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Monetary and credit analysis

13th ECB Central Banking Seminar,
Frankfurt am Main, 3 July 2019

Overview

1. Monetary aggregates have important leading indicator properties in the euro area

    - M3 for inflation

    - M1 for output

2. Analysis of loans and financing costs helps to understand the monetary policy transmission mechanism

3. Analysis of banks' balance sheets provides important information on the banking sector

4. Monitoring financial accounts contributes to robust assessment of transmission beyond bank lending channel

Monetary trends are key for assessing risks to price stability over the medium to longer term

M3 and consumer price inflation
(annualised quarter-on-quarter percentage changes; deviation from mean)

Legend: —— M3 ann. gr. low freq. —— HICP inflation low freq.
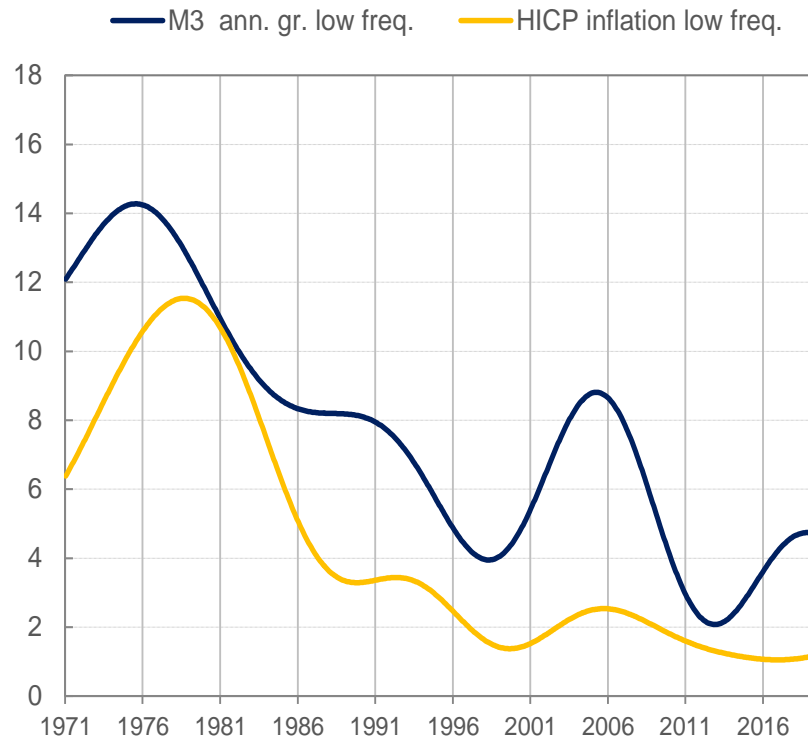
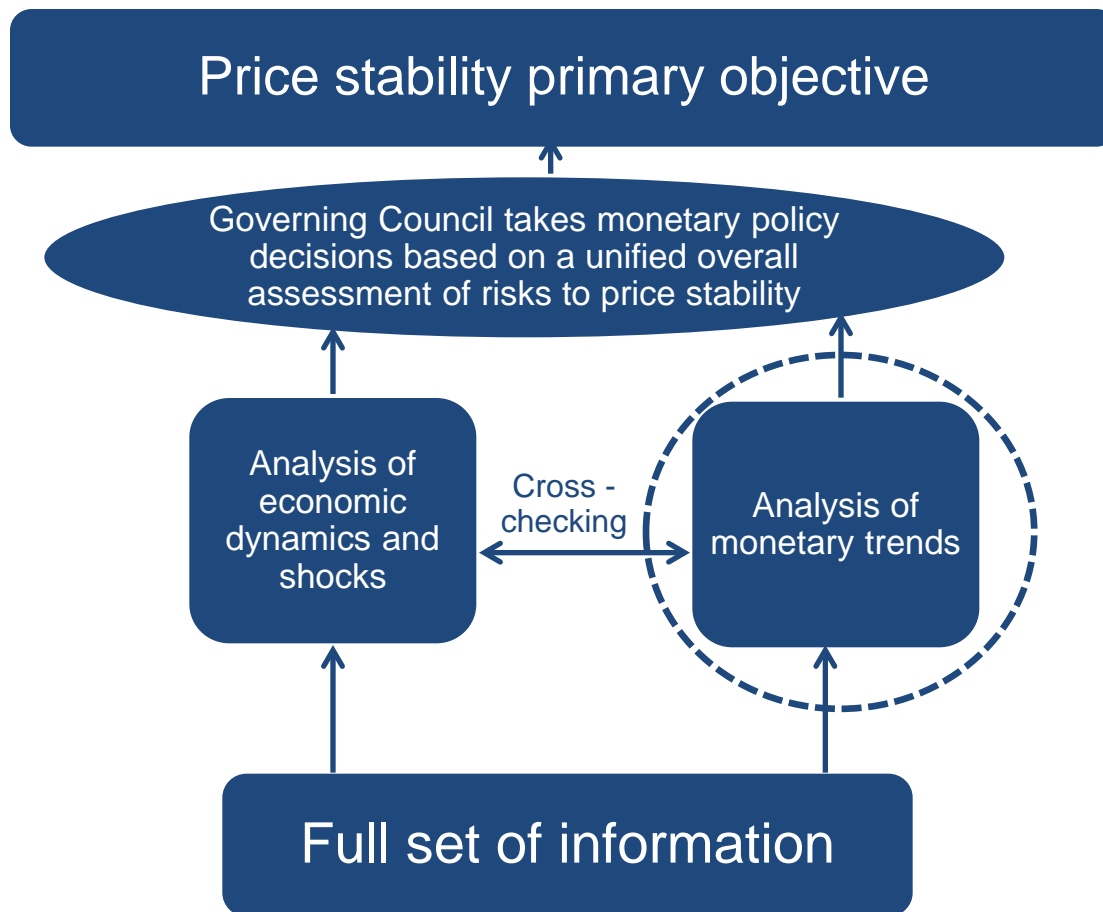*Sources: ECB, ECB calculations.*
Latest observation: December 2018.

Money good leading indicator to price inflation in the medium- to long-term

There is a robust **long-run relationship** between money growth and inflation

Monetary analysis helps extracting the signal (the appropriate **underlying rate of monetary expansion**) that is relevant for **identifying risks to price stability**

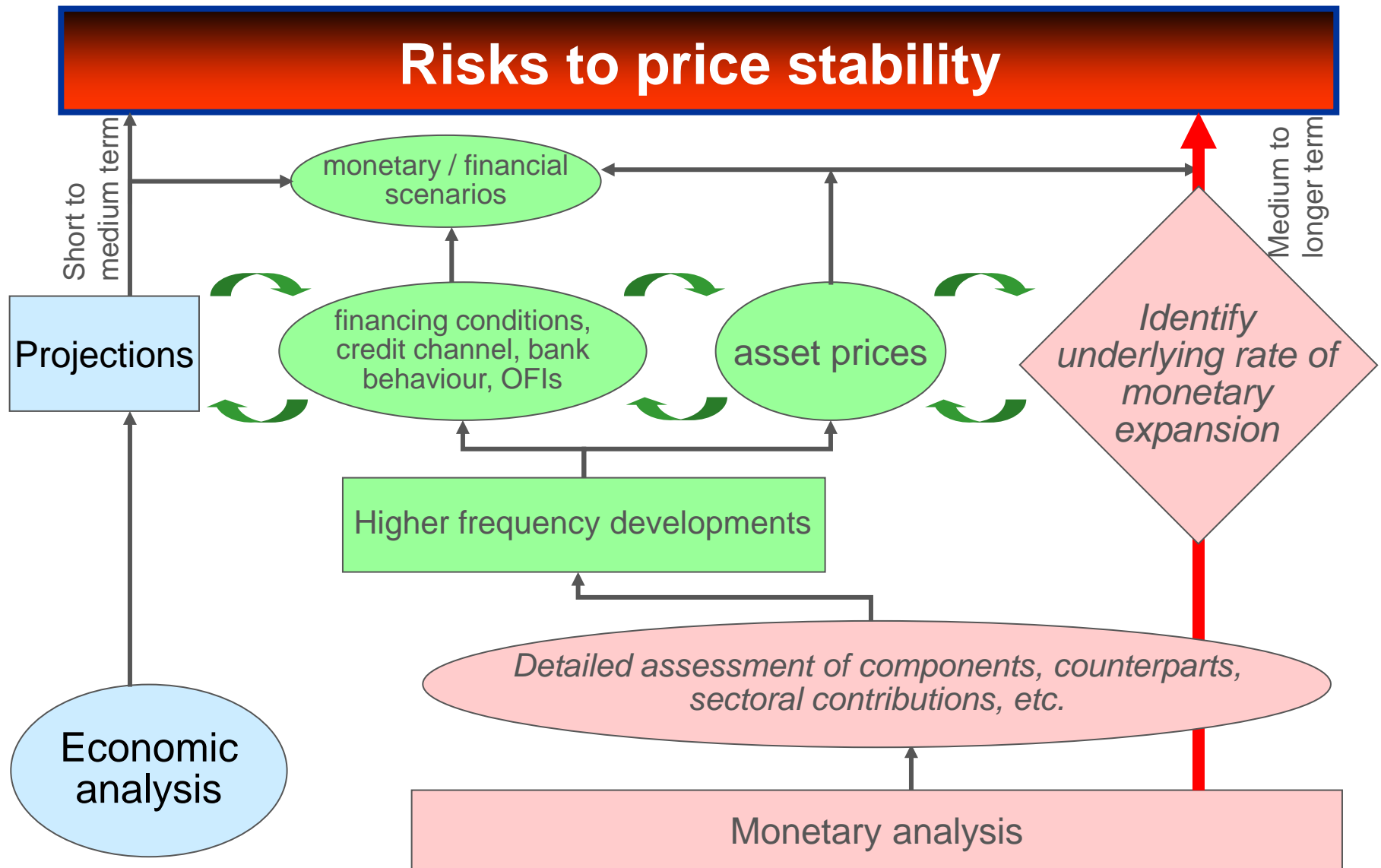The ECB's monetary policy strategy assigns a prominent role to monetary analysis

Price stability primary objective

Governing Council takes monetary policy decisions based on a unified overall assessment of risks to price stability

Analysis of economic dynamics and shocks

Cross - checking

Analysis of monetary trends

Full set of information

Stylised representation of the monetary policy transmission
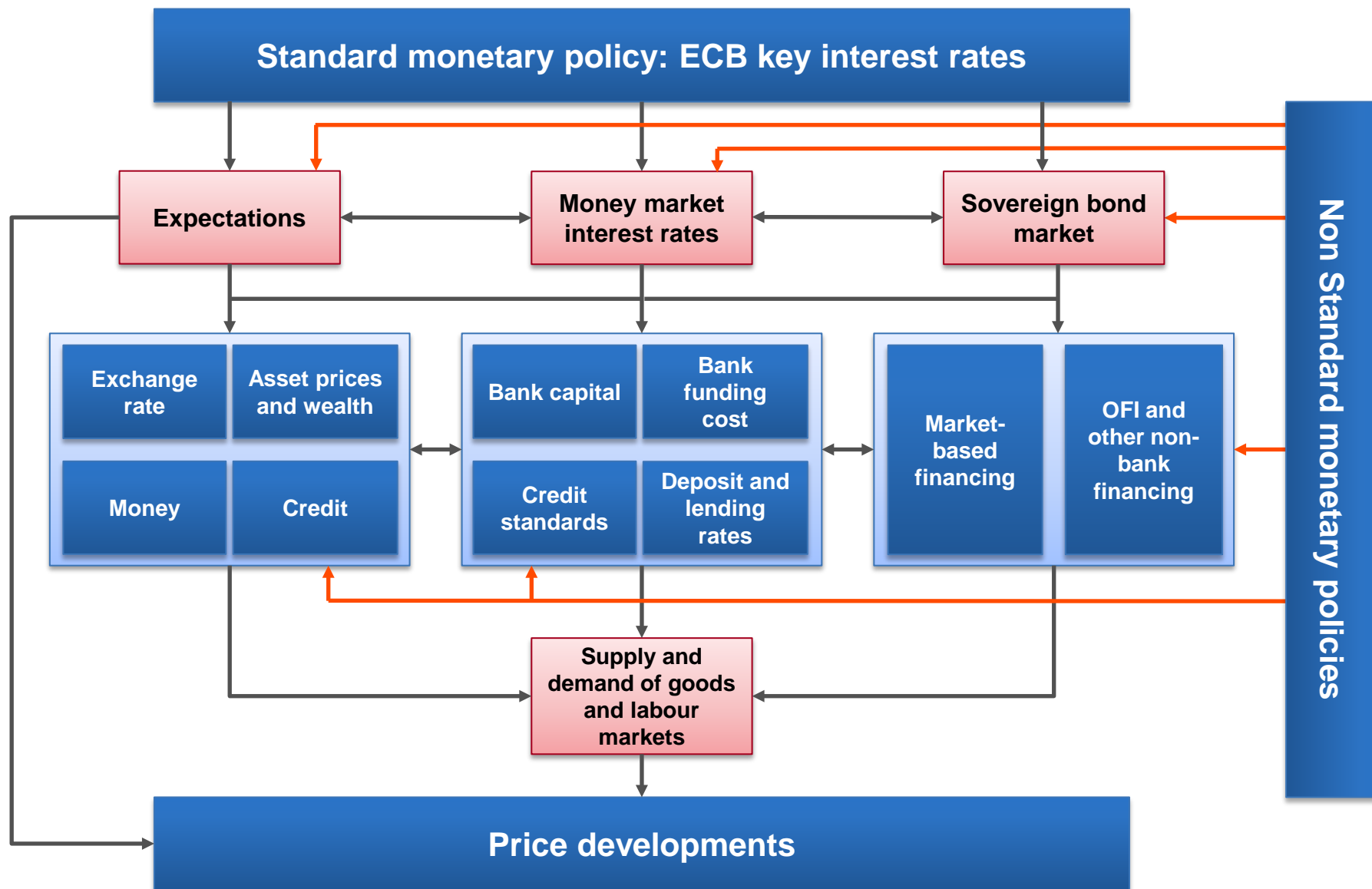
Resilient broad and narrow money growth

M3 and M1 growth
(annual percentage changes)
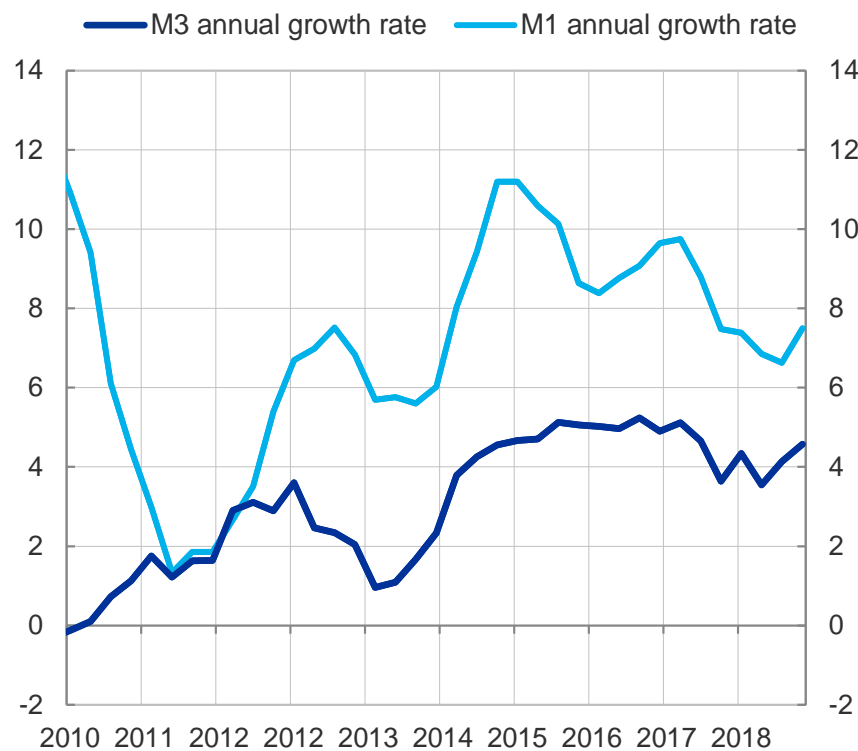
Source: ECB.
Notes: Based on quarterly data.
Latest observation: 2019 Q1.

Real M1 and real GDP
(annual percentage changes)

Sources: Eurostat, ECB.
Latest observation: 2019 Q1 for real GDP growth, April 2019 for real M1 growth.
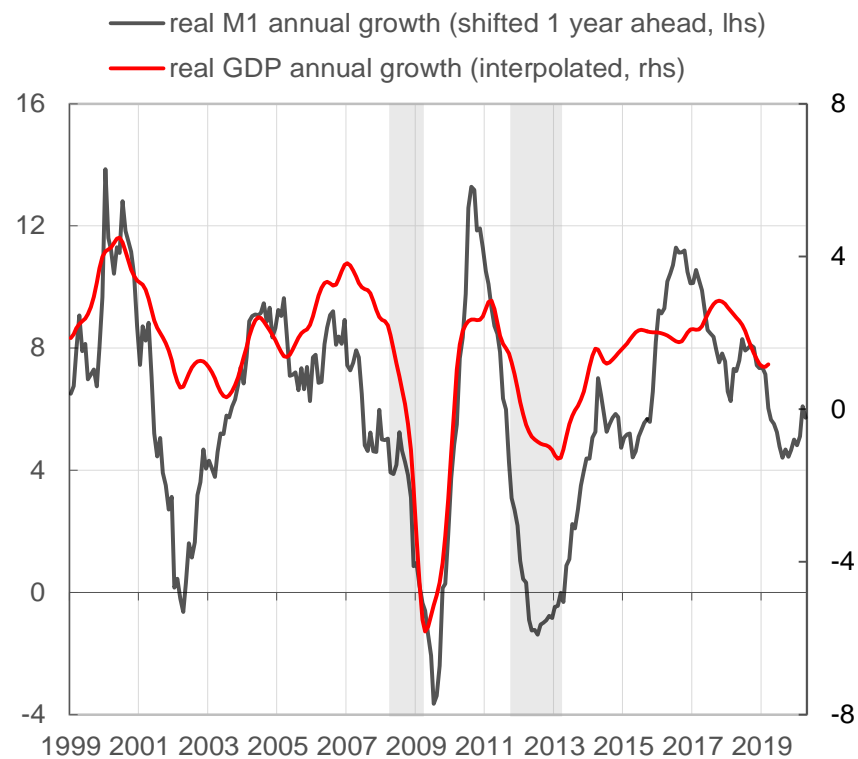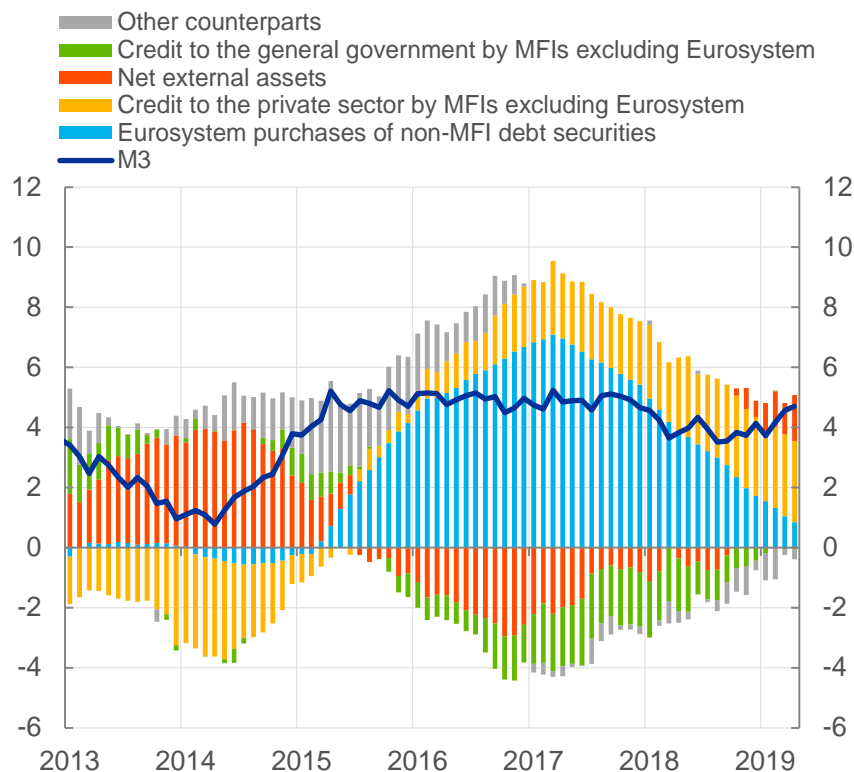
Diminishing support from APP to M3 replaced by other sources
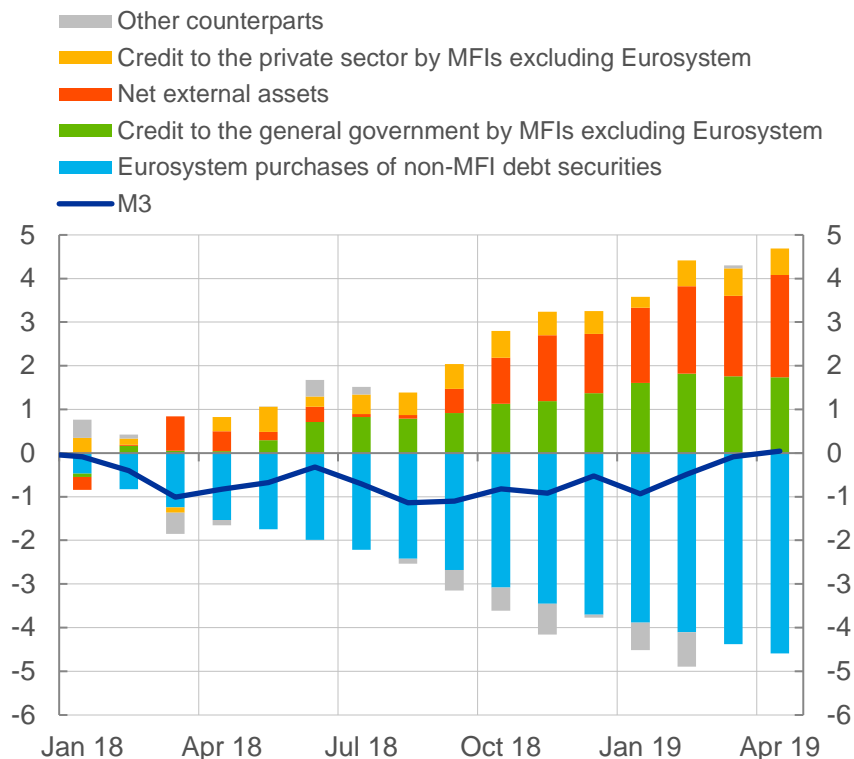
M3 counterparts
(annual percentage changes, contributions in percentage points)

- Other counterparts
- Credit to the general government by MFIs excluding Eurosystem
- Net external assets
- Credit to the private sector by MFIs excluding Eurosystem
- Eurosystem purchases of non-MFI debt securities
- M3

Sources of broad money creation
(accumulated annual percentage changes since December 2017; contributions in percentage points)

- Other counterparts
- Credit to the private sector by MFIs excluding Eurosystem
- Net external assets
- Credit to the general government by MFIs excluding Eurosystem
- Eurosystem purchases of non-MFI debt securities
- M3

Source: ECB.
Latest observation: April 2019.

Source: ECB.
Latest observation: April 2019.

Improving net external assets

MFIs net external assets and the monetary presentation of the B.o.P
(12-month flows in EUR bn)

Legend:
- Other
- Direct investment (non-MFIs)
- Portfolio investment (non-MFIs)
- Current account (non-MFIs)
- MFIs' net external assets
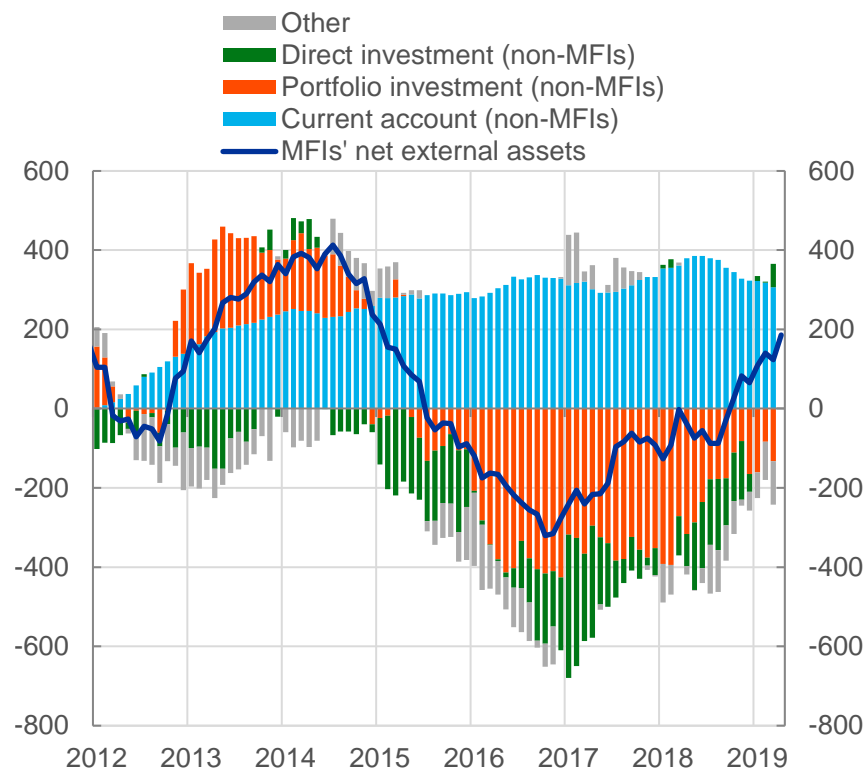
Source: ECB.
Notes: The grey area ("Other") displayed a significant increase in December 2016. This reflected a significant increase in BoP's errors and omissions, as well as a reduction in the discrepancy between MFIs' net external assets derived from BSI statistics and those derived from BoP.
Latest observation: April 2019.

Direct and portfolio investment by non-MFIs
(monthly flows in EUR bn)

Legend:
- Residents
- Non-Residents
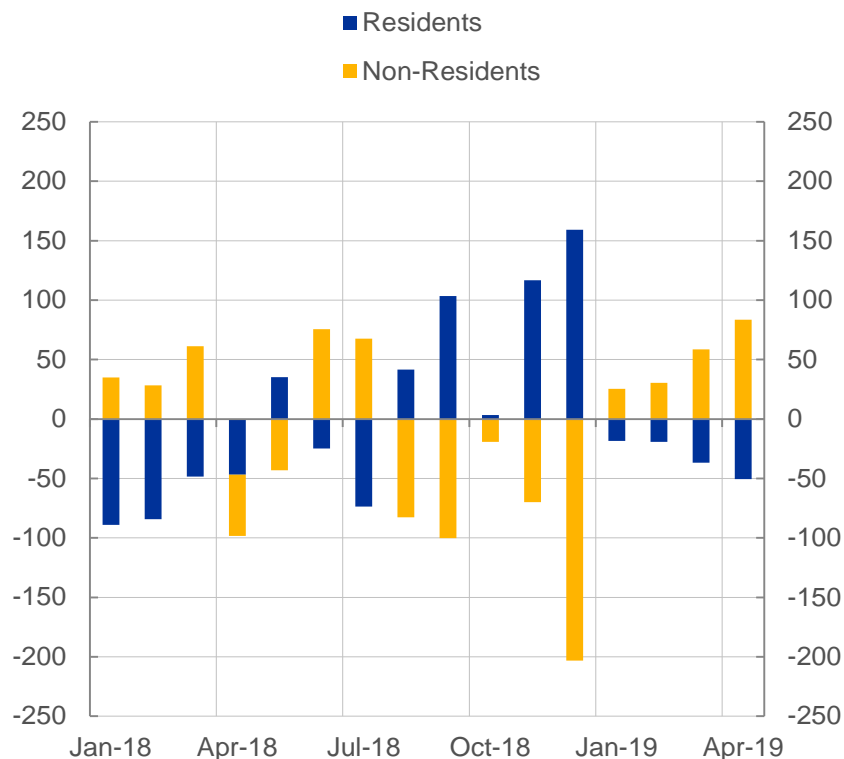
Source: ECB and ECB calculations.
Notes: Bars depicted with the sign of monetary flows, i.e. financial investments abroad by resident non-MFIs are plotted with inverted sign.
Latest observation: April 2019.

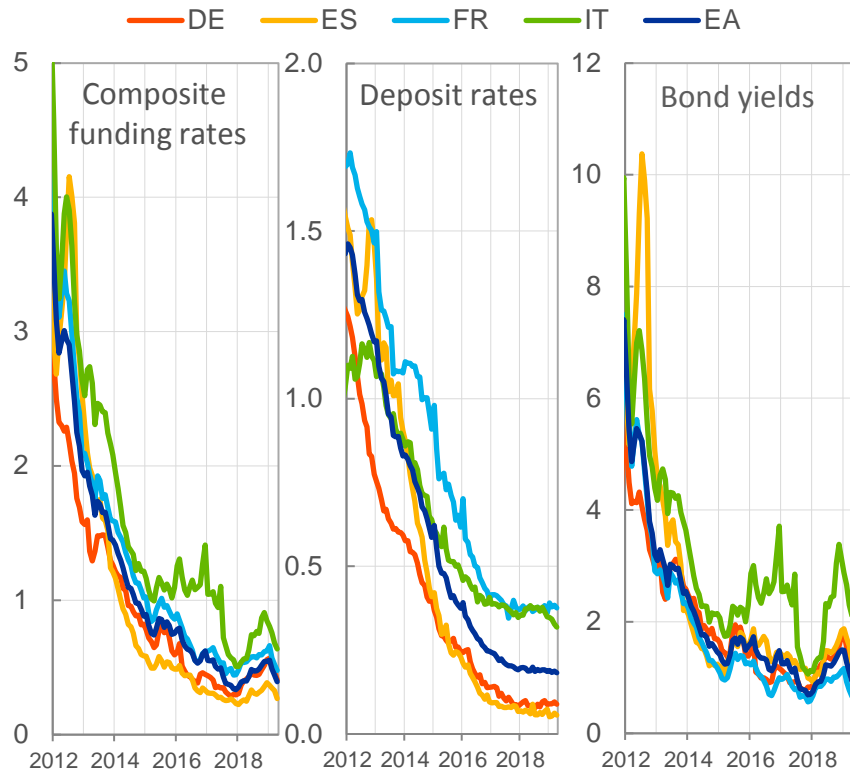# Bank funding structure shields funding costs from market pressure

Composite bank funding costs
(percentages per annum)

Legend: DE, ES, FR, IT, EA

Composite funding rates · Deposit rates · Bond yields

Bank funding structure
(percent of main liabilities)

Legend:
- MFI debt securities issuance
- borrowing from Eurosystem
- deposits of euro area residents adjusted for OFIs
- interbank deposits (incl. MMFs)
- external liabilities

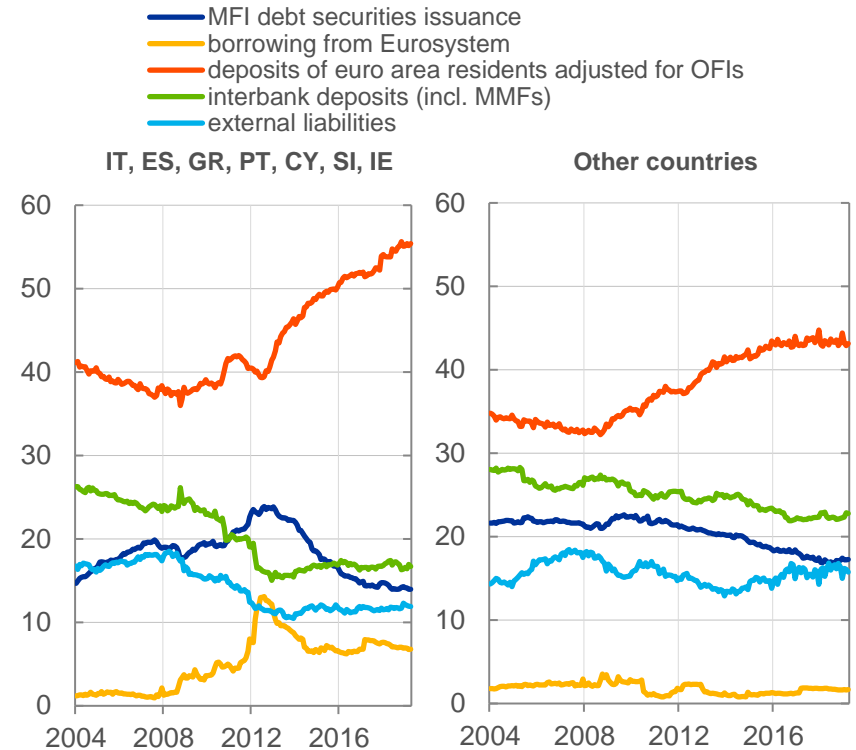**IT, ES, GR, PT, CY, SI, IE** · **Other countries**

Sources: Markit Iboxx, ECB MIR.
Notes: Deposit rates are on new business and bond yields include both high yield and investment grade debt. The values of bond yields shown represent monthly averages of the underlying daily values. Composite funding rates are the weighted cost of deposits and market debt funding.
Latest observation for composite and deposit rates: April 2019; for bond yields: 21 June 2019.
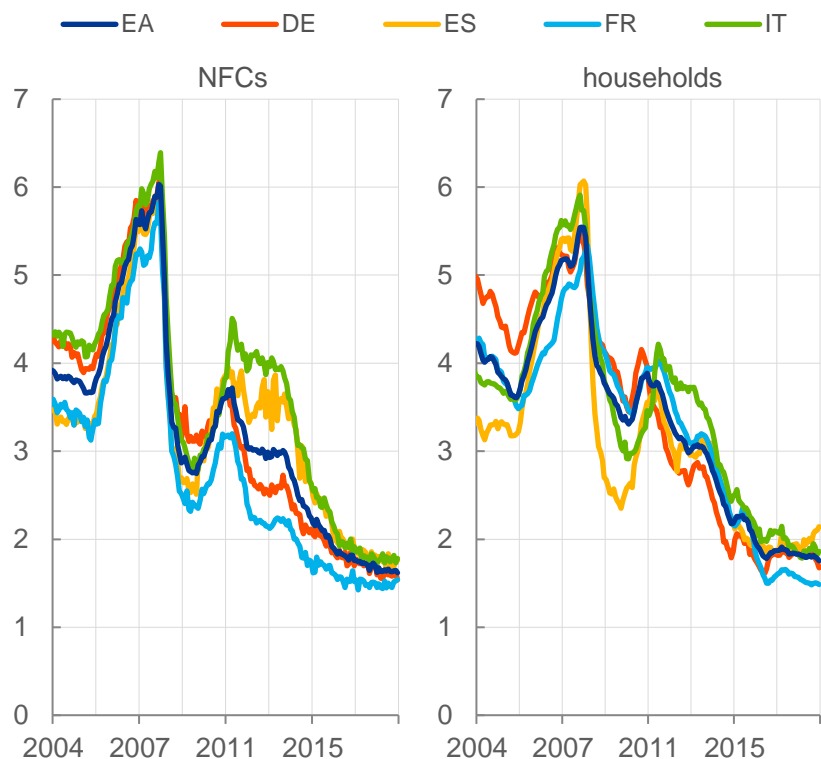
Source: ECB.
Notes: Euro area resident deposits exclude long-term deposits held by OFIs to account for the impact of retained securitization. Main liabilities exclude capital and reserves and long-term deposits held by OFIs to account for the impact of retained securitization.
Latest observation: April 2019.

Bank lending rates at historical lows

Lending rates to NFCs and households for house purchase
(percentages per annum)

Rate reductions since the credit easing announcement
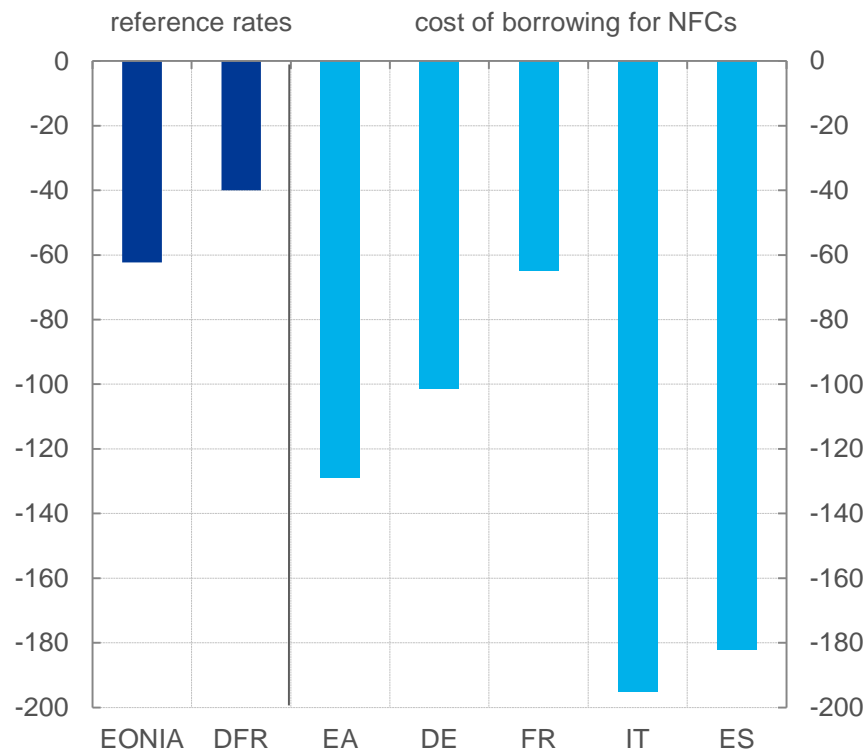*(percentages per annum , May 2014 – April 2019)*

Source: ECB.
Notes: The indicator for the cost of borrowing is calculated by aggregating short- and long- term rates using 24-months moving average of new business volumes.
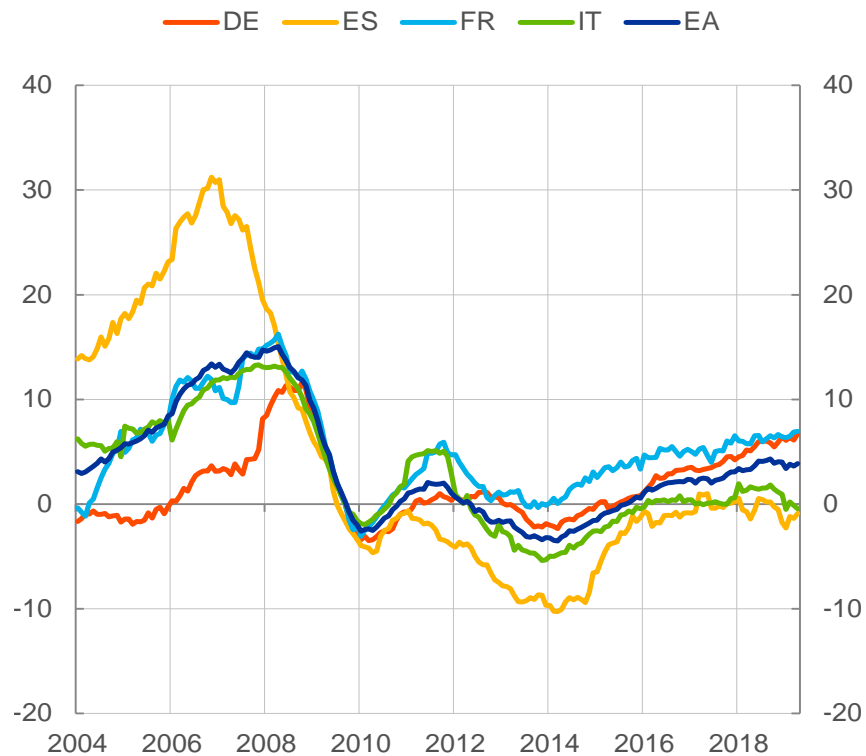*Latest observation: April 2019.*

Source: ECB.
Notes: The date of May 2014 was selected as it immediately precedes the ECB's announcement of some monetary policy measures taken to enhance the functioning of the monetary policy transmission mechanism on 5 June 2014 (announcement of the modalities of TLTROs and intensification of preparatory work related to outright purchases of ABS). Reference rates are monthly averages.
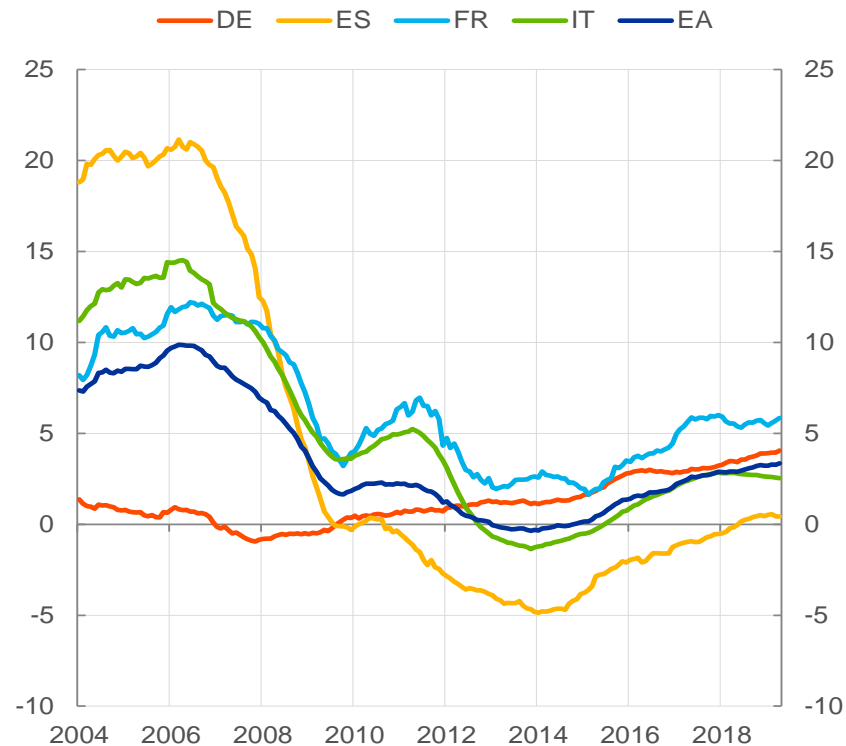*Latest observation: April 2019.*

Diverse loan growth developments

MFI loans to NFCs
(annual percentage changes)

Legend: DE ES FR IT EA

Source: ECB.
Notes: Adjusted loans (i.e. adjusted for sales, securitisation and cash pooling activities).
Data for Spain from Jan. 2004 to Dec. 2009 are non-seasonally adjusted.
Latest observation: April 2019.

MFI loans to households
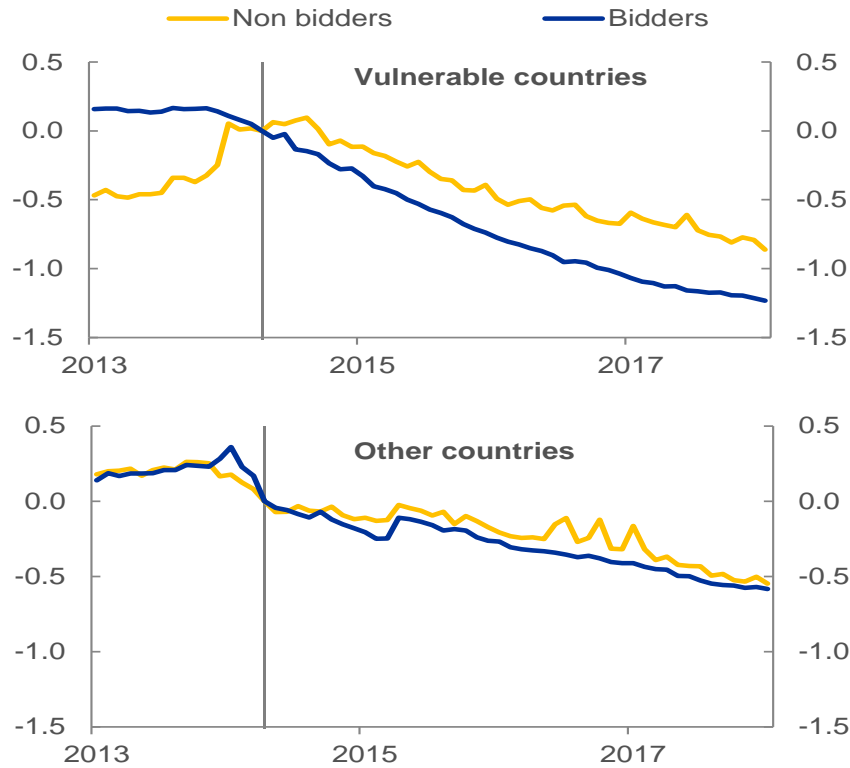*(annual percentage changes)*

Legend: DE ES FR IT EA

Source: ECB.
Latest observation: April 2019.

Impact of targeted longer-term refinancing operations (TLTRO)

Lending rates to NFCs of TLTRO bidders and non bidders
(percentage points; deviations from September 2014)

Non bidders — Bidders

Vulnerable countries

Other countries

Lending volumes to NFCs of TLTRO bidders and non bidders
(notional stock; September 2014=1)

Non bidders — Bidders

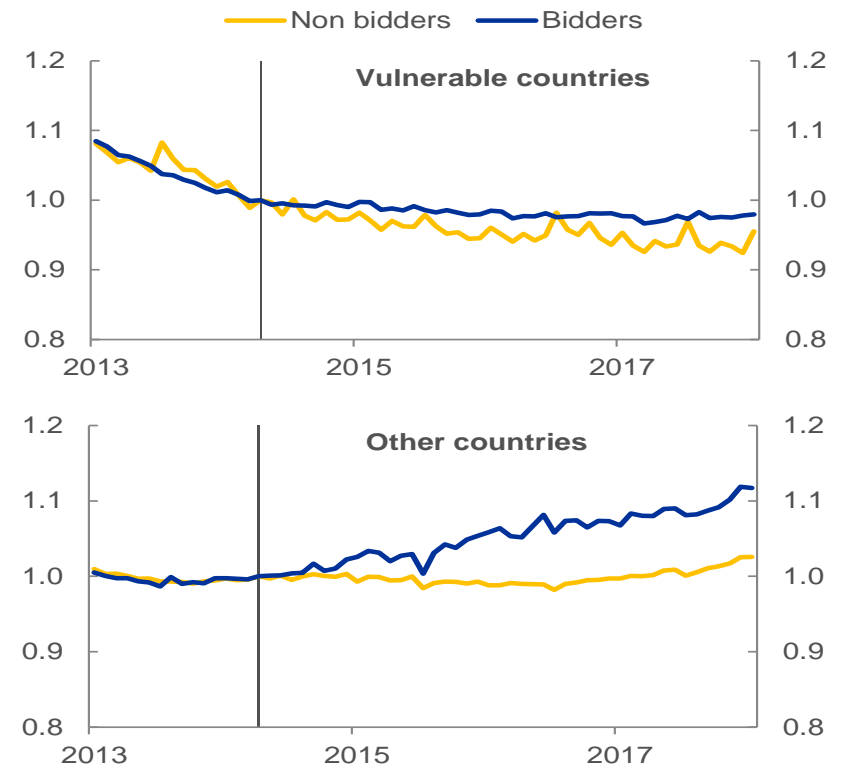**Vulnerable countries**

Other countries

Sources: ECB iMIR and ECB calculations.
Notes: NFC lending rates are on outstanding loans to non-financial corporations weighted by volume. Chart shows average rates across bidders and non bidders in deviation from rates in September 2014. Vulnerable countries are Ireland, Greece, Spain, Italy, Cyprus, Portugal and Slovenia. Other countries are all the remaining euro area countries.
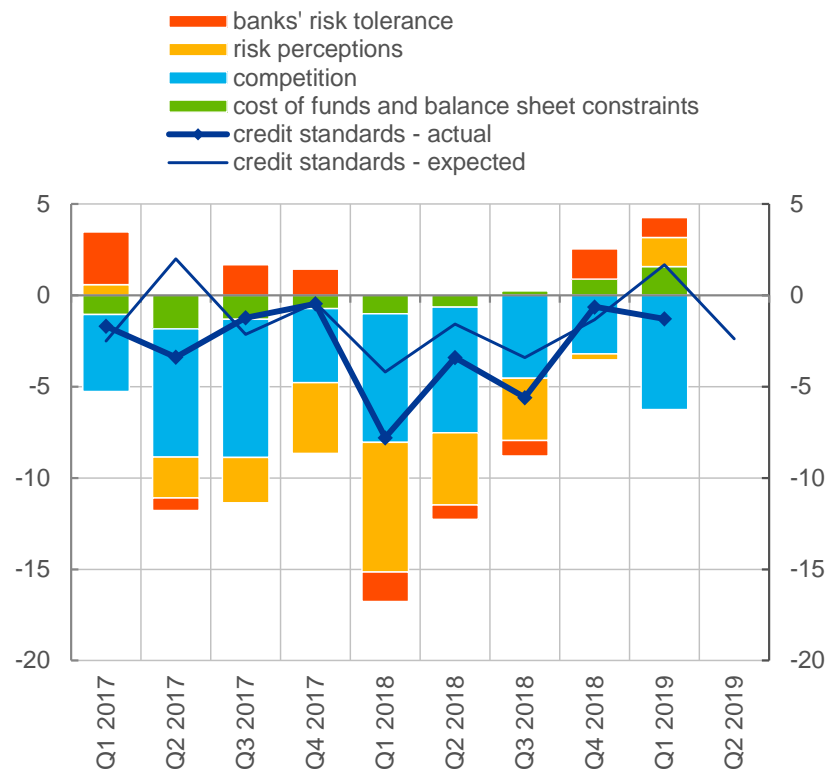
Sources: ECB iBSI and ECB calculations.
Notes: The chart shows the notional stock of loans to NFCs across bidders and non bidders relative to September 2014. Vulnerable countries are Ireland, Greece, Spain, Italy, Cyprus, Portugal and Slovenia. Other countries are all the remaining euro area countries.

Bank Lending Survey points to slowdown in credit demand

Changes in credit standards for loans to NFCs and contributing factors
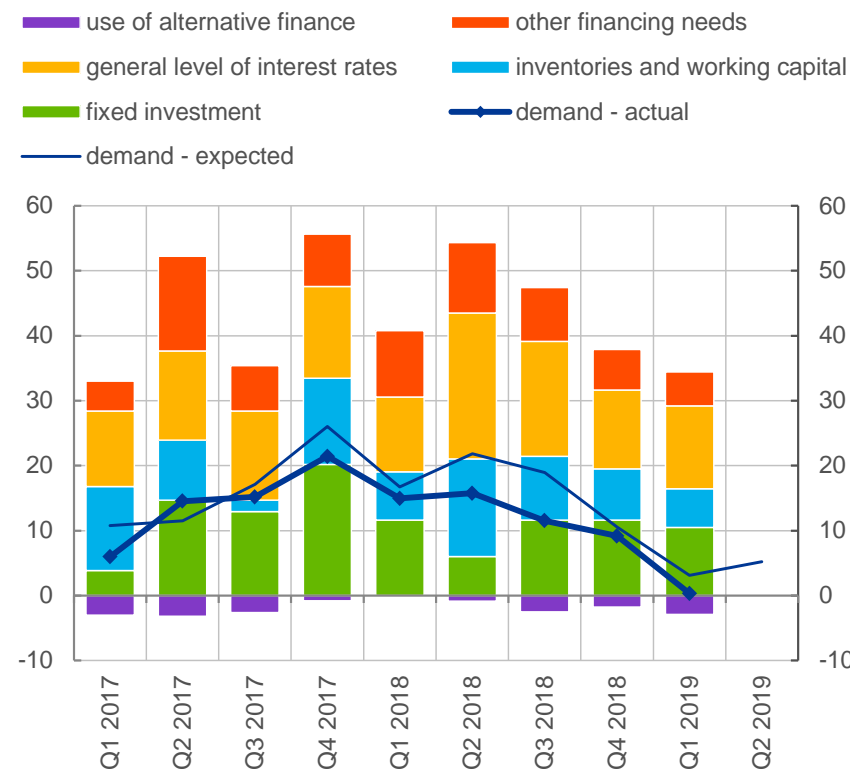*(average net percentages per category)*

Legend:
- banks' risk tolerance
- risk perceptions
- competition
- cost of funds and balance sheet constraints
- credit standards - actual
- credit standards - expected

Source: ECB (BLS).
Notes: "Cost of funds and balance sheet constraints" as unweighted average of "cost related to capital position", "access to market financing" and "liquidity position"; "Risk perception" as unweighted average of "general economic situation and outlook", "industry or firm-specific situation and outlook/borrower's creditworthiness" and "risk on collateral demanded"; Competition as "bank competition", "non-bank competition" and "competition from market financing".
Latest observation: 2019 Q1 (April 2019 survey).

Changes in net demand for loans to NFCs and contributing factors
(average net percentages per category)

Legend:
- use of alternative finance
- general level of interest rates
- fixed investment
- demand - expected
- other financing needs
- inventories and working capital
- demand - actual

Source: ECB (BLS).
Notes: "Other financing needs" is the unweighted average of "mergers/acquisitions and corporate restructuring" and "debt refinancing/restructuring and renegotiation"; "use of alternative finance" is the unweighted average of "internal financing", "loans from other banks", "loans from non-banks", "issuance/redemption of debt securities" and "issuance/redemption of equity".
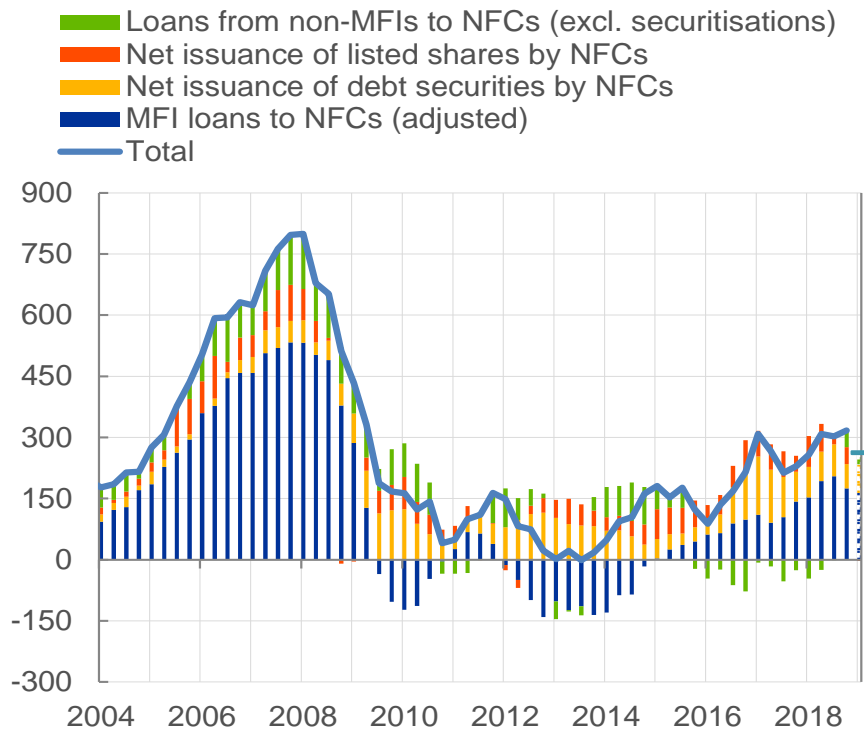*Latest observation: 2019 Q1 (April 2019 survey).*

Trends in the external financing structure of euro area NFCs

External financing of euro area NFCs based on selected instruments
*(annual flows: EUR billions)*

Legend:
- Loans from non-MFIs to NFCs (excl. securitisations)
- Net issuance of listed shares by NFCs
- Net issuance of debt securities by NFCs
- MFI loans to NFCs (adjusted)
- Total

Share of bank and non-bank financing in total NFC financing in the euro area and the United States
*(cumulated net transactions, percentages)*

Legend: Bank ■ Non-bank

Source: Eurostat, Dealogic, ECB and ECB estimates.
Notes: MFI loans adjusted for sales, securitisation and cash pooling activities. Loans from non-MFIs include loans from OFIs and ICPFs.
Latest observation: 2018 Q4 for EAA data. Estimates for 2019 Q1 based on ECB BSI and SEC data and Dealogic.
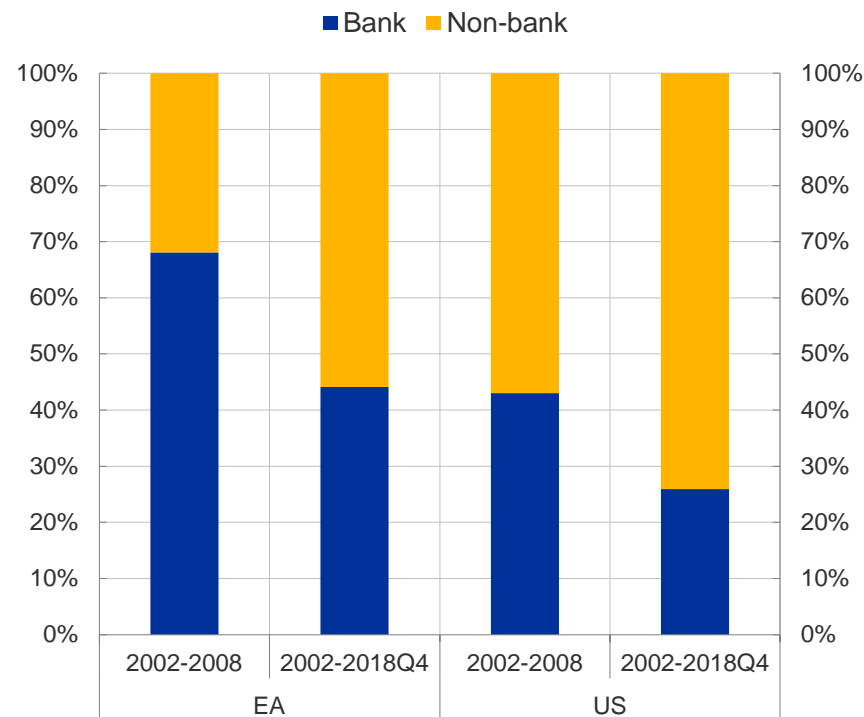
Sources: ECB, Federal Reserve System.
Latest observation: 2018 Q4.

Ongoing balance sheet adjustments for NFCs and households

NFC consolidated gross debt in selected EA countries
(percent of NFC gross value added)

Household gross debt in selected EA countries
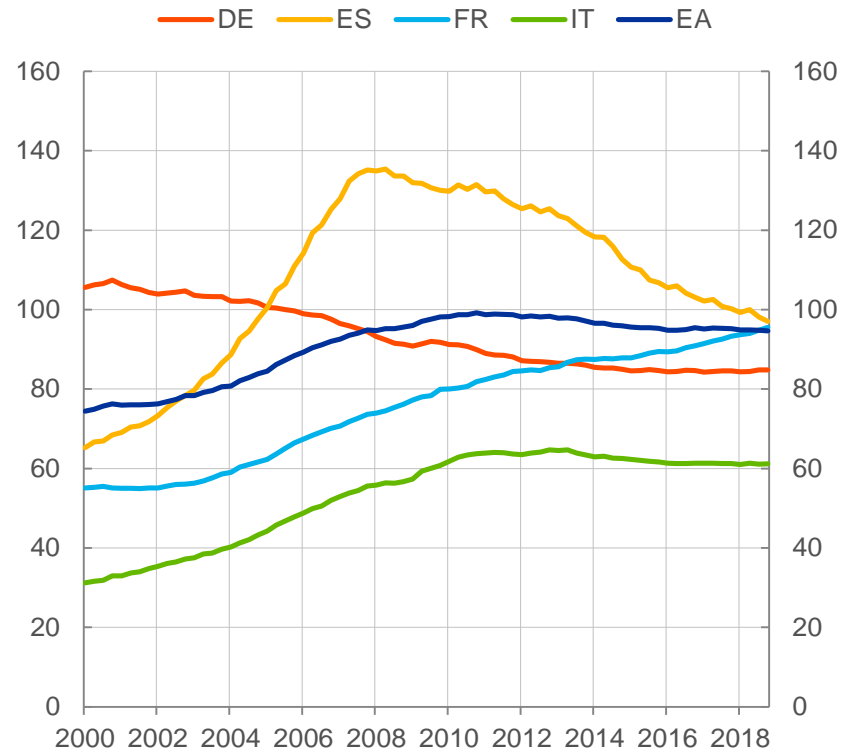*(percent of gross disposable income)*
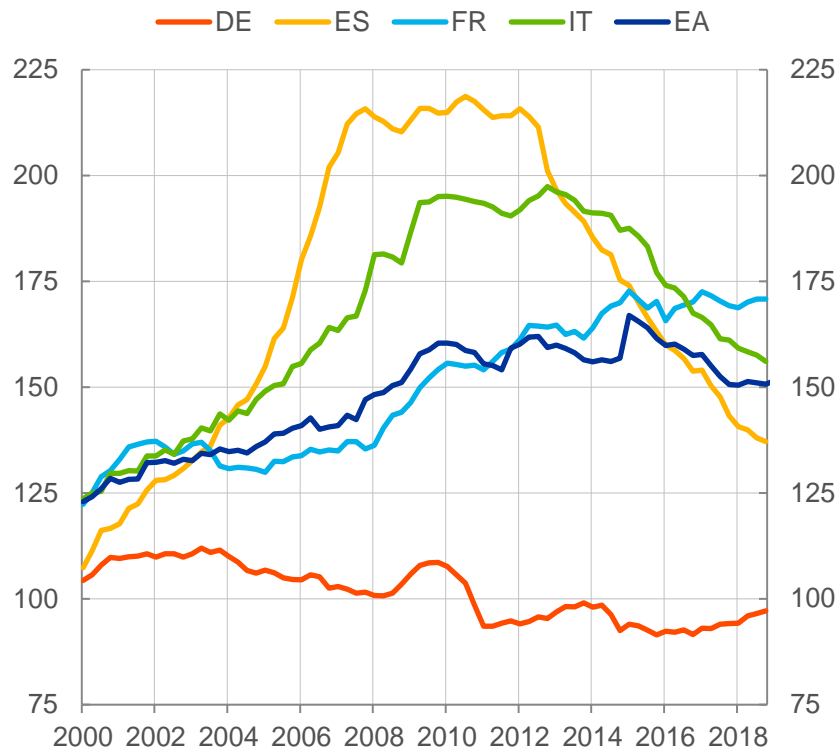
Sources: Eurostat, ECB and ECB calculations.
Notes: Consolidated gross debt includes total loans granted to NFCs net of intra-sectoral loans, debt securities issued and pension liabilities.
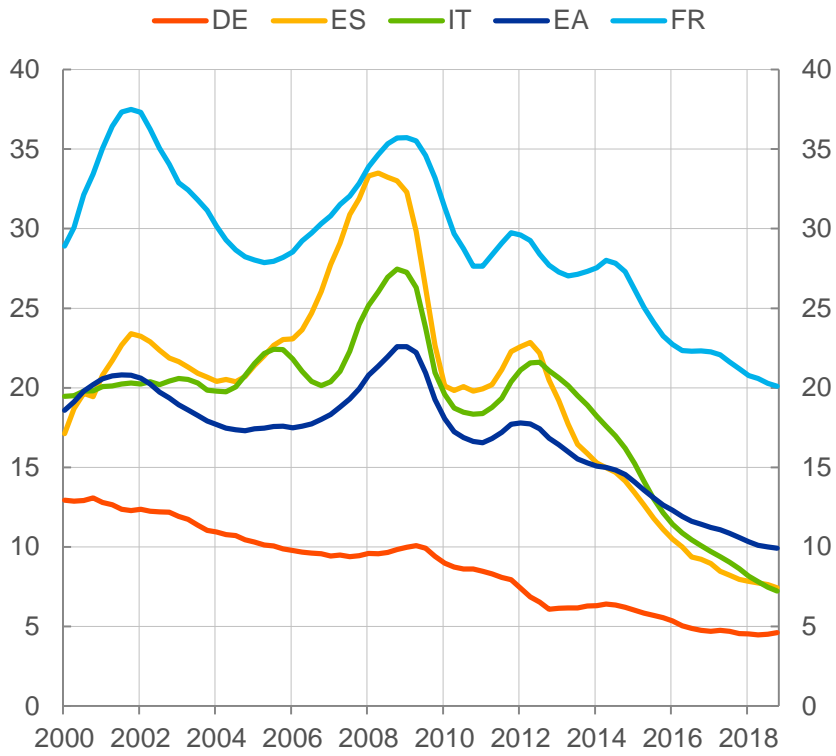*Latest observation: 2018 Q4.*

Sources: Eurostat, ECB, ECB calculations.
Notes: Debt is total loans granted to households by all institutional sectors incl. also intra-sectoral loans.
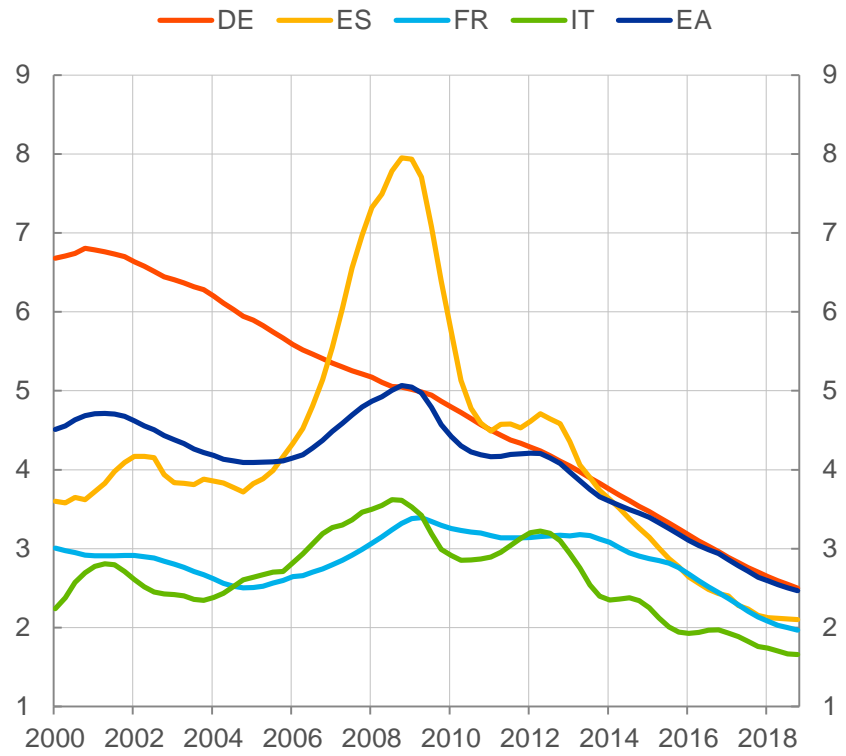*Latest observation: 2018 Q4.*

Debt servicing costs of NFCs and households at historical low

NFC gross interest payments in selected EA countries
(percent of gross operating surplus)

Legend: DE — ES — IT — EA — FR

Sources: Eurostat, ECB, ECB calculations.
Notes: Gross interest payments before FISIM allocation.
Latest observation: 2018 Q4.

Household gross interest payments in selected EA countries
(percent of gross disposable income)

Legend: DE — ES — FR — IT — EA

Sources: Eurostat, ECB, ECB calculations.
Notes: Gross interest payments before FISIM allocation.
Latest observation: 2018 Q4.

Thank you!