

Policy Brief 2020/1

Shifting Gears: Integrating Climate Risks in Monetary Policy Operations

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The assets central banks purchase and accept as collateral are at the core of monetary policy implementation. Risk considerations play a crucial role in the selection of these assets: central banks seek to limit their holdings and eligible collateral to assets that minimize their risk exposure. Yet, the risk metrics they rely on do not sufficiently reflect climate financial risks. While central banks recognize this shortfall, they have been slow in addressing it. This note proposes four steps for them to shift gears.

As highlighted by the Central Banks and Supervisors Network for Greening the Financial System (NGFS) in its 2018 progress report, “climate- or environmental-related criteria are not yet sufficiently accounted for in internal credit assessments or in the models of credit agencies [...] which many central banks rely on for their operations” (NGFS 2018, p. 9). The consequences of this situation are severe: central banks are more exposed to financial risks than they want to be.

This is particularly inappropriate for central banks’ policy portfolios – i.e. their holdings stemming from the implementation of monetary policy, which constitute the bulk of central banks’ assets.² It is also unsound for the selection of securities that are eligible as collateral.

Indeed, risk considerations are fundamental in the choice of these assets: the standard rule is that, in their monetary policy operations, central banks should only accept securities that meet high risk standards. By neglecting climate financial risks, central banks hold policy portfolios and accept collateral that are less safe than what their own standards deem appropriate.

While central banks recognize this shortfall, they have been slow in addressing it. This policy brief proposes four steps for them to shift gears by:

(1) supplementing the external risk assessments central banks use – e.g. the ratings by credit rating agencies and risk assessments delivered by their counterparties – with existing climate risk analytics;

¹ This policy brief reflects discussions from a series of meetings with European central banks in 2019 on the integration of climate risk analytics into monetary policy operations.

² For example, at the beginning of 2020, ECB’s policy portfolio amounted to EUR 3.3tn (EUR 0.6tn from credit operations and EUR 2.6tn from purchase operations), which represent about 70% of its EUR 4.7tn total assets. See also NGFS (2019b) for an overview of central banks’ portfolios.

(2) integrating climate risk analysis in their in-house risk assessments;

(3) announcing a review of their use of external ratings with the aim to only accept assessments provided by rating agencies that adequately account for climate financial risks;

(4) announcing that their acceptance of counterparties' risk assessments – e.g. internal ratings-based (IRB) assessments – will become conditional on such counterparties having adequate approaches to account for climate financial risks.

MONETARY POLICY OPERATIONS AND CLIMATE FINANCIAL RISKS

Monetary policy operations are mainly of two types: collateralized loans to selected counterparties, typically banks, and asset purchases. In this context, central banks must choose the assets that they accept as collateral for loans, as well as the assets that they purchase.

Risk considerations play a pivotal role in the selection of these assets as central banks typically only accept securities that meet high risk standards. The European Central Bank (ECB), for example, aims to achieve its policy objectives “with the lowest possible risk for the Eurosystem” (ECB 2015), and requires an *investment grade* rating for the assets it purchases and admits as collateral.³

³ More precisely, the ECB only accepts assets with a minimum credit quality of step 3 in its own terminology, which corresponds to an investment grade rating in rating agencies' terminology. In addition, specific requirements apply for asset-backed securities and retail mortgage-backed debt instruments.

⁴ Four ECAIs are used by the ECB: DBRS, FitchRatings, Moody's and Standard & Poor's.

⁵ IRB ratings are computed by banks and correspond to the risk assessment used to determine their capital adequacy requirements.

To make this selection, central banks rely both on internal and external risk assessments. The ECB, for example, uses three sources of information to assess credit risk: two external sources – external credit assessment institutions⁴ (ECAIs), i.e. rating agencies, and counterparties' internal ratings-based (IRB) systems⁵ – and one internal source – the national central banks' in-house credit assessment systems⁶ (ICASs). The ECB is free to choose which source of information it applies to each asset, as well as to combine different sources. In principle, the ECB must consider all relevant information to ensure a security meets its risk standards.

Both the internal and external risk analytics that central banks use are widely recognized as not sufficiently accounting for climate risks (Carney 2015, NGFS 2018 and 2019a, Campiglio et al. 2019). This shortfall has serious consequences. First, it leads central banks to select assets that do not meet their own risk standards.⁷ Second, it introduces biases in the allocation of capital as monetary policy operations accentuate the mispricing of risks and thus slows down the transition to a low-carbon economy (Monnin 2018a).

SUPPLEMENTING EXTERNAL RISK ASSESSMENTS WITH CLIMATE RISK ANALYTICS

Risk assessments from external providers – credit rating agencies in particular – are a core source of

⁶ Eight central banks in the Eurosystem have an ICAS: Deutsche Bundesbank, Central Bank of Ireland, Banco de España, Banque de France, Banca d'Italia, Oesterreichische Nationalbank, Banco de Portugal and Banka Slovenije.

⁷ Monnin (2018b) shows, for example, that when transition risks are added to rating agencies' credit rating, then about 5% of the assets that are currently purchased by the ECB would not be rated as investment grade anymore. These assets would thus not be eligible for purchase according to ECB's own standards.

information for central banks.⁸ However, as highlighted previously, it is widely assumed that these ratings do not adequately reflect climate financial risks. Central banks can and should fill this shortfall by supplementing external risk assessments with additional climate financial risk metrics. Several providers already offer a wide choice of climate financial risk analytics for central banks to target this objective.⁹

In this context, central bankers frequently highlight the lack of consensus on which methodologies are most appropriate to assess climate financial risks. They also argue that central banks selecting one specific methodology would lead financial markets to focus on it. If this methodology proves to be inadequate, such a focus could generate substantial mispricing. In addition, there are worries that current methodologies might give very heterogeneous assessments of climate financial risks for similar assets.

At the same time, ignoring existing climate financial risk analytics for lack of a unified methodology is not an option. Instead, central banks should initiate a comparison of different analytics to better understand, if and why they diverge, and based on that integrate a selection of providers into their risk management frameworks. Such integration of different analytics could be handled in a similar way as central banks currently combine several external ratings. The ECB, for example, takes the best rating from a group of rating agencies as the one determining

eligibility for asset purchases and as collateral. Alternative approaches could be to use the median or an average of the climate risk analytics from different providers.¹⁰

INTEGRATING CLIMATE FINANCIAL RISKS INTO IN-HOUSE ASSESSMENTS

Some central banks also use internal methodologies to assess the risk of the assets they hold or accept as collateral. In the case of the ECB, such ICASs are used to assess credit risk for national non-financial corporations that are not covered by credit rating agencies.¹¹

Central bankers acknowledge that climate financial risks are currently not adequately considered in these internal assessments. At the same time, some argue that there are no obvious choices for which indicators to fill the gap.

To address these concerns, a comparison of different available methodologies to assess climate financial risk would again be an important first step. Central bankers managing internal risk assessments are particularly looking for simple statistics that give an indication of firm exposures to climate financial risks. They have reservations about complex methodologies because they are difficult to implement for firms, which do not deliver sophisticated data – which is the case for the firms they typically oversee. A list of climate financial risk indicators based on solid conceptual ground and used by different providers would be particularly adequate for them.

⁸ This somewhat contradicts the post-crisis *Principles for Reducing Reliance on CRA Ratings* by the Financial Stability Board (see FSB 2010).

⁹ See, e.g., Monnin (2018b) for a survey of the available methodologies on climate financial risk assessment, and for an illustration of how these analytics can be combined with traditional risk analysis.

¹⁰ Combining risk assessment methodologies is not new for central banks (see Tabakis and Vinci 2002).

¹¹ In the Eurosystem, these internal ratings are based on information collected by national central banks (for the Banque de France and the Deutsche Bundesbank) or on public information.

Integrating climate financial risks into internal risk assessments would also require a change in how risk indicators are validated for use. Currently, central bankers test their indicators on historical data. This approach is clearly unsuitable to climate financial risks which are mostly unobserved yet. The use of scenarios and stress tests are key alternatives they should consider.

In addition, enhanced disclosure by firms is vital. To assess climate financial risks, central banks (as well as all other market participants) require adequate information from the issuers of assets they seek to assess. The improvement of disclosure standards on climate financial risks has been at the centre of initiatives led by central bankers in recent years (see, e.g., Carney 2019) and the recommendations of the Task Force on Climate-Related Financial Disclosures (TCFD) have emerged as the standards that central banks typically support.

At the same time, central banks also highlight challenges that the TCFD recommendations pose. They point to the fact that the recommendations are not mandatory and thus prone to deliver incomplete information. To address this issue, it would seem appropriate for central banks to consider making TCFD disclosures a prerequisite for firms that want central banks to accept their assets for their monetary policy operations. This option would foster a wider adoption of TCFD recommendations, as well as providing central banks with the information necessary to assess the climate financial risks of the assets they hold and accept as collateral.

Two further possibilities exist for central banks to fill the gaps in current disclosure. First, they can directly ask firms for the information they need. Some central banks in the Eurosystem, for example, already send questionnaires to the firms they evaluate. Adding questions on the relevant information to gauge financial climate risks is an easy step to take. Second, central banks can mandate an institution to collect this information for them. In Europe, this role could be fulfilled by the European Committee of Central Balance-Sheet Data Offices (ECCBSO). The ECCBSO comprises 30 European central banks as well as further members and observers, and collects data on non-financial corporations to accomplish central banks' functions, including risk assessment. The data that the ECCBSO collects could be extended to incorporate climate financial risks indicators.

REQUIRING THE INTEGRATION OF CLIMATE FINANCIAL RISK IN CREDIT RATING AGENCIES' RATINGS

Central banks extensively rely on credit rating agencies, also referred to as external credit assessment institutions (ECAIs), to assess the risk of assets that are eligible for monetary policy operations. The ECB, for example, uses these ratings for all marketable assets – like, e.g., the bonds that it buys in its Asset Purchase Programs (APP). However, although pivotal in the selection of monetary policy assets, the ratings delivered by ECAIs fall short in reflecting climate financial risks.¹²

One straightforward step to address this shortfall is for central banks to require

¹² See NGFS (2018) and Mathiesen (2018).

credit rating agencies to systematically include climate financial risks in their ratings, or else be dropped from central banks' risk management frameworks. Such a step would not only send an important signal to market participants, but would also be well grounded in central bank views about the key role of credit rating agencies to account for climate risks.¹³ In the case of the ECB, for example, such a requirement would become part of the standards to determine which ECAI ratings are considered suitable for use in its monetary policy operations.¹⁴

Several credit rating agencies are already actively working on integrating climate financial risks in their credit risk assessments. An announcement by central banks that such integration will become a required standard will reinforce and accelerate this trend.

REQUIRING THE INTEGRATION OF CLIMATE FINANCIAL RISKS IN IRB ASSESSMENTS

Some central banks partly rely on risk assessments by their counterparties – i.e. commercial banks. The ECB, for example, accepts an IRB system, if the relevant banking supervisor has authorized it for the calculation of capital requirements for credit risk.

To ensure that counterparties deliver risk metrics that account for climate financial risks, central banks should announce that, after a specified date, they would not accept risk metrics from counterparties that do not have an adequate approach to account for climate financial risks. Consequently, the assets of which risk metrics are based on such approach would not be eligible in monetary policy operations

anymore. This would give an incentive for counterparties to deliver risk metrics that include climate financial risks.

In addition, central banks should work with the Basel Committee on Banking Supervision to make sure the committee's guidelines on IRB systems capture climate financial risks.

CONCLUSION

The recognition among central banks that climate risks are critical to their responsibilities and objectives has grown considerably. Support for action among central bankers has increased markedly. And important first steps have been taken.

Yet, progress towards the integration of climate risk analytics into monetary policy operations remains slow. This is striking for at least three reasons.

First, central banks are putting increasing pressure on the banks they supervise to demonstrate how they account for climate risks on their balance sheets. Yet, they fall short in doing so themselves.

Second, central banks have highlighted that climate risks are currently not sufficiently accounted for in the risk metrics that underpin their monetary policy operations, leaving them exposed to higher risks than what their frameworks deem acceptable. It is questionable whether leaving this shortfall unaddressed is commensurate with their fiduciary duty to protect their balance sheets from risks.

Third, in 2010, in response to the financial crisis, the Financial Stability Board issued principles for reducing reliance on external ratings and urged to “end mechanistic reliance by market

¹³ See, e.g., Coeuré (2018) and Weidmann (2019).

¹⁴ See ECB (2016, Box 3).

participants [on external ratings] and establish stronger internal credit risk assessment.”¹⁵ Nonetheless, external credit ratings remain at the core of monetary policy operations and are pointed to as anchors that must be adhered to.

Integrating climate risks in monetary policy operations is critical and urgent. It is time to shift gears.

¹⁵ FSB (2010).

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