

Central banks in the CEE-3 countries – Czech Republic (AA/Stable), Hungary (BBB+/Stable), and Poland (A+/Stable) – have undertaken very different approaches to dealing with climate-related challenges, with the Hungarian National Bank tackling them head on. This divergence illustrates how the adaptation of central bank mandates amid calls for a more active contribution to combating climate change continues to be a subject of heated debate among policymakers.

The shift among central banks toward addressing climate change is gaining momentum. Around 70% of 33 central banks and regulatory authorities representing three quarters of global economic output which the Official Monetary and Financial Institutions Forum canvassed - in its 2019 Central Bank and Climate Change survey - viewed climate change as a major risk to financial stability. The European Central Bank sees combating climate change as consistent with its mandate, though exactly how it should do so remains less clear.

Monetary policy and financial stability measures need to reflect the particularities of national economies. In Central and Eastern Europe, the economic and environmental profiles of the CEE-3 have important similarities and differences. The three economies have different economic structures, are exposed to different risks from extreme weather conditions, and have set different priorities for the trade-offs between growth, price, and financial stability. At the same time, all three countries share a low average proportion of renewables in total energy consumption and poor productivity in the resources sector.

Diverging approaches to climate-related challenges in CEE-3 region

Among the region's three central banks, it is the Hungarian National Bank that has incorporated environmental issues most proactively in its policy objectives, actions, and frameworks. The Czech National Bank included climate-related risks in its 2019/2020 annual stability report. The Polish Financial Supervision Authority has so far run scenarios related to the threat of floods and droughts in its stress tests for the insurance sector.

The CEE-3 central banks have undertaken a fast and effective response to the Covid-19 crisis, but only Hungary has seized the opportunity of incorporating environmental issues into plans for supporting a more sustainable "green" recovery from the pandemic.

We see potential implications for sovereign credit risk in these different approaches. We evaluate environmental risks and climate change policies under the stand-alone ESG sovereign risk pillar of our sovereign methodology. In this context, climate-friendly policies are viewed positively. Still, some measures may in some circumstances generate tension with the central banks' primary goals, so trade-offs need to be weighed carefully.

Table 1. Involvement of ECB and CEE-3 central banks in 'green' measures

Policy	ECB	MNB	CNB	PNB
Risk assessment	х	х	х	x
Aiming at own green portfolio	х	х		
Green bonds as collateral, APP	х	х		
Reduced collateral requirements		х		
Reduced capital requirements		х		
Preferential asset purchases				

Source: Scope Ratings and central bank websites.

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Monetary policy helps mitigate near-term risks

EU fiscal programmes support the economies

Climate change climbs up central banks' agenda

Climate change may affect financial and economic stability

Climate issues intrinsic to ECB's price-stability mandate

Varied, but effective CEE-3 central banks' responses to the crisis

Central banks in CEE-3 countries (Czech Republic, Hungary, and Poland) responded to the Covid-19 shock quickly and effectively (see Appendix 1). Common factors among the countries include liquid and well-capitalized financial sectors which cushioned their economies from the shock of the pandemic. However, the central banks have resorted to different monetary policies during the crisis. In Poland and Hungary, central banks bought government bonds in the secondary market, while the Czech central bank refrained from bond purchases. We believe that swift monetary policy and regulatory measures have helped mitigate immediate risks.

Substantial external fiscal stimulus is set to help the effectiveness of monetary policy across the EU, including Central and Eastern Europe. Coupled with regular EU structural and cohesion funding, the CEE-3 countries are on course to receive substantial support through the multibillion-euro Next Generation EU recovery fund, much of which will be available to EU member states in the next two years. The governments will use the extra funds for public investment and to provide greater flexibility in funding the associated projects.

Role of EU central banks in climate change is gaining momentum

Policy makers have typically treated climate change as a long-term risk best addressed by fiscal policy and other measures falling outside of central-bank mandates. This has contributed to the 'tragedy of horizons', with the financial sector focused mainly on short terms profits while improving sustainability requires a long-term perspective. However, the view on the role of the central bank in climate change has changed rapidly in the recent years. In its 2019 Central Bank and Climate Change survey, the Official Monetary and Financial Institutions Forum (OMFIF) found that 70% of respondents viewed climate change as a major risk to financial stability and 55% were already monitoring climate-related risks. Led by efforts of the European Central Bank (ECB) and the Bank of France, other EU central banks have been called on to contribute towards these goals, without compromising their mandate.

The role of central banks in climate change is a subject of heated debate and diverse approaches among policymakers. At one end of the spectrum are the more traditional views, held, for example, by the Czech National Bank, which emphasize that the only legitimate business of central banks is to fight inflation and maintain financial stability. Other than monitoring and mitigating climate-related financial risks, climate change is outside a central bank's remit. At the other end are the central banks already active in this area (e.g., ECB, Bank of France, Hungarian National Bank). Their view is that the need for involvement of central banks in climate change is by now obvious and not addressing it via their policies and frameworks would undermine the central bank's mandate of preserving macro-economic stability and hence its credibility. For example, unexpected extreme weather events could depress aggregate demand and significantly impact prices and output. In this context, several central banks in the Eurosystem are re-examining the principle of neutrality in their corporate-bond portfolios, which reinforces the status quo of reliance on fossil fuels. By not accounting in their balance sheets for the market failure due to climate change, the central banks are increasingly vulnerable to under-priced risk.

When it comes to climate change, the ECB has an implicit but clear mandate, as its secondary objective is 'without prejudice to the objective of price stability, to support the general economic policies and objectives in the Union'. According to EU law, this includes

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¹ The former governor Mark Carney explain these different perspectives in his speech "Breaking the tragedy of the horizon—climate change and financial stability" at Lloyd's of London, 29 September 2015.

² The survey covered 33 central banks and regulatory authorities in six regions, representing 77% of global GDP.



contributing to "the sustainable development of Europe based on [...] and a high level of protection and improvement of the quality of the environment". The ECB interprets this secondary objective of its mandate as a duty, not an option.³ While the Bank is clear on that it wants to be part of the climate challenge solution, it is less clear on methods it should use. The ECB recognises the need for incorporating climate risks in stress-testing and even issued guidelines for the EU banks on this, but it is much more hesitant to play an allocative public policy function and proceed with green asset purchases.⁴

Climate-related financial risks is critical risk management

In Germany, the Bundesbank believes that central banks should factor climate-related financial risks into their risk management, including financial risks arising from monetary policy. In addition, the Bundesbank has said that central banks should purchase bonds or accept them as collateral for monetary policy purposes only if their issuers meet climate-related reporting requirements.⁵

Sustainable growth in some central banks' mandates

Unlike some of their major non-European counterparts (e.g., the US Federal Reserve or the Bank of Japan) which do not have an explicit mandate to pursue climate change-related measures, the Czech National Bank and the Hungarian National Bank operate under mandates that explicitly mention support for sustainable growth (see Table 1, Appendix 1). In contrast, Poland refers to sustainable development in its constitution, but it does not feature high on its policy agenda.

How these mandates are interpreted is another issue. Environmental factors and questions of economic sustainability inevitably have consequences for financial stability and hence supervision as the OMFIF survey showed. In contrast, the link between climate change, inflation and monetary policy is less clear and hence more controversial, especially in light of possible trade-offs between price and financial stability goals.

ECB joined NGFS in 2018

Overall, the view that central banks should incorporate climate objectives has been gaining more momentum among the EU central banks. For example, since 2018, the ECB has been a member of the Network of Central Banks and Supervisors for Greening the Financial Systems (NGFS), an organisation supporting the financial system in managing climate risks and mobilizing capital for low-carbon investments. The ECB is the first central bank to include the fight against climate change in its strategic review (Table 1, Appendix 2). The ECB has outlined how banks should manage climate risks and will conduct its next supervisory stress test in 2022 on climate-related risks. As part of its asset purchase program, the ECB has been investing in green bonds while striving to minimize market distortions. In February 2021, the Eurosystem central banks agreed on common stance on climate change-related sustainable investments in non-monetary policy portfolios.

CEE-3's environmental vulnerabilities vary

CEE-3's exposure to climate risks and the central banks' role

CEE-3 economies have varied economic structures, different degrees of dependence on coal, and are on different levels of development. They have strong industrial bases and rely on power plants. They are exposed to varied risks from extreme weather conditions, access global financial markets on different terms, and have different priorities on growth, price, and financial stability trade-offs. Czech Republic, Poland, and Hungary (to a lesser extent) face among the highest cost of transforming their economies towards renewables use, reflecting their exposures to CO2 and greenhouse gas emissions (Figure 1). All CEE-

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³ Greening monetary policy, blog by F. Elderson, Member of the Executive Board of the ECB, 13 February 2021. www.ecb.europa.eu/press/blog/date/2021/html/ecb.blog210213~7e26af8606.en.html

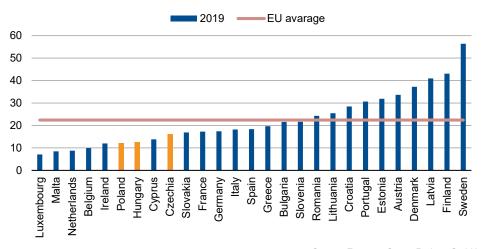
See FT article titled ECB set to disappoint campaigners on climate change from 21 February 2021.

Jens Weidmann: What role should central banks play in combating climate change? Remarks by Dr Jens Weidmann, President of the Deutsche Bundesbank and Chair of the Board of Directors of the Bank for International Settlements, at the ILF Online-Conference "Green Banking and Green Central Banking: What are the right concepts?", Goethe University Frankfurt, 25 January 2021.



3 sovereigns continue to have low average shares of renewables in their respective total energy consumption and poor resource productivity.

Figure 1: Share of energy from renewable resources in CEE-3 and other EU countries, %

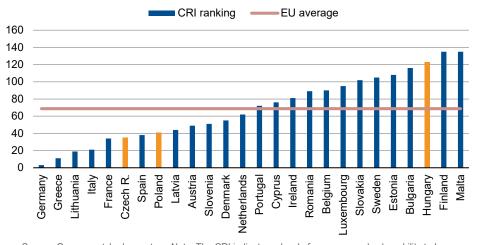


Source: Eurostat, Scope Ratings GmbH

CEE-3 climate-change responses lag rest of EU's

When it comes to addressing climate change overall, the CEE-3 countries lag the more advanced EU economies. According to the German watch Global Climate Risk Index 2020, the Czech Republic and Poland are more vulnerable on average, in terms of economic and human losses, than the rest of the EU to extreme weather events, while risks from such events are milder for Hungary (Figure 2).

Figure 2: Ranking of EU countries by climate risk index (CRI), 2018



Source: Germanwatch observatory. Note: The CRI indicates a level of exposure and vulnerability to Low score means higher vulnerability

GHG-intensive energy sectors

The three countries' energy sectors determine the above-average greenhouse gas intensities in the European context (see Figure 3). A large share of electricity is generated in conventional power plants, mainly using domestic hard coal and lignite. Fossil fuels are also key in household heating, while the energy efficiency of buildings is weak. Growing emissions from the transport sector are impinging on air quality due to a surge in passenger and freight road traffic in recent years. The use of renewable energy in CEE-3 is below the EU average and the sector has been static in the past years. The share is particularly low in the electricity sector, reflecting high administrative burden and technical and legal obstacles to domestic energy generation from renewable resources. Without adaptation, a

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shift to renewable energy sources would also impact CEE-3 exports, which are not only more export dependant, but also their exports have higher carbon footprint than is the case in most other European OECD members (Figure 4).

Figure 3: Greenhouse gas emission intensity of power generation, G CO2 equivalent/kWh, 2016

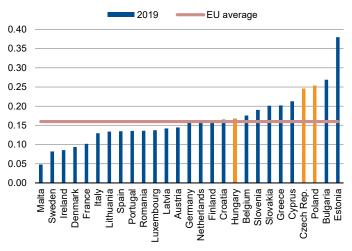
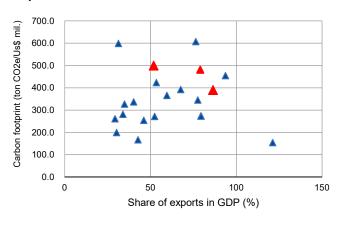


Figure 4. Carbon footprint of exports (tCO2e/US\$) vs. exports of goods and services as share of GDP (%) in European OECD members



Source: Destatis, Scope Ratings GmbH and OECD statistics. Note: CEE-3 countries are marked in red.

Hungary leads with its green economic policy goals

MNB has adopted multiple green initiatives

The Next Generation EU Fund, which aims to support members in greening the economic recovery from the impact of the pandemic, could be a game changer for the CEE-3 group as it presents an opportunity to shift power generation to more sustainable energy sources. A green recovery would reduce the regions' dependency on fossils and enhance the regions' energy security. So far, CEE countries have focused their fiscal responses primarily on supporting households' and firms' income and liquidity, rather than pursuing more environmentally friendly policies. Except for the central bank of Hungary, the countercyclical responses of the National Bank of Poland and the Czech Republic have not been aligned with the goal of green recovery.

The CEE-3 central banks are approaching to climate-related challenges differently. Shortly after joining the NGFS in 2019, the Hungarian National Bank (MNB) began incorporating climate change in its policy objectives, actions, and frameworks. The bank has pursued the more controversial allocative public policy function in mitigating climate change by adopting preferential capital requirements for green corporate financing and incentivising energy-efficient real estate investments through developing a program for purchasing green mortgage bonds. The MNB also supports preferential loans for energy-efficient real estate purchases and investments. The MNB is among the first central banks globally to introduce a green bond portfolio within its foreign exchange reserves (Table 1, Annex II).

Central banks and financial authorities in the Czech Republic and Poland are taking a more measured approach, though the CNB, as a first step, included climate change as an issue in its last annual stability report (2019-20). The Polish Financial Supervision Authority (KNF), responsible for monitoring the stability of the financial sector, has included scenarios including the potential impact of floods and droughts in its stress tests for the insurance sector, but such tests are not used more generally or on a more regular basis. The National Bank of Poland has highlighted research on the financial risks associated with too fast

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ESG sovereign risk pillar in Scope's methodology

transition to renewable energy sources, where entire "brown" sectors could be rapidly destroyed, thus jeopardizing the financial system.⁶

Climate change and sovereign credit risk

Under Scope's sovereign methodology, we evaluate environmental risks and climate change policies (current and likely future ones), both quantitatively and qualitatively under the stand-alone ESG sovereign risk pillar. We measure quantitatively transition risks captured via CO2 emissions per GDP, natural disaster risks as measured by the World Risk Institute and resource risks measured via a country's ecological footprint of consumption relative to its biocapacity. This initial assessment is then complemented with a qualitative view on the sovereign's overall policies to adapt to and address these risks.

The role of central banks, and specifically, their ability to implement their mandates effectively is also assessed in our methodology. Here, we consider the two main goals of the central banks, namely, first, price stability, and second, financial stability and regulations. The former informs the 'domestic economic risk' pillar while the latter is assessed under the financial stability pillar of our sovereign methodology.

Equally important are the central bank's credibility and transparency, informing about the quality of the institutions and ability to maintain a stable macroeconomic environment. Put differently, a credible central bank is a forward-looking indication of a, stable macroeconomic policy framework.

Since climate change is posing risks to price and especially financial stability, it is, in our view, already part of the CEE-3 central banks' mandates to incorporate and assess risks from climate-related challenges in a systematic way. At the same time, pro-active central banks applying reduced capital requirements to green investments should ensure that these are not in fact intrinsically riskier than brown investments. Similarly, be taking extra care that 'green' financial institutions (that is those that support green firms and industries) do not encounter liquidity shortages, the climate-friendly measures may widen the tension between price and financial stability goals. Finally, if central banks get overly involved in debates with their governments on climate change in areas where they are not and cannot be the major players, the investors may perceive them as less independent. When choosing their climate-friendly measures, central banks need to weigh trade-offs carefully.

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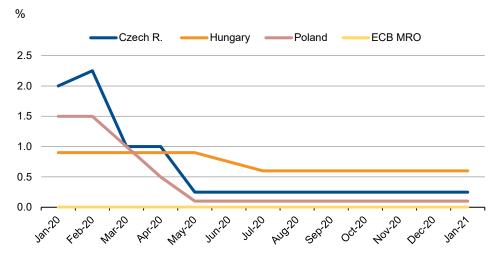
⁶ In her recent speech, President of the ECB Lagarde expressed view that even a disorderly transition scenario with high economic and financial risks is a better overall outcome in the long run than the transition to the low-carbon economy not occurring at all. (C. Lagarde, "Climate Change and Central Banking", Frankfurt am Main, 25 01 2021)



Appendix 1 Macroeconomic Policies in Response to COVID-19 in CEE-3 Countries

Poland: sizeable fiscal support underpins monetary policy, purchase of government bonds In Poland (A+/Stable), the effectiveness of anti-crisis measures is strongly supported by fiscal measures. Poland's fiscal response is among the largest in CEE, amounting to 5.2% of GDP according to IMF estimates. On the monetary policy side, apart from cutting its policy rate markedly from 1.5% to 0.1% (see **Figure A**), the NBP has provided liquidity to the banking sector via repo transactions, discount credit and the purchase of Treasury bonds and government-guaranteed bonds on the secondary market as part of structural operations. The MPC has added a new measure which is extension of structural operations with purchases of debt securities guaranteed by the State Treasury.

Figure A, Appendix 1: Policy rates, CEE-3 and ECB



Monetary policy measures to cushion the Covid-19-induced shock in Hungary

(BBB+/Stable) have been also decisive. Fiscal measures to support the economy are

restricted in view of the limited fiscal policy space and focused initially more on the revenue side. Starting in April 2020, two new funds were created including the Economy Protection Fund. On the monetary policy side, the central bank implemented relatively limited policy

Source: ECB, Scope Ratings GmbH

Hungary: Limited fiscal space constrains fiscal support, purchase of government bonds

rate cuts by cumulative 30bp since May 2020 to 0.6%. In addition, it initiated a repayment moratorium on all private-sector loans, provided additional liquidity to the financial system through an unlimited collateralised lending facility at fixed interest rates, temporary reduction of capital requirements for banks, resumption of its previous lending programmes for the corporate sector, a new lending programme for SMEs and asset-purchasing programmes for mortgage bonds and government bonds.

Czech Republic: sizeable fiscal stimulus and cut in policy rate

In the Czech Republic (AA/Stable), the policy response to support the economy came predominately in the form of fiscal stimulus. Monetary policy support included significant rate cuts and the loosening of some macroprudential measures to support the banking system. A recent amendment to the law governing the central bank provides the option for purchases of additional government debt instruments from a greater number of counterparties in the secondary market in case of orderly market conditions. The Czech National Bank has communicated its outlook for gradual rate hikes, depending on the strength of post-Covid-19 recovery.

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Appendix 2

Table 1, Appendix 2. Sustainability objectives in selected EU central banks' mandates

СВ	Primary objective	Monetary Policy Framework	Sustainability objective	Green CB activities
European Central Bank (ECB)	Price stability	EMU	Without prejudice to the objective of price stability, the ESCB shall support the general economic policies in the Union with a view to contributing to the achievement of the objectives of the Union as laid down in Article 3 of the Treaty on European Union	2018: ECB becomes a member of NGFS. 2020: ECB issues guide (immediately applicable) with its supervisory expectations for banks to incorporate climate-related and environmental risks into their existing internal capital-adequacy assessment process. 2021: The ECB sets up a climate change centre to bring together the work on climate issues in different parts of the bank, reporting to the president.
Banque de France (ESCB)	Price stability	EMU	Without prejudice to the objective of price stability, the ESCB shall support the general economic policies in the Union with a view to contributing to the achievement of the objectives of the Union as laid down in Article 3 of the Treaty on European Union	2017: Banque de France member launches the NGFS. 2018: Banque de France investigates the extra-financial performance of its portfolios and applies Responsible Investment Charter to the management of its assets. 2019: Banque de France publishes Financial Stability Review on the subject of Greening the Financial System 2020: Banks and insureers subject to climate change stress tests. On May 2020, French Prudential Supervision and Resolution Authority (ACPR) launched the climate pilot exercise which intend to measure the physical and transitional risks to which the French banking and insurance establishments are exposed by 2050. 2021: The French central bank said it would exit from coal and limit exposure to gas and oil in its investment portfolio by 2024
Czech National Bank (CNB)	Price stability	IT framework	Without prejudice to its primary objective, the Czech National Bank shall support the general economic policies of the Government leading to sustainable economic growth and the general economic policies in the European Union with a view to contributing to the achievement of the objectives of the European Union.	CNB introduces climate considerations in 2019/2020 Financial Stability Report.
Hungarian National Bank (MNB)	Price stability	IT framework	Without prejudice to its primary objective, the MNB shall support the maintenance of the stability of the financial intermediary system, the enhancement of its resilience, its sustainable contribution to economic growth; furthermore, the MNB shall support the economic policy of the government using the instruments at its disposal	2019: MNB becomes a member of NGFS. 2020: The MPC decided that the MNB will in the future purchase mortgage bonds qualifying for green bond status 2020: MNB introduces preferential capital requirements for green corporate and muncipial financing.
Polish National Bank (PNB)	Price stability	IT framework	The basic objective of the activity of the NBP shall be to maintain price stability, while supporting the economic policy of the Government, as far as it does not constrain the pursuit of the basic objective of the NBP.	

Source: Adapted from Dikau, S. and Volz, U. (2020), 'Central bank mandates, sustainability objectives, and the promotion of green finance', SOAS Department of Economics Working Paper No. 232, London: SOAS University of London.

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