


# CENTRAL BANKS AND CLIMATE CHANGE:

## Greening the European Central Bank



Central banks are primarily tasked with managing inflation. Together with other regulatory bodies, they play an important supervisory role, looking to ensure the stability of the banking system. Many also have other objectives, for example the US Federal Reserve has an objective to achieve full employment while the Bank of England has a role in achieving net zero.

While a consensus has been building towards the need for central banks to consider climate change, notably through the work of the Network for Greening the Financial System (NGFS), two approaches have emerged. On the one hand, a growing number of central banks – including the European Central Bank (ECB) – consider climate change is relevant to inflation management. On the other, some central banks – led by the US Federal Reserve – take a narrower approach, focusing on financial risks.

By analysing the ECB's approach and its limitations, we can understand why central banks in general must act on climate change, and how they could become "green" allies for their governments.

# 1. WHY SHOULD THE ECB SUPPORT THE GREEN TRANSITION?

## a. Because its decisions have an impact on climate change and the green transition

Central banks are responsible for managing the monetary system, regulating money supply, and overseeing banking activities. Their policy choices impact financing and liquidity conditions. Therefore, their treatment of green/polluting activities can make these activities significantly cheaper, or more expensive.

More concretely, the European Central Bank (ECB)<sup>1</sup> can either support or hinder the green transition through four major activities:

- **Setting key interest rates:** The ECB's primary monetary policy instrument is setting interest rates for the Euro area.<sup>2</sup> The level of interest rates that banks must pay to central banks directly influences the availability and cost of credit for companies, households and public entities. As the green transition requires "unprecedented large-scale investments"<sup>3</sup> and the cost of capital has a large impact on the financing of climate solutions such as renewable energy or energy efficient building renovation,<sup>4</sup> lower rates can stimulate the green transition<sup>5</sup> by giving sustainable activities a competitive advantage.
- **Determining what assets can be deposited in exchange for refinancing, and under which conditions:** Banks must deposit collateral assets when seeking refinancing from central banks, but not all assets are accepted,<sup>6</sup> and those that are, are not valued equally<sup>7</sup>. The conditions defined for collateral acceptance can have an impact on the liquidity and valuation of assets. A study showed that assets from carbon-intensive companies – including from the fossil fuel sector – not only make up most of the corporate bonds accepted by the ECB but are also considered less risky (and thus more valued) than those from non-carbon intensive companies.<sup>8</sup>
- **Purchasing assets on the secondary market (quantitative easing):** After the 2008 financial crisis, as interest rates were already low and inflation remained below target, central banks started purchasing public and private assets on the secondary market to inject more liquidity.<sup>9</sup> These purchases notably contribute to the valuation of the

ECB interest rate  
for main refinancing  
operations:

0% June 2022  
» 3% February 2023

Source: [European Central Bank](#)

corporate assets bought. Past studies have shown that most corporate purchases are of bonds from high carbon issuers,<sup>10</sup> including fossil fuel companies.<sup>11</sup>

- **Supervising banks and defining prudential expectations:** Together with other financial regulators, central banks must ensure the stability of the financial system. They are especially responsible for overseeing the activities of banks and setting prudential expectations to ensure financial risks are properly managed. How climate risks are estimated impacts the financing of polluting activities by requiring banks to hold more (if riskier) or less (if safer) capital as buffer. Today, the ECB stresses that climate change is an important source of risk and must be considered by banks. However, it evaluates climate-related risks with models that minimize these risks.<sup>12</sup> Consequently, the ECB is yet to require additional capital from banks investing in polluting activities.<sup>13</sup>

## b. Because it is part of its role

The ECB's role, as defined in the Treaty on the Functioning of the European Union, is twofold:

1. The ECB must ensure "price stability" (primary mandate), that's to say keeping inflation around 2%.
2. The EU must support EU policies without impairing price stability (secondary mandate).<sup>14</sup>

In accordance with this definition, the ECB acknowledges that considering climate change is inherently within its mandate.<sup>15</sup> This

assessment is shared by major central banks and regulators worldwide gathered in the Network for Greening the Financial System (NGFS).

Therefore, the question is no longer whether climate change is relevant to the ECB's mission, but rather what level of action is required.

In this regard, the ECB should adopt policies to align all its operations with climate goals and to proactively support the EU transition for two main reasons:<sup>16</sup>

- First, managing the various types of climate-related inflation<sup>17</sup> is necessary to achieve the ECB's primary mandate of price stability. Proactively contributing to a clean energy transition helps reduce and manage price inflation and volatility related to fossil fuel use, thus providing a direct contribution to price stability. Furthermore, supporting a clean energy transition contributes to mitigating climate change, and to achieving a planned and orderly EU transition.
- Second, supporting EU clean energy policies would fulfil the ECB's long disregarded secondary mandate. The ECB is required to support the general economic policies in the Union. Mitigating climate change and supporting the energy transition stands out in this regard due to the macroeconomic effects, the magnitude of the challenge, and the clear international and European goals that have been set.

If the primary responsibility for climate action still lies with governments, the above-mentioned elements highlight the ECB's duty to support these efforts.

**“ A well-planned green transition goes hand in hand with energy security and can also contribute to price stability in Europe. ”**

**ECB Blog, 9 November 2022**

# 2. WHAT DOES THE ECB DO ON CLIMATE CHANGE COMPARED TO OTHER CENTRAL BANKS?

According to the G20 Green Central Banking Scorecard, the ECB is ahead of other major central banks when it comes to integrating climate change, having introduced its first 'climate roadmap' in 2021. However, NGOs have continuously highlighted the limitations of the ECB roadmap,<sup>18</sup> and ECB board member Isabel Schnabel herself recognized that the central bank's climate strategy is insufficient.<sup>19</sup>

The ECB's leadership mainly originates from the fact that central banks have overall made little progress on integrating climate. G20 central banks are now regularly conducting research and advocacy around climate change,<sup>20</sup> but only marginally translate it into changes in their prudential and monetary policy. If the ECB and a few other central banks have only taken the first steps in considering climate-related risks - by publishing recommendations for risk management and

conducting exploratory stress-tests - progress has been even slower when it comes to monetary policy.

Concretely, no G20 central bank achieves a score of more than 20 out of 50 on monetary policy in the Green Central Banking Scorecard. The measures adopted by the ECB on that front are incomplete:

- Measures taken on asset purchases and collaterals do not cut support to major polluters: The ECB followed in the footsteps of the Bank of England to tilt its asset purchases toward "greener" issuers. However, the criteria it chose do not exclude the most polluting companies - or even fossil fuel developers. Furthermore, it is yet to extend its greening approach to its collateral framework. The insufficiency of climate-related measures taken on asset purchases and collaterals have been acknowledged by Isabel Schnabel, but no precise measures have been laid out to remedy them.<sup>21</sup>
- No action has been taken to support the EU green transition: The ECB still shies away from taking more action to lower the cost of capital for green investments. There, it lags behind the central banks of China and Japan that implemented measures to provide lower interest rates for such investments.<sup>22</sup>

**Greening central bank policies could trigger**

**5 to 12% of emission reductions**

Source: [Sustainable Finance Lab](#)

# 3. WHAT WOULD A GREEN ECB LOOK LIKE?

A "green" ECB would integrate climate into all its operations, in order to fully align with with EU climate goals and the objective to keep global warming below 1.5°C in both its monetary and prudential activities.

Concretely, this notably requires adjusting ECB operations with:<sup>23</sup>

- **Dual rates for a green lending facility:** The ECB can set different rates for different types of credit, as happened during the Covid-19 pandemic. It could grant preferential interest rates to channel low or even interest-free loans to green activities. If these were targeted at energy-efficient building renovation, it could help to fight energy poverty and to lower energy consumption.<sup>24</sup> For renewable energy, this could lower the cost of capital.<sup>25</sup>
- **Paris-aligned collaterals and asset purchases:** On one hand, the ECB must exclude companies at odds with climate goals – such as fossil fuel developers – from its asset purchases and collateral framework.<sup>26</sup> On the other, the ECB should reinforce its tilting of corporate purchases and adapt its valuation for

collaterals ('haircuts') to account for the climate impact of companies.

- **Increased prudential obligations and capital requirements depending on the credibility of transition plans and the support to the fossil fuel sector:** The ECB should make the adoption of 1.5°C transition plans by banks a key expectation for banks' risk management and lay out minimum criteria to ensure the credibility of these plans. It should then fully integrate these plans into prudential obligations,<sup>27</sup> thus requiring additional capital to be held when no transition plans have been adopted or when plans do not credibly align with a 1.5°C trajectory. Additionally, the ECB should push for fossil fuel assets to be identified as a significant source of climate risk and be tied to increased capital requirements.<sup>28</sup>

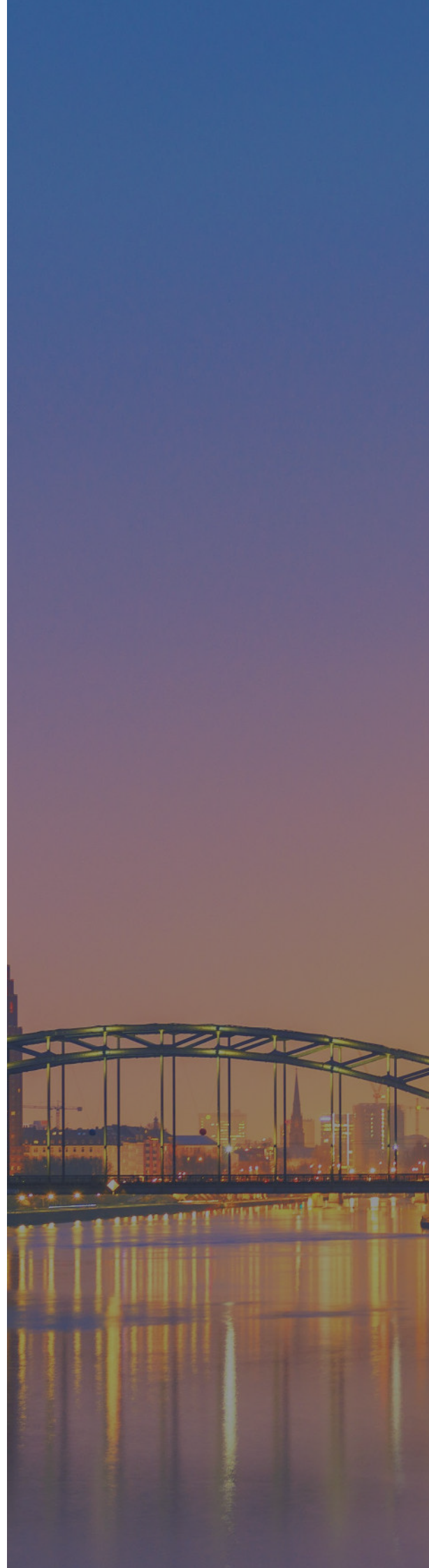
**76% of Europeans**

**agreed that the ECB should support the reduction of energy consumption and the transition to renewable energies**

Source: Survey by YouGov and Reclaim Finance

# QUESTIONS TO ANSWER

1. Given a planned green transition can contribute to price stability and this would fulfil the ECB's secondary mandate, why isn't the ECB supporting it through dedicated monetary measures?
2. Are dual/differentiated rates a tool that the ECB would consider using to support activities at the heart of the energy and ecological transition? Would doing so in the current context of monetary tightening provide a solution to target price stability in the short and longer term, by reconciling higher rates for the overall economy with lower rates for climate mitigation activities?
3. As asset purchases are being phased-out, what measures could the ECB consider to ensure that the decarbonization of corporate sector asset purchases have a tangible impact? Is the exclusion of fossil fuel developers part of the envisioned measures?
4. When reviewing its collateral framework, does the ECB plan on narrowly focusing on climate-related risks or will it also consider climate impact? More precisely, will it integrate criteria related to fossil fuel production and development?
5. What supervisory powers could the ECB activate to ensure the adoption of Paris-aligned transition plans by banks and the coverage of the specific risks posed by fossil fuel activities? Are other prudential modifications outside of the ECB's own remit necessary?



**“ Improving energy efficiency of buildings [...] will make households and companies more resilient to energy price surges by lowering energy consumption of buildings and will, in the medium to long-term, help reduce price sensitivity to volatility in fossil fuel prices. ”**

Opinion of the ECB of 16 January 2023  
on a proposal for a directive on the energy  
performance of buildings

**“ Some of us are also interested in looking at how we can support the financing of the measures needed against climate change [...] I’ve said already before that a green [long term refinancing operation] was interesting to consider. ”**

Christine Lagarde,  
9 June 2022



# Notes and references

1. The ECB acts as central bank for the Eurosystem. ECB decisions are taken by a governing council that gathers ECB boards members – including ECB President Christine Lagarde – and the leaders of the national central banks of the Eurosystem. Eurosystem countries are: Austria, Belgium, Croatia, Cyprus, Estonia, Finland, France, Germany, Greece, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Portugal, Slovakia, Slovenia and Spain.
2. In the Eurosystem, the Governing Council of the ECB sets three key rates for: (1) the main refinancing operations, that enables banks to borrow funds from the ECB against collateral on a weekly basis; (2) the deposit facility, which banks use to make overnight deposits; (3) the marginal lending facility, which offers overnight credit to banks. In the past, and notably during the Covid pandemic, the ECB also extensively relied on long-term loans - including loans at favourable rates – tied to specific lending conditions to businesses and people (the targeted longer-term refinancing operations or TLTROs).
3. Isabel Schnabel, 10 January 2023, Stockholm.
4. In 2021, the cost of capital accounted for 54% of the levelized cost of energy (LCOE) of solar power plants in Europe according to the IEA. If such statistics are not available for renovation throughout Europe, 36% of the Europeans surveyed by Reclaim Finance and YouGov listed the cost of borrowing as an obstacle to conducting energy improvements.
5. For example, the IEA estimated that a 2% reduction in the cost of capital in all emerging market and developing economies would reduce the cumulative clean energy financing costs to reach net zero emissions by USD 15 trillion through to 2050.
6. Central banks apply financial risk criteria to determine collateral eligibility.
7. Central banks apply “haircuts” to the value of assets they accept as collateral. In other words, assets are accepted as collateral at a discounted value. These haircuts are generally used to ensure that the sale of collaterals could potentially cover the loan made.
8. The 2021 study from Yannis Dafermos and al concluded that: “Overall, carbon-intensive companies issue 59% of the corporate bonds that the ECB accepts as collateral, while their overall contribution to EU employment and Gross Value Added (GVA) is less than 24% and 29%, respectively.
9. The ECB has four types of asset purchases (APP) programmes: the corporate sector purchase programme (CSPP), the public sector purchase programme (PSPP), the asset-backed securities purchase programme (ABSPP), and the third covered bond purchase programme (CBPP3). Additionally, the ECB opened a Pandemic Emergency Purchase programme (PEPP) during the Covid-19 pandemic. In January 2023, the ECB held a total 3 252 912 euros under APP, 79% of which were made under PSPP.
10. Several studies identified the high carbon bias of ECB’s corporate asset purchases (see for example Yannis Dafermos and al ; Stefano Battiston and Irene Monasterolo). The ECB itself recognized this during its strategy review process.
11. In 2020, Reclaim Finance identified 38 fossil fuel companies in the ECB corporate asset portfolio. Amid the Covid-19 pandemic, the ECB’s “pandemic” asset purchases also led to a significant increase in fossil fuel holdings.
12. Models are based on past data and events. They are cost optimized and cannot account for the radical uncertainty tied to climate related risks. None of the ECB initiatives to improve the assessment of climate risks - transparency measures (disclosures), scenario analysis and stress testing – will enable it to overcome this structural issue.
13. The ECB set expectations on climate-related risks that must be met by banks by the end of 2024. These expectations aim at ensuring that all supervised banks consider climate change in their operations and risk frameworks. However, for now, it is not tied to any specific capital requirement that would ensure banks hold sufficient capital to shoulder the materialization of climate-related risks. Furthermore, such climate risk expectations do not consider the radical uncertainty inherent to these risks.
14. The European Parliament resolution of 16 February 2022 on the European Central Bank – annual report 2021 emphasizes the legitimacy of calling on the ECB to consider its secondary mandate: “the ECB, as an EU institution, is bound by the EU’s commitments under the Paris Agreement [and] tackling the climate and biodiversity emergency requires the ECB to take an integrated approach that should be reflected in all its policies, decisions and operations”.
15. The ECB underlines that climate change matters to central banks because it affects the economy, banks, and its own exposure to risk.

16. In addition to these two main reasons, contributing to the EU energy transition could also enable the ECB to bypass classic monetary policy trade-offs.
17. As [ECB board member Isabel Schnabel](#) noted on 17 March 2022, there are two types of climate-related inflations. First, fossilflation refers to the “legacy cost of the dependency on fossil energy sources, which has not been reduced forcefully enough over the past decades”. Second, climateflation considers the impact of increasing the number of natural disasters and severe weather events on economic activity and prices. If “greenflation” is often mentioned, it relies on a misleading narrative and is not grounded on empirical evidence. The various types of climate-related inflations and their relevance for the ECB price stability mission and overall mandate is discussed by Reclaim Finance in [a specific report](#) published in September 2022.
18. The limitations of the ECB climate roadmap and the minimum measures to be taken are outlined by NGOs in [a joint paper](#).
19. Isabel Schnabel also noted that a green lending facility could be incompatible with monetary tightening, a comment that ignores several aspects of the ECB mandate.
20. With the exception of [Saudi Arabia](#).
21. Isabel Schnabel, [10 January 2023](#), Stockholm.
22. It is important to note that the benefits of the green lending facilities in China and Japan are limited due to poor implementation in both cases as highlighted by [the Scorecard](#).
23. Other measures could be taken by the ECB, including measures to support the EU transition through [the financing of joint “green” debt](#).
24. For more information on the benefits of energy building renovation and the levers to activate, see the [report from the Unlock coalition](#).
25. In Europe in 2021, the cost of capital accounted for 54% of LCOE of solar power [according to the IEA](#).
26. If the ECB now applies a framework for “greening” its corporate asset purchases, this framework does not specifically exclude companies but rather relies on a tilting approach. The ECB also pledged to limit the share of assets issued by entities with “a high carbon footprint” by the end of 2024, and to ensure the CSRD compliance of collateral issuers by 2026. This timeline for collateral adjustment is slow, and the measures laid out do not exclude big polluters.
27. Requirements regarding the adoption of Paris-aligned transition plans could be integrated to the Pillar II of supervisions. I4CE argues such a requirement could have significant positive impacts for the EU transition.
28. Finance Watch quantified the potential impact of the failure of banks and regulators to consider fossil-related risks in their capital requirements. To avoid such a catastrophic scenario, an international campaign from CSOs calls for the adoption of a “one for one” rule for these assets to protect the planet and financial stability. This proposal has been made at the EU level during the CRR/CRD and Solvency II debates and could lead to the modification of the Pillar I prudential framework.

## Credits

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## **CENTRAL BANKS AND CLIMATE CHANGE: Greening the ECB**

Reclaim Finance is an NGO affiliated with Friends of the Earth France. It was founded in 2020 and is 100% dedicated to issues linking finance with social and climate justice. In the context of the climate emergency and biodiversity losses, one of Reclaim Finance's priorities is to accelerate the decarbonization of financial flows. Reclaim Finance exposes the climate impacts of financial players, denounces the most harmful practices and puts its expertise at the service of public authorities and financial stakeholders who desire to bend existing practices to ecological imperatives.

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