Central banks and climate change: to act or not to act

Both individuals institutions can contribute to the fight against climate change. We, as consumers, can play our part as consumers, for example, by choosing products and services with a smaller carbon footprint. The public sector can play an even bigger role, by incentivising investment to improve energy efficiency and develop cleaner technologies and, above all, by introducing a carbon price. What about central banks? What role can they play? In this article, we focus on how the ECB (within the framework in the context of its strategic review) could incorporate climate criteria into its decision-making processes.

Why central banks should be proactive

Central banks in advanced economices – including the ECB – have price stability as their mandate. Some also set targets for other macroeconomic variables, such as employment. In any case, none includes the fight against climate change among their objectives. However, there is broad consensus that climate change has important implications for the economy and price stability, which central banks cannot ignore. As an example, the greater frequency and severity of adverse weather events could increase volatility in economic growth and price fluctuations. Indeed, some models estimate that the mere expectation of this happening is already affects inflation expectations and reduces the natural rate of interest,[1] limiting the (already scarce) margin that monetary policy has to stimulate the economy. For the euro area, this factor poses an additional challenge for the ECB, as the impact of climate change is different across member states.

Moreover, as the EU treaties command, the ECB shall support the general economic policies in the Union, without prejudice to price stability. Since the fight against climate change is one of the European Commission's strategic objectives (the Green Deal and the Next Generation EU recovery fund are a clear sign of this commitment), the ECB not only could, but should, incorporate climate change into its decision-making processes.

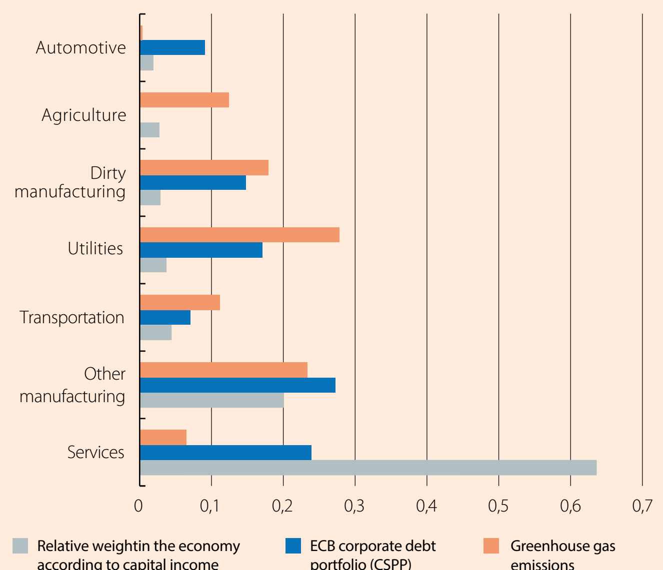
On the other hand, climate risks pose a threat to financial stability. They also pose a threat to the central bank itself, among other reasons because its balance sheet is exposed to climate risks through the sovereign and corporate debt securities it acquires on the market. Thus, in order for monetary policy to be correctly implemented, central banks would also need to properly manage their assets' exposure to climate risks.

Why central banks should not be proactive

There are also arguments against central banks playing an active role in the fight against climate change. On the one hand, it could be interpreted that, by acting in this area, monetary institutions would be overstepping their current mandates. Specifically, while there is broad consensus on the need to tackle climate change in the scientific sphere, it is a political decision. Governments are responsible for collecting society's mandate in this area and, consequently, they are the main players in the sphere of climate policy. In this regard, a central bank taking sides and influencing the allocation of economic resources without a democratic mandate to do so could be perceived as a deterioration of its political independence. Furthermore, a central bank can have only a limited direct impact on emissions.

On the other hand, if a central bank decided to favour assets from less polluting sectors, it could be considered to be in breach of the principle of market neutrality.[2] That said, in Europe, this principle has some caveats. The EU treaty specifies that the ECB should act in accordance with «the principle of an open market economy with free competition, favouring an

Euro area: debt held by the ECB, relative weight in the economy and emissions by sector



Note: *The CSPP (Corporate Sector Purchase Programme) is the ECB's corporate debt security purchase programme. Direct greenhouse gas emissions (Scope 1).*
Source: *Papoutsi, M. et al. (2021). «How unconventional is green monetary policy?»*

1. See A. Dietrich *et al.* (2021). «The Expectations Channel of Climate Change: Implications for Monetary Policy». CEPR Discussion Paper 15,866.
2. Asset purchases should reflect the eligible market in order to ensure that the relative prices of securities in the market are not distorted.

efficient allocation of resources». In this regard, when there is a market failure (such as the lack of internalisation of climate risks in financial asset prices), resource allocation can be inefficient. Following this argument, the ECB's discrimination of assets based on their exposure to climate risks could be coherent with the treaties in that it helps to mitigate a market failure and improve allocation efficiency. Indeed, the current composition of the ECB's corporate debt portfolio does not comply with the principle of market neutrality. In particular, ECB's corporate bond portfolio adequately replicates the full range of eligible bonds, but not the euro area's economic structure.[3] In addition, given the greater participation of emission-intensive sectors in the European corporate bond market, the ECB's corporate bond portfolio has a significant carbon bias.

How could the ECB incorporate the fight against climate change into its mandate?

While central banks can act to help tackle climate change, it seems clear that they should not lead this fight. Instead, they can (within the limits of their mandate) complement the action of governments. In this regard, the ECB has several monetary policy and banking supervision tools at its disposal which it can use to incorporate climate risks into its decision-making processes and operations (see table).

First of all, the ECB could adjust its private asset purchase programme,[4] only acquiring debt from companies that disclose certain climate information or that have a climate rating. This option, on which there is consensus in the ECB's Governing Council, would improve the transparency of climate information and thus help the financial markets to classify issuers and assets according to their exposure to climate risks (thereby facilitating the internalisation of these risks within asset prices).

The ECB could also go a step further and discriminate on the basis of climate risks, showing a preference for the debt of companies that meet certain climate criteria, or excluding issuers and assets that are more carbon intensive (and thus more in conflict with the EU's decarbonisation targets).[5] These measures, while more proactive, would be difficult to implement without consistent disclosure of climate risks by companies, a practice which is still in its infancy and only applies to listed companies. They also raise some controversy within the ECB's Governing Council, for several reasons. Firstly, as mentioned, they could conflict with the

Options for the ECB to incorporate climate criteria into its operations

Monetary policy tools	Credit operations (MRO, LTRO, TLTRO, etc.)	Adjust the interest rate according to the purpose for which the credit is intended (e.g. its degree of alignment with the EU green taxonomy).
		Make access to credit conditional on the purpose of the credit (e.g. its degree of alignment with the EU green taxonomy).
		Make access/interest rate conditional on the composition of the collateral provided (depending on its climate risks).
		Link access to the disclosure of climate information by banks/counterparties.
	Collateral	Expand the eligibility of green collateral (e.g. allowing banks to access an additional tranche of funding).
		Adjust the haircut applied to collateral assets according to the associated climate risk/degree of alignment with the EU green taxonomy.
		Exclude assets based on the issuer's climate risk profile or the intensity of the emissions generated by the underlying assets.
		Alignment of the collateral pool of eligible assets with specific climate targets.
		Link eligibility to the disclosure of climate risks by banks/counterparties.
	Asset purchase programme	Exclusion of more carbon-intensive issuers/assets.
		Adjust the asset purchase programme according to assets' climate risk (greater inclination towards green assets/issuers).
		Link purchases to the disclosure of climate risks by issuers/climate rating.
Banking supervision tools		Adjust banks' capital requirements according to their exposure to climate risks.
		Incorporation of climate risks into the Supervisory Review and Evaluation Process (SPREP).
		Introduction of climate stress tests/climate scenario analyses for the banking sector.
		Requirements for greater transparency in the reporting of climate risks by credit institutions.

Pro-active measure to spur the green transition *Measure to protect against climate risks*

Source: *CaixaBank Research, based on data from the NGFS (2021). «Adapting central bank operations to a hotter world: Reviewing some options».*

3. See M. Papoutsi and M. Schneider (2021). «How unconventional is green monetary policy?». Working Paper.
4. Adjustments to the public sector purchase programme (PSPP) would be more difficult to implement, as the ECB would find it difficult to differentiate between policies and due to the lack of country-by-country climate indicators.
5. Some advanced-economy central banks have already moved in this direction: the Bank of Sweden (Riksbank) only buys bonds from companies that meet international sustainability rules and standards, while the Bank of England recently announced that it would adjust its corporate bond purchase programme to incorporate issuers' climate impact.

principle of market neutrality.[6] Secondly, they are a temporary solution (asset purchases are part of the ECB's expansive policy and theoretically will only be used for a limited time, whereas climate change is a long-term challenge). Thirdly, they could carry a reputational risk for the ECB if issuers turned out to be less green than they report.[7]

The second tool available to the ECB could make adjustments to its credit operations with financial institutions and to its collateral assets in order to favour green exposures, while making brown exposures less attractive. In particular, in addition to making access to finance conditional on the disclosure of climate information, the ECB could also adjust the interest rate of some of these operations depending on what the credit is to be used for. For example, the ECB could launch a green TLTRO financing programme in which the interest rate paid by banks is conditional on an increase in lending to activities aligned with the EU's green taxonomy. Similarly, the ECB could adjust the valuation of the assets presented to it as collateral based on the climate risks it identifies (in fact, the ECB already accepts collateral with different haircuts,[8] depending on the risk profile). Thus, it could assign a smaller haircut to assets that are more aligned with the EU's green taxonomy.

In any event, given the current lack of consistent and standardised corporate information on exposure to climate risks, we can expect the ECB to act with caution and, at least initially, to prioritise ensuring broad disclosure of climate risks by firms and financial institutions. After all, such a practice would contribute to the internalisation of climate risks in asset prices and would serve as a basis for further action in this area.

Finally, in the field of banking supervision, the ECB has already begun to take steps to improve the quality and quantity of the available climate data, as well as the understanding of climate risks and their impact, so that they can be treated as a financial risk. A key measure in this regard is the publication of the ECB guide on climate-related and environmental risks,[9] which focuses on the disclose of climate information by banks, among other aspects. In addition, the ECB has asked banks to draw up action plans to align their practices with the proposals set out in the guide (which will form part of the annual Supervisory Review and Evaluation Process, or SREP). Finally, another key measure is the launch in 2022 of climate stress tests, in which banks will perform a self assessment of their exposure to climate risks and their level of preparedness to address them – although this exercise will not have an impact on banks' capital requirements for the time being.

Roser Ferrer Ripoll and Ricard Murillo Gili

6. Moreover, for now there is still only a limited range of green bonds in existence, so if the ECB were to buy only green bonds, it could not implement its monetary policy properly.
7. The issuance of green bonds does not necessarily translate into lower or decreasing emissions by companies. See T. Ehlers *et al.* (2020). «Green bonds and carbon emissions: exploring the case for a rating system at the firm level». BIS Quarterly Review.
8. A haircut is applied to the value of these assets to mitigate the ECB's liquidity and credit risks.
9. ECB Banking Supervision (2020). «Guide on climate-related and environmental risks».