How does euro area monetary policy affect CESEE EU Member States?

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Structure

International transmission channels of monetary spillovers

Real economic and financial linkages between CESEE EU Member States (MS) and the euro area

How have financial variables in CESEE EU MS developed in the context of the ECB’s unconventional monetary policy measures?

How has the ECB’s monetary policy affected the euro area and CESEE EU MS – an empirical assessment

Conclusion
International transmission channels of monetary spillovers

• **Aggregate demand channel:** monetary policy affects domestic demand and, thus, the demand for foreign goods.

• **Exchange rate competitiveness channel:** monetary policy affects the exchange rate
  • Expenditure switching effects

• **Financial channel:** monetary policy affects domestic financial conditions that may change abroad as well – dependent on the strength of the financial connections between the countries.
  • Via prices of assets, such as shares, bonds, housing (collateral)
  • Via internationally active banks and/or cross-border bank lending
  • Wealth effects via foreign currency borrowing

⇒ Credit booms and surges in capital inflows
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CESEE have strong trade links with the euro area and close intraregional ties.

Export structure of CESEE-11 in % of total exports, 2018

Import structure of CESEE-11 in % of total imports, 2018

Source: Eurostat.
Banks’ exposures vis-à-vis CESEE-11 still high despite deleveraging since 2009

Consolidated exposure of BIS reporting banks vis-a-vis CESEE-11

in USD mn, immediate borrower basis

Source: BIS

All BIS reporting banks
Euro area BIS reporting banks
Euro remains important in foreign currency lending – especially for corporate credit …..

CESEE-11: FX denominated credit to households
% of total credit to the household sector

CESEE-11: FX denominated credit to corporates
% of total credit to the corporate sector

Source: ECB
.... as well as in capital markets

CESEE-11: Outstanding stocks of corporate bonds

CESEE-11: Outstanding stocks of general government bonds

Source: ECB.
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Ongoing monetary accommodation in the euro area

Non-standard measures since 2008

Interest rates in %, balance sheet in trillion EUR.

- LTRO1
- CBPP1
- SMP1
- CBPP2
- LTRO2
- SMP2
- TLTRO1
- CBPP3
- TLTRO2
- EAPP
- TLTRO3

Interest rates in %, balance sheet in trillion EUR.

- MRO
- Deposit facility rate
- Shadow rate (Krippner)
- Eurosystem balance sheet (rhs, inv. scale)
Impact of ECB nonstandard measures on growth and inflation

Notes: Shown is the impact of ECB non-standard measures on macro variables based on a macroeconomic model with financial variables conditioning on the yield curve impact shown on the previous slide.

Altavilla, C. Monetary policy transmission mechanisms. 13th ECB Central Banking Seminar: Monetary policy in the euro area, Frankfurt am Main, 1 to 5 July 2019
Prices of selected financial assets increased notably

**Equity prices in CESEE-11**

Index: Jan 2012 = 100

**House prices in CESEE-11**

Index: Q1 2012 = 100

Source: Thomson Reuters, Eurostat, OeNB.

Source: Eurostat.
EAPP announcement shows no significant or longer-lived impact on exchange rates and bond yields in most of the countries.

10Y government bond yields

-2 0 2 4 6 8 10


Source: Eurostat.

Nominal exchange rates against the EUR

Index: 1.1.2011=100, rise denotes appreciation

Source: Macrobond.
Credit growth gained speed and foreign banks slowly started to provide new capital to the region

Credit growth in CESEE-11
Nonbank private sector, yoy in % adjusted for exchange rate changes

Banking sector capital flows from euro area to CESEE-11
USD mn, cumulated quarterly flows

Source: National central banks, Eurostat, OeNB.

Source: BIS locational statistics, exchange rate adjusted changes.
Strong correlation of short-term rates, CESEE rates tend to follow euro area rates

Short-term interest rates
3-months money market rates in %

Correlation of short-term interest rates
Correlation of CESEE short-term rates with lags and leads of euro area short-term rates.

Source: Macrobond.
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Effects of euro area monetary policy on CESEE – what do we know?

Studies differ in econometric design and modeling of the euro area monetary policy shock

Main takeaways from the literature:

• **Positive effects on output, weaker effects on inflation** (*Babecká Kucharčuková* et al., 2016; Horváth and Voslářová, 2017; Potjagailo, 2017; Feldkircher et al., 2019).

• **Spillovers** tend to be of **similar size as domestic euro area effects** (*Babecká Kucharčuková* et al., 2016; Hájek and Horváth, 2016, 2018; Potjagailo, 2017), but some cross-country variation.

• **Strongest effects in Baltics** (*Benecka* et al., 2018; Burriel and Galesi, 2018), **weakest in SEE** (*Hájek and Horváth*, 2016, 2018; *Moder*, 2019).

• **Knock-on effects** account for **large fraction of overall size of spillover** effect (*Burriel and Galesi*, 2018); these are especially important for the Baltics (*Benecka* et al., 2018).

Main findings of recent OeNB study (*Feldkircher* et al., 2019):

• **Transmission** of spillovers through an **exchange rate channel** (appreciation of local CESEE currencies against the euro) and a **broad financial channel** (decrease in CESEE long-term yields, increase in equity prices and private credit).
Assessing spillovers using a new metric of monetary policy

- We use the **monetary policy surprises** from Altavilla et al. (2019), which are extracted from **high-frequency movements of the yield curve** around press releases and conferences on the ECB’s monetary policy decisions.

- Altavilla et al. (2019) exclusively consider euro area-specific reactions of selected macroeconomic and financial quantities → no information on international spillovers.

- We estimate **spillover effects** with a **multi-country panel VAR model** using Bayesian techniques.

- Allows for clustering countries in different country groups, namely euro area core, periphery and CESEE countries.

- The surprises are scaled to yield a **100bp reduction in the euro area term spread**.
Impact of ECB monetary policy measures on the output gap

Output gap (based on industrial production)

Reaction after 1, 2 and 3 years

Source: Own calculations.
Counterfactual exercise: The role of the ECB’s monetary policy since 2015

**BG: Cyclical component of industrial production**
*in % of industrial production*

Source: Own calculations.

**CZ: Cyclical component of industrial production**
*in % of industrial production*

Source: Own calculations.
Counterfactual exercise: The role of the ECB’s monetary policy since 2015

HU: Cyclical component of industrial production
in % of industrial production

Source: Own calculations.

PL: Cyclical component of industrial production
in % of industrial production

Source: Own calculations.
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Business cycles have become more synchronized with the euro area ...

**Business cycle synchronization with the euro area**

Opposite of absolute differences of annual growth rates to euro area growth rates, in percentage points.

Source: IMF.
.... but inflation (and output gap) dynamics have diverged recently

![Policy rates in selected CESEE countries](chart1)

![Inflation in selected CESEE countries](chart2)

![Output gap of selected CESEE countries](chart3)

- Policy rates in selected CESEE countries in %
  - Czech Republic
  - Hungary
  - Poland
- Inflation in selected CESEE countries in % year on year
- Output gap of selected CESEE countries in % of potential GDP

Source: Macrobond.

Source: Eurostat.

The CESEE aggregate includes BG, CZ, HR, HU, PL and RO.

Source: AMECO.
Danke für Ihre Aufmerksamkeit

Thank you for your attention

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References

Policy rates in selected CESEE countries

In %

Inflation in selected CESEE countries

in % against previous year

Output gap of selected CESEE countries

in % of potential GDP

Source: Macrobond.

Source: Eurostat.

Source: AMECO.