Panel: Monetary policy beyond normalisation: objectives and instruments

Brussels
14 September 2018
• With the crisis, many structural relationships have been redefined

• Agents and policy makers have to “learn” the new ones

• Central banks
  – Proved as creative as they could be
  – Held to their “fixed points”: independence and mandate

• Key lesson from the crisis: the importance of operational frameworks

• New fact of life: the toolkit of central banks is manifold
• Focusing on the role of the central bank balance sheet

• Complementarities and rotation across monetary policy instruments

• Perspective of central bank independence

• Back to the basics and interactions with fiscal policy:
  – steering rates, anyway
  – liquidity conditions, anyway
  – Balance sheet expansion, anyway?
The ECB’s unconventional measures since June 2014

**MRO:** 0.15%
**MLF:** 0.40%
**DFR:** -0.10%

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**MLF:** 0.30%
**DFR:** -0.30%

**MRO:** 0.00%
**MLF:** 0.25%
**DFR:** -0.40%

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**TLTRO-I**
Max. maturity: Sep. 2018
Uptake depends on net lending. Mandatory early repayment

**TLTRO-II**
- No mandatory early repayment
- Lending rate can be as low as the deposit facility rate

**APP recalibration I**
- Extension to Mar. 2017
- Reinvestment of principal payments

**APP recalibration II**
- €80bn monthly purchases
- Higher issue share limit for certain issuers

**APP recalibration III**
- €60bn monthly purchases until Dec. 2017
- Min. remaining maturity for PSPP eligible securities decreased from 2y to 1y
- Purchases below DFR allowed if necessary

**APP recalibration IV**
- €30bn monthly purchases until Sep. 2018 starting from Jan. 2018

**APP transition**
- €15bn monthly purchases until Dec. 2018 followed by end of APP

**PSPP:**
- Purchases of public securities
- €60bn monthly purchases until Sep. 2016, incl. ABSPP/CBPP3

**ABSPP-CBPP:**
Purchases of ABS and bank covered bonds

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**CSPP:**
Purchases of bonds issued by non-financial
Steering money market rates with balanced liquidity conditions...

Stylised relationship between money market rates and liquidity

The operational framework in the last ten years

- Before the crisis, the ECB implemented its monetary policy in a corridor system framework. Money market rates were steered to the middle of the corridor by estimating the banking system’s liquidity needs from reserve requirements and autonomous factors such as banknotes, and then satisfying these liquidity needs exactly.

Source: ECB.

Notes: The blue line for the overnight rate illustrates the relationship between the EONIA spread to the MRO and excess liquidity from 2007 and 2012 estimated for a logistic regression: $EONIA\ spread = \beta_1 + \beta_2/(1+\exp(\beta_3 \times \text{Excess Liquidity}))$. 

CB liquidity provision
Steering money market rates with balanced liquidity conditions...

Monetary policy positions on the Eurosystem’s consolidated balance sheet

(€ bn)

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- Since mid-2014, the non-standard monetary policy measures have significantly expanded the Eurosystem’s consolidated balance sheet and injected vast amounts of reserves above and beyond the liquidity needs into the banking system. The banking system is now in a position where it deposits the excess liquidity in the deposit facility.

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- As a consequence, money market rates – the rates at which banks borrow and lend central bank reserves among each other – have been pushed to the level of the deposit facility rate. In effect, this means that the Eurosystem is operating in a floor system today.

Source: ECB.
Notes: The blue line for the overnight rate illustrates the relationship between the EONIA spread to the MRO and excess liquidity from 2007 and 2012 estimated for a logistic regression: $EONIA\ spread = \beta_1 + \beta_1/(1+\exp(\beta_3 \times Excess\ Liquidity))$. 
Rubric

… and with excess liquidity

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Notes: “MLF” is the rate on the marginal lending facility, “DFR” is the rate on the deposit facility, “MRO” is the rate on the main refinancing operations and “EONIA” is the euro overnight unsecured interbank rate.
Latest observation: 7 September 2018
Excess liquidity may decline again…

Excess liquidity and key interest rates
(percentage per annum / € bn)

Outlook for the future operational framework

- The outstanding TLTROs, the continuing reinvestments of the APP portfolio for an extended period of time and the fixed-rate full allotment policy will ensure that the liquidity supply remains in excess of the banking system’s need for some time to come.

- But at some point in the future, the Governing Council will re-assess the liquidity conditions and, taking into account the maturing TLTROs, may choose to recalibrate the reinvestment policy. Such choices will affect the amount of excess liquidity and could eventually lead to a return to balanced liquidity conditions.

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Latest observation: 7 September 2018
Rubric

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Stylised relationship between money market rates and liquidity with additional liquidity needs

... but pre-crisis relationship may have changed...

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Outlook for the future operational framework: back to corridor system?

- Several structural changes compared to pre-crisis times may have added additional liquidity needs for the banking system. For instance, regulatory requirements such as the LCR could lead to additional, systematic demand for central bank reserves.

- The emergence of additional liquidity needs would mean the “neutral” liquidity supply – at which money market rates lift off the deposit facility rate floor of the corridor – may be higher than it used to.

- This analysis leads to a number of options for the future operational framework and the size of the ECB’s balance sheet:
  - If additional liquidity needs are reasonably stable and forecastable, they could be satisfied within the pre-crisis framework by allotting additional liquidity.
... and could be clouded with additional uncertainty

Stylised relationship between money market rates and liquidity with additional liquidity needs

Outlook for the future operational framework: continue with floor system?

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- This analysis leads to a number options for the future operational framework and the size of the ECB’s balance sheet:
  - If the additional liquidity needs are uncertain, a floor system with excess liquidity provision and a sufficient liquidity buffer could be more robust, especially if frictions in the interbank market persist.
  - Other objectives, such as the provision of safe assets through the central bank, may have additional implications for the balance sheet.

Source: ECB.

Notes: The blue line for the overnight rate illustrates the relationship between the EONIA spread to the MRO and excess liquidity from 2007 and 2012 estimated for a logistic regression: \( \text{EONIA spread} = \beta_1 + \beta_2/(1+\exp(\beta_3 \times \text{Excess Liquidity})) \).
### Key elements of the Fed’s and ECB’s pre vs. post-crisis operational framework

<table>
<thead>
<tr>
<th>Overview</th>
<th>Federal Reserve</th>
<th>ECB</th>
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<tbody>
<tr>
<td></td>
<td>Before 2007</td>
<td>Today</td>
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<tr>
<td><strong>Liquidity conditions</strong></td>
<td>Balanced</td>
<td>Excess</td>
</tr>
<tr>
<td><strong>Floor/Corridor system</strong></td>
<td>Corridor</td>
<td>Floor</td>
</tr>
<tr>
<td><strong>Counterparty/collateral frameworks</strong></td>
<td>Narrow</td>
<td>Broad</td>
</tr>
<tr>
<td><strong>Required intervention frequency</strong></td>
<td>High</td>
<td>High(^1)</td>
</tr>
<tr>
<td><strong>Interbank money market</strong></td>
<td>Active</td>
<td>Inactive</td>
</tr>
<tr>
<td><strong>Lending operations</strong></td>
<td>Only as backup(^2)</td>
<td>Expanded, but inactive(^3)</td>
</tr>
<tr>
<td><strong>Outright purchases short-term assets</strong></td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td><strong>Outright purchases long-term assets</strong></td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Interest on excess reserves/deposit facility</strong></td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Reverse repos</strong></td>
<td>No</td>
<td>Yes</td>
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<tr>
<td><strong>Securities lending</strong></td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

1. The buffering function from reserve requirements afforded lower intervention frequencies in the euro area, in turn supporting the functioning and liquidity of the money market. While the Fed’s operational framework has not changed in this respect, the outstanding excess liquidity mutes this difference.
2. The discount window and pre-crisis primary dealer lending operations were not intended to provide the bulk of liquidity to the banking system, in contrast to operations such as the Term Auction Facility (TAF) that were introduced during the crisis to avoid the risk of “stigma” associated with recourse to the discount window.
3. The final TAF operation matured in 2010.
4. Not for monetary policy portfolios.

Source: Federal Reserve, ECB.
Thank you