[ECB-Public]

EUROPEAN CENTRAL BANK
EUROSYSTEM

Climate change and monetary policy operations

Joint Vienna Institute
19 April 2023

1.

NGFS work on central bank operations

Adapting central bank operations to a hotter world

The role of NGFS

- The Central Banks and Supervisors Network for Greening the Financial System (NGFS) was launched at the Paris One Planet Summit on 12 December 2017
- It is a group of Central Banks and Supervisors willing, on a voluntary basis, to:
  - exchange experiences,
  - share best practices,
  - contribute to the development of environment and climate risk management in the financial sector, and
  - mobilize mainstream finance to support the transition toward a sustainable economy.
- Its purpose is to define and promote best practices to be implemented within and outside of the Membership of the NGFS and to conduct or commission analytical work on green finance.
- In April 2020 the NGFS set up the workstream on “Scaling up Green Finance”, chaired by Dr Sabine Mauderer from the Deutsche Bundesbank. As part of its activities, this workstream looked at how prepared central banks have been to take account of climate-related risks in their monetary policy operations.

Key messages of the 2020 NGFS Report on climate change and monetary policy

In June 2020 the NGFS published a first report highlighting a number of key messages:

- Climate change (and its mitigation) causes structural changes to the economy and the financial system
- It complicates a central bank's assessment of its policy space (effect on r*)
- Climate change may affect transmission channels of monetary policy: interest rate channel, credit channel, asset price channel and expectations channel
- It can limit the effectiveness of monetary policy instruments
- Climate change is a source of financial risks for central banks

These key messages led to further work and the publication of the report on "Adapting central bank operations to a hotter world: Reviewing some options" (March 2021)

Selected stylized options

	Credit operations[a]	
(1)	Adjust pricing to reflect counterparties' climate-related lending	Make the interest rate for central bank lending facilities conditional on the extent to which a counterparty's lending (relative to a relevant benchmark) is contributing to climate change mitigation and/or the extent to which they are decarbonising their business model.
(2)	Adjust pricing to reflect the composition of pledged collateral	Charge a lower (or higher) interest rate to counterparties that pledge a higher proportion of low-carbon (or carbon-intensive) assets as collateral or set up a credit facility (potentially at concessional rates) accessible only against low-carbon assets.
(3)	Adjust counterparties' eligibility	Make access to (some) lending facilities conditional on a counterparty's disclosure of climate-related information or on its carbon-intensive/low-carbon/green investments.
	Collateral[b]	
(4)	Adjust haircuts[c]	Adjust haircuts to better account for climate-related risks. Haircuts could also be calibrated such that they go beyond what might be required from a purely risk mitigation perspective in order to incentivise the market for sustainable assets.
(5)	Negative screening	Exclude otherwise eligible collateral assets, based on their issuer-level climate-related risk profile for debt securities or on the analysis of the carbon performance of underlying assets for pledged pools of loans or securitised products. This could be done in different ways, including adjusting eligibility requirements, tightening risk tolerance, introducing tighter or specific mobilisation rules, etc.
(6)	Positive screening	Accept sustainable collateral so as to incentivise banks to lend or capital markets to fund projects and assets that support environmentally-friendly activities (e.g. green bonds or sustainability linked assets). This could be done in different ways, including adjusting eligibility requirements, increasing risk tolerance on a limited scale, relaxing some mobilisation rules, etc.
(7)	Align collateral pools with a climate-related objective	Require counterparties to pledge collateral such that it complies with a climate-related metric at an aggregate pool level.
	Asset purchases[d]	
(8)	Tilt purchases	Skew asset purchases according to climate-related risks and/or criteria applied at the issuer or asset level.
(9)	Negative screening	Exclude some assets or issuers from purchases if they fail to meet climate-related criteria.

Assessment of stylized options based on 4 general principles

- Consequences for monetary policy effectiveness
  Implications for the conduct and effectiveness of monetary policy operations (including lending or purchasing capacity by the central bank, potential distortions, stigma, etc.)
- Contributions to mitigating climate change
  Relevance and ability to mitigate climate-related risks and/or support the transition to a low-carbon economy
- Effectiveness as risk protection measures
  Shielding central banks' balance sheets against increasing financial risks
- Operational feasibility
  Access to sufficiently robust and broad-based climate-related risk data; expertise in climate-related financial risk management; and sound methodologies and models

➢ *Depending on mandates and specific circumstances, central banks may assign different weights*

Comparative assessment of options

Table 2. **Simplified comparative assessment of the selected generic options under review**

	CREDIT OPERATIONS			COLLATERAL				ASSET PURCHASES	
	(1) ADJUSTING PRICING TO LENDING BENCHMARK	(2) ADJUSTING PRICING TO COLLATERAL	(3) ADJUSTING COUNTERPARTIES' ELIGIBILITY	(4) HAIRCUT ADJUSTMENT	(5) NEGATIVE SCREENING	(6) POSITIVE SCREENING	(7) ALIGNING COLLATERAL POOLS	(8) TILTING	(9) NEGATIVE SCREENING
CONSEQUENCES FOR MONETARY POLICY EFFECTIVENESS	MINIMAL	NEGATIVE	STRONGLY NEGATIVE	MINIMAL	NEGATIVE	POSITIVE	MINIMAL	MINIMAL	NEGATIVE
CONTRIBUTION TO MITIGATING CLIMATE CHANGE	STRONGLY POSITIVE	POSITIVE	POSITIVE	POSITIVE	POSITIVE	STRONGLY POSITIVE	STRONGLY POSITIVE	STRONGLY POSITIVE	POSITIVE
EFFECTIVENESS AS RISK PROTECTION MEASURE	MINIMAL	MINIMAL	POSITIVE	POSITIVE	POSITIVE	NEGATIVE	POSITIVE	POSITIVE	POSITIVE
OPERATIONAL FEASIBILITY	NEGATIVE	NEGATIVE	MINIMAL	NEGATIVE	MINIMAL	MINIMAL	NEGATIVE	NEGATIVE	MINIMAL

POTENTIAL IMPACT: STRONGLY POSITIVE; POSITIVE; MINIMAL; STRONGLY NEGATIVE; NEGATIVE

The assessment is based on qualitative expert judgement, and more formal quantitative analysis may be needed. It aims to guide the reader through the report and should not be interpreted as recommending any measure. Colour-coding is used to avoid any "netting" across criteria. The table uses a limited number of colours for reasons of simplicity. More nuanced analyses of options are provided in Annex 1.

Current NGFS work on monetary policy operations

- New Workstream on "Monetary Policy" with a two-year mandate (April 2022-April 2024) and the following objectives:
  - deepen the collective understanding of how climate change, and the actions designed to mitigate it, should be considered in relation to the conduct of monetary policy;
  - explore what options central banks have to take into account climate-related risks; and,
  - where applicable, determine what options central banks have to ensure monetary policy operations are supportive of the transition to a low-carbon economy.
- Four subgroups created to explore:
  - Physical risks (macro analysis)
  - Transition risks (macro analysis)
  - Macroeconomic modelling toolkit
  - Monetary policy operations (Goal: to produce a library of thematic case studies articulating how central banks have practically approached considering climate-related factors in their operations based on their circumstances and what lessons they have taken away as a result)

2.

ECB’s action plan

Including climate considerations in monetary policy

Relevance of climate change for monetary policy

Climate change and the green transition **impact** macroeconomic indicators such as **inflation**, growth and employment, financial stability, and the **transmission of monetary policy**

Climate change affects the value and risk profile of assets on Eurosystem balance sheet, thereby leading to **greater climate-related financial risk**

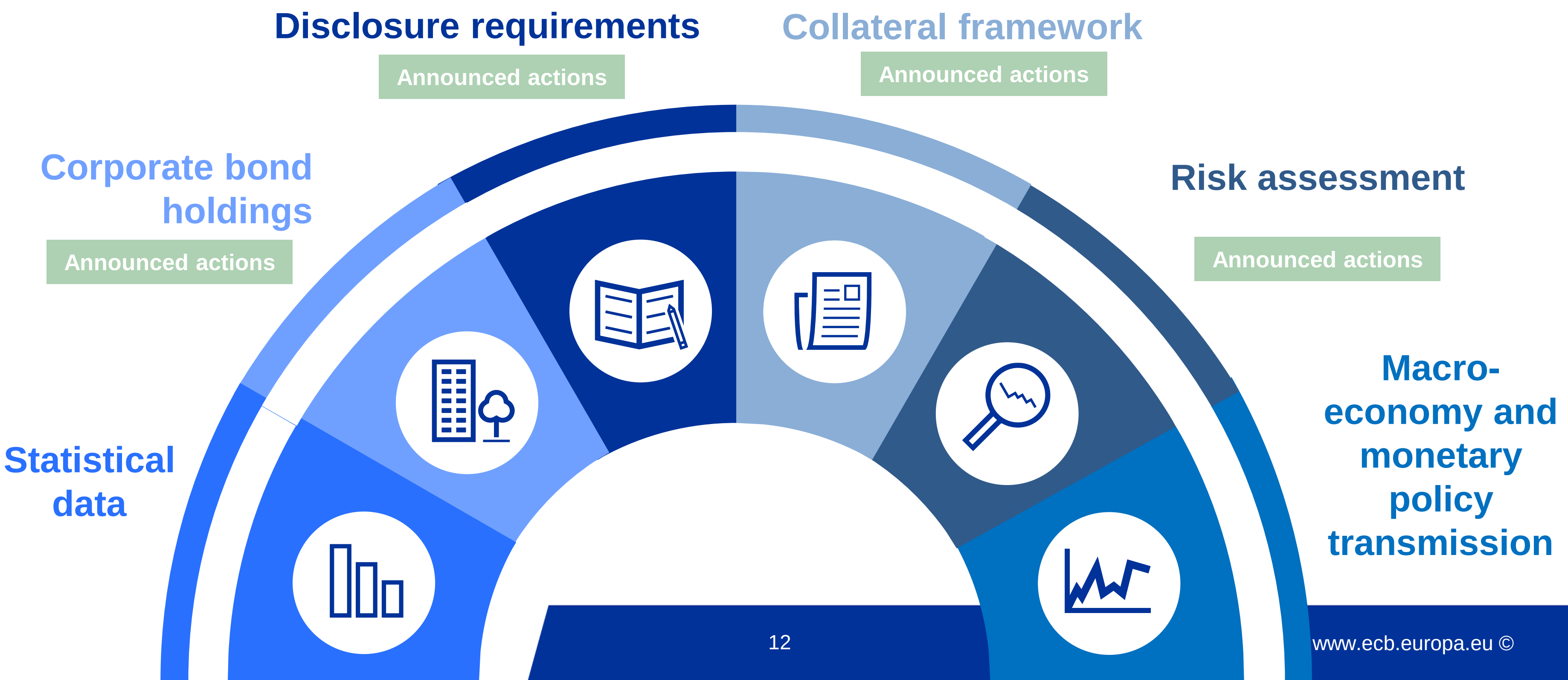
In 2021 the ECB Governing Council committed to:

Incorporating climate change considerations into its **monetary policy framework and operations**

Expanding analytical capacity in modelling and forecasting the economic and financial effects of climate change and green transition

Implementing the action plan in line with progress on EU policies and initiatives in **environmental sustainability disclosure and reporting**

ECB action plan on climate change:
Focus areas for monetary policy framework



3.

Status of the implementation of the action plan

Announced policy actions to incorporate climate change in monetary policy implementation framework

Climate action in monetary policy implementation – 4 July 2022 announcements

Corporate bond holdings

Adjustment of market capitalisation benchmark to account for climate change factors

Disclosure requirements

CSRD-based disclosure requirements for issuers

Promote harmonized climate disclosures for structured finance (not in scope of CSRD)

Collateral framework

Collateral pool composition limits

Integrate climate change risks in haircut reviews

Risk assessment

Engage for more transparency in credit ratings

Common standards for Eurosystem in-house credit assessment systems

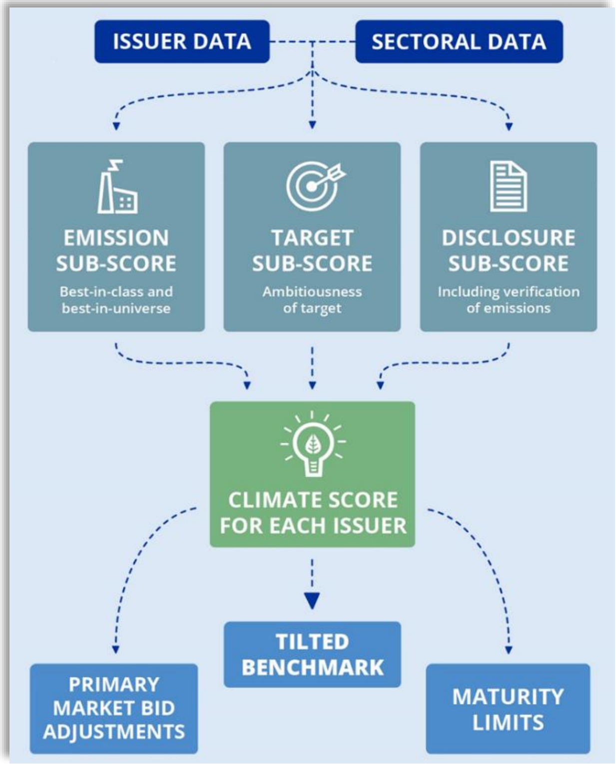
Corporate bond holdings

- **Gradual decarbonisation** of the portfolio, on a path aligned with the goals of the Paris Agreement
- Reinvestments will be **tilted towards issuers with better climate performance**
    - Market capitalisation benchmark tilted in favour of issuers with (i) lower carbon emissions, (ii) more ambitious reduction targets and (iii) better climate-related disclosures
- Implemented in October 2022
- **Annual publication of climate-related disclosures** on corporate bond holdings regularly as of first quarter of 2023

FAQ on incorporating climate considerations into the CSPP contains more details

FAQ on incorporating climate change considerations into corporate bond purchases

On 4 July 2022 the ECB announced the incorporation of climate change considerations into the Eurosystem's purchases of corporate-sector securities, encompassing both the corporate sector purchase programme (CSPP) and pandemic emergency purchase programme (PEPP) corporate bond holdings. These responses to frequently asked questions (FAQs) provide further details on the technical aspects of the measures to be implemented for Eurosystem corporate securities purchases from October 2022. For more information about how the Eurosystem conducts its transactions in corporate-sector securities, please refer to the CSPP FAQs on the ECB's website. For a non-technical explanation of how climate change considerations are incorporated into corporate bond purchases, see our explainer "How are we aiming to decarbonise our corporate bond holdings?".



Climate-related disclosure requirements

- Eurosystem will only accept marketable assets and credit claims as collateral in Eurosystem credit operations from companies and debtors that are **CSRD-compliant**
  - CSRD = Corporate Sustainability Reporting Directive
  - Applies to all companies within the scope of CSRD
  - Expected application as of 2026 – following full implementation of CSRD
- Support to better and harmonised disclosures of climate-related data for **asset-backed securities and covered bonds**
  - These assets do not fall under the CSRD but are significant for Eurosystem collateral framework
  - Close engagement with relevant authorities

Collateral framework

- **Limits to collateral pools**: For individual counterparties, Eurosystem will limit the share of high-carbon assets that they can mobilise as collateral when borrowing from the Eurosystem
    - Applicable to marketable debt instruments issued by non-financial corporations first – additional asset classes may be included once data quality improves
    - Application expected by end-2024
    - Test runs to help early preparation
- Climate change risks included in Eurosystem’s **regular reviews of haircuts** applied to corporate bonds used as collateral

Risk assessment

- Eurosystem urges **rating agencies** to
  - Increase transparency about how climate risks are incorporated in credit ratings and
  - More ambitious disclosure requirements on climate risks
- Close dialogue with relevant authorities
- Internally, Eurosystem has agreed on common minimum standards for considering climate-related risks in national central banks' **in-house credit assessment systems**
  - Expected application by end-2024

Annex: References

- *Climate Change and Monetary Policy: Initial takeaways*, NGFS / June 2020: https://www.ngfs.net/sites/default/files/medias/documents/climate_change_and_monetary_policy.pdf
- *Adapting central bank operations to a hotter world: Reviewing some options, NGFS / March 2021* https://www.ngfs.net/sites/default/files/media/2021/06/17/ngfs_monetary_policy_operations_final.pdf
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- *Enhancing Climate Resilience of Monetary Policy Implementation in the Euro Area*, ECB OP Series (forthcoming)
- ECB Press Release, 4 July 2022, ECB takes further steps to incorporate climate change into its monetary policy operations (europa.eu) - Annex to the press release, 4 July 2022, ECB-wide Climate Agenda (europa.eu)
- ECB Explainer, September 2022, How are we decarbonising our corporate bond holdings? (europa.eu)
- ECB FAQ, October 2022, FAQ on incorporating climate change considerations into corporate bond purchases (europa.eu)
- ECB Press release, 4 February 2021, Eurosystem agrees on common stance for climate change-related sustainable investments in non-monetary policy portfolios (europa.eu)