THE MONETARY POLICY OF THE EUROSYSTEM: OBJECTIVES, TRANSMISSION AND IMPLEMENTATION

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OUTLINE

PART I: AN INTRODUCTION TO MONETARY POLICY

1. **Monetary policy and the role of the central bank**
2. **Monetary policy related concepts**

PART II: TRANSMISSION AND IMPLEMENTATION

4. **Monetary policy transmission**
5. **Monetary policy implementation in the euro area**
   a. Operational framework
   b. Monetary policy instruments

PART III: RESPONSE TO THE PANDEMIC AND INFLATIONARY SCENARIO

6. **Monetary policy responses to the pandemic**
7. **Inflationary scenary after the pandemic**

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Eurosistema

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What is Monetary Policy?

- Monetary policy concerns the set of **decisions and measures** taken by the monetary authority of a country – or, as in the euro area, a monetary union – **to influence the cost and availability of money in the economy**.

Euro area's monetary policy

- In the euro area, the conduct of monetary policy is entrusted to the **Eurosystem**, which comprises:
  - The European Central Bank (ECB),
  - and the national central banks (including the Banco de España).
- The ECB uses certain monetary policy tools to pursue its primary objective of achieving price stability

What is a central bank?

- A central bank is a **public institution charged with monetary policy**, along with other functions that vary across jurisdictions.
- Central banks are not like commercial banks. Rather, they act as **a bank for commercial banks**:
  - Commercial banks can turn to a central bank to borrow or deposit liquidity in the form of “bank reserves”.
- Central banks play a pivotal role in the **management and settlement of payments between commercial banks**, which, in turn, is essential for payments between individuals and companies that hold current accounts at different banks.
- Only central banks can **issue money for circulation and create new reserves**, which are the two components of the monetary base.
- Central bank mandates vary across countries. In the euro area, the ECB’s objective is to **maintain price stability** (which is essential for stable economic growth).

- The European Central Bank (ECB) was established on 1 June 1998 in Frankfurt.
- It is the central bank of the 20 countries[a] that use the euro (€), the official currency of more than 340 million people.
- The national central banks are the owners (shareholders) of the ECB and each **has a fraction of its capital**

EUROSYSTEM

ECB

- It is subject to the Treaty on the Functioning of the European Union (TFEU), the Statute of the European System of Central Banks (ESCB), and and the respective internal regulations of the ECB.
- The European Council appoints the ECB president for an eight-year non-renewable term, as well as the other Executive Board members.
- The ECB is independent.

\+

National CBs

- They are also independent from national governments.
- Governors/presidents are appointed by their respective democratic institutions (parliaments or governments).
- Governos' term cannot overlap with their national governments' term.

(a) The latest country to adopt the euro was Croatia, since 1 January 2023.

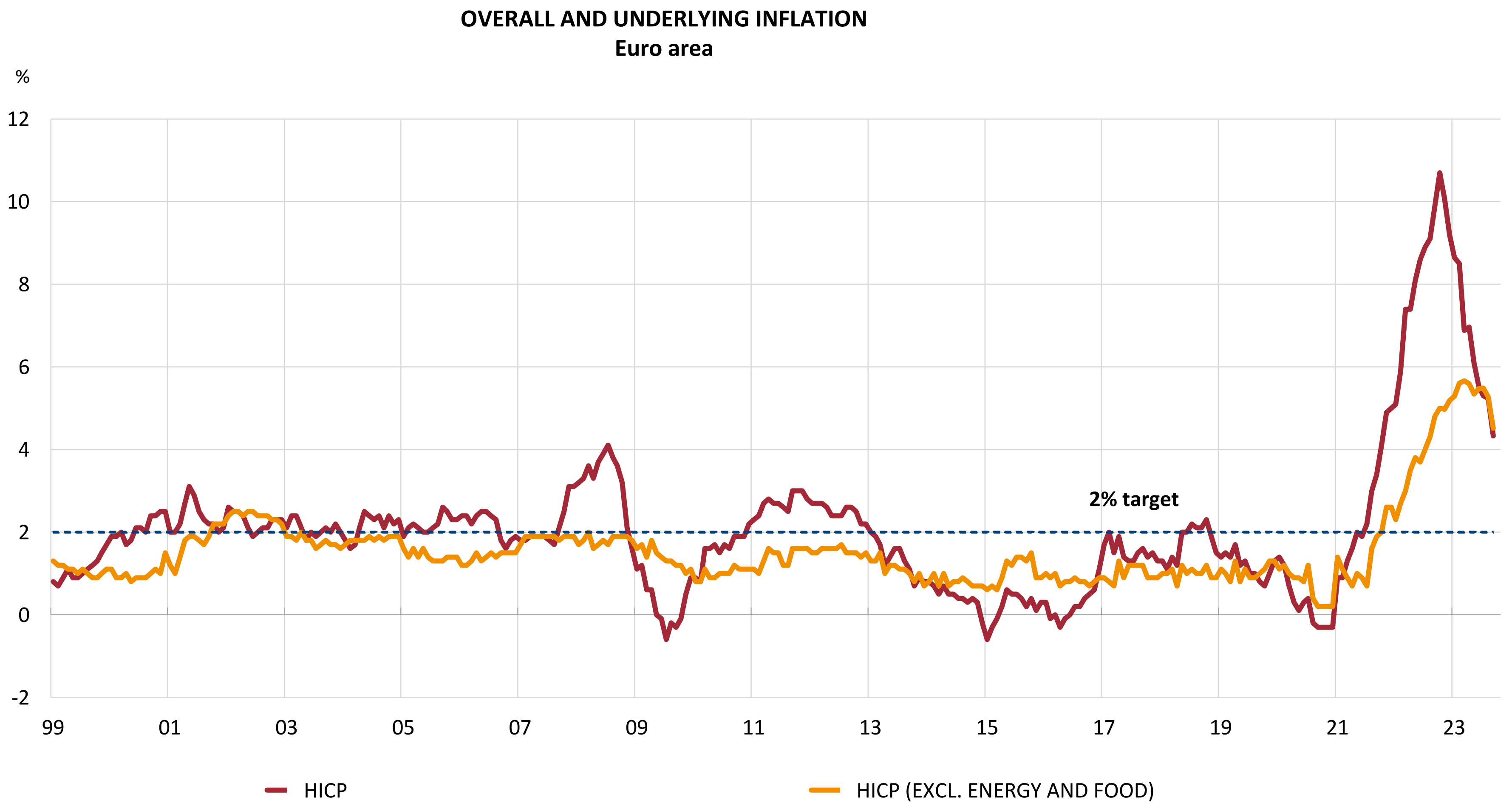
OUTLINE

What is inflation?

- Inflation is defined as the **increase in the general level of consumer prices** in an economy.
  - If prices increase, the same amount of money will afford less goods and services tomorrow than it does today. In this way, inflation diminishes consumers’ purchasing power.
  - Inflation also has redistributive effects in a society: it eases the real debt burden for borrowers, but reduces the returns for savers.

Measuring inflation

- In the euro area, inflation is measured by the **Harmonised Index of Consumer Prices** (HICP).
  - It is calculated based on a **consumption basket** that includes all categories of goods and services consumed by households, such as food, clothing, telephone bills and rented housing.
  - Prices are **weighted** according to their importance in total household spending.
  - It is a **“harmonised” index**: it is calculated following the same methodology across the euro area.
- To calculate **“underlying inflation”** the prices of unprocessed foods and energy are excluded, since they are more volatile than those of other components of the consumption basket.



Source: Eurostat.

WHAT IS DEFLATION?

What is deflation?

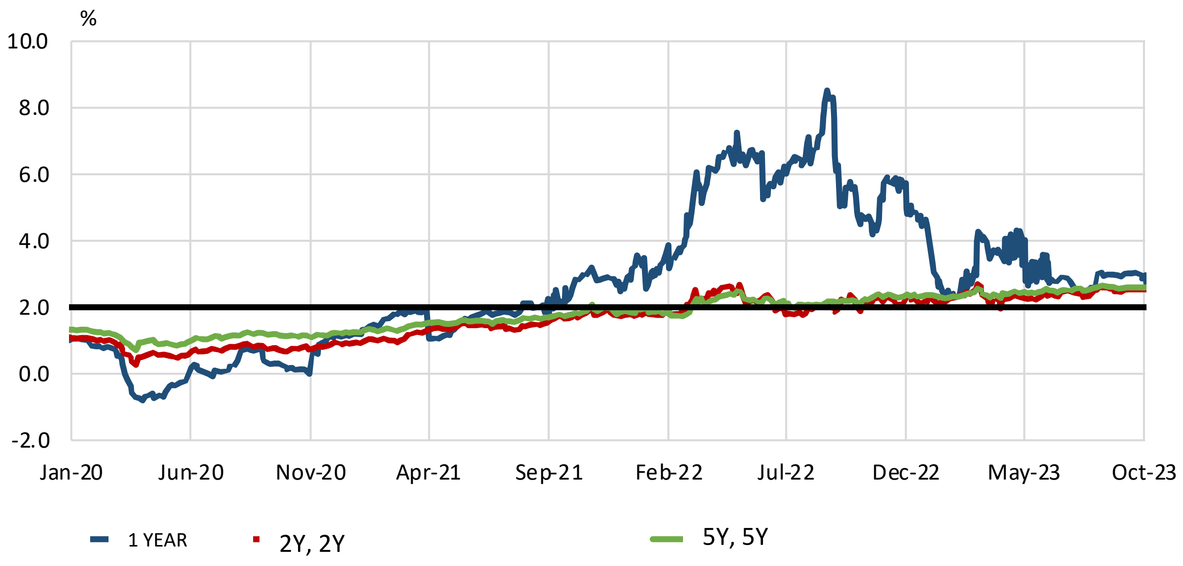
- Deflation is a **widespread and sustained** decrease in prices in the economy (negative inflation).

Dangers of deflation

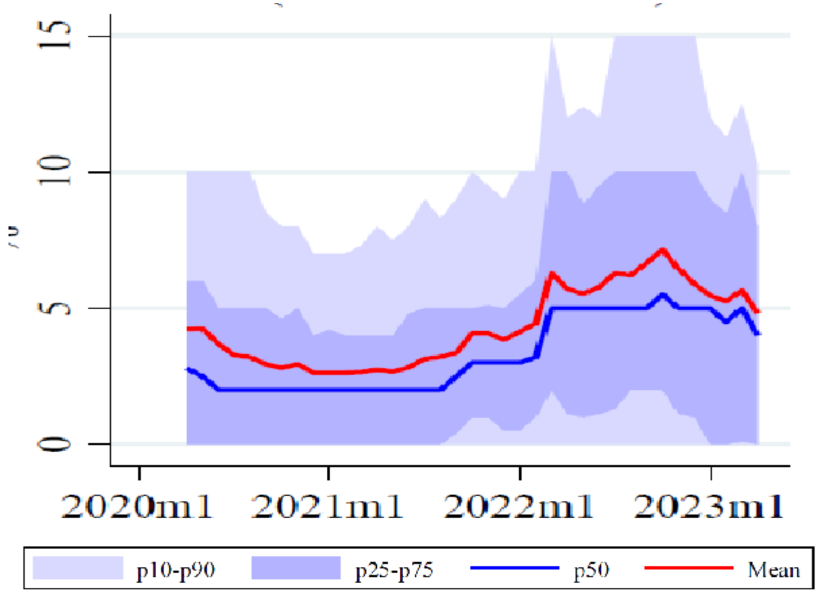
- Deflation can have **very detrimental effects** on the economy.
  - It can lead to **reduced spending and investment**, which can translate into lower economic growth and an increase in unemployment and/or a decrease in wages.
- Deflation makes it **harder to repay debts** because it increases the real debt burden (i.e. the value of debt in terms of the consumption basket).

- Inflation expectations refer to the **future inflation currently expected by economic agents**.
- They form the basis of the **spending and investment decisions** that we make today.
- When the central bank's inflation target is clear and predictable**, the public anchors its expectations** to that target.
- Inflation expectations cannot be observed, but they **can be estimated from surveys or financial instruments** whose returns are linked to future inflation: *Survey of Professional Forecasters (SPF), Survey of Monetary Analysts (SMA), Consumer Expectations Survey (CES)*.

INFLATION EXPECTATIONS FROM INFLATION-LINKED SWAPS



INFLATION EXPECTATIONS FROM CONSUMER EXPECTATIONS SURVEY (CES)

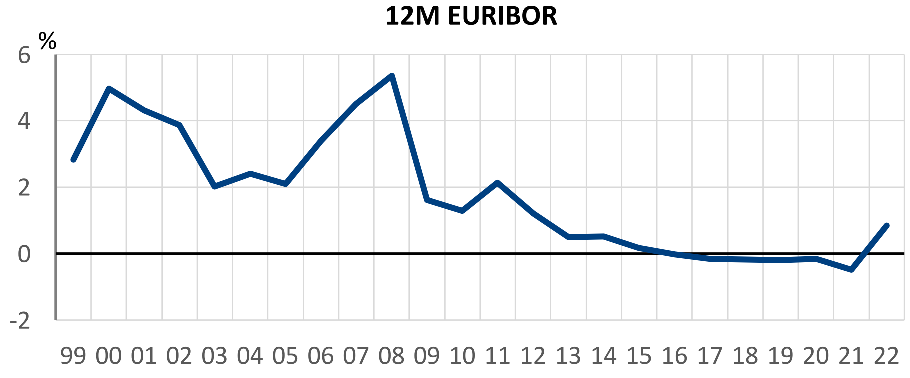


REFERENCE INTEREST RATES

- Reference interest rates are **used as the basis for financial contracts** (e.g. floating-rate mortgage loans and other bank loans).

EURIBOR

- ***Euro Interbank Offered Rate.***
- Rate at which wholesale funds in euro could be obtained by credit institutions in the unsecured money market.
- It is computed for different maturities: 1 week; 1, 3, 6, or 12 months.
- Since 2020, it is calculated by combining historical data and experts' opinion (used to be calculated using surveys).



Source: Banco de España

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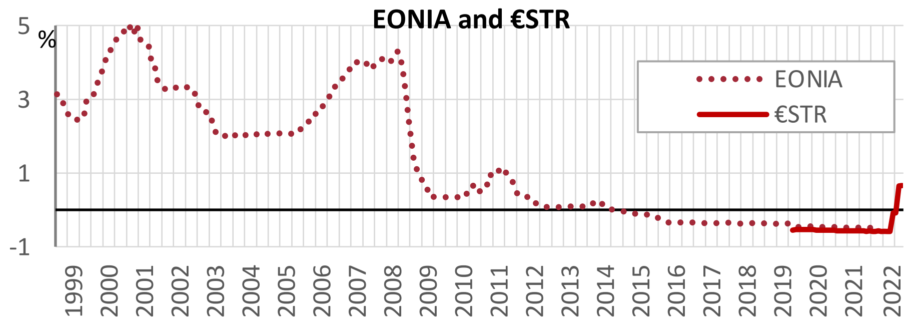
- ***Euro Short-Term Rate***, published by the ECB since Oct 2019 to replace EONIA.
- Euro area interbank rate which reflects the **overnight borrowing costs** of euro area banks at market rates.

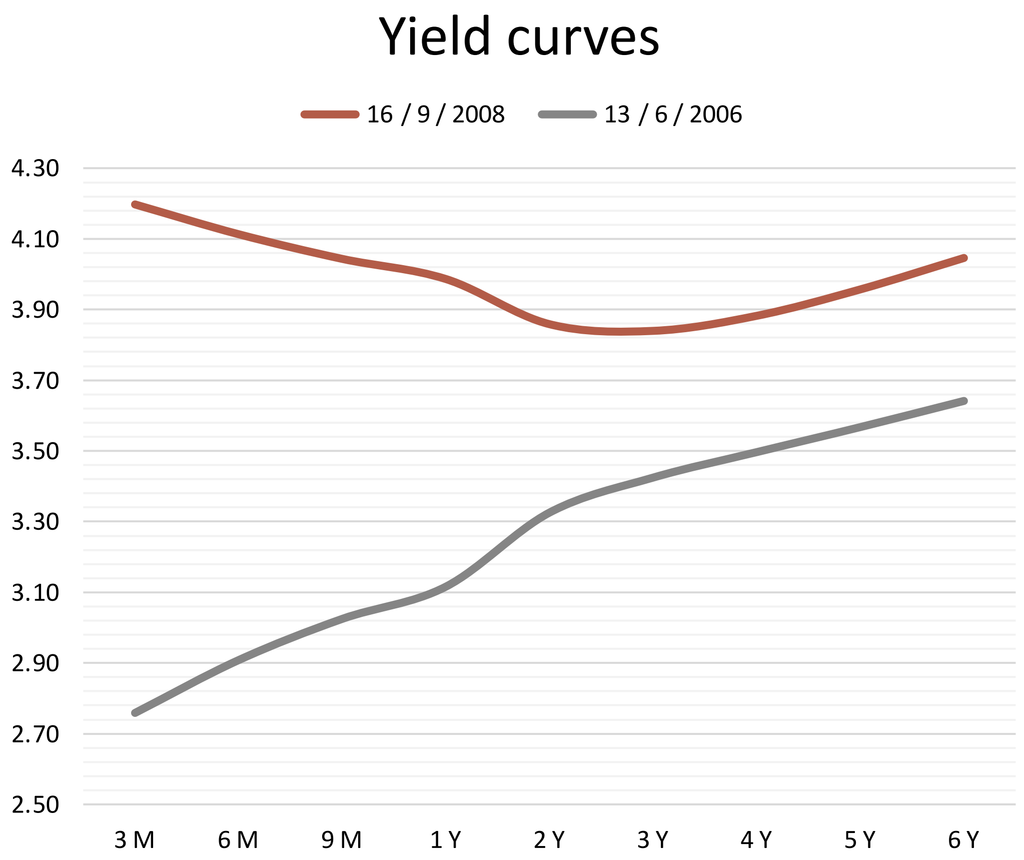


Source: Banco de España.

WHAT IS THE YIELD CURVE?

- The yield curve is the graphical representation of the relationship between **sovereign yields** (i.e. the interest rates on sovereign bonds) and their **maturity**.
- Reflects economic agents' **expectations** about future interest rate developments.
  - Includes the compensation premia for the risk associated with future movements in those rates and the possibility of a sovereign default.

- The **slope** of the curve can be:
  - **Positive**: normally, bonds tend to have higher yields as their term increases.
  - **Negative** (inverted yield curve): may indicate that economic activity is expected to weaken in the future and inflation is expected to decrease (so investors assume that the central bank would react by cutting short-term interest rates).
  - **Flat**: reflects high uncertainty. Can signal markets' expectation of an incoming recession.



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BANCO DE ESPAÑA
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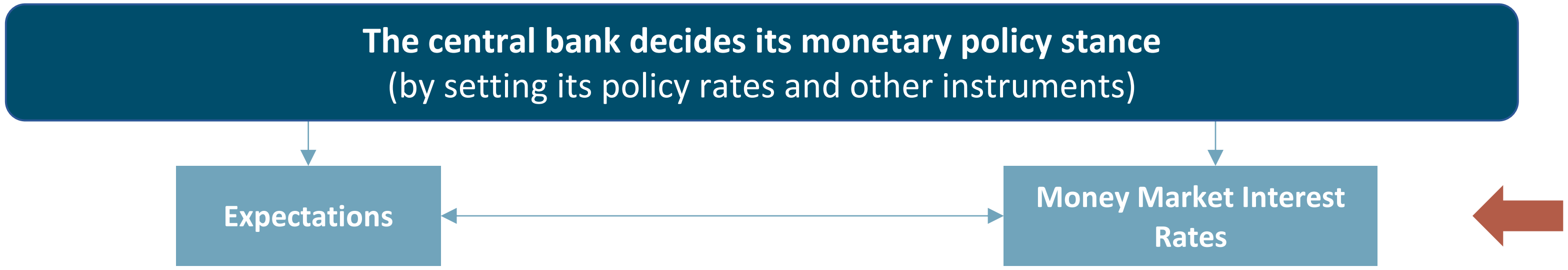
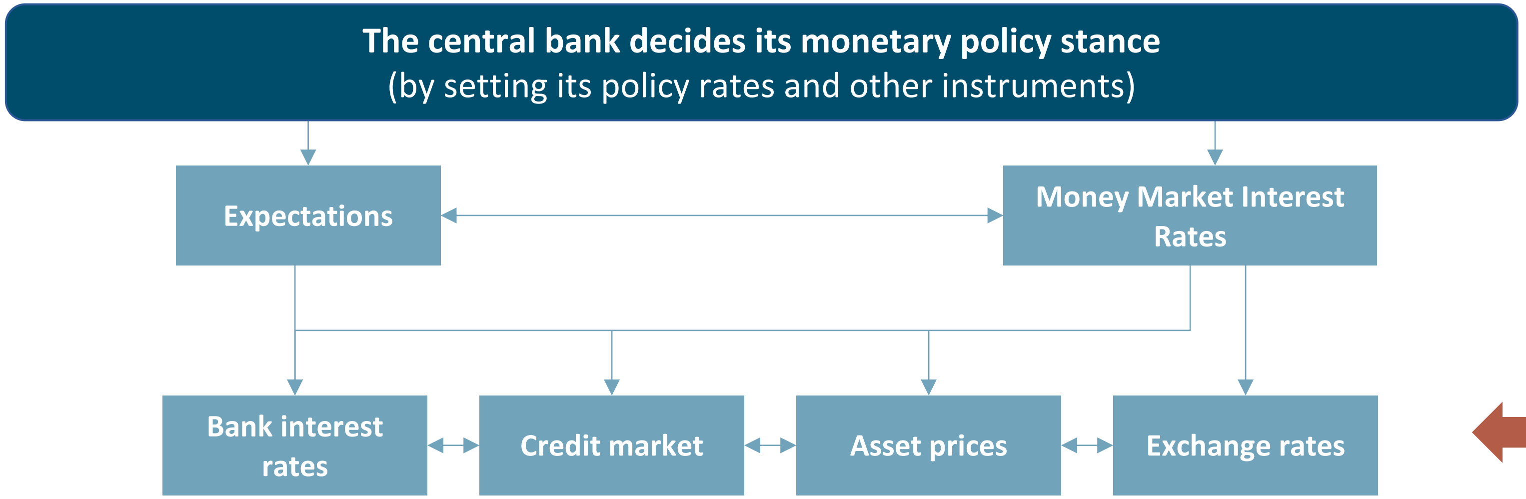
The central bank decides its monetary policy stance
(by setting its policy rates and other instruments)



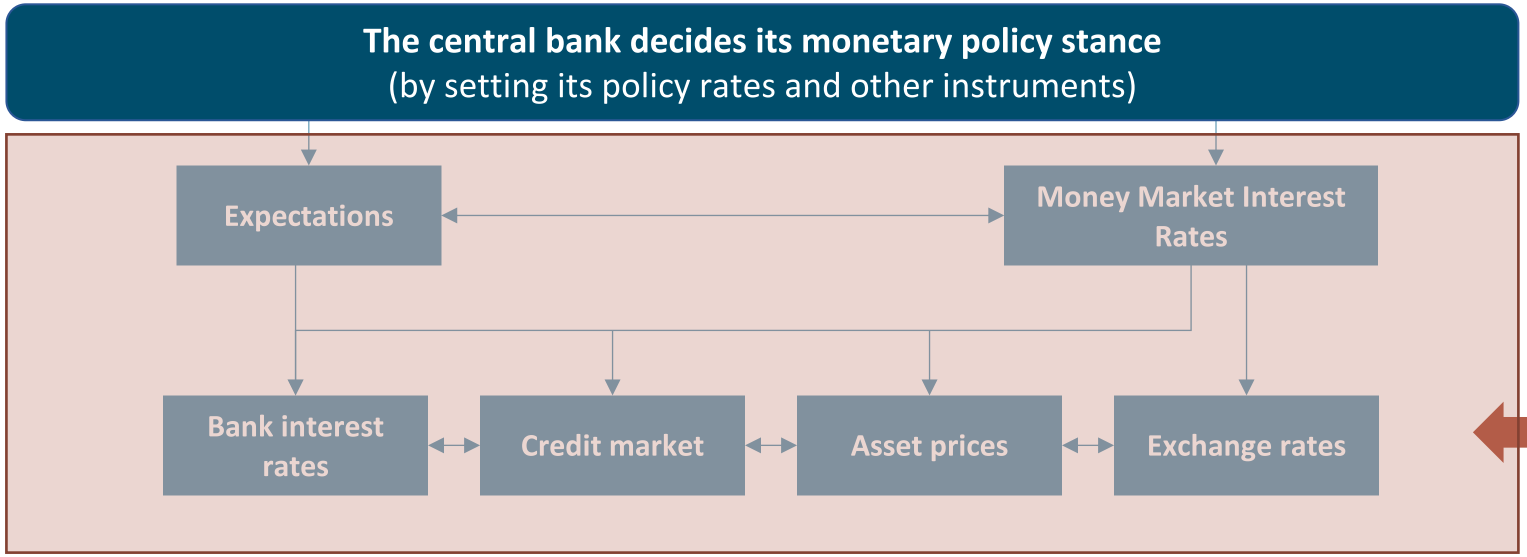
Changes in policy rates affect short-term money market interest rates.

Moreover, policy rates affect agents' expectations about the future evolution of monetary policy.



Short-term interest rates, as well as expectations, feed through to medium- and long-term market interest rates, affecting:

- capital markets
  (via asset prices).
- credit markets
  (where economic agents obtain financing).
- the exchange rate.



STAGE 1: TRANSMISSION TO FINANCIAL CONDITIONS

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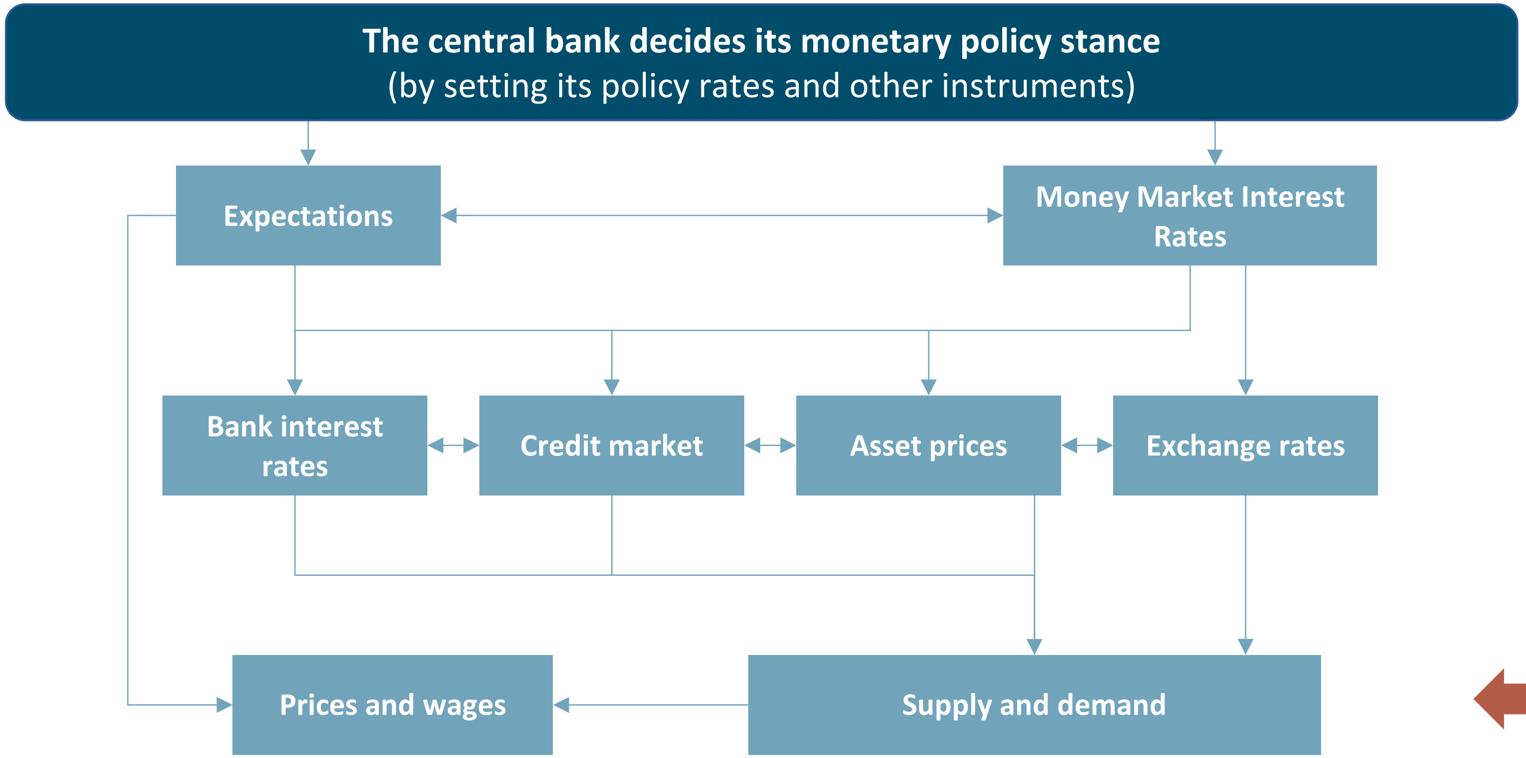
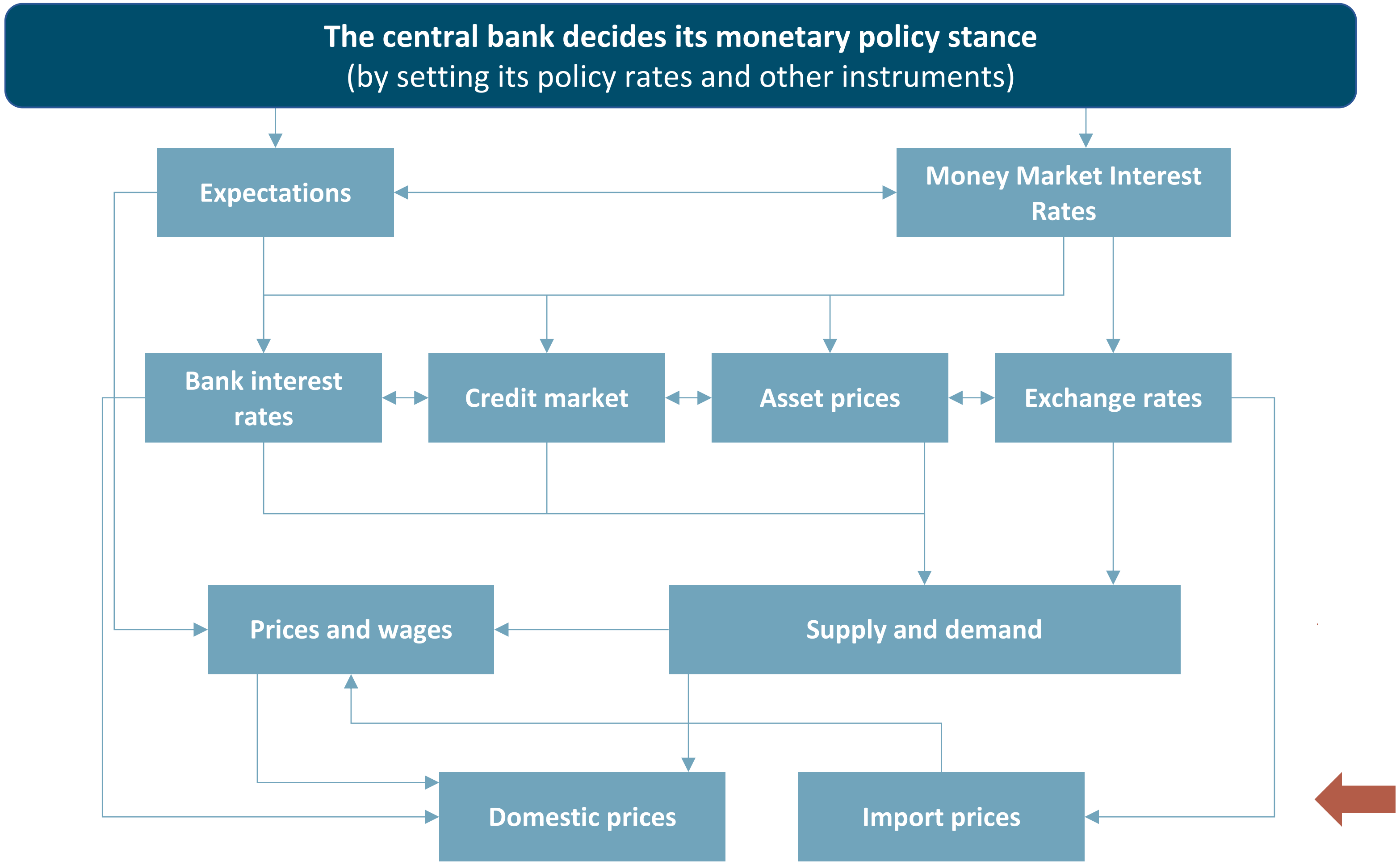
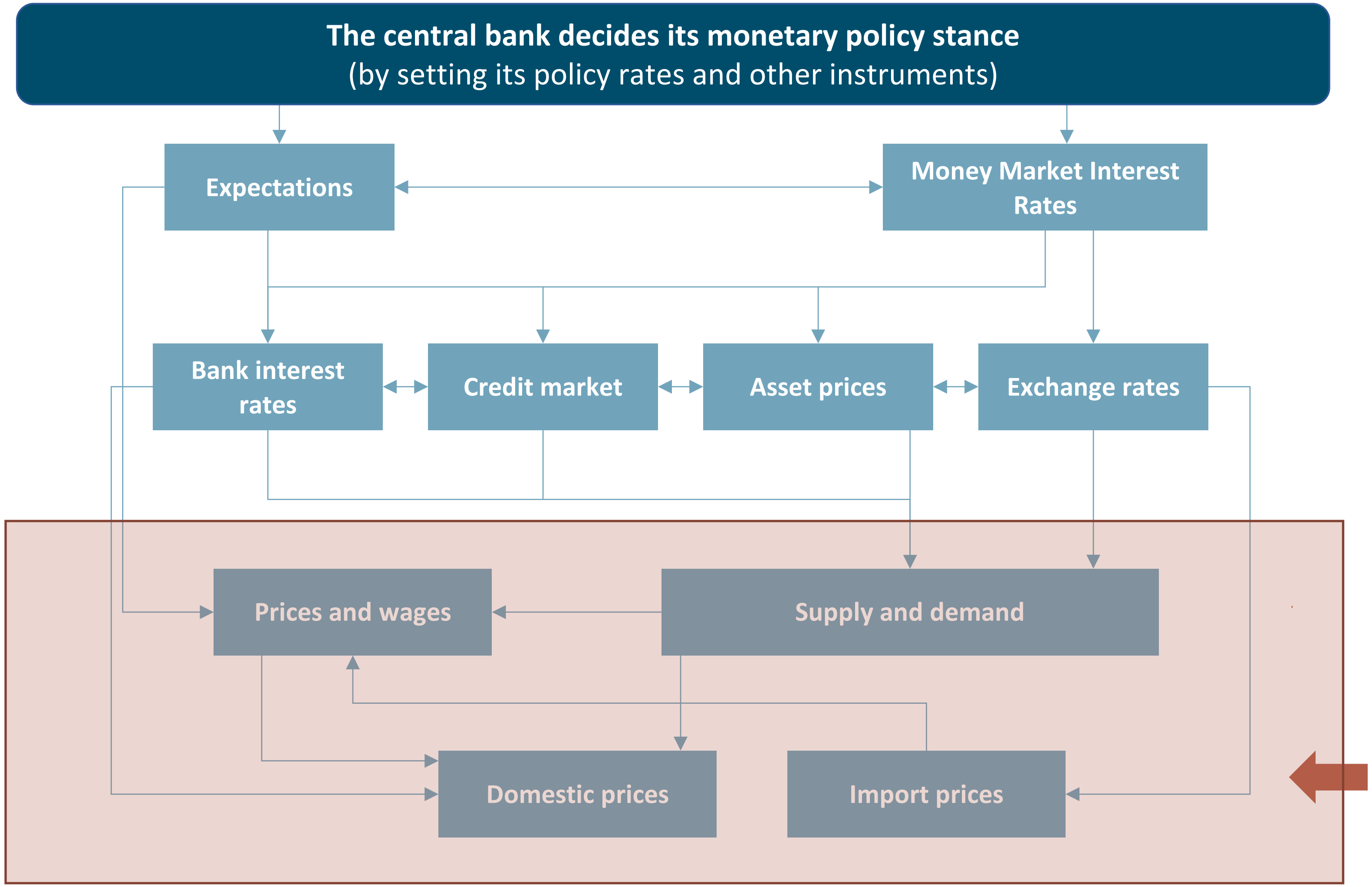


Changes in financing costs affect business investment and household spending decisions, as well as government budgetary policy.

For example, low interest rates facilitate credit and encourage household spending and business investment.



In this way, central bank decisions are passed on to the prices of domestic and imported goods, affecting the inflation rate.



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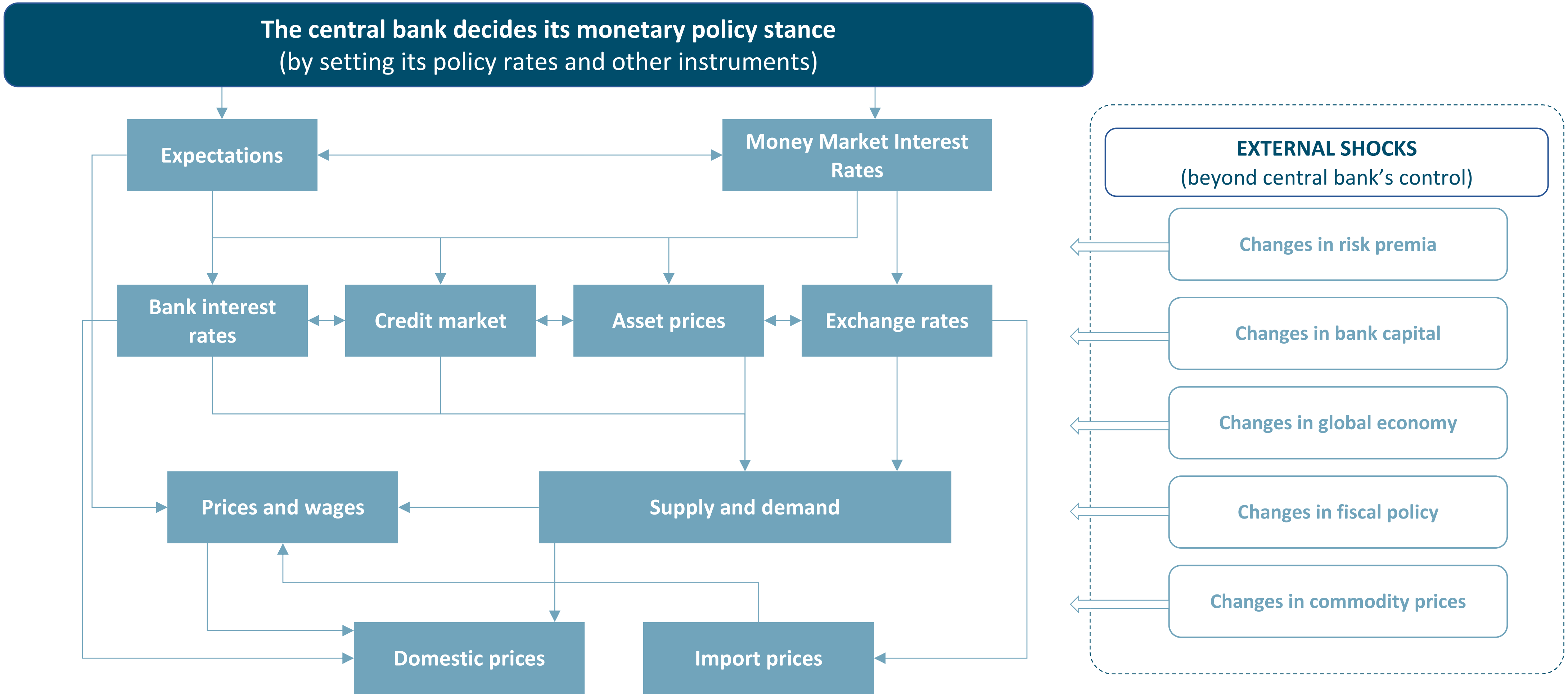
STAGE 2: TRANSMISSION TO THE REAL ECONOMY


The central bank decides its monetary policy stance
(by setting its policy rates and other instruments)
Expectations
Money Market Interest Rates
Bank interest rates
Credit market
Asset prices
Exchange rates
Prices and wages
Supply and demand
Domestic prices
Import prices
EXTERNAL SHOCKS
(beyond central bank's control)
Changes in risk premia
Changes in bank capital
Changes in global economy
Changes in fiscal policy
Changes in commodity prices

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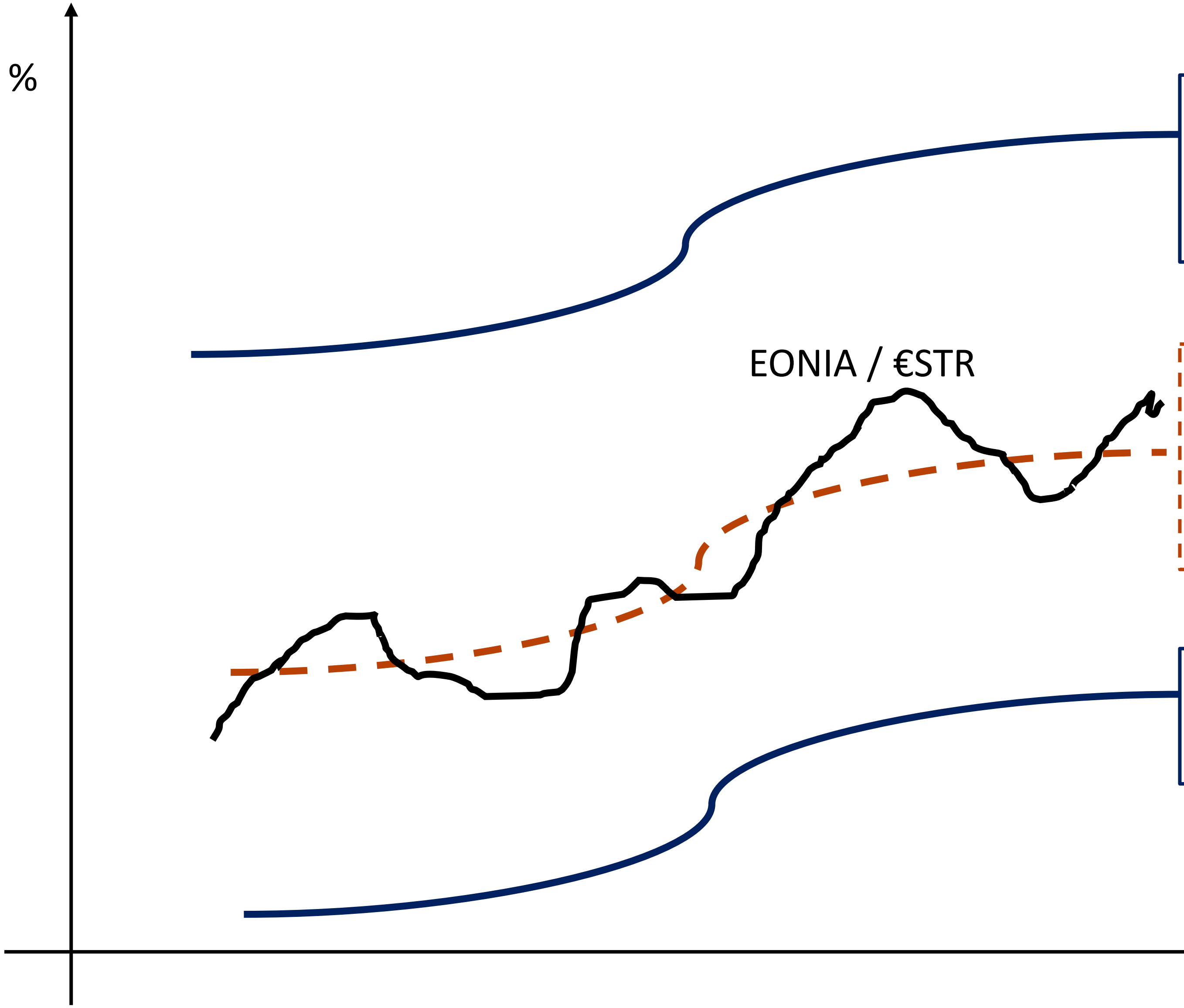


Marginal lending facility (MLFR)

- Enables banks to obtain overnight liquidity.
- It is the ceiling for the overnight market interest rate.

Main refinancing operations (MRO)

- Liquidity-providing transactions with a weekly frequency and a maturity of one week.
- Conducted by national central banks on the basis of standard tenders.

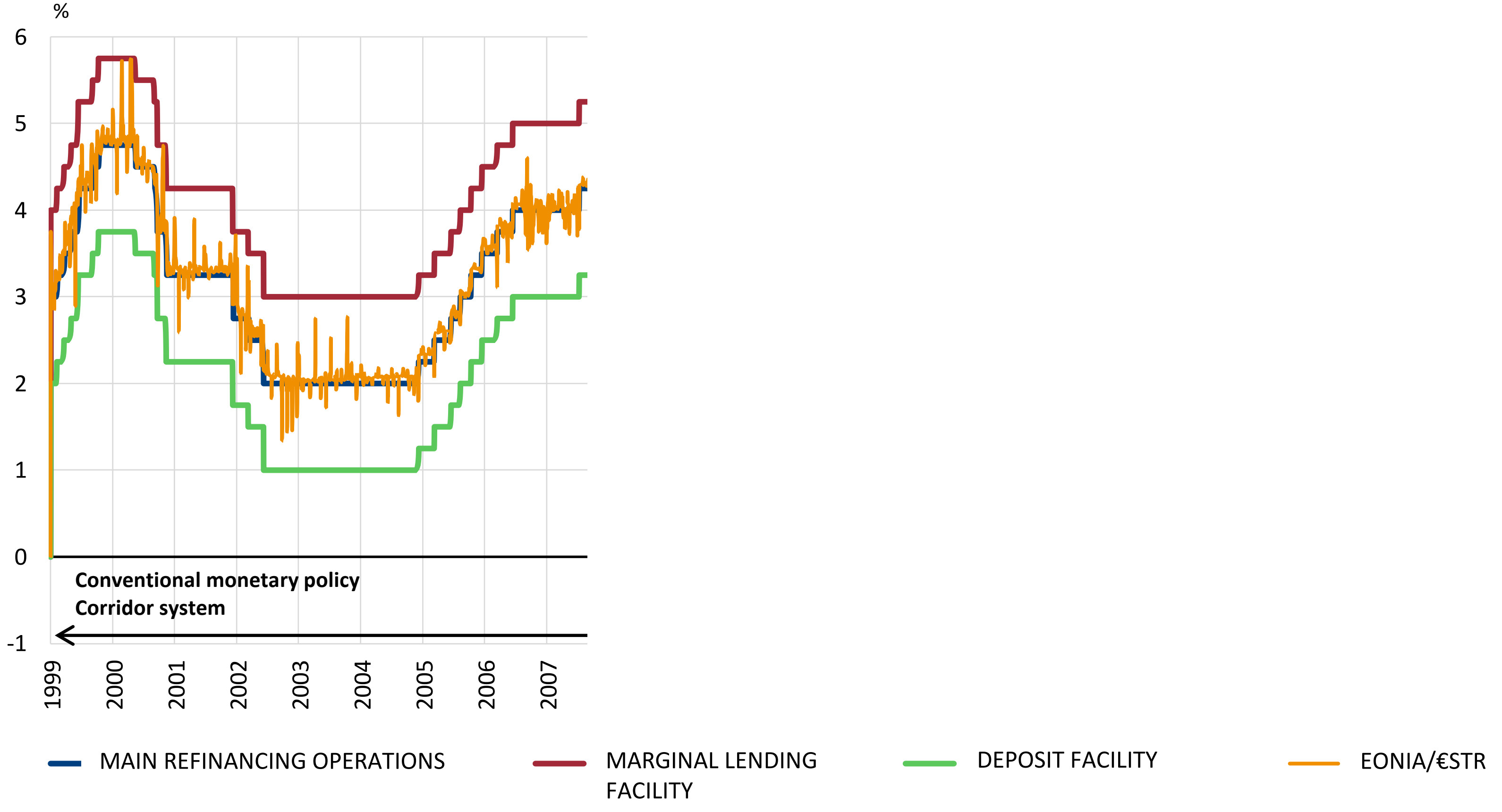
- Enables banks to make overnight deposits.
- It is the floor for the overnight market interest rate.

Deposit facility (DFR)

MONETARY POLICY IMPLEMENTATION: ORIGINAL OPERATIONAL FRAMEWORK

- **Corridor system:** Until 10/2008, EONIA fluctuated around the middle of the corridor (MRO rate).

KEY INTEREST RATES AND EONIA



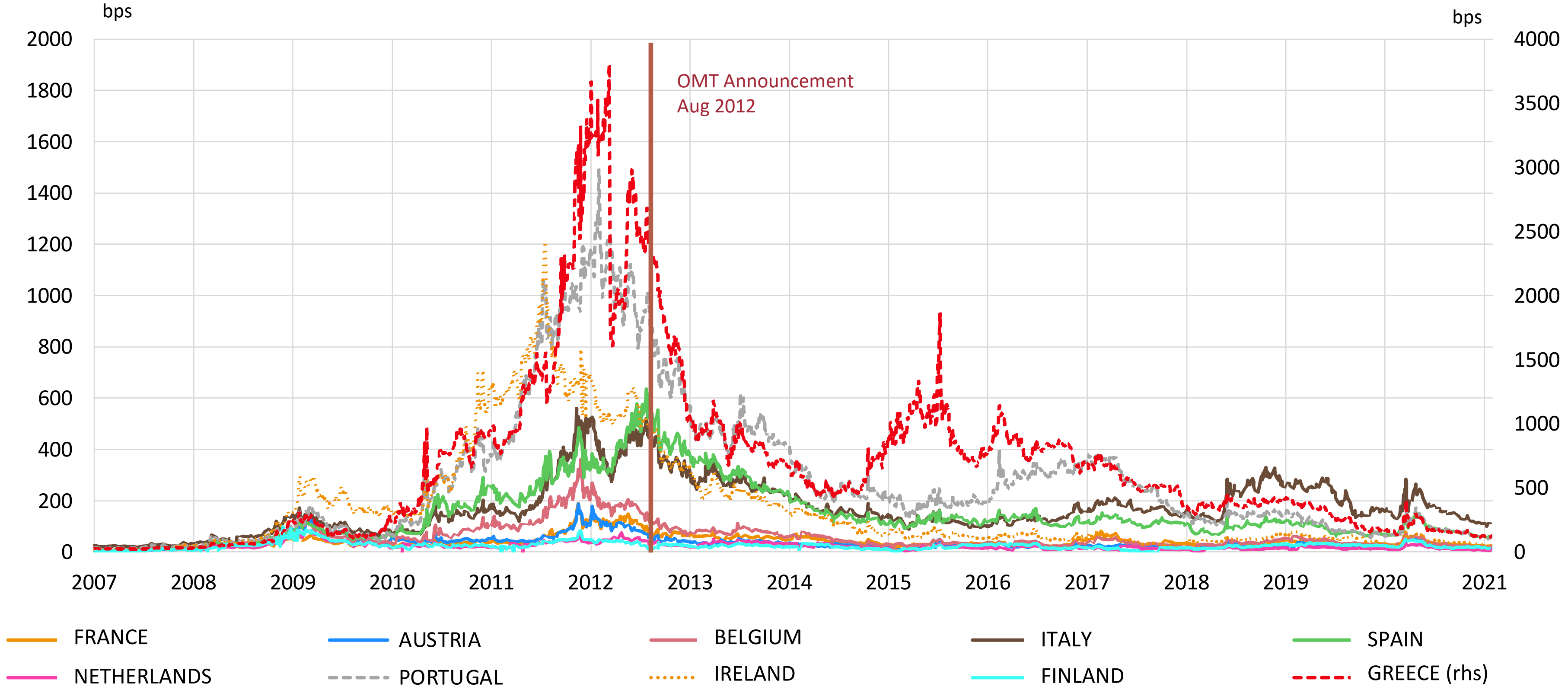
Source: Banco de España.

The Global Financial Crisis forced central banks to rethink monetary policy

- Global financial crisis: systemic dimensión after Lehman Brothers' bankruptcy.
- Great **uncertainty about banks' health** and bankruptcy risk
  - ✓ *Increasing risk: liquidity scarcity, capital reversals, credit crunch.*
  - ✓ *Strong recessionary effects: contraction in consumption and investment.*
- Strong **coordinated economic policy response** at the international level (G20):
  - ✓ *Expansionary monetary policy:*
    - ✓ Conventional (decrease in policy rates)
    - ✓ … and unconventional (risky, limited historical experience).
  - ✓ *Fiscal stimulus: – automatic stabilizers and discretionary spending.*
  - ✓ *Stabilization, bailout and recovery programs for the distressed financial sector.*

- It started at the end of 2009 when the Greek government announced the poor state of their public finances.
- In the absence of mutualization/bailout mechanisms, markets revised their sovereign risk assessment.
- The mere **announcement of the OMT Program** very effectively defused the euro breakup risk and the progressive strengthening of European governance since then has also contributed to moderating it.

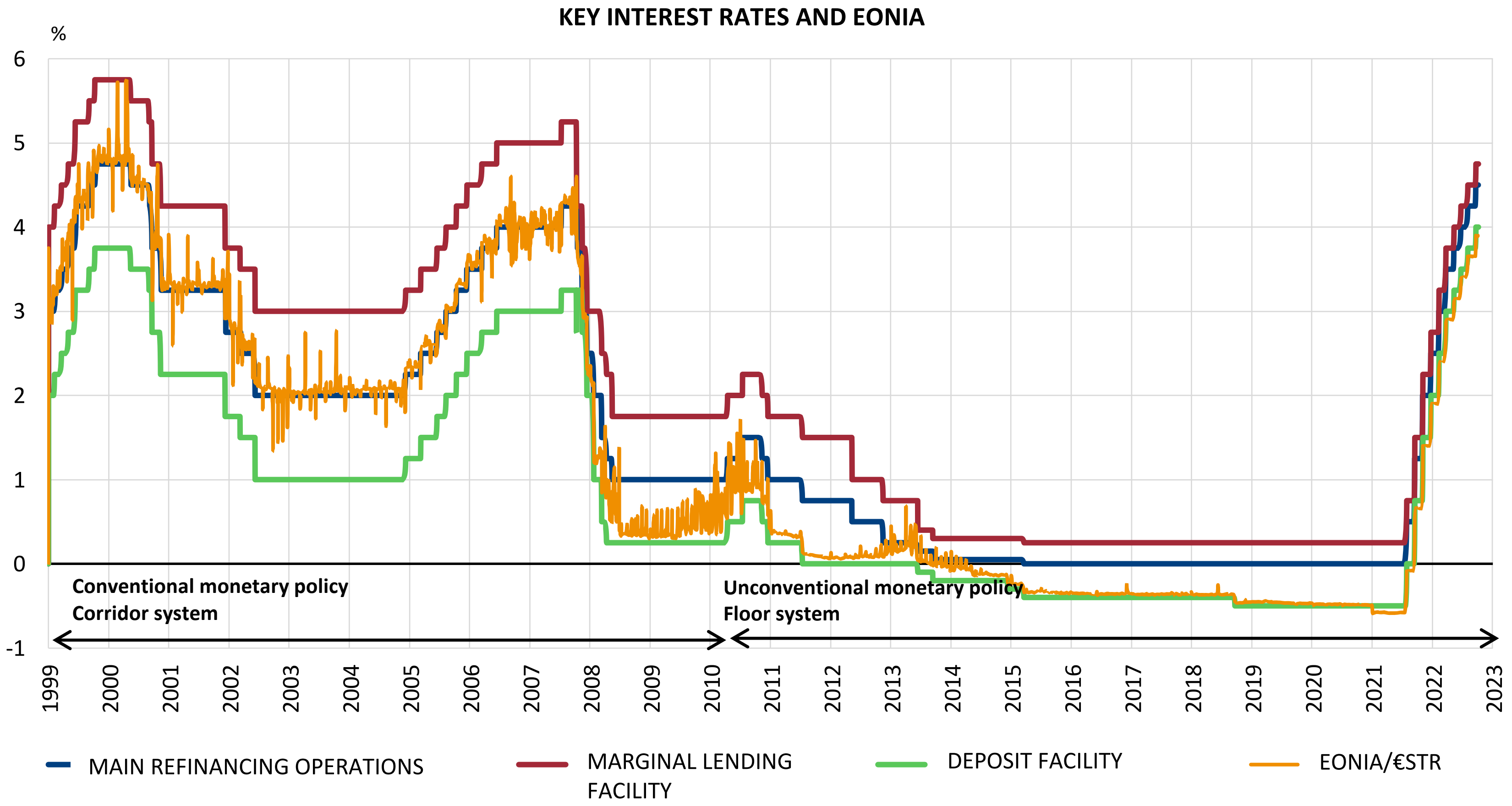
10Y Sovereign yield spreads (vs. Germany)



Source: Banco de España.

EFFECTIVE LOWER BOUND (ELB) ON INTEREST RATES

- The ECB interest rates hit zero in 2011 and had never been negative before June 2014.
- It is difficult for banks to set negative rates on deposits: customers could withdraw funds and hold cash instead.
- Lowering interest rates beyond a certain negative level would actually have an adverse impact on credit supply, economic activity and inflation.

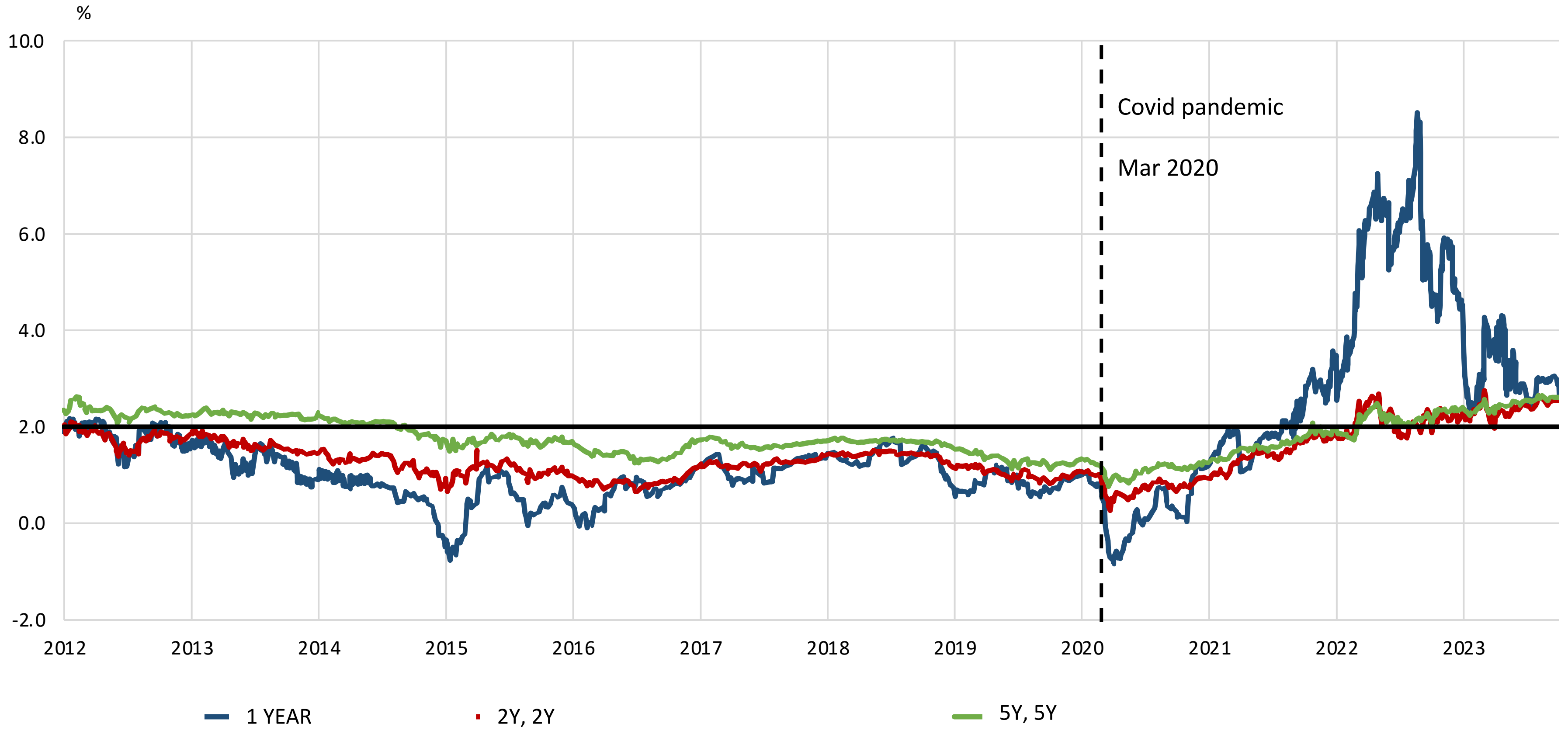


Source: Banco de España.

SINCE 2013, INCREASING RISK OF EXPECTATIONS' DE-ANCHORING

- **2Y, 2Y inflation expectations:** Measures the expected average inflation rate over the two-year period that begins two years from today. Reflects credibility within the monetary policy efectiveness horizon.
- **5Y, 5Y inflation expectartions:** Reflects credibility in the long-run.

INFLATION EXPECTATIONS FROM INFLATION-LINKED SWAPS



Sources: Refinitiv Datastream and Banco de España.

MONETARY POLICY RESPONSE: NEW INSTRUMENTS IN THE ECB'S TOOLKIT

Negative interest rates

- Objective: **encouraging households and firms to increase spending and investment** to stimulate the economy and increase inflation to its 2% level.
- The **deposit facility rate** became negative in June 2014.

Asset purchase programmes (APP)

- Also known as Quantitative Easing (QE).
- When the ECB buys long-term bonds, the increased demand for these assets drives down market interest rates, which ultimately passes through to households' and firms' borrowing costs.
- They make it easier to access credit, not only for bond issuers (governments, companies and banks), but also for those agents more reliant on bank lending, thereby stimulating consumption and investment.

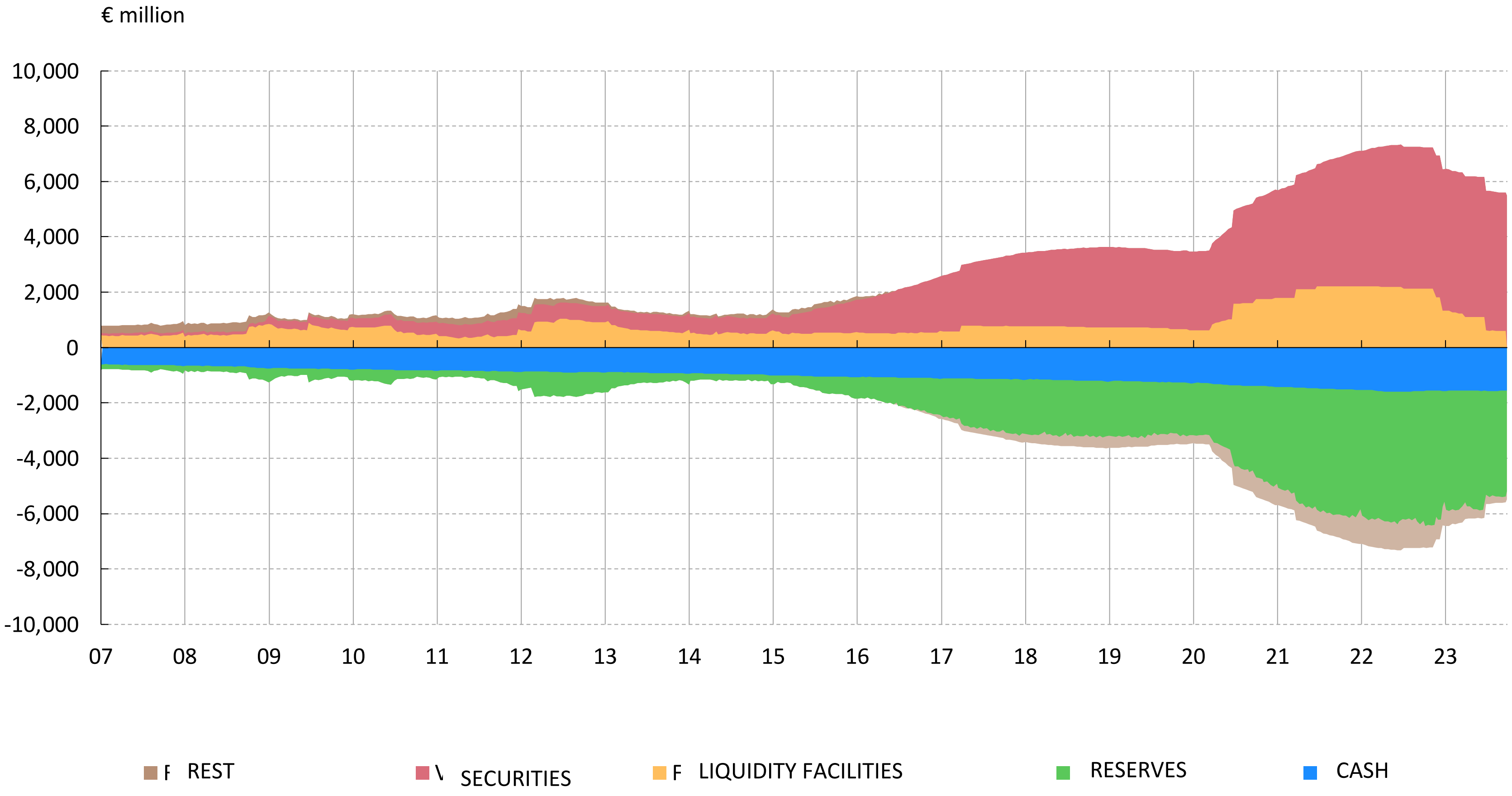
Targeted longer-term refinancing operations (TLTROs)

- Offer **longer-term loans to banks at favourable costs to encourage lending** to the real economy when banks would otherwise be more hesitant to give out loans.
- TLTROs are **conditional**: banks only get credit at particularly favourable conditions from the ECB if they meet a specific target for lending to households and businesses.
- TLTROs offer **longer-term** lending than its standard liquidity-providing instruments, since the loans have a maturity of three or four years, thus providing stable and dependable financing.

Forward guidance

- Provides **indications about monetary policy intentions**, including the expected future path of its key interest rates.
- Allows the ECB to **influence medium and long-term interest rates** through expectations about the future path of key interest rates and other instruments.

SIMPLIFIED EUROSYSTEM BALANCE SHEET: EXPANSION AND COMPOSITION



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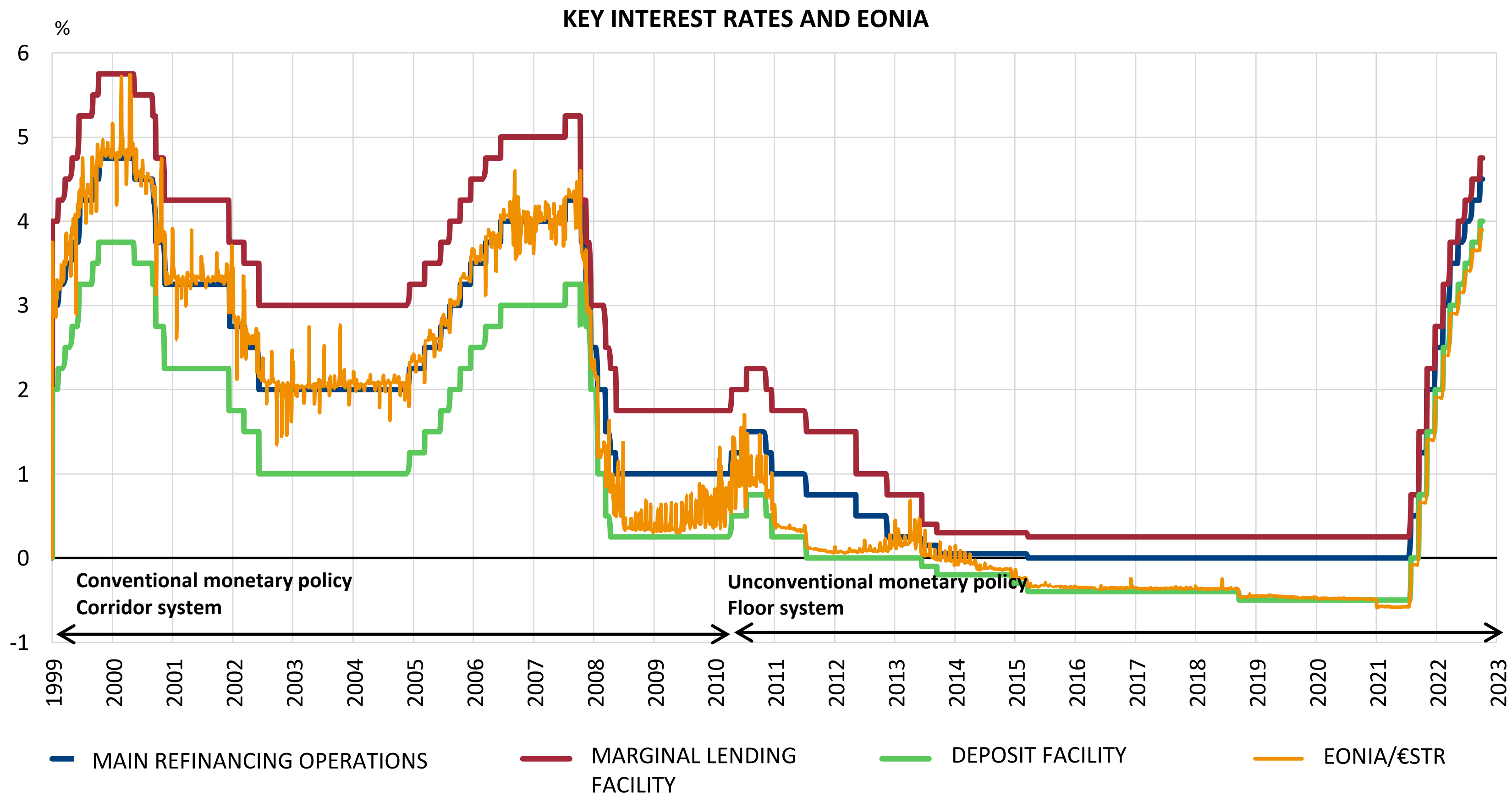
- **Floor system:** From 10/2008, EONIA below to MRO rate and close to DFR.



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OUTLINE

- **The Covid-19 pandemic triggers a sudden and profound recession, due to the direct effects of the disease and the indirect effects of the restrictions to combat it.**

    - Since the beginning of 2020, the characteristics of the disease facilitate its rapid spread worldwide.
    - **Common origin, asymmetric impact** (speed, depth, specialization).
        - ✓ *Overburdening of health systems.*
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    - **Social distancing, reduced mobility, lockdowns, border closures,** imply:
        - ✓ *Supply > Non-essential in-person activity halts. Value chains greatly altered.*
        - ✓ *Demand > Fall in consumption and investment – increase in unemployment and temporary layoff measures. Rise in savings, partly involuntary.*

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  - **Strong response from economic policies**:
    - ✓ *Highly expansionary monetary policies (conventional and unconventional)*
    - ✓ *Fiscal stimulus.*

RESPONSE TO THE COVID-19 CRISIS AT THE EUROPEAN LEVEL: PANDEMIC EMERGENCY PURCHASE PROGRAMME (PEPP) AS AN INNOVATION

- **The fast monetary policy response, in addition to measures by national authorities, and as an innovation, significant joint measures from the EU, have limited short-term damage to the real economy and have kept financial tensions contained.**

    - **Eurosystem Monetary Policy**

        - ✓ *Temporary reinforcement of AA purchases by the amount of 120 billions until december 2020*
        - ✓ *Long-term liqudity reinforcement (LTRO) and easing conditions and increasing incentives for credit provision in operations with a specific objective (TLTRO III).*

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    - ✓ PEPP relaxes requeriments for certain types of debt to be included in the programme .
    - ✓ *New specific long-term liquidity operations: Pandemic Emergency Longer-term refinancing operations (PELTRO).*

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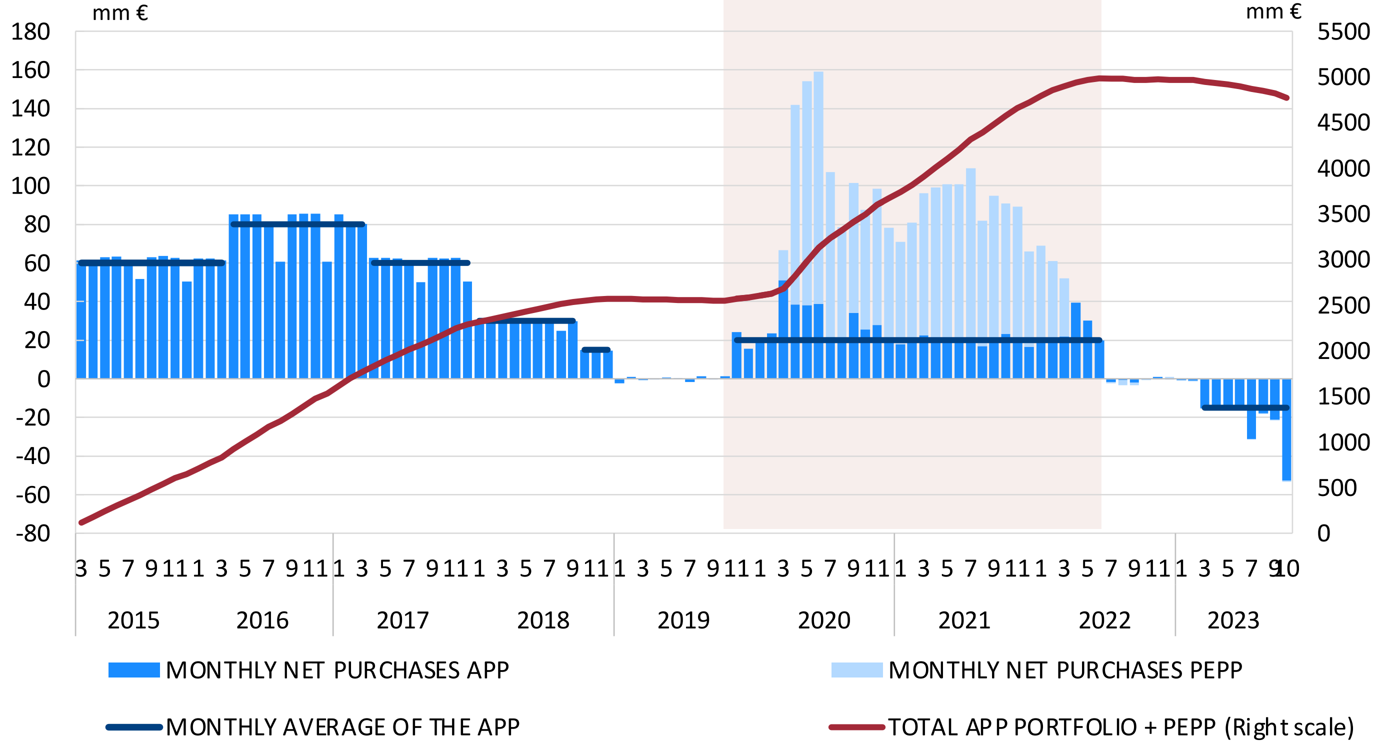
  - ✓ *New specific long-term liquidity operations: Pandemic Emergency Longer-term refinancing operations (PELTRO).*

- **Other European policies in response to the pandemic**
  - ✓ *Temporary suspension of the limits of the Stability and Growth Pact*
  - ✓ *Relaxation of prudential capital and liquidity requeriments of the financial sector*
  - ✓ *April 2020: European aid in the form of loans – pandemic credit line from ESM (240 billion), runemployment reinsurance SURE (200 billion), and EIB guarantees (100 billion).*
  - ✓ *July 2020: approval of the MFF 2020-2027 and, above all,* Next Generation EU *(750 billion, in loans and transfer, funded by the issuance of commom debt).*

RESPONSE TO THE PANDEMIC: LIQUIDITY ENHANCEMENT AND ASSET PURCHASES

- **In March 2020, the monthly purchases of 20 billion under the APP were reinforeced with an additional 120 billion euros until the end of the year, and the conditions of TLTRO III were further relaxed.**
- **6 days later, PEPP was announced.**
- **At the end of April, PELTROs were announced.**

ASSET PURCHASE PROGRAM (APP y PEPP)
Monthly net purchases and portfolio size



Sources: European Central Bank (ECB)

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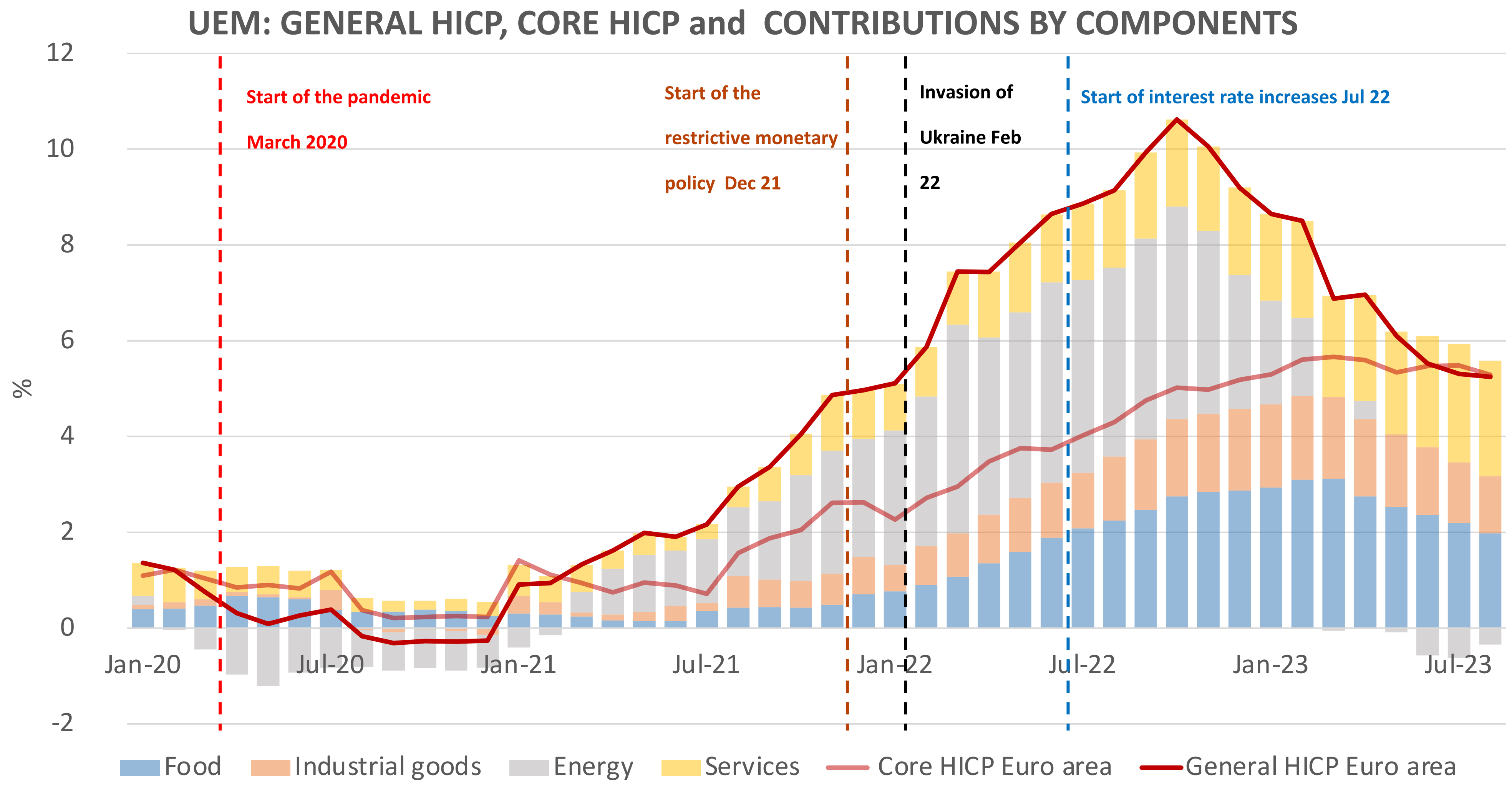
OUTLINE

INFLATION EPISODE SINCE JANUARY 2021



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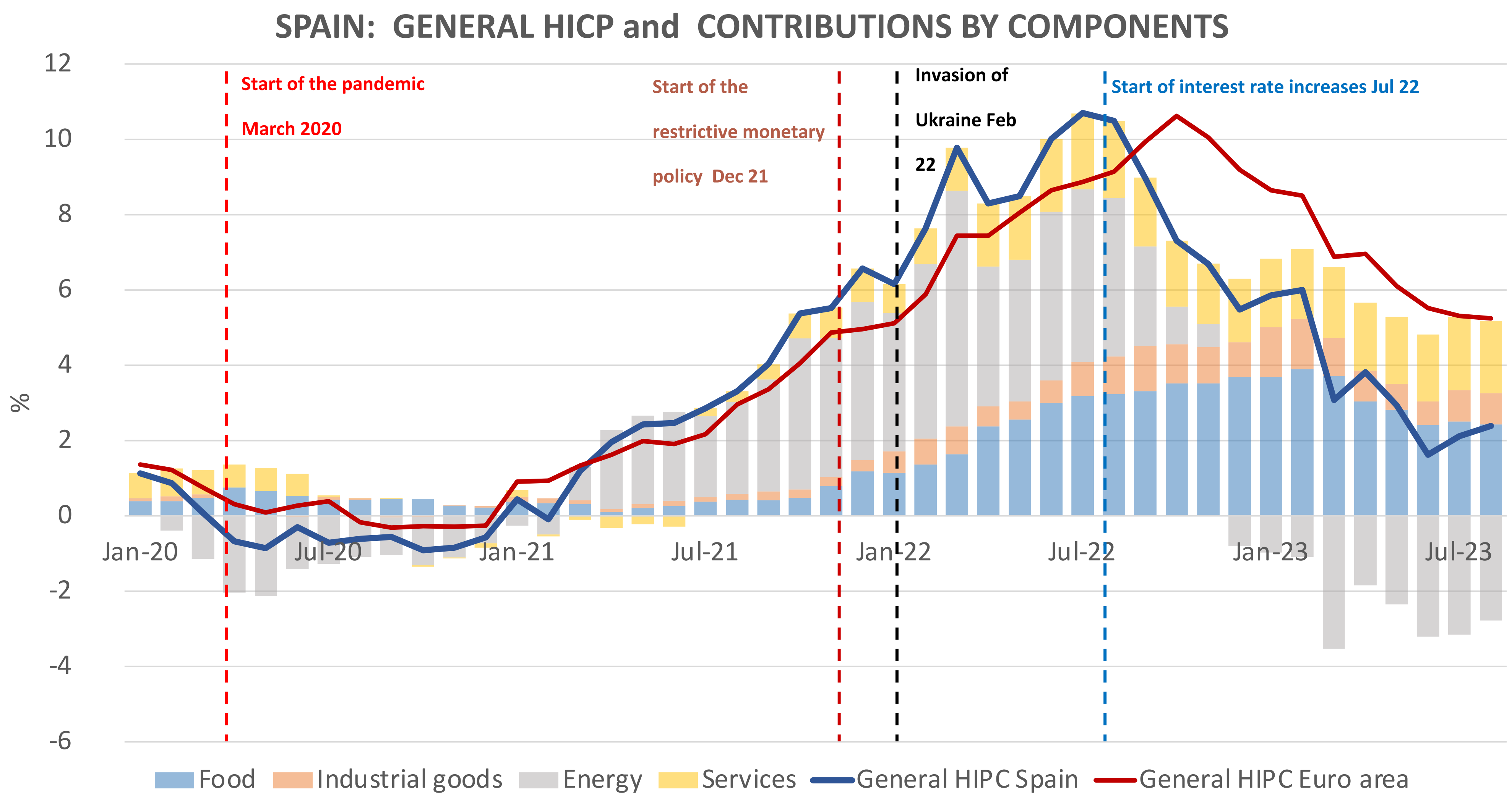

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THE TREND OF RISING PRICE WAS CONSIDERED TEMPORARY IN 2021, BUT HAS SHOWN MORE PERSISTENCE THAN EXPECTED…

Base effect
(statistical effect)

- The **measures against COVID-19 at the beginning of 2020** caused an intense and sudden drop in demand that led to a sharp deceleration of prices (specially for products that required mobility and social interaction: energy products and numerous services).
    - **This effect disappeared in March 2022.**
- Additionally, there were **idiosyncratic effects in some countries**, such as the temporary VAT reduction in Germany between July and December 2020.

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Demand recovery

- The recovery of demand after leaving behind the strictest measures of the pandemic has ledt to the **normalizations of price levels**.
- In the Spanish case, an example is the prices related to tourism, which has evolved more similarly to the latter half of 2019 tan to what was observed in 2020.
- **The supply has not expanded at the same rate as the demand**, leading to an increase in the price of various goods used in production processes.

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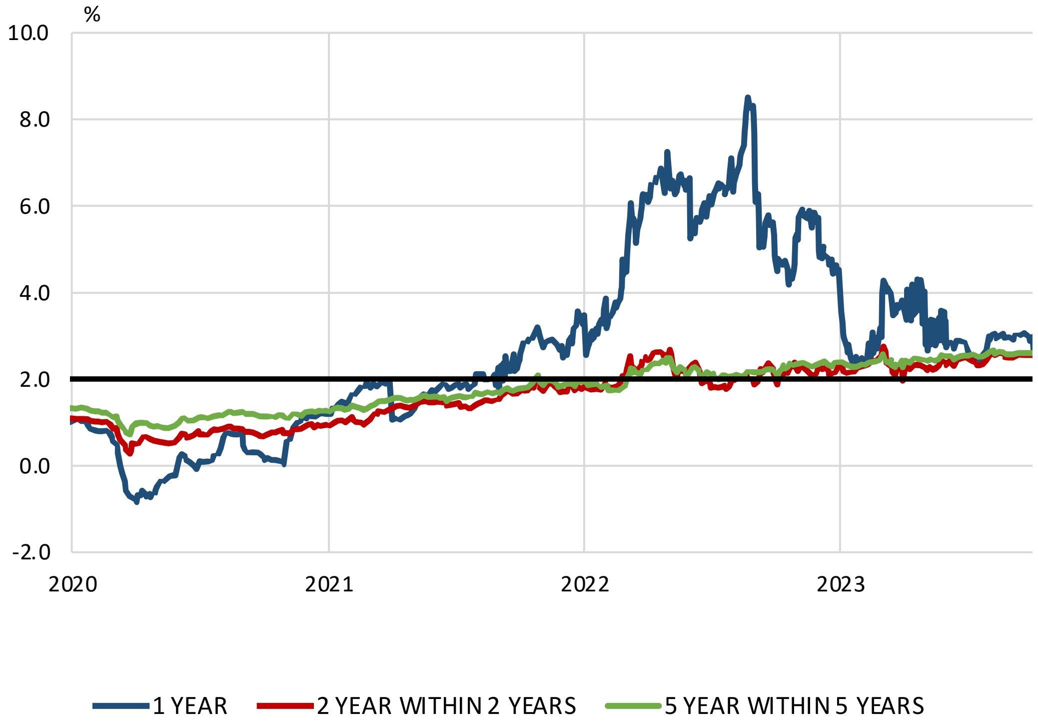
Supply restrictions and Energy prices

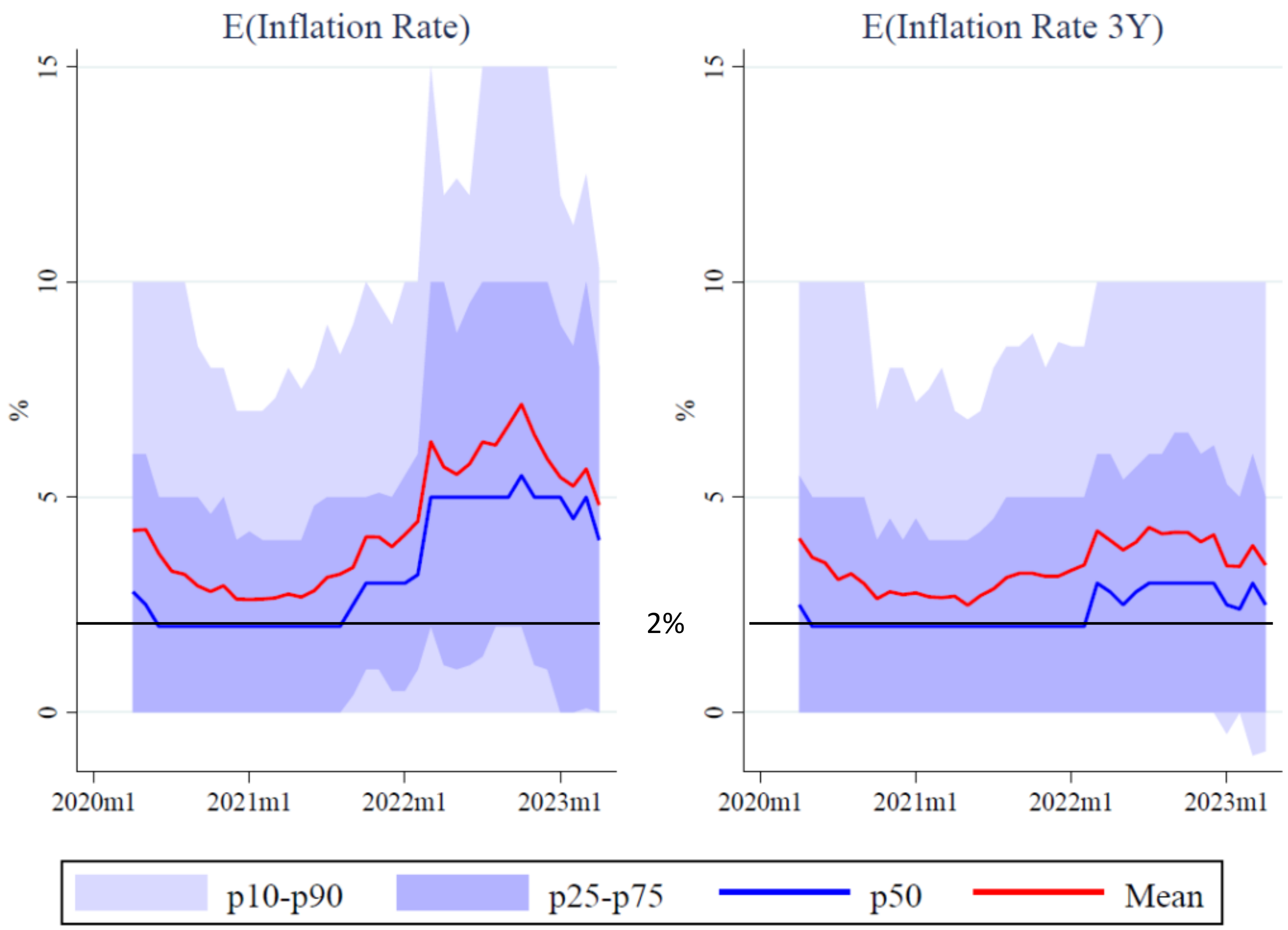
- Energy prices have been affected by **bottlenecks**, the **invasión of Ukraine**, as well as **base effects**.
  - Especially significant Price increase in gas (with effects on electricity).

INFLATION AND EXPECTATION: AN UPWARD TREND SINCE MID-2020…

INFLATION EXPECTATION DEREIVED FROM INFLATION SWAP



INFLATION EXPECTATION FROM THE CONSUMER EXPECTATION SURVEY



Sources: Refinitiv Datastream, Bank of Spain, and ECB (Consumer Expectation Survey, CES)

Inflation Outlook in light of new economic and financial data

- Assessment supported by the **projection made quarterly by the Eurosystem experts.**

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+

Monitoring the dynamics of the core inflation

- The various **indicators of core inflation allow for constrasting the assessment of medium-term inflation perspectives**, as they provide a signal of inflationary pressures less influenced by transitory factors.

+

CURRENT REACTION FUNCTION OF THE ECB BASED ON THREE ELEMENTS

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Intensity of the transmission of monetary policy

- The current cycle of **interest rate increases has no historical precedent, which generates uncertainty about the intensity and speed of the transmission** compared to regulatories observed in previous tightening cycles.

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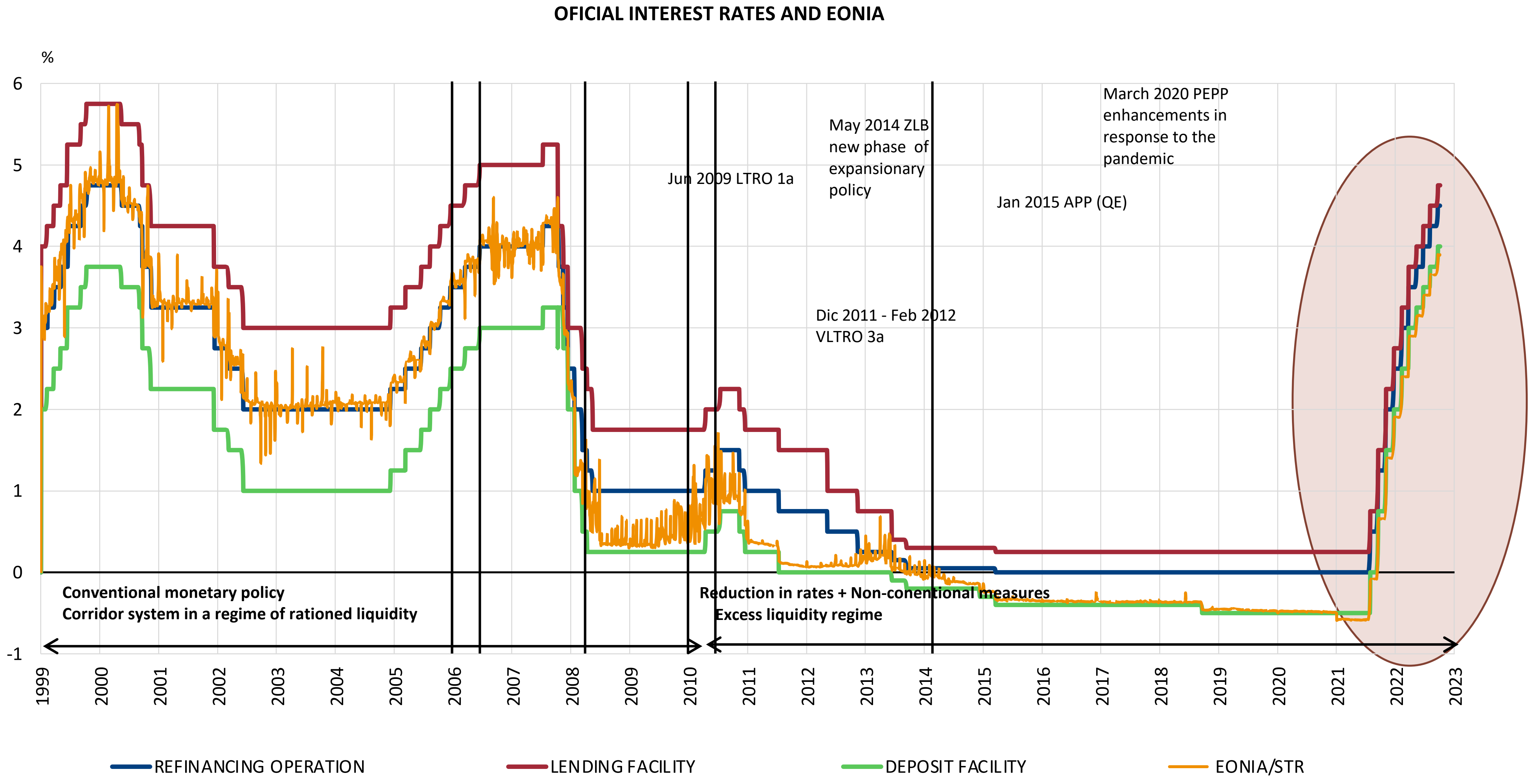
DECISIONS

The approach in which **decisions** are made **meeting by meeting, dependent on the data (“Meeting by Meeting”)**.

INSTRUMENTATION OF MONETARY POLICY: EVOLUTION

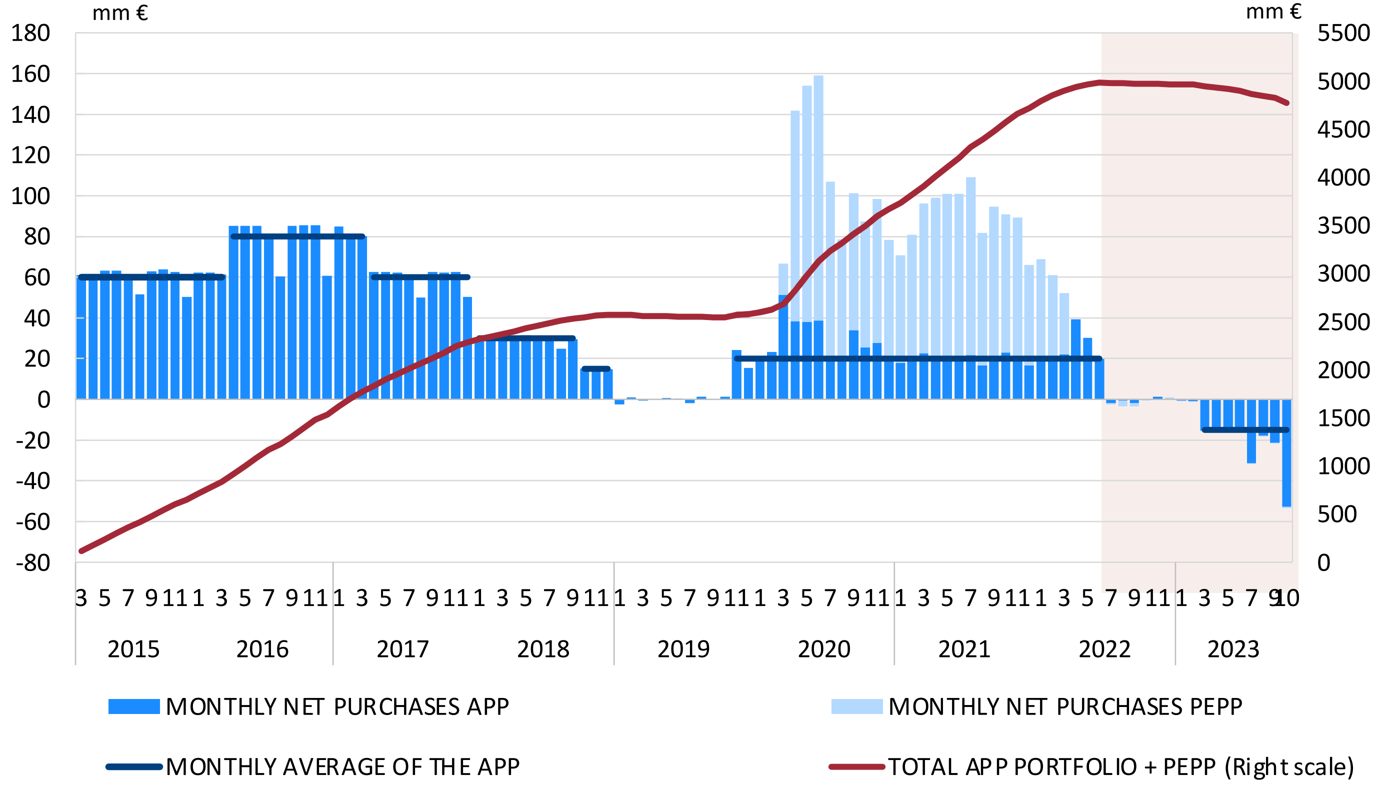


Sources: Bank of Spain

RESPONSES TO INFLATIONARY PRESSURES: LIQUIDITY AND ASSET PURCHASES

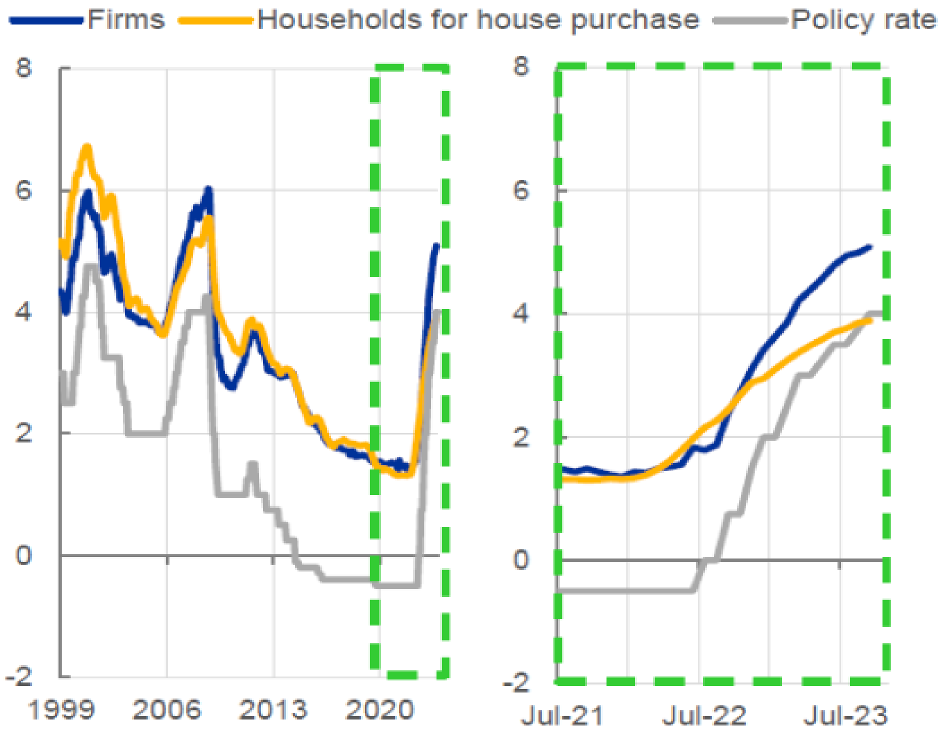
- **The ECB's asset purchase programs have contributed to maintaining relaxed financing conditions in recent years.**
- **However, under current high inflation conditions, the ECB has proceeded to reduce its bond portfolio, starting to reinvest the principal of the securities acquired under the APP from March.**

ASSET PURCHASE PROGRAM (APP y PEPP)
Monthly net purchases and portfolio size



Sources: European Central Bank (ECB).

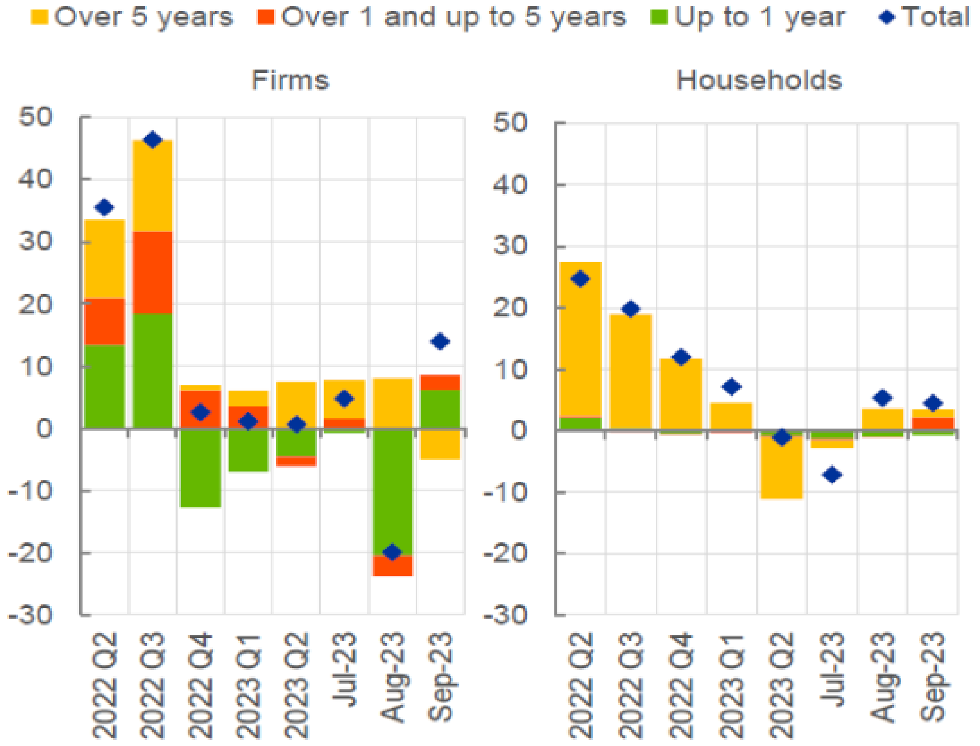
Composite cost of borrowing
(percentages per annum)



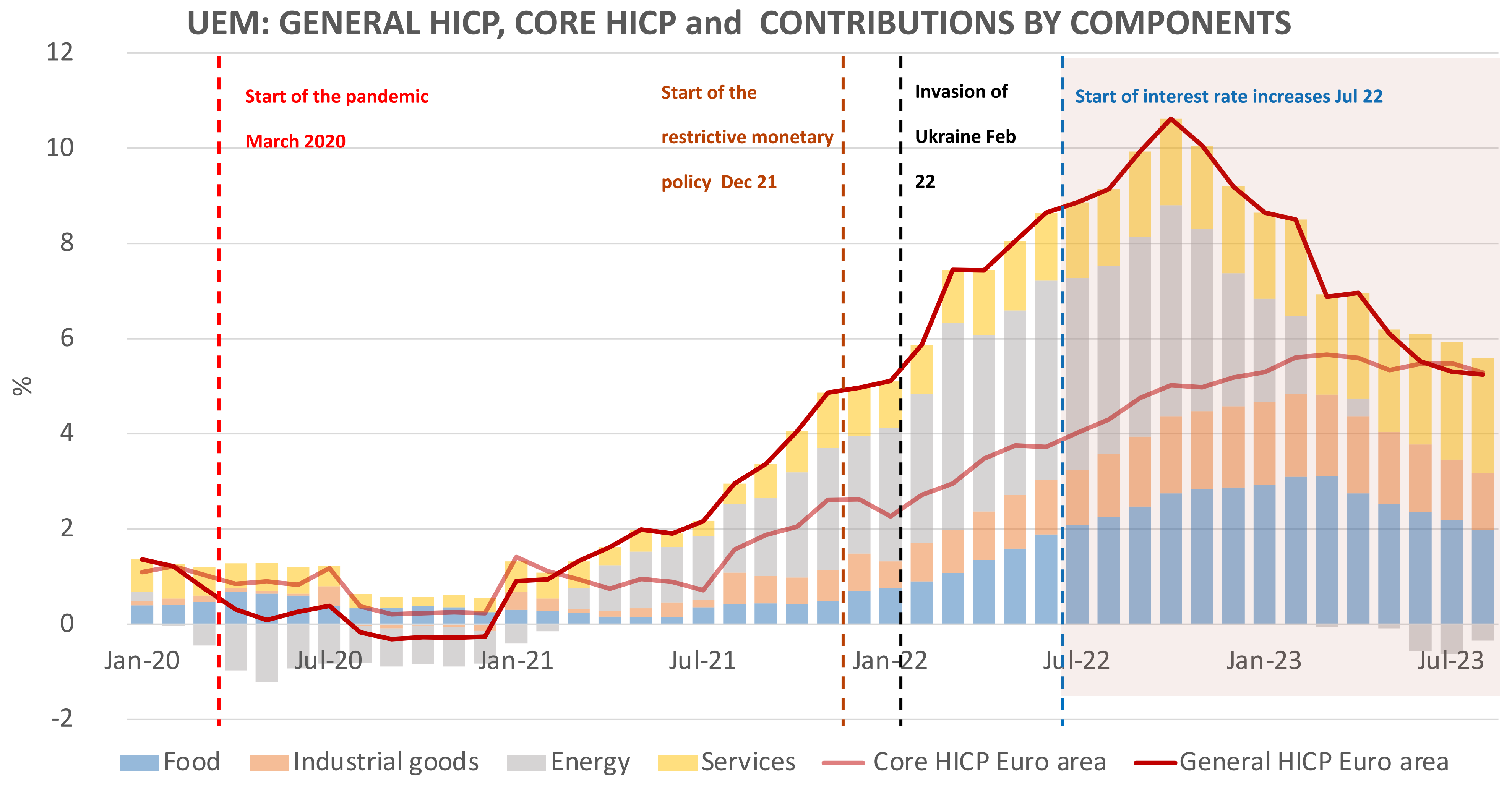
Sources: ECB (MIR) and ECB calculations.
Notes: The indicator for the total cost of bank borrowing for firms is calculated by aggregating short-term and long-term rates using a 24-month moving average of new business volumes. The ECB relevant policy rate is the MRO from January 1999 to May 2014 and the DFR thereafter.
Latest observation: September 2023 for composite cost of borrowing indicators and October 2023 for policy rate.

10

Bank loans to firms and households by maturity
(average monthly flows in EUR bn)



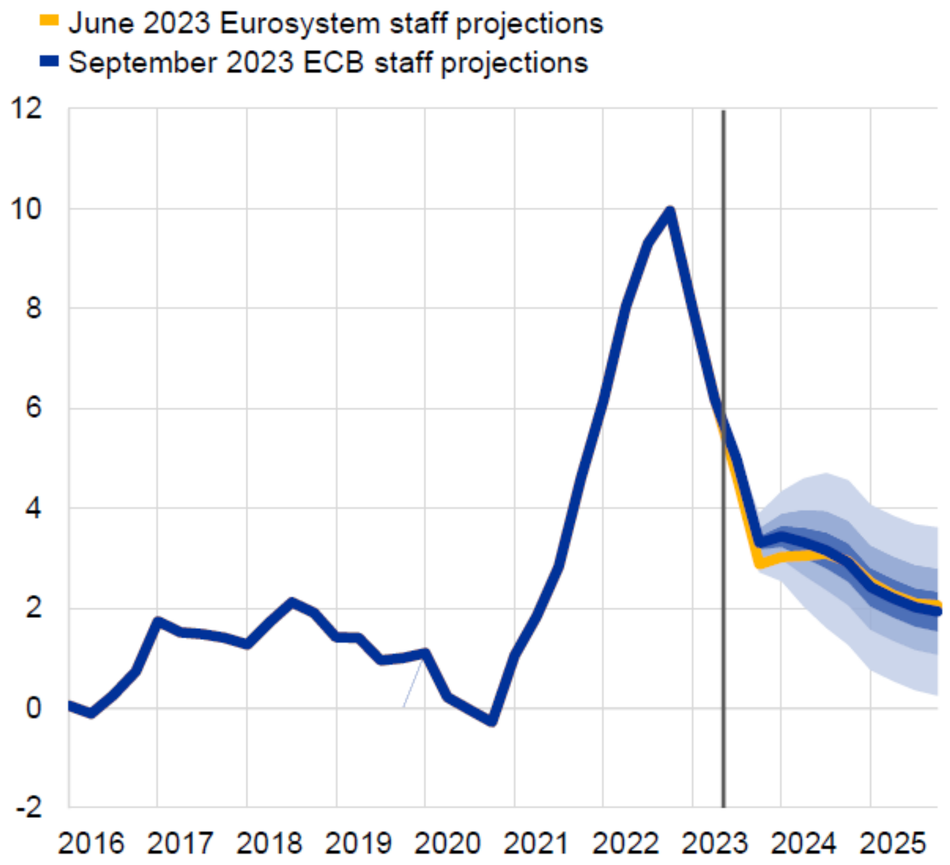
Sources: ECB (BSI) and ECB calculations.
Notes: All series are adjusted for write-offs/write-downs, reclassifications, exchange rate variations and seasonality. Total loans for both firms and households are also adjusted for sales and securitisation (total loans to firms are also adjusted for cash pooling). The maturity breakdowns are not adjusted for sales and securitisation (the seasonal adjustment of the breakdowns for households is internal) Latest observation: September 2023.



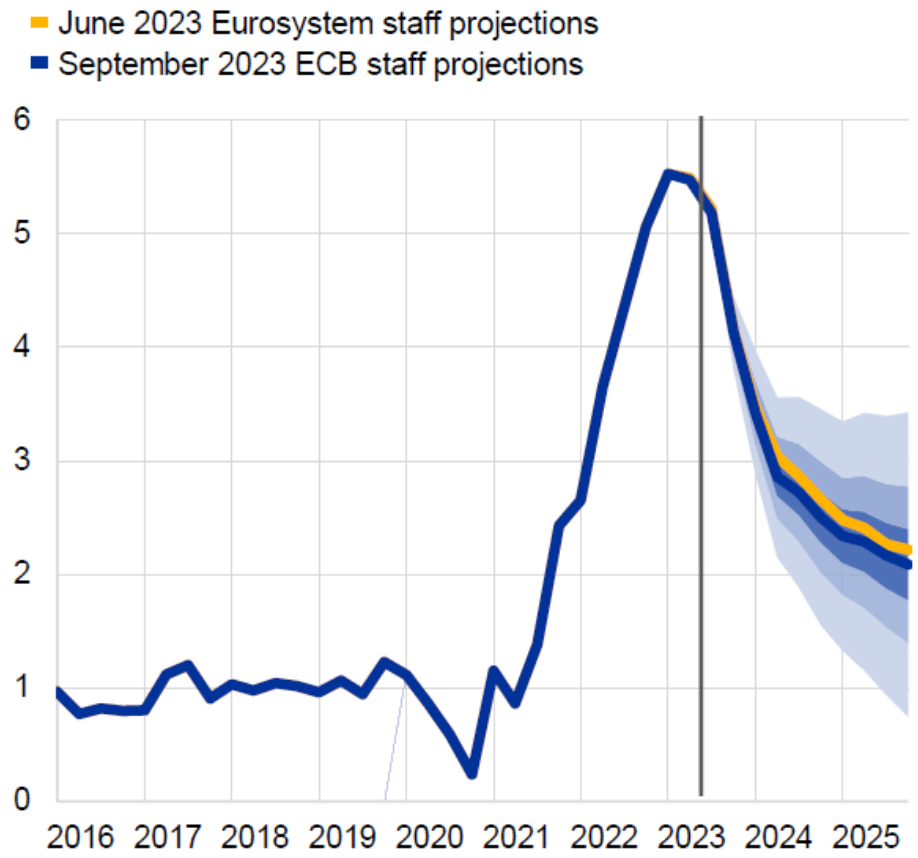
Sources: Eurostat. Last obervation: september 2023

HOWEVER, THERE IS A LOT OF UNCERTAINTY SURROUNDING INFLATION IN THE COMING YEARS

HICP inflation projections
(annual percentage changes)



HICP excluding energy and food inflation projections
(annual percentage changes)



Source: September 2023 ECB staff projections.
Notes: The ranges shown around the central projections are based on past projection errors, after adjustment for outliers. The bands, from darkest to lightest, depict the 30%, 60% and 90% probabilities that the outcome will fall within the respective intervals. For more information, see Box 6 of the March 2023 ECB staff macroeconomic projections for the euro area.

CHALLENGES FACED BY THE ECB IN THE SHORT AND MEDIUM TERM TO BRING INFLATION BACK TO 2%

Challenges

- **Calibrate instruments**
  - What level of rates?
  - For how long?
  - What is the current productive capacity?
- **Transmission**
  - How quickly does a change in rates translate into activity?
  - Uncertainty on the horizon
- **New supply shocks**
  - Geopolitics
  - “El niño”

→ **Inflation 2% in the medium term**

BANCO DE ESPAÑA
Eurosistema

THANKS FOR YOUR ATTENTION