MONETARY POLICY FRAMEWORK AND TRANSMISSION MECHANISM

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"As China has the features of both large transition economy and an emerging market economy, the central bank of China and its monetary policy are yet to be well understood by the outside world”

By former PBC governor, Zhou Xiaochuan, 2016 Michel Camdessus Central Banking Lecture, IMF
Similarities and differences

• The monetary policy framework assembles those of the advanced market economies in many ways
  • A specialized central bank; an MPC;
  • A set of policy objectives;
  • Intermediate targets and some policy tools
• But it also differs at almost every fronts
  • The PBoC is not independent
  • Multi-objective
  • Mostly quantitative instruments
  • The McCallum rule
Outline

• Monetary policy framework in transition
• How does the monetary policy work?
• The transmission mechanisms of monetary policy
• Identification of the monetary policy rule
• Future outlook of China’s monetary policy
Transition of the monetary policy framework

Section 2
The transition economy

• Brief history of China’s central banking
  • In 1905, the Household Bank was established in the Qing Dynasty; In 1908, the Daqing Bank was set up and was later restructured into the Bank of China in 1911; In 1924, the Nationalist Government created *the Central Bank*; In 1948, the Communists established the People’s Bank of China (PBoC)

• Economic transition
  • “Dual-track”: continuous support to the state-owned enterprises (SOEs), while allowing the non-state sectors to expand quickly (Growing out of the plan: Naughton 1995)
    • “soft budget constraint” and “government guarantee”
  • Unique pattern of China’s financial reform and development - strong on quantity but weak on quality
  • → Such non-market behavior explains why lack of central bank independence and use of quantity-based policy tools are actually favorable
Transition of the monetary policy framework

- The period of central credit plan (1949-1978)
  - The PBoC and financial intermediation played only limited roles
- The period of direct credit control (1979-1997)
  - The PBC formulated a direct regulatory framework for credit management
    - bank credit as the main intermediate policy target
- The period of indirect control of money and credit (1998-)
  - Indirect management framework for aggregate money and credit
  - Interest rate instruments became more important (banks’ deposit and lending rates; and the interbank markets, SHIBOR)

- Two key themes of the transition: from direct to indirect controls and from quantity to interest rate regulation
How does the monetary policy work in China?

Section 3
The decision-making process

• The PBoC is not an independent central bank; it is under the leadership of the State Council

• The probable process of monetary policy making
  • First, the State Council decides on key economic policy targets
  • Second, the PBoC prepares proposal for monetary policy actions
  • Third, the State Council makes the final decision

• Unusual way describing monetary policy stances
  • The Chinese monetary policy stances are often described as “tightening”, “prudent” and “easing”.
  • Sometimes, “prudent” stance may be further clarified as “prudent with a tightening bias”, “prudent neutral”, or “prudent with an easing bias”.

## The monetary policy framework

<table>
<thead>
<tr>
<th>Operational instruments</th>
<th>Operational targets</th>
<th>Intermediate targets</th>
<th>Policy objectives</th>
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<tbody>
<tr>
<td>• Quantity-based instruments. (e.g. RRR, CBBs, central bank lending, OMOs, etc.)</td>
<td>• Non-borrowed reserves</td>
<td>• Money supply (narrow money supply M1 and broad money supply M2)</td>
<td>• Rapid economic growth</td>
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<tr>
<td>• Price-based instruments (e.g. banks’ base deposit and lending rates)</td>
<td>• Borrowed reserves</td>
<td>• Bank credit (and also the total social financing)</td>
<td>• Full employment</td>
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<td>• Window-guidance</td>
<td>• Short-term money market rate</td>
<td>• Market interest rate (such as SHIBOR)</td>
<td>• Low and stable inflation</td>
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<td></td>
<td>• Monetary base</td>
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<td>• Balanced external account</td>
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GDP growth and inflation rate

![GDP growth and inflation rate graph](image-url)
7-day SHIBOR and CNY/USD exchange rate
Official reserve interest rate and re-lending rate
## Liberalization of banks’ base deposit and lending rates

<table>
<thead>
<tr>
<th>Year</th>
<th>Key reform steps</th>
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<tbody>
<tr>
<td>1983</td>
<td>Granted right to PBOC to adjust benchmark lending rate</td>
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<tr>
<td>1998-2004</td>
<td>Gradually increased the upper limit on lending rates</td>
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<tr>
<td>1999</td>
<td>Liberalized interest rate in deposit wholesale market</td>
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<tr>
<td>2000</td>
<td>Liberalized foreign currency lending rates</td>
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<tr>
<td>2000</td>
<td>Liberalized foreign currency deposit rates for deposits over $3 million</td>
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<tr>
<td>2003</td>
<td>Removed floor on foreign currency deposit rates</td>
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<tr>
<td>2004</td>
<td>Removed ceiling on lending rates</td>
</tr>
<tr>
<td>2004</td>
<td>Removed floor on deposit rates</td>
</tr>
<tr>
<td>2012</td>
<td>Increased the lower limit on lending rates</td>
</tr>
<tr>
<td>2012-2015</td>
<td>Gradually increased the upper limit on deposit rates</td>
</tr>
<tr>
<td>2013</td>
<td>Removed floor on lending rates</td>
</tr>
<tr>
<td>2015</td>
<td>Adopted the deposit insurance scheme; Removed ceiling on deposit rates</td>
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</tbody>
</table>
The transmission mechanisms

Section 4
Transmission mechanisms

• Possible transmission paths:
  • Policy instruments → operational targets → intermediate targets → ultimate goals
  • Central bank → financial institutions/financial markets → enterprises/households →
    national income/national price

• Possible transmission channels:
  • Interest rate channel
  • Credit channel
    • balance sheet channel (broad credit channel)
    • bank lending channel (narrow credit channel)
  • Wealth channel
  • Exchange rate channel
  • Expectations channel
Transmission mechanisms

• Empirical assessment of the Chinese case
  • Mixed findings on almost all fronts, but general patterns exist:
    • interest rate channel was quite weak in the earlier years but grow much stronger in recent years
    • credit channel is quite effective, relatively speaking
    • functioning of the wealth channel is unclear, as monetary policy has clear effects on asset prices but asset prices do not have stable impacts on consumption
    • exchange rate channel is also not stable
Transmission mechanisms

• Interest rate channel

• PBC doesn’t directly adjust or target at the short-term market rates
  • modest role of interest rates in the Chinese economy and a weak linkage between interest rate and real sector activities (Laurens and Maino 2007, Koivu 2009)
  • banks’ credit allocation favors the large SOEs, which still exhibit certain degrees of “soft budget constraint”

• Interest rate liberalization and other market-based reforms
  • changes in interest rates have considerable impacts on economic activities and inflation in China when using more recent economic data (Fernald et al. 2014, Zha and Chen 2017)
Transmission mechanisms

• *Credit channel*

• Tests for existence of the bank lending channel
  • focusing on the correlations among aggregate output, bank credit, and indicators of monetary policy, reveal mixed findings (Zhou and Jiang 2002)
  • examining the impulse responses from multi forms of VAR models (Sheng and Wu 2008, Sun et al. 2010, Nguyen and Boateng 2013, Li and Lee 2015)
Transmission mechanisms

• Wealth channel
  • Given China’s persistent high saving rate → Chinese households’ saving the consumption behaviors are not sensitive to changes in interest rates → reduce effectiveness of the wealth channel (Koivu 2012, Zhang and Huang 2017)

• Exchange rate channel
  • Transmission from monetary policy to exchange rate remains a problem (Zhang and Huang 2011)
  • Transmission from exchange rate to the real economy functions relatively effectively (Fang 2010, Fang and He 2010)
Identification of the monetary policy rule

Section 5
Identification of the monetary policy rule

• Review of the policy rules
  • Taylor rule (Taylor 1993)
    • describes how central banks should raise the target interest rate when the expected inflation is higher than the desired target and when the actual output level is higher than the natural output
  • McCallum rule (McCallum 1988)
    • describes growth of money supply as a function of growth of real GDP and money velocity
    • revised McCallum rule describes how central banks should reduce the money supply when the expected inflation is higher than the desired target and when the actual output level is higher than the natural output
  • The McCallum rule is much less prominent than the Taylor rule today
  • VAR models (Sims 1992)
Identification of the monetary policy rule

- The Chinese case
  - There are still quite a lot of controversies and confusions about whether the interest rate or the money supply (or bank credit/TSF) is more appropriate as an intermediate target for the Chinese monetary policy today
    - If the Taylor rule tracks China’s monetary policy well, then taking the interest rate as an intermediate target will offer more policy targets: Xie and Luo (2003)
    - Given the prominent role of money supply in China’s monetary policy, a McCallum monetary policy rule based on control of money supply could be more appropriate: Burdekin and Siklos (2008), Liu and Zhang (2007), Sun, Gan and Hu (2012)
    - Whether China’s recent monetary policy is better characterized by the Taylor rule or the McCallum rule: Kong (2008), Liu (2015), Sun (2015), Wu and Lian (2016)
Future outlook of China’s monetary policy

Section 6
Future outlook of China’s monetary policy

• Should the PBC become an independent central bank?
  • Focus on key objective; Policy coordination might be desirable
• Should the monetary policy reduce the number of its objectives?
  • Less objectives should be better (Tingergen’s rule); Others might be critical, such as financial stability
• Should a short-term market interest rate become the key operational target?
  • Absolutely; But perhaps the quantitative rule is still useful for parts of the economy
• ➔ PBoC may further converge with the Fed or the ECB, but it may never look exactly like them