Main decision-making body is the ECB's Governing Council

Governing Council

- Six members of the Executive Board, plus the governors of the national central banks of the 19 euro area countries
- main decision-making body of the ECB

Executive Board

Christine Lagarde
President

Luis de Guindos Jurado
Vice-President

Frank Elderson

Philip Lane

Fabio Panetta

Isabel Schnabel

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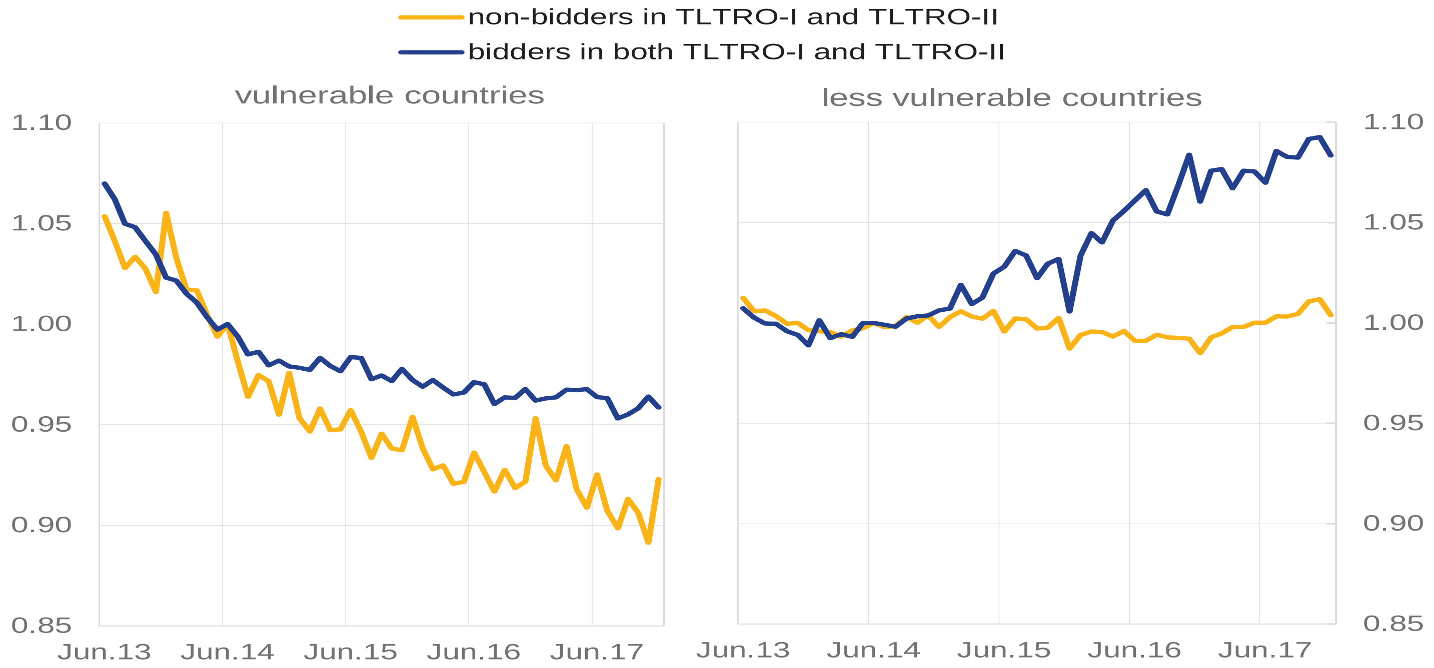
TLTROs reinforce incentives for banks to lend on borrowed funds

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.

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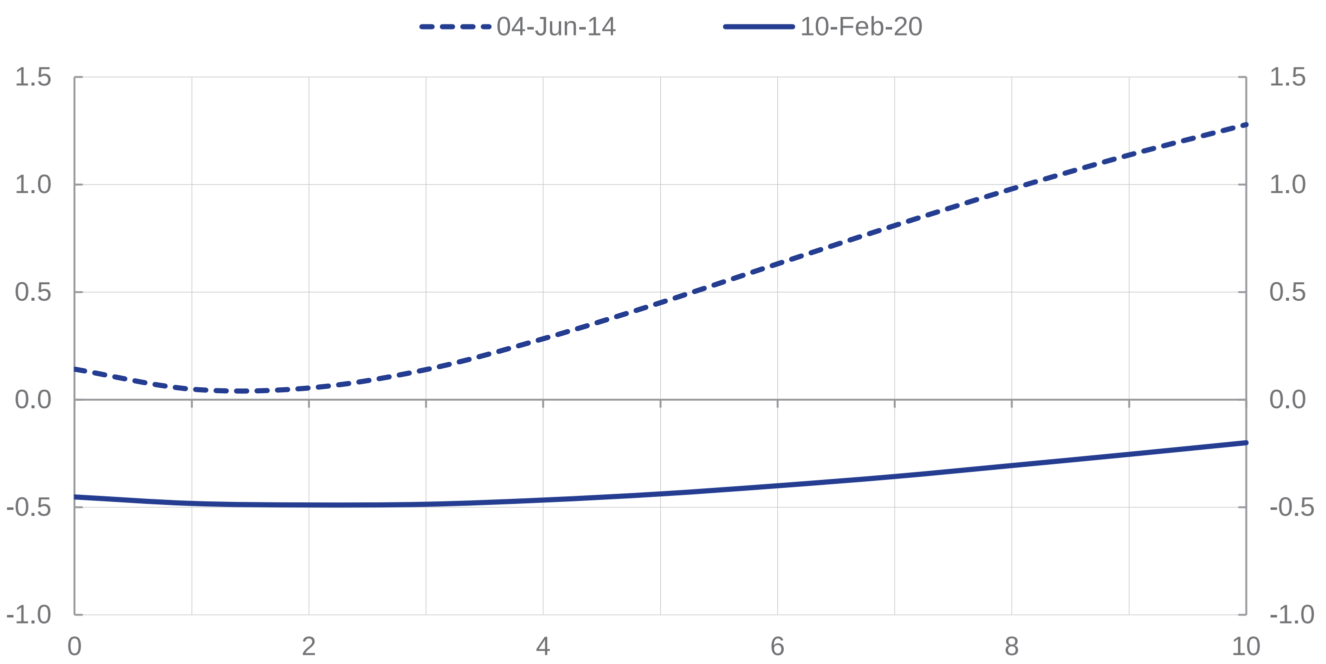
APP compresses term premia over the whole range of the yield curve

OIS term structure
(percentages per annum)



Sources: Reuters, ECB.
Last observation: 10 Feb 2020.

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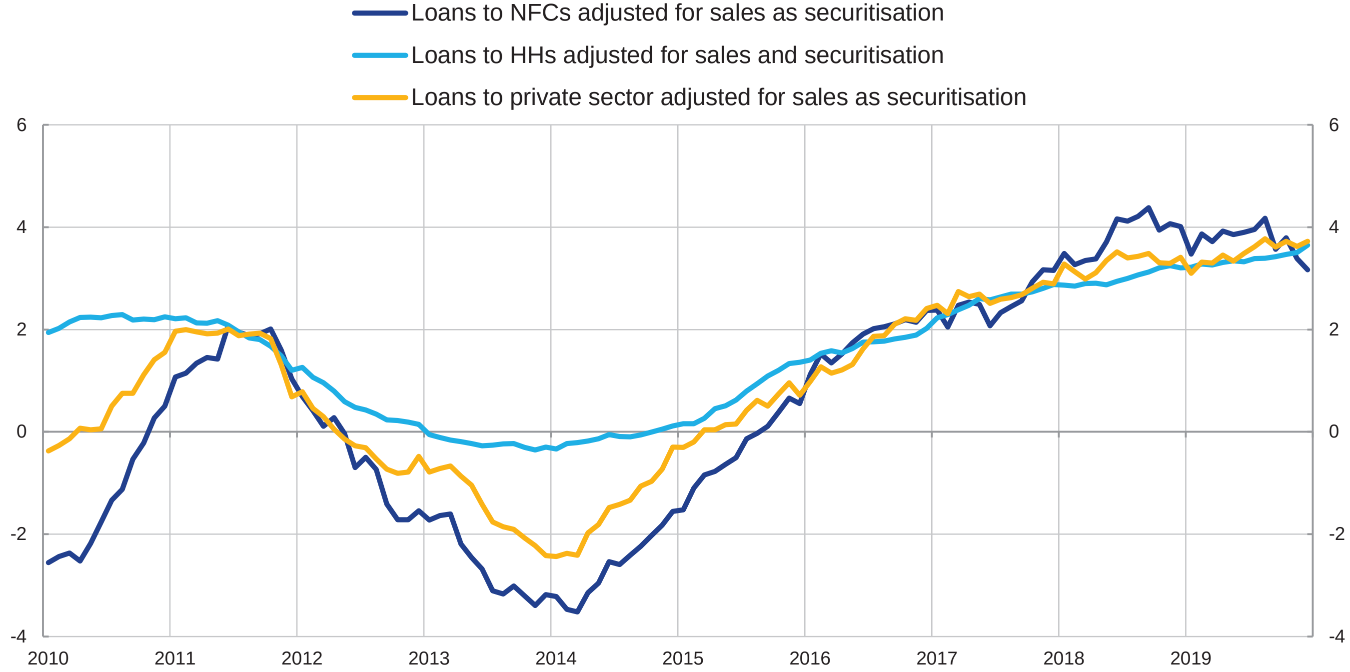
… and restored credit growth

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.
Latest observation: December 2019.

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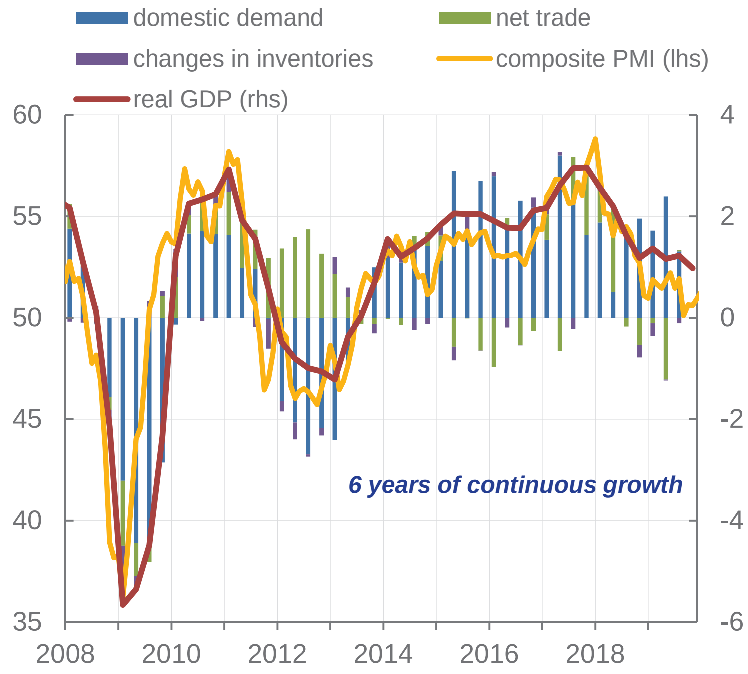
Significant economic improvements

Real GDP growth, main components and PMI

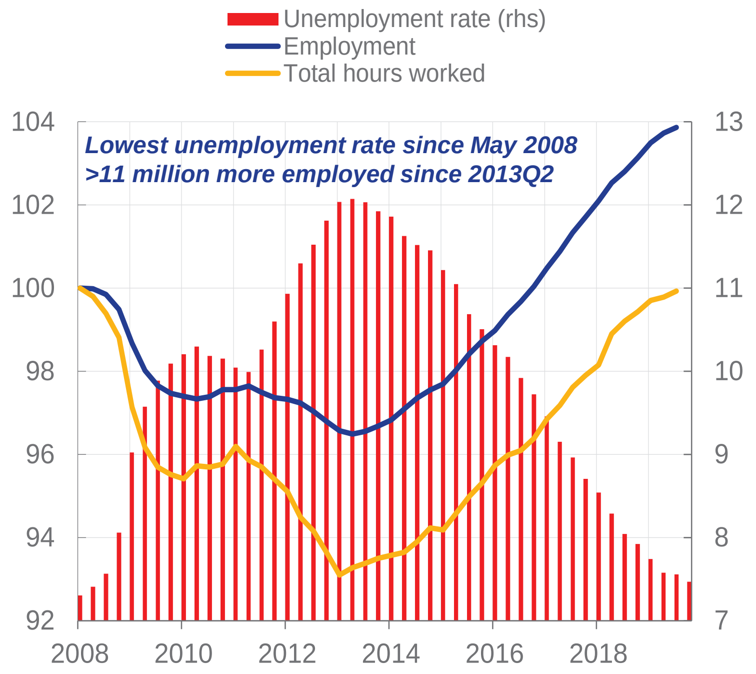
(lhs: balances; rhs: y-on-y growth and pp contributions)



Sources: Eurostat, Markit, and ECB calculations.
Latest observations: 2019Q4 for real GDP, 2019Q3for GDP components and Jan 2020 for PMI.

Labour market indicators

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



Source: Eurostat, National accounts.
Latest observations: 2019Q3 for total hours worked and employment, 2019Q4 for unemployment rate.

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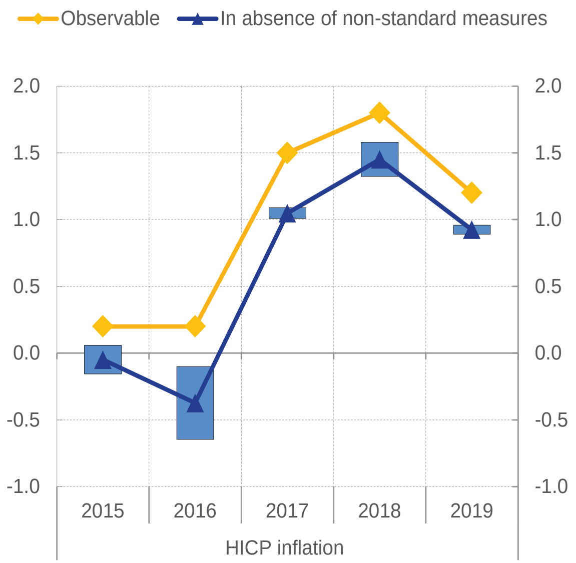
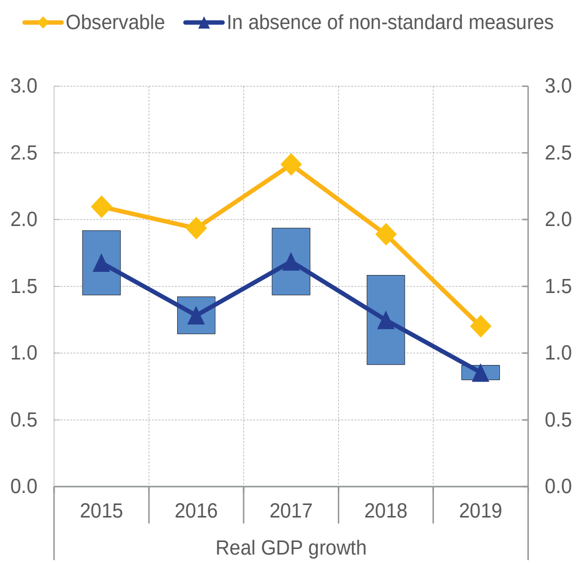
Effects of policy measures have been substantial

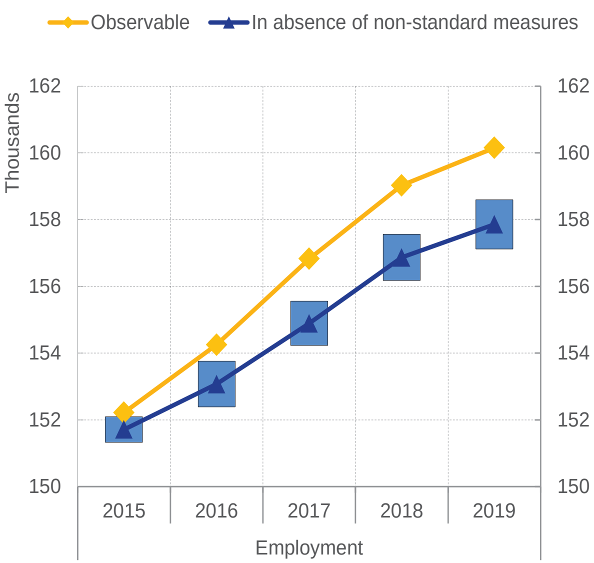
HICP inflation
(year on year percentage change)



Real GDP growth
(year on year percentage change)



Employment
(Millions)



Sources ECB calculations.
Notes: The boxplot refers to a range of assessments, comprising the Eurosystem staff assessment included in the (B)MPE projection baseline and the assessment documented in Rostagno et al. (2019). The Eurosystem staff assessment has been carrying out on the basis of various modelling frameworks, comprising the suite of SAPI models and the Eurosystem projection-based tools. SAPI models span from fully structural models to time-series models.
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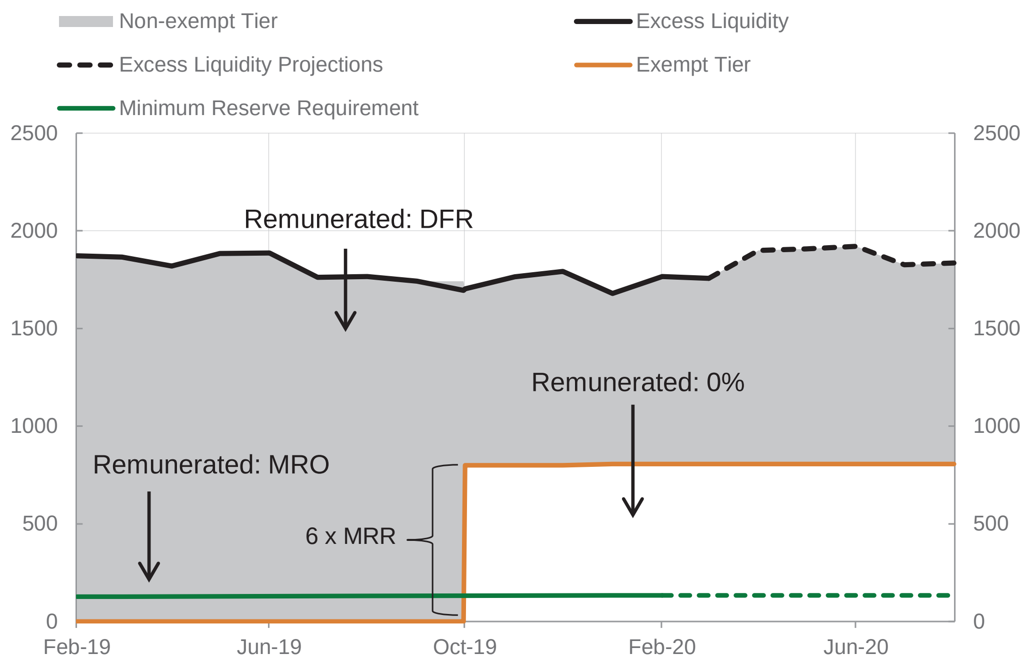
Mitigating measures to address concerns about potential side effects

Excess liquidity and the two-tier system for reserve remuneration

(EUR billion)



Sources: ECB.
Notes: MRR assumed to stay constant after January 2020. The size of the exempt tier is MRR*6.
Latest observations: 31 January 2020.

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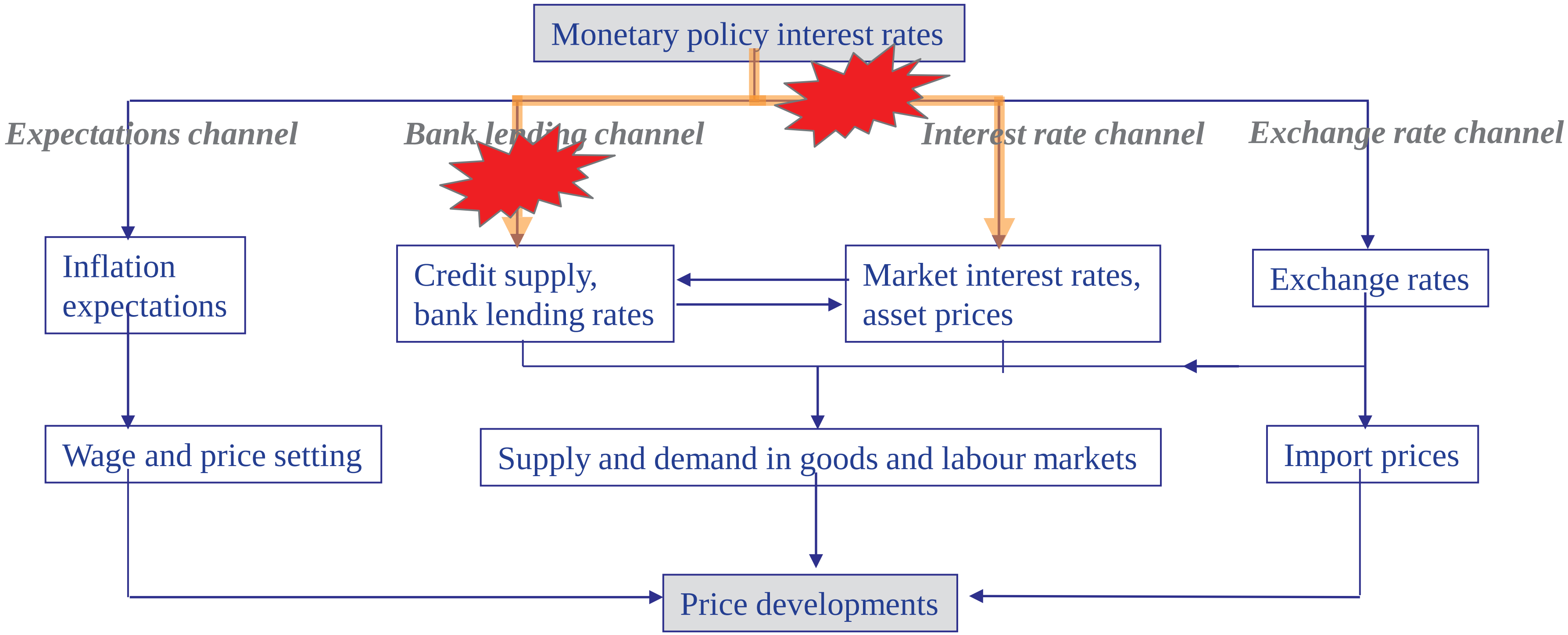
Standard transmission channels blocked



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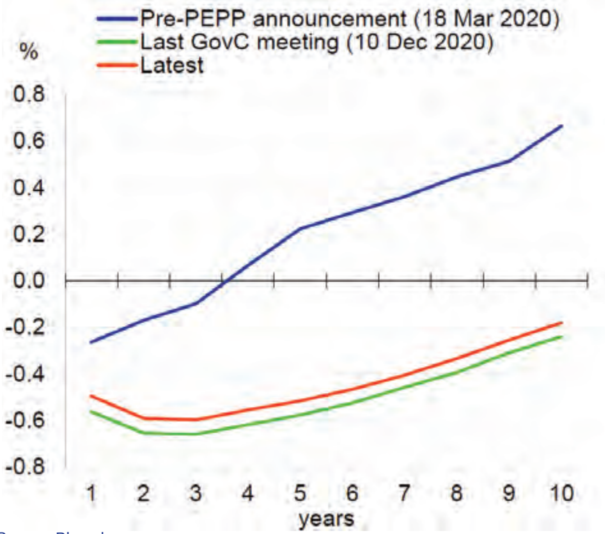
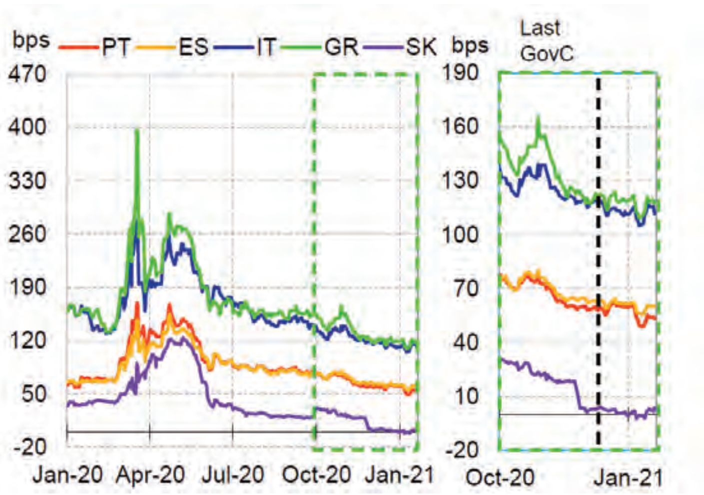
Did the ECB measures help?

Impact of ECB measures (I)

Euro area GDP-weighted yield curve
(percent)



Selected 10-year sovereign yield spreads
(over equivalent German Bunds)



Source: Bloomberg.
Last observation: 18 January 2021.

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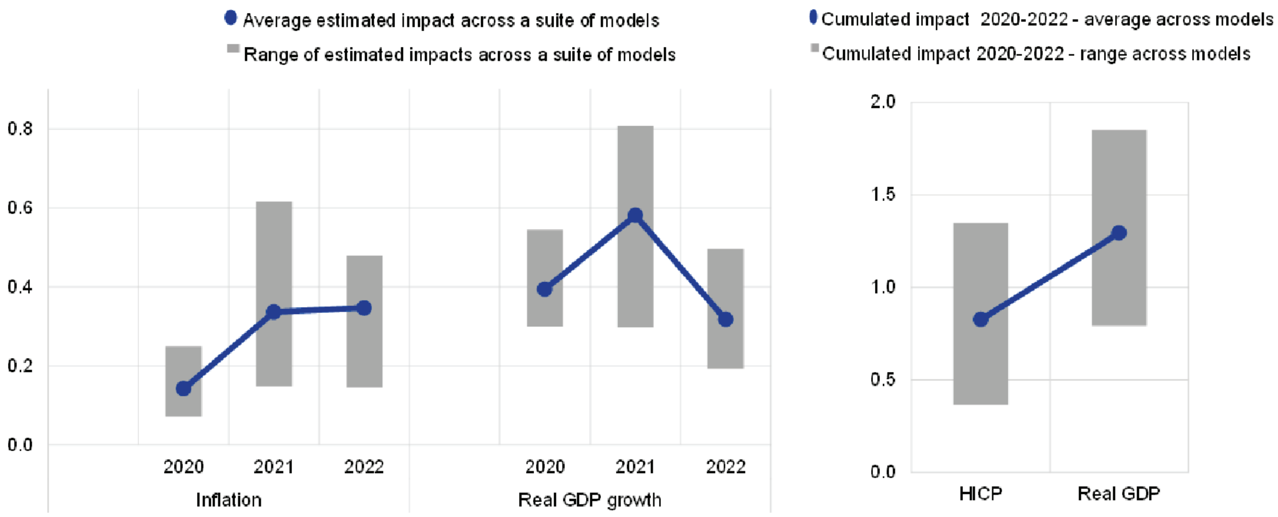
Impact of ECB measures (II)



Source: ECB calculations. Notes: The estimated impact via a suite of models refers to the average across a set of models used by the Eurosystem, see Rostagno, M., et al (2019), "A tale of two decades: the ECB's monetary policy at 20", ECB Working Paper No 2346

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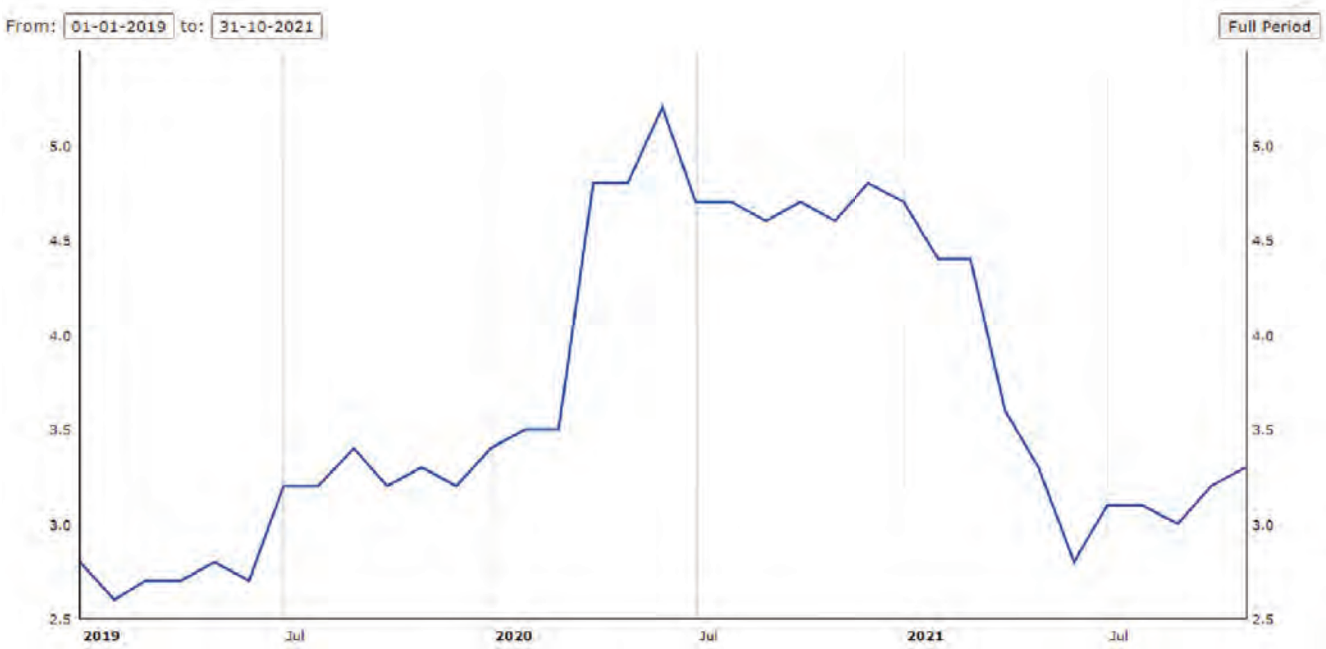
Impact of ECB measures (III): Loans to private sector



Source: ECB Statistical Datawarehouse

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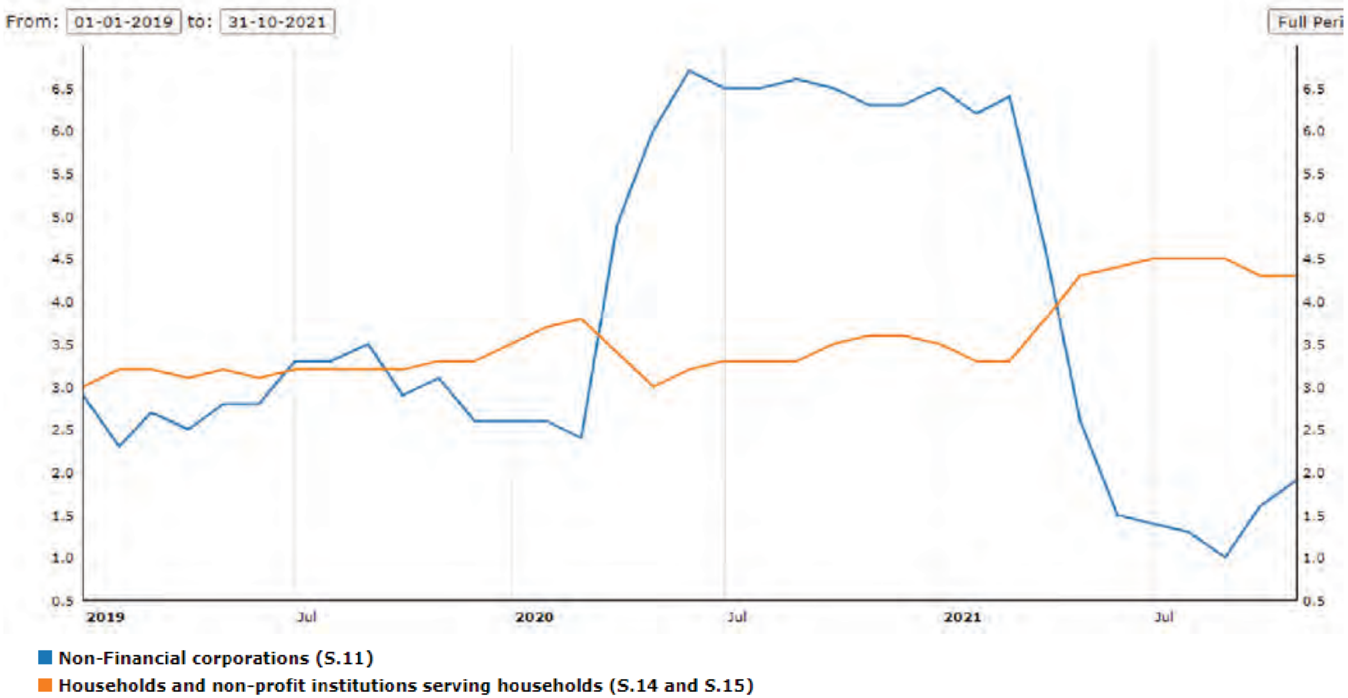
Impact of ECB measures (IV): Loans to households and companies



Source: ECB Statistical Datawarehouse

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Central banks and climate change

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First challenge: Climate Change matters – But is it relevant for a Central Bank?

- **Greenhouse gas emissions are continuing to rise** and without a change in direction, global warming could exceed 4° C by 2100 (IPCC). But many countries are taking actions to curb emissions (or plan to do so) as reflected in the Paris Agreement to combat climate change.
- **This may lead to economic and financial disruptions.** Climate change creates economic and financial risks (sometimes called physical risks). Yet the steps taken to reduce these risks by cutting emissions may also carry risks (sometimes called transition risks) - and opportunities - through disruptive technical change.
- **This leads to many potential areas of interest in climate change for a central bank** relating to aspects such as financial stability, banking supervision, economic analysis and monetary policy.
- **And the impact of policy and technological responses to climate change** may come via the real economy (growth, potential output) and financial conditions, which need to be assessed with a view to arriving at an informed assessment of the medium-term inflation outlook and financial stability risks.

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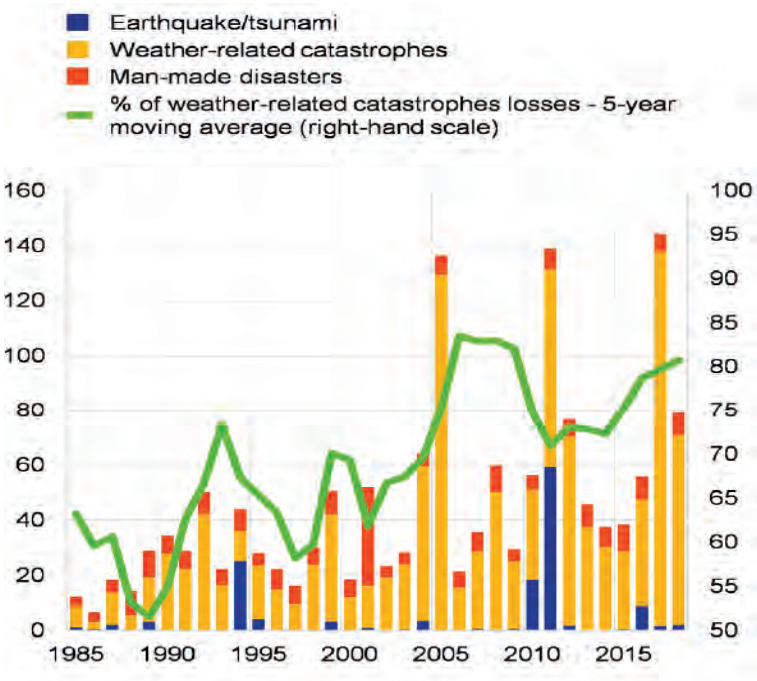
Emerging Impacts of Climate Change

Global insured catastrophe losses 1985-2018

(left scale: USD billions; right scale: percentages)



Sources: ECB Financial Stability Review May 2019, Special Feature on Climate Change and Financial Stability (underlying sources Swiss Re Institute, Munich Re NatCatService and ECB calculations).

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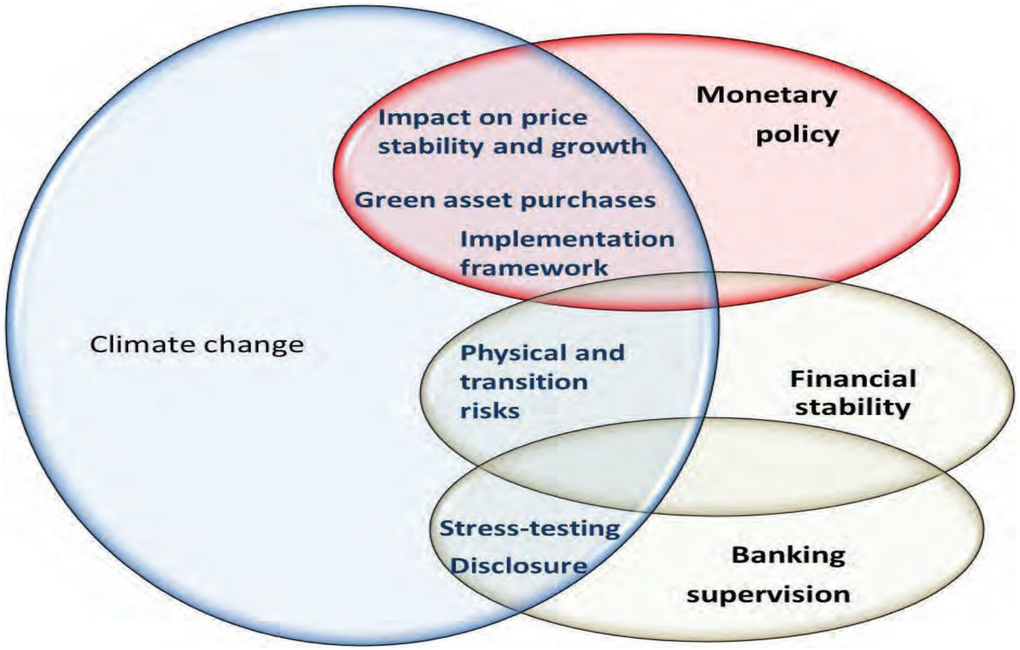
Climate change will impact on the conduct of monetary policy

- Prime responsibility to address climate change lies with governments…
- … but reflections on whether and how central banks could also play a role have intensified
- Several recent studies have discussed the role that monetary policy can play to support the transition towards a green economy



Source: ECB.

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The literature on central bank reactions to climate change

Reacting to climate change risk	Role to sensitise the public	Proactively supporting the transition to a low carbon economy
• Protecting the balance sheet against sudden repricing • Removing carbon biases that are currently embedded in the operational frameworks	• Informing and educating the public • Waking up the financial system to the mispricing of climate risk • Stranded assets	• Greening monetary policy operations (Schoenmaker 2019, Monnin 2018) • Green QE (de Grauwe 2019) • Green TLTROs

Source: ECB.

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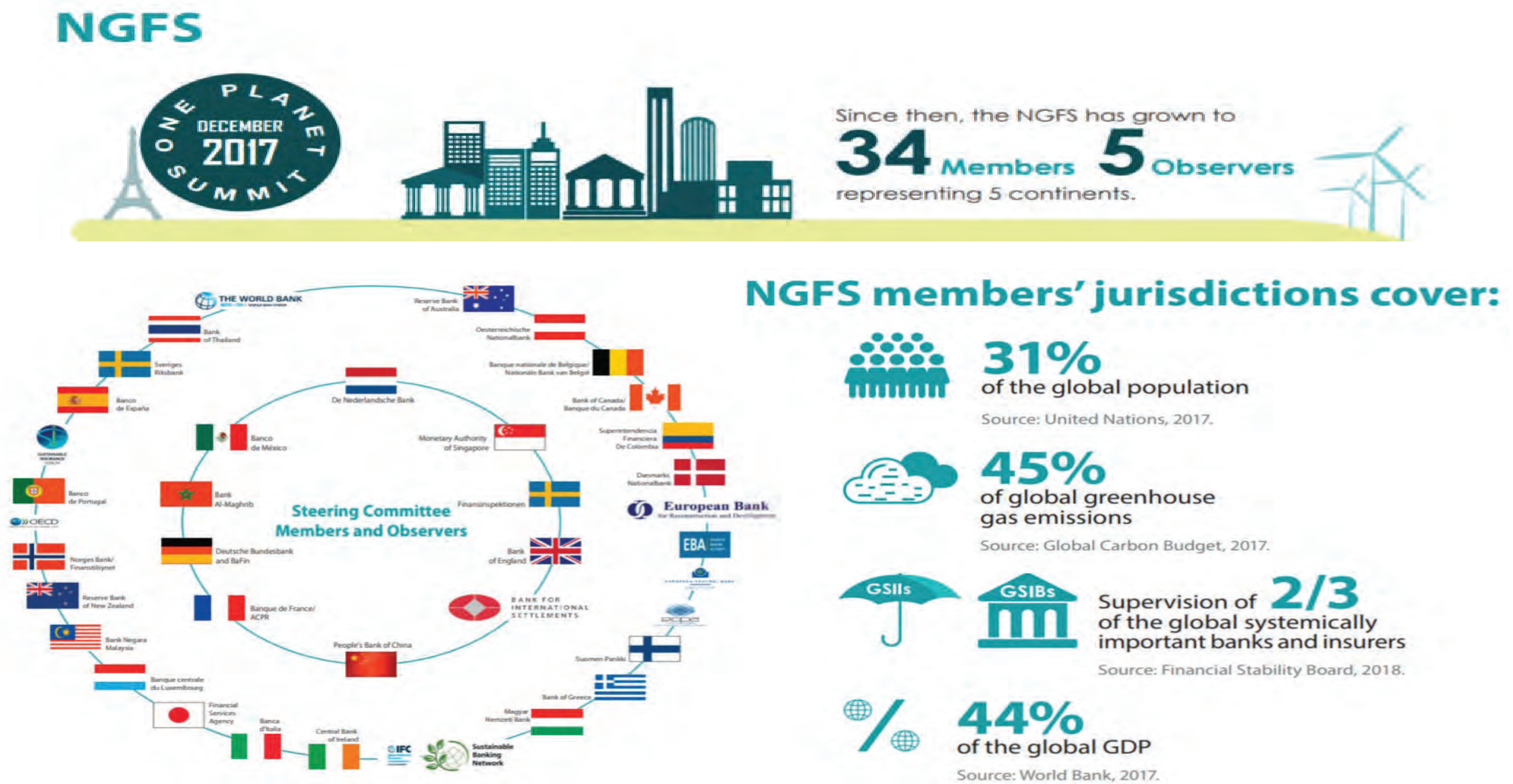
What are central banks doing? – The NGFS



What are central banks doing? – The NGFS

WS1:Supervision of climate and environmental risks

Exchange best practices on integrating climate risk in micro-prudential frameworks

WS2:Analysing the macro financial impact of climate change

Develop an analytical framework for assessing climate-related risks under different climate scenarios

WS3: Scaling up green finance

Take stock of initiatives to scale up green financing; work on green taxonomies, green bonds labeling and prevention of greenwashing.

First comprehensive report published on 17 April 2019

1. **Integrating climate-related risks into financial stability monitoring and micro-supervision**
2. **Integrating sustainability factors into own-portfolio management**
3. **Bridging the data gaps**
4. **Building awareness and intellectual capacity**
5. **Achieving robust and internationally consistent climate disclosure**
6. **Supporting the development of a taxonomy**

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Is greening monetary policy appropriate?

Objections	Counter-arguments by proponents
Monetary policy is supposed to be neutral and not distort the market mechanism.	ECB has already departed from market neutrality. Asset purchases (e.g. CSPP) already have a “carbon bias”.
Climate change mitigation is a policy with large distributional consequences, which can only be taken by politicians	Also unconventional monetary policies always have large distributional consequences.
Too much power vested in institutions with a narrow definition of accountability and no democratic legitimacy.	Central banks already exercised considerable powers despite a rather narrow accountability framework.
Fiscal policy (carbon pricing) should be the prime tool to address CO_2 externalities.	Political gridlock impedes the implementation of a carbon tax, while central banks are less constrained.
Tinbergen principle: conflicting objectives should be avoided. One policy tool for each policy objective.	In a second-best world, central bank’s action is preferable to no action at all.
Engaging in climate policy would drag central banks in “political” territory, potentially paving the way for further steps to support other political goals or undermining independence	Central banks have already stepped in political territory the moment they started unconventional monetary policy. The new CB’s normal requires new responsibilities

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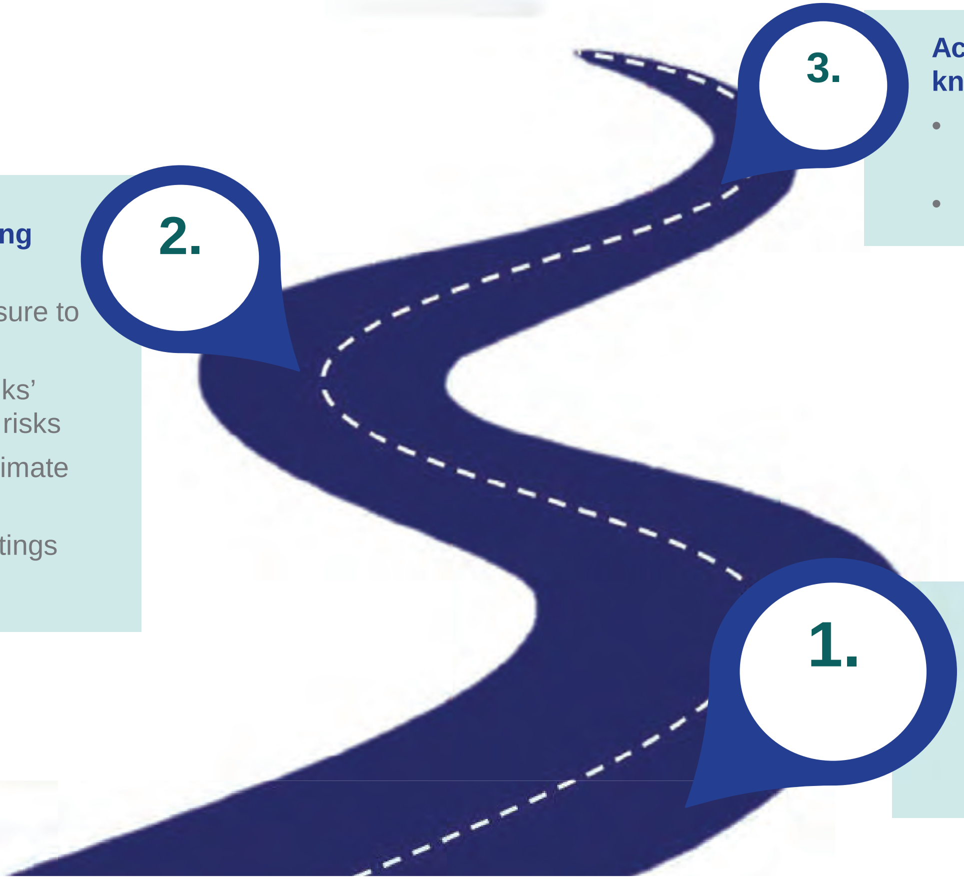
Roadmap to greening monetary policy



1. Paving the way with reliable data

- Gather data needed for climate change risk analyses
- Adapt our models and make them fit for climate change

2. Knowledge is the driving force

- Check our own exposure to climate risks
- Check firms' and banks' exposures to climate risks
- Make disclosure of climate risks a priority
- Review how credit ratings reflect climate risks

3. Action based on reliable data and best knowledge

- Include climate risks into our collateral framework
- Green our asset purchases

Miscellaneous

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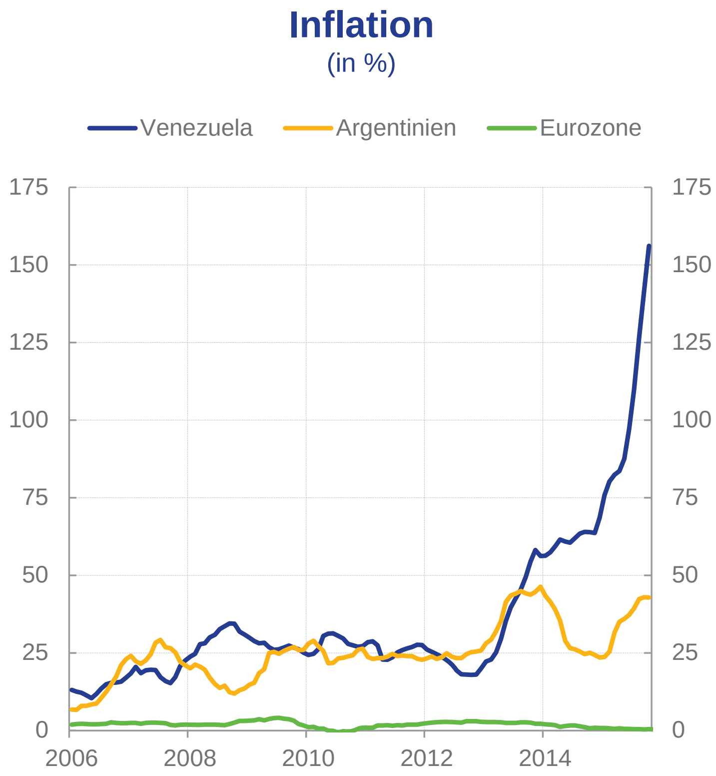
Why price stability?



Benefits of price stability

- Transparent prices
- Lower interest rates and inflation risk premia
- No need for unnecessary inflation insurance (efficient allocation of capital and resources)
- Low inflation tax
- No distortions in tax systems
- Supports financial stability

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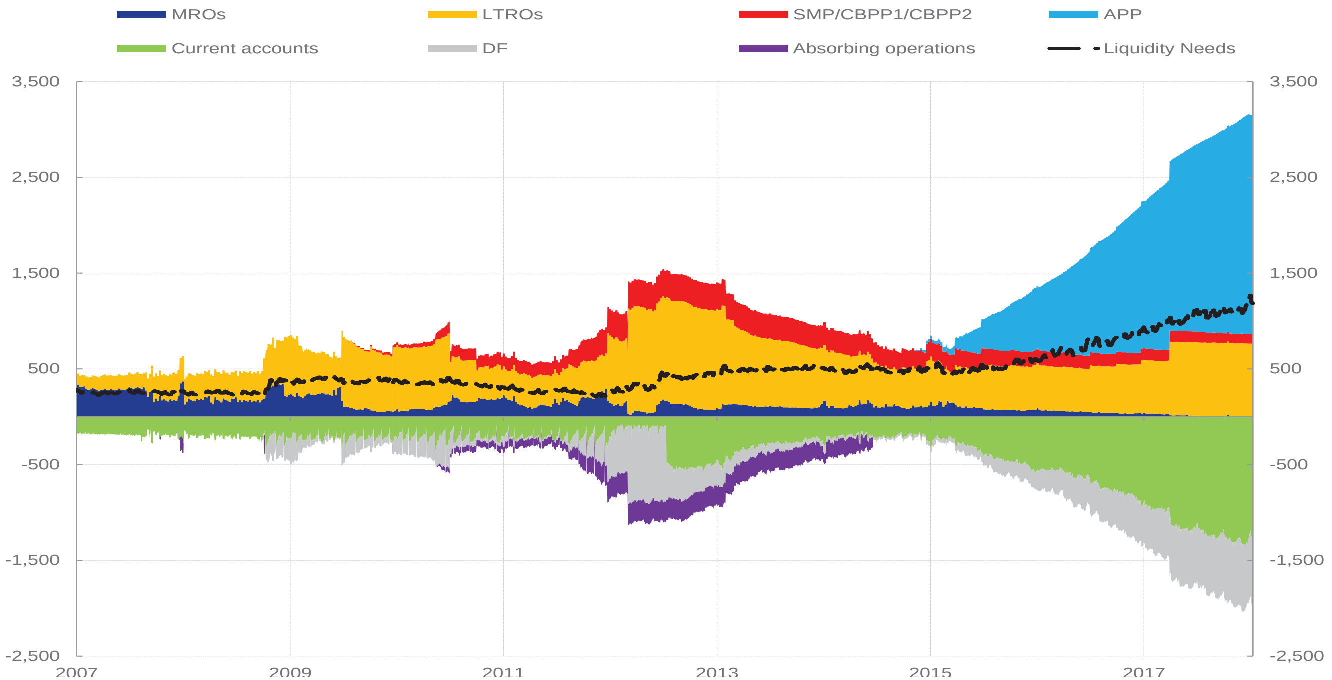
Liquidity provision and absorption

Eurosystem Balance Sheet

(billion EUR)



Source: ECB
Latest observation: 8 January 2018.

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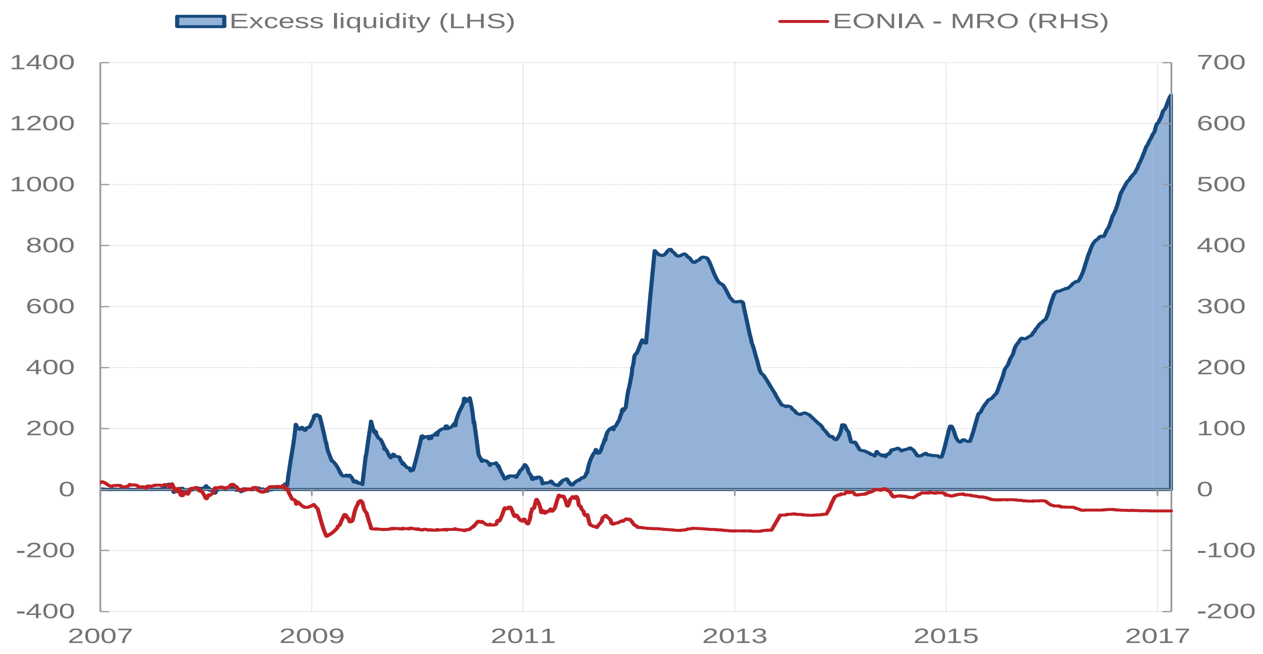
Lower money market rates and rising liquidity



Source: ECB.
Notes: Excess liquidity and the EONIA-MRO spread are shown as 30-day moving averages.
Latest observation: 16 February 2017.

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A digital euro

What do we mean by “digital euro”?

Digital euro would be ***central bank money*** *made available* ***to citizens and firms*** *in* ***digital form*** *for use in* ***payments***

- **Complementing**, not substituting, cash and wholesale central bank deposits
- **Synergies** with industry
- Digital euro **not necessary so far**

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When will it be ready?

- Investigation phase from October 2021
- Duration about two years
- Analyse how a digital euro could be designed and distributed
- Decision on whether or not to develop a digital euro after investigation phase

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