The ECB’s monetary policy: Standard and non-standard measures

ECB Central Banking Seminar
Frankfurt am Main, 3 July 2019

The views expressed in this presentation are those of the presenter and do not necessarily reflect those of the ECB or the Eurosystem
# Overview

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The primary objective of the ESCB [Eurosystem] shall be to maintain price stability.

Without prejudice to the objective of price stability, the ESCB shall support the general economic policies in the Union with a view to contributing to the achievement of the objectives of the Union as laid down in Article 3 of the Treaty on European Union."
The ECB’s monetary policy strategy: main elements

The ECB’s monetary policy strategy

- Quantitative definition of price stability
- Medium-term orientation
- The two-pillar approach
  - Economic analysis
  - Monetary analysis
Quantitative Definition of Price Stability (1998)

**Year-on-year increase** in the Harmonised Index of Consumer Prices (HICP) for the euro area of **below 2%** over the medium term.

Clarification of the Strategy (2003)

The Governing Council will aim to maintain inflation rates **below, but close to, 2%** over the medium term (NB: symmetry = both upside and downside deviations)

**Why 2%?**

- Allows for cross-country inflation differentials to occur at positive euro area inflation rates.
- Zero inflation restricts central bank’s room for maneuver in case of negative shocks (*Effective Lower Bound* problem).
- Possible upward bias in consumer price index (HICP).
Transmission of monetary policy impulse and economic shocks to prices subject to "long and variable lags" (e.g.: M. Friedman, 1961)

Excessive activism raises volatility of output and inflation and may render monetary policy pro-cyclical (e.g.: A. Orphanides and J.C. Williams, 2004)

Medium-term orientation of monetary policy is more conducive to macroeconomic stability
The ECB’s monetary policy strategy: two pillars

“To sum up, a cross-check of the outcome of the economic analysis with the signals coming from the monetary analysis confirmed that an ample degree of monetary accommodation is still necessary for the continued sustained convergence of inflation to levels that are below, but close to, 2% over the medium term.”

(Introductory Statement to the press conference on 6 June 2019)
ECB key interest rates, EONIA and bank lending rates on loans to NFCs
(percentages per annum)

Source: ECB.
Notes: Monthly data. “MLF” stands for marginal lending facility, “MRO” stands for main refinancing operations, “DFR” is the rate on the deposit facility and “EONIA” is the euro overnight unsecured interbank rate. Bank lending rates are calculated by aggregating short- and long-term rates using a 24-month moving average of new business volumes.
 keeps inflation in line with price stability mandate, and expectations well-anchored.

Inflation market-based inflation expectations
(percent)

- HICP
- HICP excluding food and energy
- 5-year ILS rate 5 years ahead

Source: ECB.
Latest observation: December 2011.
… through an effective transmission of monetary impulses …

**Bank lending rates for loans to non-financial corporates (NFCs)**

(percentage)

**Change in MRO rate and bank lending rates to NFCs**

(percentage)

Sources: ECB, ECB calculations.

Notes: Lending rates are calculated by aggregating short and long-term rates using a 24-month moving average of new business volumes. Latest observation: May 2014.
Inflation market-based inflation expectations (percent)

- HICP
- HICP excluding food and energy
- 5-year ILS rate 5 years ahead

Source: ECB.
Latest observation: December 2011.
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Sovereign debt crisis affected benchmark rates...

10-year government bond yields
(percentages per annum)

Sources: ECB, Thomson Reuters Datastream.
Real GDP
(index, 1999Q1=100)

Sources: Eurostat, BEA, Cabinet Office, ECB calculations.
Notes: horizontal dotted lines represent pre-crisis peak real GDP level.
... and a risk of de-anchoring of inflation expectations

HICP inflation and inflation expectations
(percent)

Source: ECB.
Bank lending rates for loans to non-financial corporates (NFCs) (percent)

Change in MRO rate and bank lending rates to NFCs (percent)

Sources: ECB, ECB calculations.
Notes: Lending rates are calculated by aggregating short and long-term rates using a 24-month moving average of new business volumes. Latest observation: May 2014.
MFI loans to the private sector
(annual growth rates)

Source: ECB.
Notes: Monthly data. “NFCs” stands for non-financial corporations and “HHs” stands for households.
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## Policy instrument

| Reductions in **main policy rates** counteract downside risks to price stability |
| Non-standard measures complement/substitute reductions in main policy rate in the presence of… |
| …impairments in monetary policy transmission mechanism |
| …limited room for further loosening via conventional policy instruments |
The ECB’s measures since June 2014

1. **Negative interest rates**
   
   Breaking through the zero lower bound to anchor front end of term structure

2. **Forward Guidance**
   
   Signaling the future course of monetary policy action (e.g. “[The Governing Council] expect[s] them to remain at their present levels at least through the first half of 2020, and in any case for as long as necessary.”)

3. **Credit Easing**
   
   Longer-term loans to banks with incentive mechanisms to ensure an effective pass-through to households and firms (e.g. “Targeted Longer-Term Refinancing Operations” - TLTROs)

4. **Asset Purchase Programme**
   
   Purchases of securities to lower risk-free interest rates, compress risk premia across financial assets and encourage portfolio rebalancing towards lending to households and firms
The ECB’s measures since June 2014

**Rate cuts**
- MRO: 0.15%
- MLF: 0.40%
- DFR: -0.10%
- MRO: 0.05%
- MLF: 0.30%
- DFR: -0.20%
- MRO: 0.05%
- MLF: 0.30%
- DFR: -0.30%
- MRO: 0.00%
- MLF: 0.25%
- DFR: -0.40%

**TLTROs**
- TLTRO-I: 60 bn/m at least until Sep. 2016
- TLTRO-II: 60 bn/m at least until Mar. 2017 + reinvestment policy to follow net purchases
- TLTRO-III: Details release

**Private asset purchases**
- APP/PSPP: 60 bn/m at least until Sep. 2016
- CSPP
- APP extended: 60 bn/m until Dec. 2017
- APP extended: 80 bn/m at least until Mar. 2017
- APP extended: 30 bn/m until Sep. 2018
- APP extended: 15 bn/m until Dec. 2018
- APP extended: 60 bn/m until Dec. 2017
- APP extended: 75 bn/m until Dec. 2018

**Public asset purchases**
- ABSPP/CBPP3
- APP extended: 60 bn/m at least until Sep. 2016
- APP extended: 80 bn/m at least until Mar. 2017
- APP extended: 30 bn/m until Sep. 2018
- APP extended: 15 bn/m until Dec. 2018
- APP extended: 60 bn/m until Dec. 2017
- APP extended: 75 bn/m until Dec. 2018

**Forward guidance (FG)**
- FG rates at current or lower levels for extended period
- FG ...at least through the end of 2019
- FG ...and well past the horizon for net asset purchases
- FG ...at least through the summer of 2019
- FG ...at least through the first half of 2020
- FG ...for extended period past date when interest rates are raised

**Net purchase end reinvest**
- Net purchase end reinvest
- TLTRO-III details release

**Reinvestment policy**
- TLTROs
- Private asset purchases
- Public asset purchases
- Forward guidance (FG)
1) NIRP anchors the front-end of the term structure

Expectations of future short-term rate throughout periods of non-standard measures

(Percentages per annum)

Source: Bloomberg.
Notes: Evolution of Federal Funds Rate futures curves.

Source: Bloomberg.
Notes: Evolution of the OIS forward curve from pre-NIRP (black-dotted lines) to post-NIRP (red-dotted lines) period.
2) Rate expectations effectively anchored through forward guidance

Source: Thomson Reuters, ECB staff calculations
3) TLTROs reinforce incentives for banks to lend on borrowed funds

Lending to NFCs by TLTRO-bidders and non-bidders
(index=1 in June 2014)

Source: ECB.
Notes: Notional stock of loans to non-financial corporations. It is constructed by adding the net flows of loans to NFCs to the stock of NFC loans as of June 2013. Depicted is the aggregate evolution for the group of banks that borrowed from both the TLTRO-I and II and the group of banks which did not access any of the two. Based on sample of euro area MFI for which individual balance sheet information is available. Vulnerable countries are Spain, Italy, Greece, Cyprus, Portugal and Slovenia. Less vulnerable countries are the remaining euro area countries. The series are not seasonally adjusted. Latest observation is December 2017.
4) APP compresses term premia over the whole range of the yield curve

OIS term structure
(percentage per annum)

Sources: Reuters, ECB.
Together, measures unclogged bank-based transmission…

**Bank lending rates for loans to non-financial corporates (NFCs)**

<table>
<thead>
<tr>
<th>Year</th>
<th>DE</th>
<th>ES</th>
<th>FR</th>
<th>IT</th>
<th>EA</th>
<th>MRO</th>
</tr>
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<tbody>
<tr>
<td>2014</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-2.50</td>
</tr>
<tr>
<td>2015</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-1.50</td>
</tr>
<tr>
<td>2016</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-0.50</td>
</tr>
<tr>
<td>2017</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.50</td>
</tr>
<tr>
<td>2018</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.00</td>
</tr>
<tr>
<td>2019</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.00</td>
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**Change in MRO rate and bank lending rates to NFCs**

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<tr>
<th>Year</th>
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<th>ES</th>
<th>IT</th>
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<tbody>
<tr>
<td>2014</td>
<td>-2.50</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td>-2.00</td>
<td>-1.50</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2016</td>
<td>-1.50</td>
<td>-1.00</td>
<td>-0.50</td>
<td></td>
<td></td>
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<tr>
<td>2017</td>
<td>-1.00</td>
<td>-0.50</td>
<td>0.00</td>
<td>0.50</td>
<td>0.00</td>
</tr>
<tr>
<td>2018</td>
<td>-0.50</td>
<td>0.00</td>
<td>0.50</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>2019</td>
<td>0.00</td>
<td>0.00</td>
<td>0.50</td>
<td>0.00</td>
<td>0.00</td>
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**Sources:** ECB, ECB calculations.
**Notes:** The indicator for the total cost of lending is calculated by aggregating short and long-term rates using a 24-month moving average of new business volumes.
**Latest observation:** April 2019.
MFI loans to the private sector
(annual growth rates)

Source: ECB.
Notes: Monthly data. "NFCs" stands for non-financial corporations and "HHs" stands for households.
Significant economic improvements

Real GDP growth and main components
(percent / percentage points)

Source: Eurostat, Markit, and ECB calculations.
Latest observation: 2019Q1 for real GDP, 2019Q1 for GDP components and April 2019 for PMI.

Labour market indicators
(Unemployment: percent; employment and total hours worked: index, 2008Q1=100)

Source: Eurostat, National accounts.
Latest observations: 2019Q1 for total hours worked and 2019Q2 for unemployment rate and employment.
Risk of deflation averted, but inflation rates still low.

HICP inflation and inflation expectations
(percent)

Source: ECB.
Effects of policy measures have been substantial

Real GDP growth: actual, baseline projection and counterfactual without policy contribution
(year on year percentage change)

- Real GDP growth
- ECB projection
- HICP inflation: actual, baseline projection and counterfactual without policy contribution
(year on year percentage change)

Source: ECB computations.
Notes: HICP inflation and real GDP growth are based on the March 2019 MPE; the median and range reflect estimates of HICP inflation and real GDP growth over the projection horizon in the absence of monetary policy support.
Latest observation: 2019Q12 for HICP and 2019Q4 for GDP.
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Downward revision in projections

Real GDP growth: June 2019 projection vs. December 2018 projection
(quarterly change in percent)

HICP inflation: June 2019 projection vs. December 2018 projection
(year on year percentage change)

Source: ECB computations.

Notes: HICP inflation and real GDP growth are based on the March 2019 MPE; the median and range reflect estimates of HICP inflation and real GDP growth over the projection horizon in the absence of monetary policy support.

Latest observation: 2019Q12 for HICP and 2019Q41 for GDP.
June 2019 press conference

1. **Forward guidance:** We now expect [the key ECB interest rates] to remain at their present levels **at least through the first half of 2020**, and in any case for as long as **necessary to ensure the continued sustained convergence of inflation** to levels that are below, but close to, 2% over the medium term.

2. **APP:** we intend to continue **reinvesting, in full, the principal payments** from maturing securities purchased under the asset purchase programme **for an extended period of time past the date when we start raising the key ECB interest rates**, and in any case for as long as necessary to maintain favourable liquidity conditions and an ample degree of monetary accommodation.

3. **TLTRO-III:** the interest rate in each operation will be set at a level that is 10 basis points above the average rate applied in the Eurosystem’s main refinancing operations over the life of the respective TLTRO. For banks whose eligible net lending exceeds a benchmark, the rate applied in TLTRO III will be lower, and can be as low as the average interest rate on the deposit facility prevailing over the life of the operation plus 10 basis points.
1) Forward guidance steer interest rate expectations

EONIA and EONIA forward curve

(percent)

Source: Thomson Reuters, ECB staff calculations
2) Reinvestments extract duration risk from the market

Expectations for the horizon of full reinvestments
(percent of respondents)

Effect of different reinvestment scenarios on 10-year term premium
(basis points)

Source: Bloomberg (05 April 2019) and Bloomberg (31 May 2019).
Note: Answers to the question “How long after the end of net asset purchases do you expect the ECB will continue the reinvestment of maturing debt?”. 32 respondents for Bloomberg (05 April 2019) and 25 respondents for Bloomberg (31 May 2019).

Notes: The chart shows the impact of the term premium compression over time, for different APP reinvestment horizons as indicated in the legend. The reinvestment horizon is defined relative to the end of net asset purchases. The marginal impact of each additional year of reinvestment is given by the distance between the scenario curves. Estimates are based on a no-arbitrage term structure model incorporating the relative bond supply held by price-sensitive investors (“free-float”). Results are based on projected free-floats in May 2019.
3) TLTRO-III with accommodative pricing

**TLTRO-III interest rate schedule**

- **Entry rate = MRO + 10bp**
- **Discount up to 40bp**
- **Minimum rate = DFR + 10bp**

**Interest rates on alternative funding sources for banks**

(Percent)

- **Bond yield (2y1y)**

Source: ECB, ECB calculations.

Notes: No senior unsecured bonds are available for PT. Bond yields are 2-year forward rates in 1 year. Latest observation: 21 June 2019.

Source: ECB.
Determination in case of contingencies: Looking ahead, the Governing Council is determined to act in case of adverse contingencies and also stands ready to adjust all of its instruments, as appropriate, to ensure that inflation continues to move towards the Governing Council’s inflation aim in a sustained manner.

Monitoring bank-based transmission: The Governing Council also assessed that, at this point in time, the positive contribution of negative interest rates to the accommodative monetary policy stance and to the sustained convergence of inflation is not undermined by possible side effects on bank-based intermediation. However, we will continue to monitor carefully the bank-based transmission channel of monetary policy and the case for mitigating measures.
Thank you