from the central bank to other market participants by conducting transactions in the money market.

Within commercial banks, there is a decision-making mechanism of two departments mechanism which involves the Asset and Liability Department and the Financial Market Department, with the Asset and Liability Department usually having an advantageous position in decision-making mechanism of two departments. The PBC provides medium-term liquidity to financial institutions through monetary policy instruments such as MLF. MLF funds can directly enter the Asset and Liability Department of commercial banks, thus directly affecting the amount of loans and loan rates; MLF rate can play the role of medium-term policy interest rate and directly affect medium-term market interest rate. It can also influence the balance sheets of financial institutions and market expectations by adjusting the marginal cost of the medium-term base money that financial institutions obtain from the central bank, so as to guide and adjust loan rates.

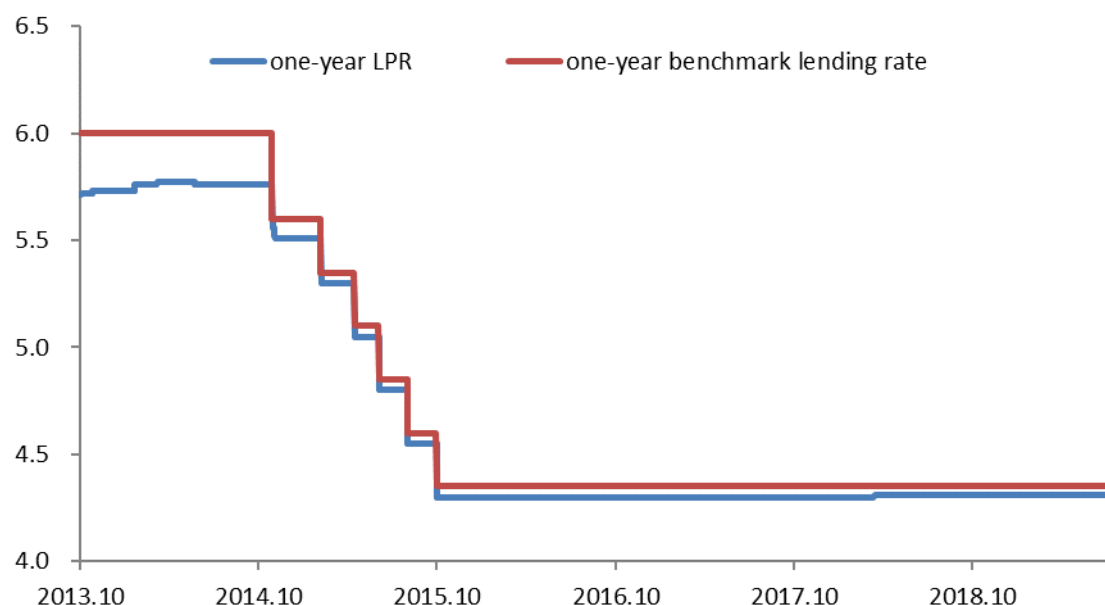
II. Improve the Formation Mechanism of the LPR

a. The Formation Mechanism of the LPR Before the Reform was Deficient

In October 2013, the centralized quotation and announcement mechanism of the LPR was officially put into practice. Every day, 10 LPR quoting banks were required to independently provide quotes of their loan rates applied to their own prime clients, the China Foreign Exchange Trade System and National Interbank Funding Center (CFETS) would weigh the quotes by the loan balance of each LPR quoting bank, calculate the weighted average interest rate, and release the rate to the public. Meanwhile, the Interest Rate Self-Regulatory Mechanism was responsible for supervision and administration under the guidance of the PBC, and financial institutions could determine their respective loan rates using the LPR as a reference. Since its operation, the LPR has many problems. Firstly, as LPR quoting banks mainly referred to the benchmark lending rate for making their quotes, the LPR moved in the same direction and amplitude as the benchmark lending rate for a long time, and market-oriented basis was obviously not enough to effectively reflect the changes in market interest rates, which also affected the enthusiasm of banks to apply the LPR. In fact, the LPR did not play an effective role in replacing the benchmark lending rate, so it is meaningless. Secondly, LPR quoting banks only consisted of nationwide banks, and the representativeness was insufficient. Thirdly, the term rates were incomplete, with only one-year LPR. Fourthly, as the quoting frequency was too high, LPR quoting banks did not attach enough importance to it, and the quotes could not represent LPR quoting banks' judgements on the loan rates. Fifthly, applications of the LPR were insufficient. Only part of LPR

quoting banks adopted LPR to price in form. In fact, most banks price their loans with the benchmark lending rate, and then turn it into the form of a few basis points added to or subtracted from the LPR. Additionally, it was mainly used for short-term fixed-rate loans.

Figure 1 The Pre-reformed LPR was Basically Pegged to the Benchmark Lending Rate



Data Source: WIND

b. Reform and Improve the Formation Mechanism of the LPR in Accordance with the Requirements of Market-oriented Requirement

Promoting the shift from a “dual-track” to a “single-track” mechanism of loan rates is an important breakthrough in the market-oriented interest rate reform. As the benchmark lending rate is still published, the market-oriented pricing of loan rates is constrained, making it necessary to improve the market-oriented benchmark for lending rates. Therefore, the PBC chooses to optimize the quoting approach of the LPR, establish a mechanism linked to the MLF rate, increase market-oriented basis of the LPR quotation, and actively promote the application of the LPR in loan pricing, so as to gradually replace the benchmark lending rate and promote loan rates market-oriented basis in a gradual and orderly manner.

In accordance with the requirement of promoting shift from a “dual-track” to a “single-track” mechanism and referring to international experience, the PBC mainly reformed and improved the formation mechanism of the LPR on the basis of the following ideas. The first is to clarify the position of the LPR as the benchmark rate for loans. LPR is used as the benchmark rate for bank loan pricing, and financial institutions are required to set loan rates by using LPR as reference benchmark rates. The second is to continue

implementing the quotation formation mechanism. Retained the current mechanism, where the LPR is formed by LPR quoting banks providing their quotes, is retained, and the number and type of LPR quoting banks are increased to improve the representativeness of the quotation. The third is to require LPR quoting banks to provide their quotes by adding a few basis points to the MLF rate in accordance with the loan rates applied to their own prime clients. MLF is an important channel for the central bank to provide medium and long-term liquidity, and its interest rate is the central bank's medium-term policy rate, conveying the signal of interest rate regulation by the central bank. Moreover, the term and operating frequency of the MLF rate is matched with that of the LPR, and by linking the LPR with the MLF rate, we can form a market-oriented reference benchmark indirectly managed by the central bank and can also better reflect the supply and demand conditions in the market.

III. Smooth the Monetary Policy Transmission Channel

a. Remove the Implicit Floor for Loan Rates

The existence of an implicit floor for loan rates makes the loan rates easy to rise yet difficult to fall, which makes it impossible for banks to effectively transmit monetary policy to the real economy in the stage of interest rate decline. Because of the existence of implicit floor for loan rates, even enterprises with highest quality can only obtain loans with interest rates not lower than the implicit floor. In this case, banks prefer to lend to large enterprises with low default probability to obtain excess returns, which also leads to the problem of difficult and expensive financing for MSEs to some extent.

Box 3 Research on the Implicit Floor for Loan rates

Before the LPR reform, the PBC made an in-depth investigation into the loan pricing situation of some of the nationwide financial institutions and local incorporated financial institutions. The research results showed that the loan pricing of large and medium-sized banks had an implicit floor of 0.9 times of the benchmark lending rate, while some small banks set loan prices directly referring to the benchmark lending rate.

Large and medium-sized banks mostly adopted aggregate-cost method to determine loan rates, but the pricing was often constrained by the benchmark lending rate. Large and medium-sized banks generally used following pattern in loan pricing: **the first** was to grant branches a certain degree of loan pricing authority; **the second** was that branches used the cost-plus method to price loans within their scope of authority. Some of the banks also adopt the risk-adjusted return on capital (RAROC) model or the economic value added (EVA) method to price loans. In essence, indicators such as risk-adjusted return or EVA are added on the basis of the cost-plus method to

get the actual pricing of loans. Of course, the loan rates calculated according to the pricing models may not be the final interest rate obtained by customers, as banks would also determine the loan rates after making adjustments according to the credit line, the structure of assets and liabilities, the national industrial policy, the interest rate of comparable competitors and other factors. Additionally, banks' loan pricing is still subject to the benchmark lending rate. Some of the banks take 0.9 times of the benchmark lending rate as the floor of loan pricing to manage the pricing authority of their branches. In practice, if the loan price was higher than the floor, the loan can be issued directly; if the loan rates was lower than the floor, it must be reported to the head office for approval.

Small-sized banks referred more to the benchmark lending rate or follow the interbank pricing. Limited by imperfect system, few professional pricing personnel and imperfect competition in the loan market, some of the small-sized urban commercial banks, rural commercial banks and rural banks mainly adopted the model of referring to the benchmark lending rate or following the interbank pricing.

The differences between the pricing of loans in different regions were also quite obvious. Financial institutions in relatively developed regions have relatively higher loan pricing capacity and can reasonably determine the loan rates based on factors such as customer type, customer comprehensive contribution and market competition. The pricing capability of financial institutions in the central and western regions is relatively weak, especially some rural commercial banks and rural banks have not fully established their internal rating systems.

According to the actual pricing situation, in 2018, among the loans with interest rates below the benchmark lending rate, a total of 76% of the loan rates were in the range of (0.9, 1] times of the benchmark lending rate, that was above the implicit floor. After the removal of the implicit floor for loan rates, these loan rates will be more closely related to the market interest rate, and the interest rate level will further decline.

After the LPR reform, the LPR is quoted by LPR quoting banks in a market-oriented manner and no longer has administrative features. It is difficult for banks to collectively set the implicit floor for loan rates by referring to the LPR. With the breaking of the implicit floor for loan rates, the excess returns from banks' loans to large enterprises will significantly decline, which will weaken banks' motivation to maintain profits by increasing the scale of loans to large enterprises and will make large banks more inclined to serve MSEs as well as inclusive finance than before. As the cost of debt of

large banks is significantly lower than that of small- and medium-sized banks, large banks can offer lower loan rates than small- and medium-sized banks to MSEs with the same qualification, which drives down the average loan rates of MSEs. At the same time, the competition landscape of the loan market for MSEs will also change. The participation of large banks will promote healthy competition in the loan market for MSEs, reduce banks' overall risk pricing for MSEs, and also help to lower the loan rates for MSEs. In this process, large enterprises will turn to obtain more financing from the bond market, which is also good to the development of the bond market.

b. Strengthen the Independent Pricing Capacities of Financial Institutions

Before the reform of the LPR, bank loan issuance focused on large enterprises, and the main consideration was that these enterprises carry large loan volumes, small credit risks and low management difficulties. Due to a lack of risk management ability and pricing capacity, part of the banks, when issuing loans to MSEs, often decided whether to issue loans merely based on short-term financial indicators such as sales revenue and profit growth of the enterprise. They did not comprehensively consider the operational condition or long-term development of the enterprise in order to make reasonable pricing and did not establish long-term cooperative relations, which was not conducive to the improvement of the banks' risk pricing ability. After the LPR reform removes the implicit floor for loan rates, the bargaining power of large enterprises is strengthened, which will force banks to improve their pricing capability by comprehensively considering the cost of funds, cost of risks, cost of capital and cost of taxation to make reasonable quotation, so as to expand MSEs customers and promote the sustainable development and sound operation of the banks.

c. Promote the Market-oriented Reform of Deposit Interest Rates

Market-oriented loan rates can promote deposit interest rates market-oriented. After loan rates market-oriented, banks' loan rates decline, and the behavior of attracting deposits at high interest rates is difficult to sustain. The pressure of deposit competition faced by banks will be alleviated, and the capacity of pricing deposits independently will be further enhanced. Under the credit money system of banks, banks create deposits through asset expansion such as issuing loans; therefore, raising deposit interest rates cannot increase the total amount of deposits, but can only change the distribution of deposits among banks. Changes in loan rates can affect the supply and demand of loans, thus determining the amount of loans and then the amount of deposits. Thus Market-oriented loan rates are the key that would have far-reaching effects and promote deposit interest rate market-oriented.

Box 4 The LPR Reform is Suited to China's National Conditions

Initiated and published by the Wall Street Journal, the US's Prime Rate (PR) has been directly linked to the policy interest rate since 1994. It is the federal funds target rate (FFTR) published by the Federal Reserve plus 3 percentage points, mainly used for loans to SMEs, consumer loans to retail customers, credit card overdraft, etc. The formation mechanism of the LPR is similar to that of the PR in the United States, but there are also differences. There are differences between Chinese and American financial systems. LPR can better adapt to China's bank-dominated financial system and provide reference for the price setting of bank loans.

There are differences between the financial systems of China and the United States. The financial market of the United States is dominated by direct financing such as bonds, and the share of loans is not high. Besides, money market benchmark interest rates such as LIBOR have a long development time and have been highly recognized by the market for a long time in the past; therefore, more attention is paid to Treasury yields and LIBOR. In fact, US Treasury yields are often used as a reference for the pricing of long-term fixed rate bonds, not as the main reference for loan pricing. There has long been a misunderstanding in China that the government bond yield curve should be used as the benchmark for loan pricing, which overstates the role of the government bond yield curve and leads to a series of faulty logics such as that government bond yield curve needs to be cultivated in order to improve market-oriented basis, that more government bonds need to be issued in order to cultivate the government bond yield curve, and that fiscal deficit needs to be monetized in order to issued more government bonds. LIBOR, with many problems exposed in the financial crisis, might be phased out after 2021. China's financial system is dominated by banks, and the loan rates are the most important funding price. Previously, most loans in China were priced based on the benchmark lending rate. With the deepening of the market-oriented reform of interest rate, the role of the benchmark lending rate is gradually weakened, and it is urgent to cultivate a more market-oriented reference benchmark for lending rates.

The formation mechanism of the LPR in China is similar to that of the PR in America, but it has distinct advantages. Firstly, the LPR is formed by adding a few basis points to the 1-year MLF rate, which serves as the medium-term policy interest rate, instead of the short-term policy rate. The maturities of the two are relatively matched, avoiding the defect that the maturity of the US PR is inconsistent with that of the FFTR. Secondly, unlike the long-term fixed spread between the PR and FFTR, the spread between the LPR and MLF rate is not completely fixed, which reflects the characteristic of market-oriented quotation. Thirdly, the LPR has two varieties with different maturities, while the PR has only one variety with no specific maturity.

Fourthly, the range of use is quite different. At present, almost all newly issued floating-rate loans in China use LPR as the pricing benchmark, and the pricing of fixed-rate loans are also formed by referring to the latest LPR with a few basis points added. The outstanding floating-rate loans, which were originally priced with reference to the benchmark lending rate, have also completed the shift in the pricing benchmark, while the use of the PR in loan pricing in the United States is relatively low.

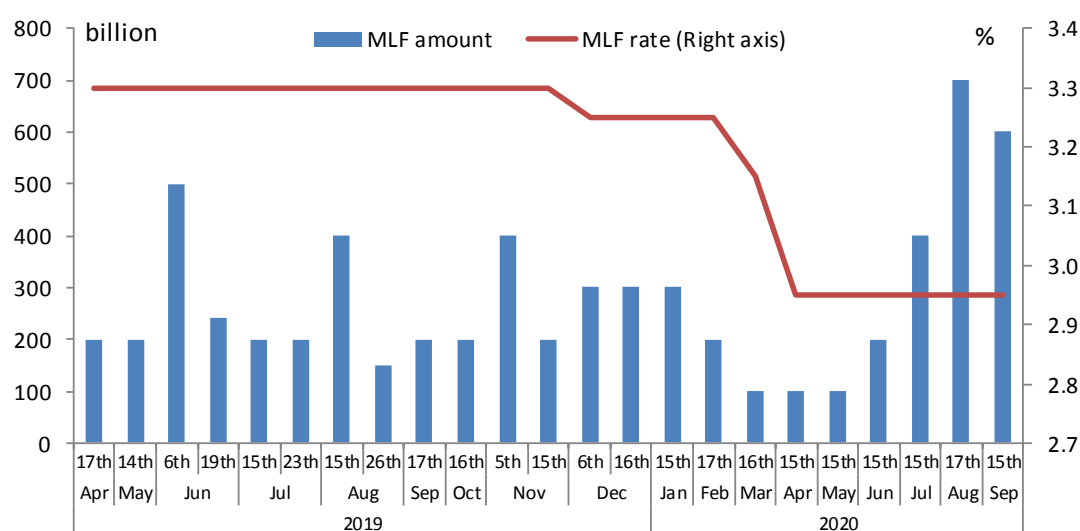
LPR can better adapt to China's national conditions. Compared with PR, the formation mechanism of China's LPR is more market-oriented. Meanwhile, the supervision and management are also stricter. The PBC guides the Interest Rate Self-Regulatory Mechanism to supervise and manage the LPR quotation, regularly evaluate the quotation quality of LPR quoting banks, select the superior and eliminate the inferior, which will help improve the credibility of the LPR, ensure the quotation quality of the LPR, and make it truly and effectively reflect the supply and demand situation of the credit market. In light of the actual situation, the LPR can better adapt to China's national conditions and provide a good reference for banks' loan pricing.

Part III Measures to Promote LPR Reform

I. LPR Management Mechanism

Since 2019, the PBC has gradually established the normalized mechanism of MLF operation. At present, it has basically formed the mechanism of conducting MLF operation, mainly one-year term, once in the middle of a month. The operation was conducted at a relatively fixed time and frequency, hence enhancing transparency, regularity and predictability of the operation. The medium-term policy interest rate signal is continuously conveyed to the market, also providing reference benchmark for LPR quotation on the 20th of each month (postponed in case of holidays), so as to guide the market expectation.

Figure 2 Conducting Medium-term Lending Facility Regularly



Data source: WIND

Box 5 The Formation Mechanism for the LPR is based on Adding Some Basis Points to the MLF Rate

Since the LPR reform, the formation mechanism for the LPR allows LPR quoting banks to make quotes by adding some basis points to the MLF rate. Although the proportion of funds provided by the MLF is not high among the banks' liabilities, the MLF rate, as the central bank's medium-term policy interest rate, represents the marginal funding cost of the banking system to obtain medium-term base money from the central bank. It is suitable to be used for loan rates price-setting by banks, as a reference.

It is the marginal amount rather than the total amount that plays a decisive role in affecting market interest rates. Under the credit money system of banks, the entities of money creation are banks. After creating deposits by expanding assets such as loans, banks need more base money to satisfy the reserve requirements. Therefore, there exists a continuous demand for base money. As the central bank takes charge of base money supply, it only needs a few necessary operations to exert a decisive marginal impact on the market interest rates rather than operations in huge amount to make central bank funds the main liabilities of the banks. This is also the case in the world. The Federal Reserve regulates the overnight Federal funds rate through the overnight open market operation, which expires the next day. Therefore, the balance of the Fed's repo operation is basically zero, but it does not affect the fed's open market operation rate's function to regulate the market interest rate.

It is unsuitable for add some basis points to the market interest rates to form LPR. MLF rate is the medium-term policy interest rate and it also has good directionality and guidance. Interbank certificate deposit rate, bond yield and other market interest rates are easily affected by short-term factors such as funds, regulatory assessment and expected changes. So these interest rates usually fluctuate greatly, which are unsuitable to add some basis points to them to form LPR.

It is reasonable to add some basis points to the MLF rate to form LPR. The MLF operation conducted by PBC is the monetary policy tool with Chinese characteristics. The maturity for the MLF is all 1 year, which matches that of the LPR. As an important reference of loan pricing, LPR should mainly reflect the trend of interest rate, and the frequency of change should not be too fast. Otherwise, it may cause confusion of interest rate signal and affect market expectation. Similar to LPR, MLF has basically operated once a month and the interest rate is relatively stable, which can fully reflect the trend of monetary policy orientation and the marginal cost of capital in the market.

II. LPR Formation Mechanism

In accordance with the arrangement of the State Council, the PBC issued an announcement on the reform and improvement of the formation mechanism of LPR to further promote loan rates market-oriented basis on August 17th, 2019. **The LPR mechanism reform is characterized by five “news”: new quoting rules, new formation mechanism, new maturity, new LPR quoting banks and new quoting frequency.**

a. New Quoting Rules

LPR quoting banks need to make quotes based on their own loan rates for prime clients, it fully reflects the market-oriented principle. As the major benchmark reference for loan rates pricing, LPR is an important public goods used by all financial institutions, enterprises and residents, and has strong externalities. The PBC attaches great importance to the quality of LPR's quotations. Before their first quotation, LPR quoting banks are required to submit and clarify their quoting templates and construct quotation models, which would be formally implemented after PBC's approval. The PBC guides the Interest Rate Self-Regulatory Mechanism to strengthen the supervision and management of LPR quoting banks, to urge LPR quoting banks to submit scientific and reasonable LPR quotations, and conducts periodic assessment of the quality of their quotations, and resolutely eliminates violations such as disrupting market order, or even concerted manipulation on quotations. When assessing the quotation quality, the absolute value of the quotation is not assessed, and the focus is on the scientific basis and authenticity of their quotes. That is to say, LPR quoting banks must submit quotes based on their own models, along with actual average loan rates for prime clients.

b. New Formation Mechanism

After the reform, LPR was formed through quotation by adding a few basis points. The current term of MLF is all one-year, reflecting the medium-term average marginal cost of the banking system borrowing base currency from the central bank. The number of basis points added is mainly determined by factors such as the funding costs of banks, market demand and supply, and the risk premium. So LPR has become increasingly market-oriented and more flexible. Each quoting bank is required to submit quotes with 0.05 percentage points as step length, which means, the quotes should be an integral multiple of 0.05%. When calculating the average quotes of LPR, the CFETS eliminates the highest and lowest quotes to reduce the impact of extreme values on the overall interest rate. At the same time, due to the small size of the newly added LPR quoting banks, the weighted average method is no longer suitable. The new calculation method is shifted to calculating arithmetic average of the effective quotes. After calculating the arithmetic average rate, the LPR is round to the nearest integer multiple of 0.05%. Through scientific and reasonable quotation and calculation method, the changes of LPR have good orientation and guidance.

Box 6 The LPR Quotation Mechanism is Not Easy to be Manipulated

After the reform, LPR, similar to LIBOR, is formed by quotation submitted by LPR quoting banks. Compared to LIBOR, the LPR quotation mechanism is reasonable, the regulatory body is clear, and the assessment mechanism is sound. It is not easy to be manipulated by LPR quoting banks.

I. LIBOR Manipulation Cases and the Problems Reflected

LIBOR, launched in 1986, has always been one of the most important benchmark interest rates, and the reference benchmark for the pricing of floating-rate loans, mortgages and various derivatives in the world. Since 2005, LIBOR manipulation cases have occurred frequently worldwide, making it the largest scale of violation in financial history. It has extensively affected the pricing of various assets, stock indexes and hundreds of trillion US dollars of interest rate products, and has seriously violated the financial market confidence, effectiveness and participants' interests. Europe and the United States has fined dozens of banks over 7 billion dollars. After the exposure of LIBOR manipulation scandals, although the British financial regulators followed up with many reforms, the lost reputation and credibility were difficult to reverse. In 2017, the FCA announced that, it would no longer persuade, or compel, banks to submit to LIBOR beyond the end of 2021. The market generally believed that LIBOR would no longer be published and would be replaced by new benchmark interest rate.

The occurrence of the LIBOR manipulation cases exposed its problems in formation mechanism. First, the quotation was lack of real trading base. The supervisory authorities did not emphasize that LIBOR quoting banks should be based on real transaction quotations, which made it difficult to accurately identify and characterize the quotations even if they found that the quotations might be distorted. Second, there were too many forms of quotations. The LIBOR quoting banks were required to quote 150 unsecured loan rates covering 10 currencies and 15 maturities every day, making it difficult to supervise. Third, there were disputes over the scope of supervisory authorities. LIBOR was formed in the London inter-bank lending market, but it indeed affected other countries' markets and financial institutions, as well as derivatives markets including futures, swaps, and forwards. The scope of supervisory authorities was usually limited to one country or market, so it is difficult to investigate transnational and cross-market violations.

II. LPR has Obvious Advantages in Institutional Arrangements

Although LPR quotation and calculation method is similar with that of LIBOR, it has obvious characteristics as follows.

First, the quotation mechanism is reasonable. LPR is formed by adding a few basis points to MLF rate, so that LPR has a clear quotation benchmark. Based on this benchmark, LPR quoting banks calculate the points range according to their own situation, which mainly depend on the capital cost, market supply and demand, risk premium and other factors. Meanwhile, the range of LPR quoting banks is extended to

urban commercial banks, agricultural commercial banks, foreign-funded banks and private banks, enhancing the representativeness of the quotation.

Second, the supervisory authority is clear. The PBC guides the Interest Rate Self-Regulatory Mechanism to establish LPR Working Group, and appoints core members to be the team leaders, who are responsible for the supervision and management of LPR quoting. Meanwhile, the PBC authorizes CFETS as the designated publisher of LPR, and CFETS could fully utilizes its front-line strengths to closely monitor the LPR quoting situation, and urge LPR quoting banks to improve the quality of the quotation.

Third, assessment mechanism is sound. The selection of LPR quoting banks are stricter, and they are all representative banks. Meanwhile, LPR quoting banks are required to submit quotes based on the loan rates to their prime clients, it means that the quotes are based on the actual loans issued. In order to urge LPR quoting banks to improve the quality of quotes and ensure the scientific basis and authenticity of their quotes, the PBC has established a quotation assessment mechanism to require LPR quoting banks to report quotation models and regularly assess whether the quotes truly reflect actual loan rates of the prime clients. Based on this, the rule of “the good be selected and the bad be eliminated” would be implemented among LPR quoting banks, and this can effectively exert the incentive and restraint function among LPR quoting banks.

c. New Maturities

In addition to the current one-year LPR, the LPR with a maturity of over five years was also be made available in the market, serving as the pricing reference for long-term lending by banks such as mortgage loans. Loans with maturities of one-year or above 5 years are priced referencing the LPR with corresponding maturities, while for loans with maturities of less than one year or those between one-year to five-year, financial institutions can choose the maturity of LPR by their own choices. Once the reference benchmark is determined, the LPR spread can be determined by adding or subtracting a few basis points. Meanwhile, the variety of LPR maturities is less than that of benchmark lending rates, reflecting reform thought that simplify maturity varieties and give more play to the role of market-oriented mechanism.

d. New Quoting Banks

The LPR quoting banks prior to the reform had been the top ten nationwide commercial banks by loan volume (excluding development banks, policy banks and Postal Savings Bank). To enhance the representativeness of LPR and

encourage more small- and medium-sized banks to use LPR, eight new LPR quoting banks have been newly added, including two city commercial banks, two rural commercial banks, two foreign-funded banks and two private banks. Those newly added LPR quoting banks, basic members of the Interest Rate Self-Regulatory Mechanism that meet the requirements of macro-prudential management, all have greater influence in the loan market among banks of the same category, have relatively strong loan rates pricing capabilities and secure delivery of better services to MSEs. The PBC will guide the Interest Rate Self-Regulatory Mechanism to assess the quotation quality of LPR quoting banks regularly and implement the rule of “the good be selected and the bad be eliminated”, strengthening incentive mechanism among LPR quoting banks.

e. New Quoting Frequency

To encourage banks to place a priority on the practice of quotes and improve the quality of quotes, the PBC has optimized the quoting frequency of the LPR by shifting from the original daily basis to a monthly basis. LPR quoting banks are required to put in place mechanisms such as quotating committees, and hold meetings every month to conduct research and discussions before submitting quotes, ensuring quality of their quotation. Considering that the PBC generally conducts MLF operation around the 15th day of each month, LPR quoting banks can take full account of MLF interest rates as they submit quotes. To be specific, LPR quoting banks shall submit the quotation before 9:00 a.m. on the 20th of each month, and the LPR will be published at 9:30 a.m. after CFETS collect quotes and then calculate. LPR is published simultaneously on the official website of the PBC and CFETS.

III. LPR Transmission Mechanism

a. Incorporating the Use of LPR into the MPA and Implement Incentives and Constraints Based on the Effects of Application

In order to urge banks, especially small- and medium-sized banks to use the LPR, thus promoting the development of loan market with orderly competition and bringing down the actual loan rates, the PBC has made it clear that starting from Q3 2019, the application of LPR would be incorporated into the MPA. Specifically, a sub-indicator of “new loans using the LPR in loan pricing” has been put under the MPA item of pricing conduct assessment and the score of the indicators has been adjusted accordingly.

For nationwide banks, the indicator of “new loans using LPR in loan pricing” should be no less than 30% by September 2019, no less than 50% by Q4 2019, and no less than 80% by Q1 2020. For locally incorporated financial institutions, they were exempt from the assessment in September 2019, but they should follow the same standards as nationwide banks to meet the requirements of no less than 50% by Q4 2019 and 80% by

Q1 2020. Only if the indicator of “new loans using the LPR in loan pricing” meets the above requirements, financial institutions can pass the assessment of pricing conduct.

Table2 Incorporate the Use of LPR into the MPA

	New loans using the LPR in loan pricing		
	Q3 2019	Q4 2019	Q1 2020
Nationwide bank	30%	50%	80%
Locally incorporated financial institution	-	50%	80%

Data source: PBC

If a bank's pricing conduct fails to meet the requirements set above in terms of LPR usage, or has concerted practices to set an implicit interest rate floor for loans, its MPA rating will be Grade C, meaning that it will face corresponding constraint measures. For those financial institutions that have reached the requirements of LPR application ahead of schedule, the PBC will provide positive incentives through monetary policies toolkits.

On December 28, 2019, the PBC issued Announcement No.30 [2019], clearly stipulating that financial institutions should price loans primarily referencing to the LPR and starting from January 1st, 2020 are not allowed to sign new contracts of floating-rate loans with reference to the benchmark lending interest rate. Meanwhile, sub-indicator of “new loans using the LPR in loan pricing” under the MPA item of pricing conduct assessment ceased to be assessed.

b. Incorporating LPR into FTP System to Smooth Banks’ Internal Pricing Transmission

FTP is an internal operational management system in which the internal fund center of a financial institution transfers funds to the business units and calculates costs and benefits. The business units transfer the funds raised under liability business to the funding center or purchase funds from the funding center at the corresponding FTP price. The FTP mechanism provides a foundation for financial institutions to conduct product pricing, resource allocation, and risk management. It is an effective tool to guide banks to price reasonably and conduct refined management. As loan FTP is the basis for loan pricing, guiding financial institutions to establish FTP systems aligned with the LPR is of great importance to unblock internal pricing transmission channels, deepen LPR reforms and push loan rates down.

The PBC actively takes measures in guiding banks to put in place and improve FTP mechanisms, and further develop FTP by using the LPR. First, the PBC issued *Implementation Guidelines on Incorporating the LPR into the FTP System of Financial Institutions* to financial institutions, which outlines the principles of establishing FTP curves, the construction methodology and applicational scope of loan FTP curves, for financial institutions. It provided financial institutions, especially small- and medium-size ones, with explicit references to the development of FTP curves by using

the LPR. Second, using LPR in FTP is incorporated in the MPA. Financial institutions are required to apply the LPR into the FTP curves which should be made available in the system so that loan FTP can fully reflect the changes in the LPR in a timely and adequate manner. In addition, the spread between loan rates of nationwide banks and the LPR was also put under the MPA, prompting banks to conduct loan pricing by using the LPR, so as to ensure the effective transmission of policy effects to the real economy.

Box 7 Promoting LPR Reform Precedes the Improvement of the FTP

While some believe that the market-oriented reform of interest rate must start by improving bank's FTP and then promote market-oriented reform of loan rates, such view is wrong.

First, under the bank credit monetary system, banks create deposit money through asset expansion, with loan rates affecting deposit interest rates. According to the golden rule of economic growth theory, the equilibrium of real interest rate on loans (the nominal loan rates minus inflation) should be equal to the marginal return on capital, which is close to the growth rate of economy. Therefore, the equilibrium level of loan rates is primarily determined by economic fundamentals. Once loan rates are determined, banks will form a balanced deposit interest rate through credit currency creation and market competition.

According to the basic principle of the formation of loan rates, even if the deposit interest rates do not change, changes in economic fundamentals and monetary policy regulation of the central bank can guide the bank to adjust the loan rates. The actual situation also fully verified this principle. Since October 2015, benchmark deposit and lending rates published by the PBC have not been adjusted and the deposit interest rates of banks have slightly changed, while in this process the loan rates of banks have relatively greater change.

Second, the essence of market-oriented interest rate reform is to allow markets to play a decisive role in the formation of interest rates. Therefore, it is very important to cultivate and improve the formation and transmission mechanism of market-oriented interest rates. The establishment and improvement of FTP system by banks will help improve their independent pricing capability, thus promoting market-oriented interest rate reform. However, under the current structure of assets and liabilities of Chinese commercial banks, it is difficult to realize the market-oriented pricing of loan rates only by improving the FTP system without changing the formation mechanism of

loan rates, nor can the problem of "dual-track" interest rates be solved.

This is because, compared to the FTP, the LPR plays a more important role in the formation and transmission of market-oriented interest rates. First, LPR is more authoritative. The LPR, calculated and announced by CFETS under the authorization of the PBC, is an important public product with strong externalities and easier to be accepted by clients. The FTP is only a tool for banks to guide their business departments or branches to set prices. It has the characteristics of one rate per bank and is not universal. As it is difficult to explain specific calculation methods to clients, and to obtain general recognition, it cannot be used as a reference for the market. Second, LPR is easier to use. As LPR is quoted by LPR quoting banks by adding some basis points to the MLF rate, banks can directly refer to LPR when setting prices. The FTP only includes the bank's capital costs and does not consider other factors such as market supply and demand. In the actual process of granting loans, banks should consider not only the FTP, but also market demand, expected loss, tax costs, capital costs and other factors to determine loan price. Third, LPR can provide a pricing benchmark for small- and medium-sized banks. At present, there are more than 4000 banks in China, most of which are city commercial banks, rural commercial banks, rural credit cooperatives and village banks focusing on the local markets. Most of these small- and medium-sized banks do not have independent pricing capability, some have not established internal FTP curves, and some even have FTP curves formed by referring to those market benchmark interest rates with strong credibility. While in the past, these banks mainly used the benchmark lending interest rates as pricing references, LPR can provide a more market-oriented pricing benchmark for these small- and medium-sized banks.

LPR formation mechanism reform requires banks to refer to the LPR when pricing loans, allowing the loan rates to become more market-oriented. In the process of promoting the shift from a "dual-track" to a "single-track" mechanism of loan rates, such efforts help prompt banks to speed up the integration of internal pricing mechanism and thus realize the integration of the FTP. With the significant progress of LPR reform, the PBC further improved the FTP mechanism of banks and required banks to incorporate LPR into FTP, further smoothing the internal interest rate transmission channels of banks. Implementing in a scientific order secures the smooth advancement of LPR reform.

c. Promoting the Removal of Implicit Floor on Loan Interest Rates

Before the LPR reform, the benchmark lending interest rate had been set by the PBC, with a certain level of administrative feature and strong anchoring effects. Although

the caps and floors of loan rates had all been removed, banks still referred to the benchmark lending interest rate under most circumstances, in particular, a few banks showed concerted practices in setting the implicit floor on loan rates by a certain multiple (such as 0.9 times) of the benchmark lending interest rate, which hindered the transmission of monetary policy to the real economy.

In order to urge financial institutions to apply LPR as loans pricing reference, smooth the interest rate transmission channels and remove the implicit floor on loan rates, the PBC explicitly claimed that no banks are allowed to show concerted practices in setting the implicit floor on loan rates(PBC Announcement No.15 [2019]), enterprises could report to the authority if a bank is spotted show concerted practices in setting the implicit floor on loan rates. Meanwhile, showing concerted practices in setting the implicit floor on loan rates would be put under the MPA as a veto indicator. If financial institutions are reported and spotted collusively to have set the implicit floor on loan rates, they will be directly rated as grade C in the MPA.

After conducting the LPR reform for a period of time, the PBC did a survey about loans of several banks and found that several banks still issued loans with 0.9 times the benchmark lending interest rate (one-year is reported at 3.915%, above-five-year is reported at 4.41%), which was suspected of showing concerted practices in setting the implicit floor on loan rates. The PBC issued supervision attention letters to those banks and required them to conduct self-inspection. Meanwhile, the PBC also guided the Interest Rate Self-Regulatory Mechanism for Market Rate Pricing to implement on-site inspections and respondents covered asset and liability departments of banks, business departments, branches, major prime clients and so on. The banks, which are spotted collusively setting the implicit floor on loan rates on-site, get deduction in the MPA assessment, and their heads of asset and liability departments were interviewed and urged to take effective measures to speed up rectification. Under supervision and rectification, these banks have already enhanced loans pricing management to resolutely eliminate violations such as setting the implicit floor on loan rates through coordinated behavior.

d. Promoting a Shift in the Pricing Benchmark for Outstanding Floating-rate Loans in Line with Market-oriented and Law-based Principles

As LPR reform continued to advance, new loans are basically priced with LPR, while outstanding floating-rate loans are still priced with benchmark lending interest rate. Considering the fact that benchmark lending interest rate has not been adjusted since October 2015, thus it couldn't timely reflect the change of market rate, also, it was not beneficial in protecting the interests of both borrowing side and lending side. In order to further deepen the LPR reform, on December 28, 2019, the PBC has issued Announcement NO. 30, declaring to promote a shift in the pricing benchmark for outstanding floating-rate loans in line with market-oriented and law-based principle.

With market rates being in a downward trend, the timing for a shift in the pricing benchmark for outstanding floating-rate loans is favorable. LPR is more market-oriented than benchmark lending interest rate, and under the background of reducing enterprise's financing costs, LPR is more likely to further decline in the foreseeable future. For enterprises, when the pricing benchmark for outstanding floating-rate is shifted towards LPR, the underlying loan rates are also expected to decline correspondingly after re-pricing. Furthermore, enterprises can re-negotiate with banks, and cut down on loan rates directly when shifting benchmark. As for mortgage loan borrower, if re-pricing day of individual mortgage loan is set at Jan 1st each year, then its rate would remain the same in 2020, but if LPR is lower in December 2020 than that in December 2019, then interest rate of mortgage loan would decline in 2021, it's beneficial to easing interest burden. As for banking sector, income from loan interest may be impacted after the shifting, but if banks do not take initiative in shifting, their interest risk will also increase due to the fact that change in outstanding loan rates and market rate are not synchronized. In accordance with the arrangement to cut down on enterprise's funding cost, banks should also ease the burden of market participants. Shifting in the pricing benchmark for outstanding floating-rate loans should be promoted by complying with following key points:

First, benchmark shifting should be promoted in line with market-oriented and law-based principles, and respecting contract arrangements and decision-making power of both borrowers and lenders. Specific terms of benchmark shifting of outstanding floating rate loans are negotiated by both lenders and borrowers. Borrowers could shift benchmark lending interest rate towards LPR, or fixed interest rate. In the course of negotiation, both borrowers and lenders could re-negotiate the factors, such as term of LPR, number of basis points added, re-pricing cycle, re-pricing dates, etc. The announcement stipulated that each borrower is entitled to shift only once, when the shifting is completed, there will be no more shifting for each borrower.

Second, window guidance of time frame for shifting is mostly in principle, rather than administrative. In order to promote shifting course properly, the time frame for shifting is from March 2020 to August 2020. New issued loans are basically priced with LPR. If pricing reference for outstanding loans cannot be shifted in time, it would not be beneficial to protecting the interests of both borrowers and lenders. Based on international experience, during loan benchmark rate reform, time frame for benchmark shifting should not be too long. If, benchmark shifting is not completed by August 31st, 2020, both borrowers and lenders could conduct the original contracts. Afterwards, the benchmark shifting can still be done through negotiation.

Third, interest rate remains the same at the time when benchmark of outstanding individual mortgage loan is shifting. Specific plans of benchmark shifting for outstanding enterprise loan are negotiated by borrowers and lenders. The interest rate after the benchmark shifting could also be re-priced through the latest overall evaluation of the borrower. As for the outstanding residential mortgage loans, which amounted to

28 trillion yuan, with approximately 70 million clients and longest term exceeding 30 years, the shifting involves many areas. The work is highly difficult, and has tremendous impact on residents' interest burdens and interests. In order to reduce the difficulty of benchmark shifting, the PBC has set a uniform rule for shifting of the pricing benchmark conversion of outstanding mortgage loans. The rule stipulated that, the mortgage loan rates remains the same at the time of shifting, no matter it would be fixed rate or floating rate after the shifting is completed. During the shifting course, re-pricing cycles and re-pricing dates could both be re-negotiated by both borrower and lender, with the re-pricing cycles being at least one year. Meanwhile, the rule stipulated that, the referencing benchmark at the shifting time is the LPR of December, 2019. The mortgage loan borrower can shift the benchmark at any date between March 2020 to August 2020, with interest rate and number of basis points added remaining the same. By doing so, the issue of fairness raised by LPR fluctuation could be addressed. Furthermore, it could also alleviate the pressure brought to banks through avoid conducting business centrally at a specific time.

Fourth, banks could decide the way of signing supplementary agreements on their own, and conduct benchmark shifting in a way as simple and convenient as possible. The shift of outstanding loan pricing benchmark only involves terms regarding interest rate in the contract, with other terms remain unchanged. As for the shifting methods, some banks have already made flexible and easy arrangements in contracts, thus the benchmark shifting could be done in the arranged method. If there is no previous arrangement, banks could conduct the benchmark shifting by signing supplementary agreement in original contract. Supplementary agreement only needs to stipulate that loan rates is determined by adding a few basis points on LPR. According to Contract Law and Electronic Signatures Law, electronic contract has the same legal force with contract signed over the counter, and banks already have established mature practices in providing financial products and services in signing contracts through online banking. As for the method of signing supplementary agreement, banks could reach an agreement with clients by signing electronic contracts in a simple and convenient way, over-the-counter signing is not needed, as a result, banks' and clients' cost would be reduced.

The issue of Announcement NO.30 attracted wide attention from the whole society. In order to make it easy for borrowers to understand, the PBC increased publicity efforts by enriching the form of publicity and by adopting multiple ways. Other than offering introductory articles in Box Section in Monetary Policy Reports, the PBC also released multiple publications via its official Wechat account, including *Ten Frequently Asked Questions in the Benchmark Shifting of Outstanding Floating-Rate Loans*, *Five Minutes in Understanding Benchmark Shifting of Outstanding Floating-Rate Loans*, *Interpretation on Benchmark Shifting of Outstanding Floating-Rate Loans*, *Specifics on Calculation of Benchmark Shifting of Outstanding Floating-Rate Loans*, etc. The PBC also interpreted contents and methods of shifting, along with frequently asked questions via comics and animated video, which are both easy to understand, vivid and lively.

These publications have delivered good publicity results. Branches of the PBC and commercial banks also actively promote the shift in the pricing benchmark of outstanding floating-rate loans.

As outstanding mortgage loans involve many areas, multiple clients and relatively long terms, banks have promoted the shift in the pricing benchmark for outstanding mortgage loans in line with market-oriented and law-based principles. During early phase of shifting, banks actively did the publicity and interpretation work, and proving convenient shifting methods to facilitate benchmark shifting of outstanding individual mortgage loan by clients themselves. In late August 2020, state-owned banks conducted uniform benchmark shifting for eligible outstanding individual mortgage loans. Such efforts have effectively promoted benchmark shifting for outstanding individual mortgage loans, and protected borrower' legitimate interests.

IV. Coordinate and Promote Relevant Measures

a. Enhance Deposit Interest Rate Management

A reasonable and stable level of liability costs of financial institutions is conducive to promoting LPR reform in an orderly and smooth manner. To urge financial institutions in fair pricing and to maintain deposit market competition order, the PBC has enhanced deposit interest rate management, published *Yinfa No. 59 [2020]*, *PBC Notice on Enhancing Deposit Interest Rate Management*, clarified relevant requirements in deposit interest rate management. By organizing the Interest Rate Self-Regulatory Mechanism to propose self-regulatory initiatives and take other measures, PBC created favorable conditions for LPR reform.

First, bring the floor rate of structured deposit into the scope of self-regulatory management. In October 2019, CBIRC has issued *Notice on Further Regulating the Structured Deposit Business of Commercial Banks*, setting regulation requirements with respect to qualifications, administrative details, sales management, etc., on structured deposit. Yet a comparatively high level of interest rates of structured deposits overall was still in presence. In October 2019, the PBC organized the Interest Rate Self-Regulatory Mechanism to propose a self-regulatory initiative, bringing the floor rate of structured deposit into self-regulatory initiative, to control the liability costs of banks.

In August 2020, the floor rate of structured deposits was 1.22%, 1.21 percentage points, lower than that before the self-regulatory initiative at the end of 2019, which was an obvious decrease. Its expected rate and redemption rate also showed a rapid drop by 0.65 and 0.45 percentage points since the end of 2019 to 2.94% and 3.13% respectively.

Second, regulate the development of deposit innovative products. Previously, a number of financial institutions had issued the so-called 'innovative products', including the demand deposit innovative products as well as the time deposits with the

level of interest rates rounding down to the nearest maturity in case of early withdrawal, attracting deposits at the level of interest rates far beyond the market deposit interest rates with comparable maturity, which violated relevant regulation in *Regulations on the Administration of Savings* and *Measures for the Administration of Renminbi Corporate Deposits*. The PBC has organized the Interest Rate Self-Regulatory Mechanism to propose a self-regulatory initiative, reaching a consensus that banks immediately stop issuing new deposit innovative products as well as gradually reduce and diminish non-compliant products outstanding, in the meantime financial institutions' execution performances in relation to their plans for reducing and diminishing outstanding products will be evaluated under both of the MPA and the Eligible Prudential Assessment (EPA).

As of the end of August 2020, non-compliant demand deposit innovative products have been reduced by 75% compared with the baseline date (May 17, 2019, the effective date of the self-regulatory agreement), and the time deposits with the level of interest rates rounding down to the nearest maturity in case of early withdrawal have been reduced by 38% compared with its baseline date (December 17, 2019, the effective date of the self-regulatory agreement). The progresses are both ahead of schedule. Overall, the reduction and diminishment are remarkably effective.

b. Explicitly Indicate the Annualized Loan Rates

The annualized interest rate is an important form to indicate the real interest rate of financial products; it is also the most frequently used interest rate expression in the market. However, part of bank loans and Internet loans advertise in the form of daily interest rate, monthly interest rate, installment rate or daily repayment, etc., without explicitly indicating the annualized interest rate, which significantly weakens the borrower's perception of the true borrowing cost and may mislead financial consumers' choices. To maintain the order of market competition, protect the rights and interests of consumers, the PBC organized the Interest Rate Self-Regulatory Mechanism to issue a self-regulation initiative in May 2019, requiring that various loans and relative financial products (including interest generated by credit card installment, overdraft, etc.) of banks and other institutions should clearly indicate their annualized interest rates, so that the public can compare the actual interest rate levels of different financial products better.

In order to promote financial institutions to indicate the annualized loan rates better, the PBC has promoted its application by clarifying rules of calculation and strengthening publicity. First, the PBC guided the Interest Rate Self-Regulatory Mechanism to release the *Rules of Calculation and Display Templates for Indicating Annualized Interest Rates of Loans/Credit Cards* to financial institutions, and distributed to Internet financial platforms through the National Internet Finance Association of China. The rule showed the main types of loans and credit card products, adopted the approach of Internal Rate of Return (IRR) as the main calculation rule, and gave detailed description

of the specific calculation process in the form of cases. Second, the PBC released a comic called *My God, there are so many “tricks” of loan rates--common interest rate “trap”* on the PBC WeChat official account, which showed the annualized interest rate calculation in a straightforward way. The comic promotes consumers' understanding of annualized interest rates, and helps protect their legitimate rights and interests better. Third, the PBC tracks and monitors the situation of implementation, and conduct spot checks on the display interface, promotional materials, and offline documents of the annualized interest rate of banks and internet financial platforms and other relevant institutions on a monthly basis, ensuring that the work of indicating the annualized interest rate of loans is effectively promoted.

As of the end of August 2020, the rectification of self-operated loans, credit card overdrafts and installment business of 24 nationwide banks has been almost completed. Among the samples of locally incorporated financial institutions, more than 95% have completed the work of indicating annualized loan rates, annualized interest rate for credit card overdraft and installment business. However, the rectification progress of internet financial platform is relatively slow, even though some platforms display the annualized interest rate on few interfaces, the indication is not apparent.

c. Research on Improving Interbank Benchmark Interest Rates

Interbank benchmark interest rate, a crucial segment in improving benchmark interest rates and market-oriented interest rate system, is the vital foundation in smoothing monetary policy transmission mechanism. The PBC coordinates and promotes LPR reform as well as domestic and overseas interbank benchmark interest rate reform, marking concerted efforts in benchmark interest rate reforms.

Major economies are conducting benchmark interest rate reforms due to the possible LIBOR discontinuation after 2021. PBC attaches great importance to international benchmark interest rate reforms and actively participates in global coordination of international benchmark interest reforms. In the meantime, the PBC organized the Interest Rate Self-Regulatory Mechanism to set up LIBOR Working Group, closely follow up latest updates with respect to international benchmark interest rate reforms, regularly monitor the risk exposure in relation to LIBOR-based products of major domestic banks, and conduct monographic research on international benchmark interest rate transitions. LIBOR working group has held several special meetings to carefully evaluate relevant circumstances of the pricing benchmarks with respect to LIBOR-based products of domestic banks, as well as research and explore the application of new benchmark interest rates and the benchmark transition plans. After careful studies and evaluations, foreign currency benchmark interest rate transitions in domestic market will be promoted in a steady and orderly manner primarily with reference to international consensus and best practices.

At present, significant progress has been made in the construction of

China's benchmark interest rate system. The money market, bond market and credit market have respectively cultivated its own benchmark interest rates with certain credibility, authority, and market recognition, forming a relatively integrated benchmark interest rate system. In money market, China have cultivated the repo rates based on actual transactions for more than 20 years since the establishment of interbank market. The cultivation takes advantage of market data that is comprehensive, transparent, and easy to acquire. By now, interest rate of pledged repo transactions conducted among depository financial institutions (DR) have already plays an important role as interbank benchmark rate. In bond market, pricing benchmarks dominated by government bond yield curves have been cultivated. As LPR reform further deepened, LPR, which is formed by market-based quotation mechanism, has already become benchmark rates for credit market.

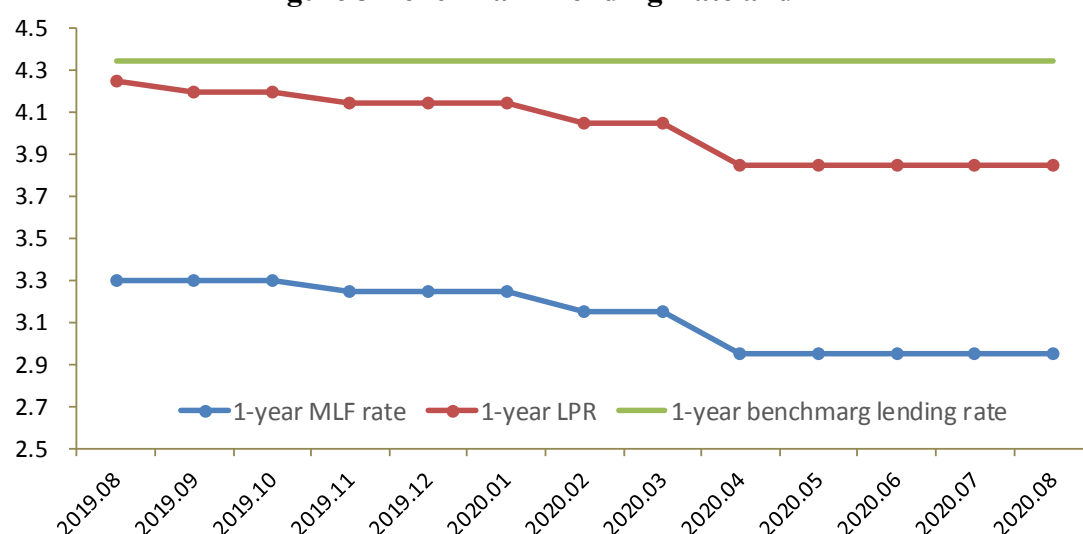
As the market-oriented interest rate reform further advanced, domestic interbank benchmark interest rate system also needs to be improved. The priority is to promote wider use of these benchmark interest rates in China's interbank market. More efforts will be made in innovating and broadening the use of DR in financial products including floating-rate bonds and floating-rate interbank certificate of deposits (CDs), etc., making DR a key reference indicator for China monetary policy management and financial market pricing.

Part IV LPR Reform is Remarkably Effective

I. LPR has Become More Market-oriented

After the introduction of the LPR in 2013, due to the banks' inertia in pricing loans and other factors, the spread between the LPR and the benchmark lending interest rate remained relatively constant, with a low market-oriented basis. After the reform, LPR has become more market-oriented and has gradually declined.

Figure 3 Benchmark Lending Rate and LPR



Data source: PBC

Based on actual data, the quotations are relatively scattered, demonstrating the market-oriented characteristics of LPR. Of all the quotations in each month, those of state-owned banks and foreign-funded banks are relatively lower, those of joint-stock commercial banks, city commercial banks and rural commercial banks are modest, while those of private banks being the highest. The spread between the highest quotation and the lowest ones is more than 2 percentage points, reflecting the market-oriented principle of quotation after LPR quoting banks taking overall consideration of themselves.

Besides, LPR formation mechanism requires each LPR quoting bank to submit quotes with 0.05 percentage points as step length, and after finding its nearest integral multiple of 0.05%, the final LPR would be published. Therefore, only enough quotation changes at the same direction can result in the change of final LPR. It could avoid slight and frequent fluctuation of LPR caused by quotation adjustment of few LPR quoting banks, then resulting in interest rate confusion, and ultimately impact the market expectation. Once LPR has changed, it could reflect the trending changes of loan rates, indicating its direction and guidance as benchmark interest rates of loan. For example, in September 2019 and January 2020, the PBC has cut RRR by 0.5 percent, respectively,

and it has significant influence on elements of adding points such as bank's funding cost, in the same month when RRR was cut, some banks lowered their quotation based on their own condition, and then lowering the overall LPR quotation by 0.02~0.03 percentage points, but the downward change is less than the minimum adjustment length of LPR, so as a result, LPR only changed once out of two months when RRR was cut.

Table3 LPR Quotes

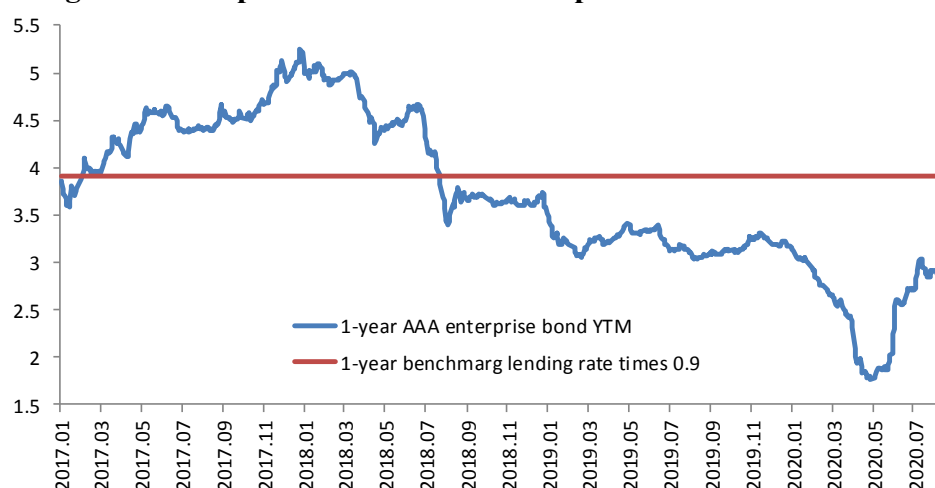
	One-year LPR		Over-5-year LPR	
	Quote	Changes (BP)	Quote	Changes (BP)
Before reform	4.31%			
2019/8	4.25%	-6	4.85%	
2019/9	4.20%	-5	4.85%	0
2019/10	4.20%	0	4.85%	0
2019/11	4.15%	-5	4.80%	-5
2019/12	4.15%	0	4.80%	0
2020/1	4.15%	0	4.80%	0
2020/2	4.05%	-10	4.75%	-5
2020/3	4.05%	0	4.75%	0
2020/4	3.85%	-20	4.65%	-10
2020/5	3.85%	0	4.65%	0
2020/6	3.85%	0	4.65%	0
2020/7	3.85%	0	4.65%	0
2020/8	3.85%	0	4.65%	0

Data source: PBC

II. Interest Rate Transmission Mechanism has Effectively Improved

Before LPR reform, there was a “dual-track” interest rate mechanism with the coexistence of benchmark lending interest rate and market rates, and loans were mostly priced based on benchmark lending interest rate, as a result, loan rates couldn't reflect the change of market rate. Meanwhile, the existence of an implicit interest rate floor hindered the smooth transmission of interest rate, and real economy couldn't fully feel the decline of market interest rates. For example, since the year 2018, one-year enterprise bond yield with AAA rating had noticeably declined, however, these same quality enterprises who have issuing the bonds were still constrained by implicit interest rate floor when obtaining loans from banks, thus, their loan rates didn't decline following the bond yield.

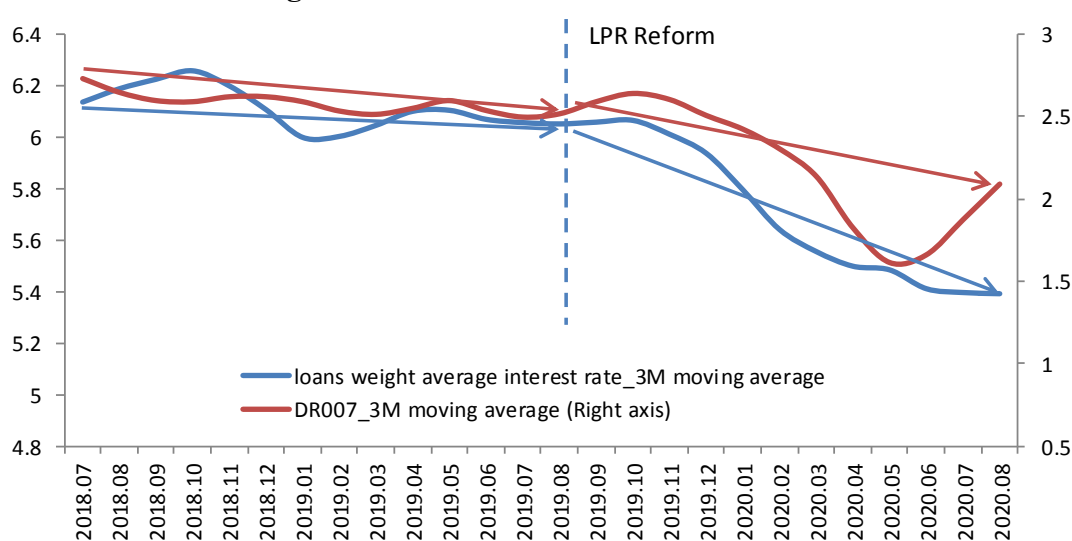
Figure 4 Enterprise Bond YTM and Implicit Floor for Loan Rates



Data source: WIND

After the reform, the interest rate transmission has been effectively smoothed. First, LPR quotation changes flexibly following the market rate, and has declined since the reform, bringing down the banking loan rates directly. Second, there is no administrative feature in LPR, so it is beneficial to remove the implicit interest rate floor of loan rates, thus enhancing the competitiveness of loan market, facilitating a reduction of loan rates. Based on the data, DR007, a representative money market interest rate, has declined by 0.4 percentage points from the start of 2018 to July 2019, right before LPR reform was launched. But during the same period, the weighted average interest rate on ordinary loan has barely changed. By contrast, DR007 has further declined by about 0.6 percentage points from August 2019 to August 2020, and the weighted average interest rate on ordinary loan has also declined by 0.65 percentage points, demonstrating that transmission efficiency from market rate to loan rates has noticeably increased.

Figure 5 Loans Interest Rate and DR007



Data source: PBC, WIND

Box 8 Empirical Evidence Proves that LPR Reform has Effectively Enhanced Interest Rate Transmission Efficiency

By analyzing nearly 700 thousand micro data on loan rates of all financial institutions from July 2015, youth research group of PBC Monetary Policy Department made an empirical research on the changes of loan rates before and after LPR reform. The research adopted methods of random effects panel regression and Regression Discontinuity (RD). The result shows that, LPR reform has effectively facilitated the decline of loan rates, and there was obvious breakpoint in loan rates before and after LPR reform, sufficiently verifying actual policy effect of LPR reform to enhance interest rate efficiency.

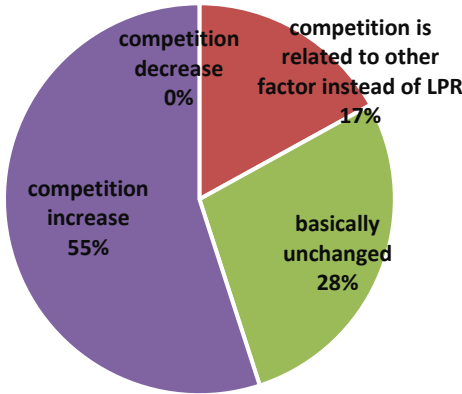
To be more specific, those two different regression methods could prove that, **first**, LPR reform has obvious effect in facilitating decline of loan rates, which means, loan rates has noticeably declined after LPR reform, the transmission efficiency from market rate to loan rates has obviously increased. **Second**, share of LPR application shows negative correlation with loan rates, for a specific type of loan, the larger of the change in share of LPR application, the greater in decline of loan rates. **Third**, interest rate of loans with all the terms had declined noticeably since the reform, but the sensitivity of medium-and-long term loan rates is slightly greater than that of short-term loan rates. **Forth**, from banking type perspective, interest rate of all types of banks have declined since the reform, while the sensitivity of loan rates of large scale banks is smaller than that of small- and medium-sized banks, indicating that the greater change in behavior of a specific type of bank before and after the reform, the greater the degree of enhancement in interest rate transmission efficiency. **Fifth**, from the perspective of enterprise size, interest rate of enterprises of all size have declined after LPR reform, with the decline of loan rates of large and medium sized enterprise being more obvious, showing the effect of removing implicit floor for loan rates. Meanwhile, interest rate of MSEs will also decline due to the increase of loan supply and intensified market competitiveness.

Observing from financial institutions' actual feelings, they generally believed that the loan market became more competitive after LPR reform, the accessibility of loan funding by MSEs had increased, and monetary policy transmission was much smoother. According to a special survey conducted by the PBC covering 660 financial institutions across 12 provinces (or cities) on January 2020¹, 55% of the sample financial institutions believed that competitiveness of loan market had enhanced after LPR

¹ Respondents cover branches of state-owned and joint-stock commercial banks, city commercial banks, rural commercial banks, advanced rural financial institutions from 12 provinces (or citise) including Beijing, Shanghai, Liaoning, Shandong, Shanxi, Henan, Jiangsu, Shaanxi, Zhejiang, Sichuan, Hunan, Guangdong.

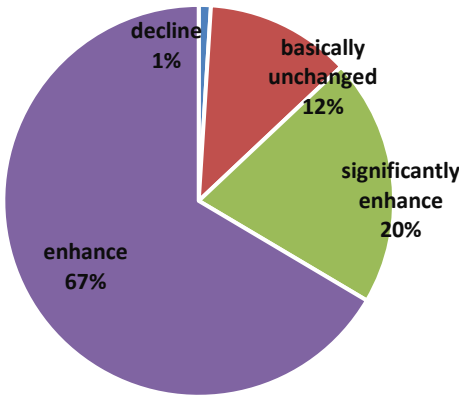
reform, capability of price negotiations by medium and large enterprises had increased. Some banks actively provided services for grassroots clients and ramped up their loan support for MSEs. Roughly 90% of sample financial institutions believed that, transmission efficiency from money market to credit market had somewhat improved, while 21% believed that it had significantly improved.

Figure 6 Views from Sample Institutions on the Level of Competitiveness in Loan Market



Data source: PBC

Figure 7 Views from Sample Institutions on Monetary Policy Transmission after the LPR Reform



Data source: PBC

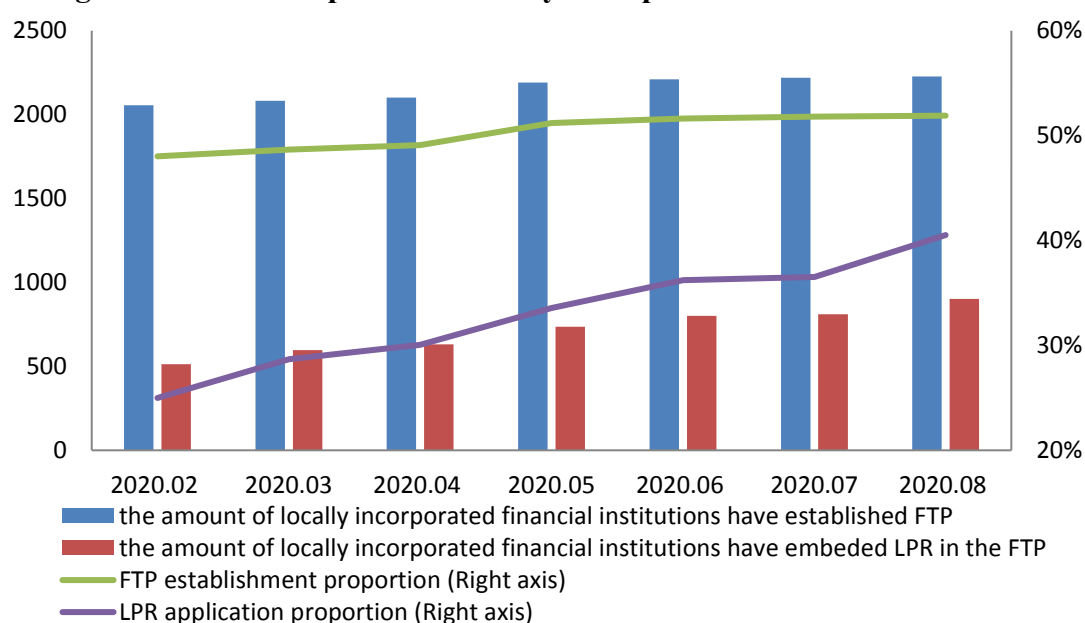
III. Internal Pricing of Financial Institution Becomes More Market-oriented

With the deepening of the LPR reform, the market-oriented LPR has gradually replaced the benchmark lending interest rate as the main reference for FTP of commercial banks. The FTP in commercial banks has become more market-oriented.

The PBC monitors the use of the LPR in the FTP by financial institutions on monthly basis and finds that: First, all nationwide banks have already established FTP system. They set LPR as pricing foundation in setting loan prices, combined marginal funding cost, term, market supply-demand factor into FTP system, and established

loans FTP curve dynamic mechanism. Meanwhile, the banks embed the LPR in the FTP as a parameter, so that the correlation between the FTP and the LPR become stronger. Since 2020, 24 nationwide banks have lowered FTP for loans by about 0.2-0.5 percentage points, in particular, FTP curve of most nationwide banks went down more than the LPR curve did. Second, the number of locally incorporated financial institutions which have established FTP system and embed the LPR in the FTP is increasing. As of the end of August, 2020, 52% of locally incorporated financial institutions have established FTP systems, an increase of 172 financial institutions since February, 41% of them have used the LPR in the FTP curves, an increase of 389 financial institutions since February.

Figure 8 FTP Development of Locally Incorporated Financial Institutions



Data source: PBC

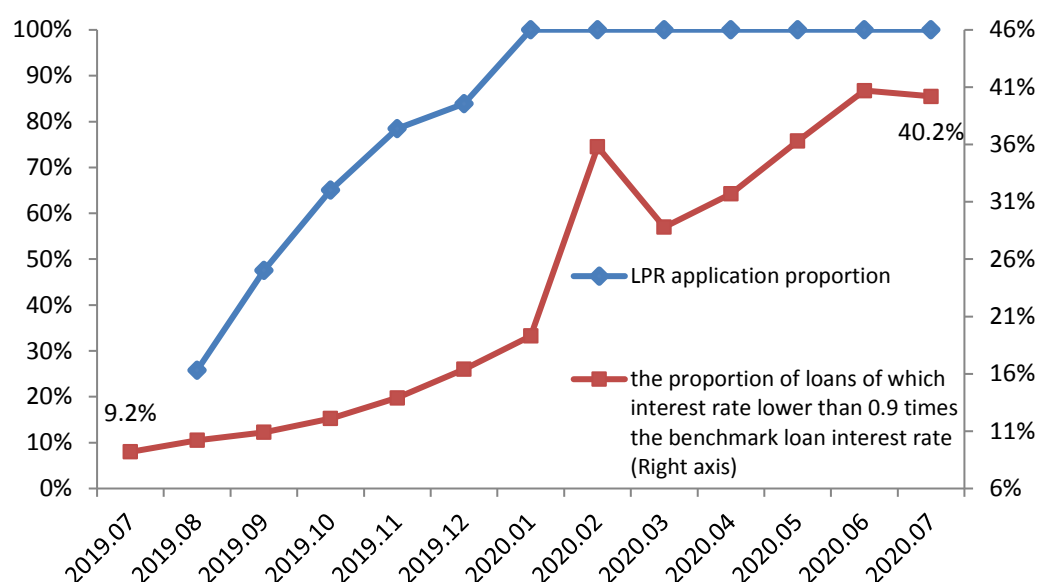
IV. Interest Rates have Significantly Reduced by Means of Reform

After the LPR reform, LPR quoting banks make their quotes by adding some basis points to the MLF rate, and the number of basis points added is mainly determined by factors such as the funding costs of banks, market demand and supply, and the risk premium. In August, 2019, at the beginning of LPR reform, one-year LPR was 4.25%, equalling to adding 0.95 percentage points to the MLF rate at that time. From then on, due to the PBC twice cutting RRR and targeted RRR for small- and medium-sized banks, funding costs of banks declined, and the number of basis points added to the MLF rate of quotes made by LPR quoting banks have lowered accordingly. One-year LPR released in August, 2020 was 3.85%, and the spread between LPR and the same-period MLF rate (at 2.95%) was narrowed down to 0.9 percentage points.

Meanwhile, with share of LPR application increasing significantly, the implicit floor for interest rate on loan has been totally removed. In July, 2020, the share of newly

issued loans of which interest rate was lower than 0.9 times the benchmark lending rate was 40.2%, which was 4.4 times of that in July 2019 before the LPR reform. The decline of LPR led to a significant decrease of real loan rates, the decline of the latter was more than that of LPR. In August, 2020, weighted average interest rate on newly issued ordinary loans was 5.43%, decreasing 0.67 percentages compared to July, 2019 before the LPR reform, and one-year LPR decreased 0.4 percentages from 4.25% to 3.85%. Such decline reflected that LPR reform could improve the pricing capability of financial institution, enhance competitiveness in loan market, and decrease loan rates. The LPR reform lifted the obstacles of transmission mechanism, and significantly facilitated the decrease of loan rates.

Figure 9 Share of LPR Application and the Removal of Implicit Floor for Loan rates



Data source: PBC

V. The Shift in the Pricing Benchmark for Outstanding Floating-rate Loans has Successfully Completed

On February 29, 2020, nationwide banks collectively issued an announcement, announcing that the shift of the pricing benchmark for outstanding floating-rate loans would be launched on March 1, 2020 as scheduled. Locally incorporated financial institutions have also issued the announcements of starting the shift. In the early stage of the shift, to avoid people gathering during the COVID-19 pandemic, the financial institutions mainly handled the business via online methods, such as internet banks and mobile banks, which could be completed by customers through simple operations. As the epidemic was effectively under control, offline shift was carried out simultaneously, and the shift speed was faster and faster.

By the end of August, the shift in the pricing benchmark for outstanding floating-rate loans had been basically completed. A total of 67.4 trillion yuan in 80.564 million accounts had completed the shift by financial institutions nationwide, with the shift ratio of 92.4%. Among them, 35.5 trillion yuan, or 0.84 million accounts of the outstanding corporate loans had completed the shift, with the shift ratio of 90.3%. 28.3 trillion yuan in 64.297 million accounts of the outstanding individual mortgage loans had completed the shift, with the shift ratio of 98.8%. Of the outstanding loans whose pricing benchmark has already been shifted, 91% have shifted their benchmark towards LPR. To be more specific, 90% of outstanding enterprises loans have shifted the pricing benchmark towards LPR, while the shifting ratio of individual mortgage loan is 94%. During the shift, the interest rates on individual mortgage loans remained stable and the interest rates on outstanding corporate loans declined, which could directly reduce corporate interest expenses. From the beginning of the next re-pricing period, enterprises and individuals can enjoy additional policy benefits brought about by the lowered LPR, which will further notably reduce interest expenses.

At present, newly issued loans are mainly priced with LPR. With the completion of shift in the pricing benchmark for outstanding floating-rate loans, changes in LPR can affect most floating-rate loans, and the transmission efficiency of monetary policy is further improved. It has also created favorable conditions for the benchmark lending interest rate fade out in the future as well as for the PBC deepens the market-oriented lending loan rates reform.

VI. The Rapid Development of LPR Derivatives and Other Financial Products

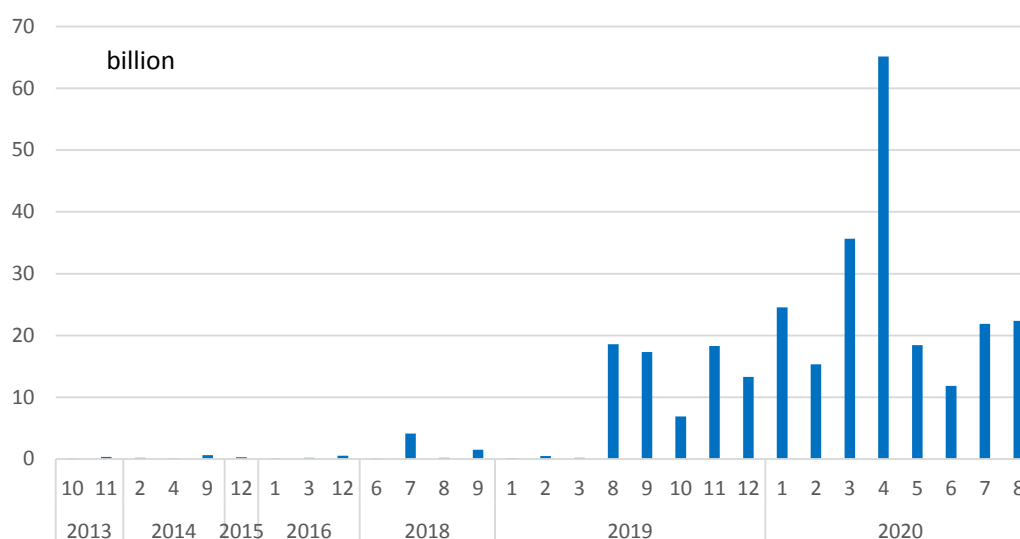
In recent years, Chinese financial derivatives market has developed rapidly. With the deepening of the LPR reform, especially in the situation that pricing benchmark of outstanding floating-rate loans has basically shifted to LPR, the amount of underlying assets anchored to the LPR increased continually, thus financial institutions and enterprises will face huge demands to hedge the interest rate risk of LPR assets or liabilities, and LPR derivatives will grow rapidly.

a. LPR Swap Trading Amount Elevate

After the LPR reform, the risk of hedging demand in financial institutions has risen. CFETS has launched interest rate swap products anchored to the over-five-year LPR, forming LPR interest rate swap curves. The trading volume of LPR interest rate swaps has elevated significantly. From 2013 to August 2019, before the LPR reform, a total of 122 LPR IRS trading were dealt by only 23 financial institutions, with RMB 27.1 billion of the notional principal. After the LPR reform to the end of August 2020, the number of LPR IRS trading increased to 1922 with RMB 287.54 billion of the notional principal, representing an average daily turnover of RMB 1.3 billion. The main participating institutions included joint-stock banks, state-owned banks, securities companies, foreign-funded banks, city commercial banks, and so forth. The one-year LPR served

as the main reference rate for the floating leg of the LPR interest rate swaps, accounting for 97 percent.

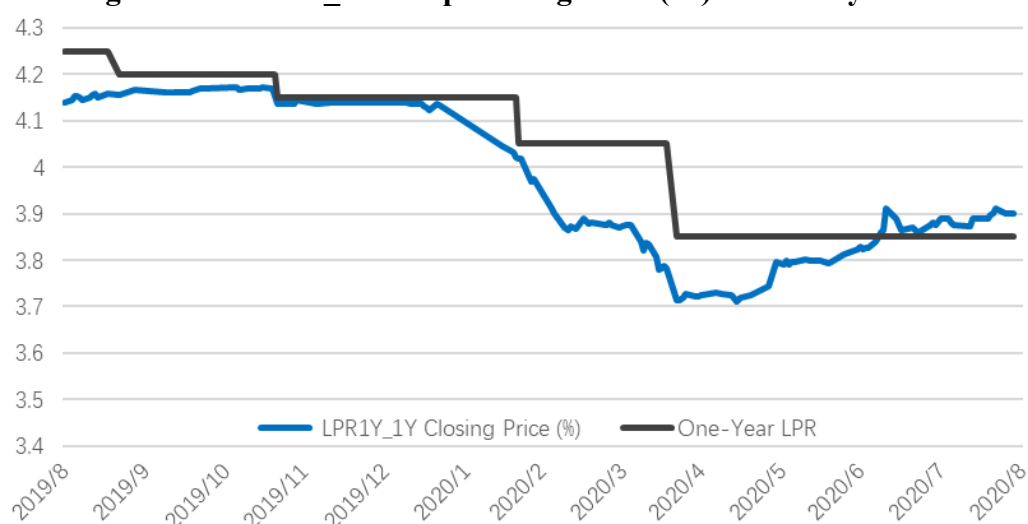
Figure 10 LPR Swaps Trading



Data source: CFETS

The PBC instructed CFETS to compile and publish LPR interest rate swap curves, which can be used as the pricing basis for market participants to conduct interest rate swap transactions, and the implied forward interest rate can also be derived from interest rate swap curves to provide a reference for related financial products and transactions.

Figure 11 LPR 1Y_1Y Swap Closing Price (%) and One-year LPR



Data source: CFETS

b. Launch of LPR Interest Rate Option Business

On March 23, 2020, the PBC guided CFETS to officially launch the LPR interest rate option business, further enriching the LPR interest rate risk management tools. LPR interest rate options include LPR interest rate cap/floor option and LPR interest rate swaption. LPR interest rate option is an effective supplement to LPR interest rate swap risk management tools, and can help promote market participants to achieve more flexible and diversified risk management goals.

By the end of August 2020, a total of 382 LPR interest rate option transactions were concluded, adding up to RMB 78.97 billion. Specifically, 115 LPR interest rate swaption transactions were concluded, worth adding up to RMB 10.94 billion of the notional principal, and 267 were LPR interest rate cap/floor option transactions, amounting to RMB 68.03 billion of the notional principals, 130 cap transactions and 137 floor transactions respectively. From the perspective of the reference rate, one-year LPR served as the main reference rate, with 97 one-year LPR interest rate swaption transactions and 254 one-year LPR interest rate cap/floor option transactions, amounting to RMB 9.71 billion and RMB 66.72 billion, respectively. From the perspective of the option maturity, maturities of option traded were concentrated within one year. LPR interest rate cap/floor options were mainly for 6 months, a total of RMB 36.75 billion, accounting for 54%. LPR interest rate swaptions were mainly for 1 month, a total of RMB 5.68 billion, accounting for 52%.

c. China Development Bank Issued the First LPR Floating-rate Bond

In November 2019, China Development Bank issued the first floating-rate bond based on LPR, with a scale of RMB 3 billion and an interest rate of one-year LPR-1.35%, which set an example for the further promotion of the use of LPR pricing and was also conducive to smoothing the transmission channel between the bond market and the credit market, facilitating banks to set reasonable prices, and advancing the shift from a “dual-track” to a “single-track” mechanism.

VII. The Market-oriented Reform of Deposit Interest Rates has been Promoted Further

The market-oriented reform of loan rates has promoted the market-oriented reform of deposit interest rates. As the LPR reform deepened, the loan rates have dropped significantly. To match the income from assets, banks cut the costs of the liabilities as needed, with lower incentives to attract deposits at high interest rates, thus guiding the decline of deposit rates. With the decline of market interest rates and loan rates, the interest rates on market-priced money market funds, structured deposits and other quasi-deposit products moved downwards.

As deposit interest rates have been aligned with market interest rates, the independent pricing capabilities of bank deposits have been increasing. Although no adjustment has been made to the benchmark deposit interest rates since October

2015, the banks can float their deposit rates under self-regulatory cap freely. At present, the deposit interest rates of banks have not "floated to the top". In August 2020, the actual 1-year deposit interest rates of state-owned banks and joint-stock banks floated to 1.3 times and 1.34 times of the benchmark interest rate respectively. The actual deposit interest rates executed by banks is not static. Recently, several state-owned banks voluntarily lowered the issuance interest rates on 3-year and 5-year negotiable CDs, followed by the downward adjustments by joint-stock banks accordingly and the decline of deposit interest rates in some local incorporated banks. In August 2020, the weighted average interest rates on 3-year and 5-year deposits registered 3.69 percent and 3.78 percent respectively, 0.03 percentage points and 0.28 percentage points lower than those of December 2019. The average weighted interest rate of negotiable CDs of state-owned banks and joint-stock banks registered 2.43 percent and 2.52 percent, respectively, 0.51 percentage points and 0.53 percentage points lower than those of December 2019. In August 2020, the 7-day annualized yield of Yu'eobao, a representative money market fund, was below 1.5%, lower than the 1-year benchmark deposit interest rate.

Part V Important Experience on the LPR Reform

I. Clarify the Logic and Grasp the Main Contradiction

Since 1990s, the PBC has been continuously advancing market-oriented reform of interest rate. The key to further deepen the reform is to clarify the basic logic and overall consideration of the reform from both theory and practices, singling out the crucial issue of the reform and tackling the main contradiction so that breakthroughs can be made, and the reform could be oriented from one point to the whole areas.

Prior to August 2019, both the caps and floors of deposit and loan rates have been removed, but the benchmark deposits/lending interest rate still have significant impact on deposit/loan pricing, combined with decision-making mechanism of two departments inside banks, all these factors lead to a weak linkage between the pricing of deposits/loan rates and market interest rate. According to the credit money system, loan rate is a critical determinant of deposit rate. Therefore, loan rate is the crux of the matter that can affect the whole system. This is the very reason that the PBC carried out the reform from the LPR formation mechanism to address the issue of loan rates, and to further facilitate market-oriented reform of loan rates. From the perspective of actual effect, LPR reform has played a role of covering whole area based on key points, the shift from a “dual-track” to a “single-track” mechanism in deposit rate and market interest rate has made significant progress, so has the overall market-oriented reform of the interest rate.

II. Design the Plan Scientifically Based on China’s Conditions

When choosing the mode of market-oriented reform of interest rate, an economy would refer to its own conditions. For example, the US and Japan carried out the reform in a gradual manner, European countries such as Germany and the UK lifted interest rate restrictions in a relatively short time. On the other side, Chile and other Latin American countries removed interest rate restrictions radically. Some economies even went through a constant “trial and error” or adjustment process. Hence, there is no such thing as so-called universally applied experience that can be copied directly.

In China, banking system plays a major role in financial system and corporate financing is dominated by bank loans. As a result, the key to China’s interest rate system is the bank loan rates. During the process of interest rate management, based on theory and practice, the PBC realizes that the medium-term policy interest rate is an effective tool to adjust medium-term market rates, as well as guiding the deposit/loan rates. As a result, the PBC reformed loan rates starting from banking system, giving decisive play to the role of medium-term policy interest rate, and innovatively introduced LPR formation mechanism by adding a number of basis points to MLF rate. It systematically ensures LPR’s orientation and guidance to loan rates, promotes market-oriented reform

of loan rates, and further facilitates market-oriented reform of deposit rates.

**Box 9 LPR is More Suitable than Government Bond Yield to be China's
Benchmark Lending Rate**

Given that the pricing methods of bonds and loans are different, government bond yield is more suitable to serve as pricing benchmark for long-term bonds. All major economies, including the US, do not regard government bond yield as major pricing benchmark for loans. Unlike the US, banking system plays a leading role in China's financial system. Therefore, it is more appropriate to set the LPR as benchmark rate in China, rather than government bond yield.

I. Government bond yield is more suitable as benchmark rate for long-term bond yield

Government bond yields are risk-free rates, and can serve as benchmark rates in bond market. Backed by sovereign creditworthiness, government bond yields usually represent risk-free market rates, and can reflect the interest rate in the financial market. Bonds have relatively longer term and most of them have fixed long-term interest rates with fixed tenor when they were issued by tender. 10-year government yield is an example that attracts the most of market attention. Hence, government bond yield is fitting to be the benchmark for long-term bond with fixed interest rates such as local government bonds and enterprise bonds.

The pricing method of loans is different from that of bonds, so their pricing benchmark rates differ, too. Loans usually have relatively shorter maturities. Most short-term loans that have a maturity of one year or less are issued with fixed interest rates, which are determined by banks based on capital cost and credit worthiness of enterprises. Loans with a maturity of more than one year are often issued with floating interest rates, which would be referenced to a certain benchmark interest rate and calculated by certain methods. Since that re-pricing period of loan rates is normally within one year, most of the selected benchmark interest rates are also within one year, rather than the government bond yield that has relatively longer term. In the sight of international situation, almost no country sets the loan rates referencing government bond yield. Even in the US and other developed economies, where the government bond yield curve is sophisticated, and of great importance, the pricing benchmark for loans are mostly money market interest rates such as LIBOR, while some SMEs loans, consumption loans of retail clients, and overdraft of credit card are priced with PRs.

II. The financial systems in China and the US are markedly different

Banks and financial markets play a leading role in the financial systems in China and the U.S., respectively. In terms of enterprise financing, bank loans prevail in China while corporate bonds feature in the US. By the end of 2019, the outstanding enterprise loans in China recorded at RMB 82.8 trillion and the outstanding enterprise bonds (including enterprise bonds, corporate bonds, commercial papers and medium-term notes) reached RMB 17.9 trillion, taking up 84% and 18% of China's GDP, respectively. During the corresponding period, the outstanding amount of commercial and industrial loans in the US was USD 2.37 trillion and the outstanding enterprise bonds registered USD 5.79 trillion, accounting for 11% and 27% of the US GDP, respectively. In addition, the ratio of equity financing in US is also higher than that in China.

Against this background, the status and role of government bond yield curve differ in China and the US. The US attaches greater importance to money market and bond market, regarding the Federal Funds Rate, LIBOR and treasury yield as key interest rates to monitor money supply and interest rate of the overall financial market. Meanwhile many companies raise money through financial market, adding up the weight of treasury yield curve. Whereas in China, banking system plays a major role in financial systems and the market pays more attention to the fluctuations of deposit and loan rates. In recent years, as China's financial market has developed and interest rate reform continuously advances, the interbank repo rate and government bond yield have attracted more attention, and gradually become important benchmark interest rates. However, affected by objective factor such as characteristics of china's financial system, the influence of government bond yield curves is relatively limited.

III. LPR is more appropriate to be the benchmark for loan pricing in China

The reformed LPR can give better play to the role in guiding loan rates. Compared with the government bond yield, LPR is quoted based on real interest rates of the loan market, better reflecting supply and demand of loans and enabling banks to directly refer to when determining loan rates. In addition to the one-year LPR, the LPR with a maturity of over-five-years has been made available in the market, serving as the pricing reference for long-term lending by banks such as mortgage loans. Moreover, as LPR does not have an administrative feature, it becomes difficult for banks to concertedly set the implicit floor for loan rates. Generally speaking, the LPR is an appropriate benchmark for loan pricing in China.

III. Push Ahead with the Reform and Clarify the Progress

In accordance with international experience such as LIBOR reform, China's benchmark interest rate reforms should be fast-paced rather than slow-paced, which may lead to a standstill. The key to success is to promote reforms as soon as possible under reasonable circumstances. If the reform is in slow pace, it will be prolonged. At the beginning of the LPR reform, the PBC put forward a clear and practical timetable for banks to use the LPR for pricing. Banks were required to meet "Thirty-Fifty-Eighty" principle when using reformed LPR in new loans pricing. This was incorporated into the MPA, giving full play to the incentive and restraint impacts of the MPA. In terms of the real effects of the reform, a vast majority of banks have actively revised paper contracts, upgraded systems, trained internal staff, and strengthened external publicity. The efforts resulted in achieving the goal of "Thirty-Fifth-Eighty" ahead of schedule.

After new loans are primarily priced with reference to the LPR, there were still a vast number of outstanding loans priced with reference to the benchmark lending interest rate. As the LPR has declined gradually, the spread between the LPR and the benchmark lending rates has been gradually widened. Both borrowers and banks have a relatively great demand to shift pricing reference from benchmark lending interest rate to LPR. As for the LPR reform, the shift in the pricing benchmark for outstanding loans involves thousands of accounts and is the key priority and difficulty of the reform. Only when the shift of pricing reference of outstanding loans is basically completed, there will be conditions for the benchmark lending interest rate to phase out, and the LPR reform could truly be successful. To this end, the PBC has promoted the shift in the pricing benchmark for outstanding floating-rate loans in a timely manner. Meanwhile, financial institutions are not allowed to sign new contracts of floating-rate loans with reference to the benchmark lending interest rate. In line with market-oriented and law-based principles, a reasonable shifting period and unified shifting rules for mortgage loans have been put in place, and financial institutions are required to conduct the shift of the pricing benchmark for outstanding loans in a simple and feasible manner.

In early 2020, the sudden outbreak of COVID-19 had a massive impact on China's domestic economic production activities, and preparation of some banks for the shift of the pricing benchmark for outstanding loans were also affected. Under the circumstances, the PBC had promptly made decisions based on an accurate study and assessment of situations and started the shift work of the outstanding loans from March 1 as scheduled and have completed the job at the end of August. Within one year of the launch of the LPR reform, most of the floating-rate loans including both new loans and outstanding loans have been priced with reference to the LPR. Significant achievements have been made in the LPR reform, providing Chinese approach to international benchmark interest rates reform.

IV. Insist on Overall Planning to Achieve Multiple Goals

According to the decisions and arrangement of the CPC Central Committee and the State Council, the PBC has made accurate assessment of domestic and global development and seized the rare time window by taking up challenges and forging ahead with determination. The PBC resolutely launched the LPR reform, promoting the shift from a “dual-track” to a “single-track” mechanism. The systematic and institutional barriers in interest rate transmission have been broken down through reforms. The PBC has incorporated a series of LPR related factors into the MPA, including the share of LPR application, the implicit floor of loan rates through concerted efforts, loan rates spreads, and the progress of the shift in pricing benchmark of outstanding floating-rate loans, all of which gives full play to the role of incentives and constraints. As the LPR reform has been steadily advanced in a single year, the transmission channel of interest rates has been effectively smoothed, and the effects of leveraging reform measures to facilitate the decrease of loan rates have been remarkable. Financial support for real economy has been effective, which has strongly shored up steady recovery of China’s economy amid the COVID-19 shock. Meanwhile, the LPR reform completely removed the implicit floor for loan rates, enhanced competitiveness of loan market, and improved financial structure. The LPR reform also prompted banks to actively increase support for MSEs whose funding grew in both volume and coverage and was offered at lower prices, effectively alleviating the difficulties faced by MSEs in terms of accessing affordable funding.

Going forward, the PBC will continuously adhere to the decisions and arrangement of the CPC Central Committee and the State Council, further deepening the LPR reform and unleashing its potentials. The focus will be on the improvement in the system of benchmark interest rates and market-oriented interest rates, meeting the requirements of developing socialist market-oriented economy with Chinese characteristics. More efforts will be made to advance market-oriented interest rate reform in a steady and orderly manner. The PBC will also continuously improve the management and transmission mechanism of monetary policies, as well as constructing a modernized central bank system. By giving full play to the essential role of interest rates as funding prices, the PBC will enhance efficiency of resource allocation, further deepen the financial supply-side structural reforms, foster virtuous circles in which the financial system and real economy can boost each other and jointly develop, thus promoting high-quality economic development.