

The global transition requires *adaptive and forward-looking frameworks*

THE CASE FOR REFORMING INTERNATIONAL PRUDENTIAL FRAMEWORKS

Faith Hammond, Kate Levick, Salvatore Serravalle

A delayed global transition is a potential source of long-term financial instability. However, private capital is not being mobilised fast enough to mitigate that risk, particularly for developing countries. Mobilising private finance at the scale needed to achieve \$1.3 trillion annually for developing countries by 2035 will require a more agile and smarter financial system. This will need to include ensuring an international prudential framework that is forward-looking and adaptive, and which reflects the evolving risk profile of investments in emerging and developing economy (EMDE) assets, such as green infrastructure, and the benefits of co-financing with multilateral development banks (MDBs) and development finance institutions (DFIs).

In 2026, the traditional forums including the Basel Committee, Financial Stability Board (FSB) and G20 Finance Ministers may not be able to make progress on this agenda. Alternative forums including the Circle of Finance Ministers and the upcoming French G7 Presidency take on renewed significance as spaces in which longer term reforms to the international financial architecture can be discussed and supported.

Executive summary

Climate change poses significant macroeconomic risks, including GDP drag from extreme weather events, inflationary pressures¹ particularly via agricultural commodity prices and fossil fuel price volatility. These risks are increasingly likely to transform into risks for financial stability, including through asset repricing under stress scenarios² leading to systemic liquidity stress and operational failures. These effects are international and felt across borders.³ Access to affordable financing for the transition is therefore essential to support longer-term financial and macroeconomic stability.

At COP29, countries agreed to a stretch climate finance goal (the New Collective Quantified Goal [NCQG]) of \$1.3 trillion for developing countries by 2035, half of which will have to come from private finance.⁴ However, in 2023 private finance flows only reached \$42 billion.⁵ While only forming part of the puzzle, a key question in addressing this gap is whether the current financial regulatory framework adequately reflects the risk profile of investments. Addressing this question is critical, as misaligned risk assessments can distort capital allocation and hinder the flow of sustainable finance where it is most needed.

This policy briefing argues that central banks and international financial standard-setting bodies should better integrate climate risks into prudential policy decision-making, to send strong market signals and unlock macro-critical sustainable investment into EMDEs. It also makes practical recommendations focused on short- and long-term actions aimed at reforming international prudential regulation to better address climate change as a source of long-term financial instability.

The world needs a more adaptive and forward-looking international prudential framework that better reflects climate-related financial risks and addresses clear gaps between the cost of financing and the risk profile of green infrastructure investments in developing countries. Through these measures, particularly the appropriate treatment of green infrastructure, there is potential for tripling or quadrupling private investment flows to transition projects in EMDEs.⁶

¹ Heinen, Khadan and Strobl (2019), [The price impact of extreme weather in developing countries](#); Parker (2018), [The Impact of Disasters on Inflation](#)

² D'Orazio, Schmidt and Dirks, South African Reserve Bank Working Paper Series, August 2025, [Climate-related transition risks in Southern African banks: financial exposure and policy implications](#)

³ Bank of England, January 2025, [PRA Climate Change Adaptation Report 2025](#); NGFS Technical Document, October 2024, [Climate change, macroeconomy and monetary policy](#)

⁴ IHLEG on Climate Finance, November 2024, [Raising ambition and accelerating delivery of climate finance - Third report of the IHLEG](#)

⁵ CPI, [Global Landscape of Climate Finance 2025](#)

⁶ International Chamber of Commerce policy brief, June 2025, [How to Finance the Emerging Climate Opportunity](#)

E3G's recommendations

Recommendation 1: Central banks, supported by the FSB, should cooperate across borders and sectors to improve climate scenario analysis and stress testing

The FSB should build on the work undertaken in designing its analytical toolkit for assessing climate vulnerabilities⁷ to:

- ▶ Account for international and cross-sector spillover effects and understanding specific EMDE contexts;
- ▶ Support central banks in developed economies in working closely with counterparts in developing economies, across borders and sectors, to support the development of global capacity-building for scenario analysis and stress testing.

Recommendation 2: Countries should work in the short term towards longer-term goals that include strengthening the evidence base and working towards adjusting existing multilateral frameworks

Collaboration between national supervisors and regulators in the shorter term should support the achievement of longer-term goals. These goals should include:

- ▶ Ensuring that the FSB includes in its annual work programme the expansion of its work on climate-related vulnerabilities for specific EMDE contexts;
- ▶ Enabling the FSB, the International Association of Insurance Supervisors (IAIS) and national authorities to support cross-border and sector collaboration to develop scenario analysis and stress testing to properly account for the impact of climate risk on firms' balance sheets and financial system stability and to support transition planning;
- ▶ Developing a stronger evidence base on the relative safety of green infrastructure assets, particularly within EMDEs and the inefficiencies of the design of capital charges under international prudential regulatory frameworks;
- ▶ Work towards a review of global risk weights by the FSB and a review of the Basel framework by the Basel Committee on Banking Supervision (BCBS), with areas to consider including: the potential development of a dedicated infrastructure asset class, recalibration of risk weights as they apply to projects in EMDEs, preferential treatment for green infrastructure projects, and adequate reflection of the positive credit risk effect of the presence of MDBs and public development banks (PDBs) as counterparties.

⁷ FSB, January 2025, [FSB develops analytical framework and toolkit to assess climate-related vulnerabilities](#)

Recommendation 3: Given expected limitations on some multilateral finance forums in 2026, countries should work together through new and additional forums

In 2026, a range of additional forums should be used to progress this agenda, ensuring the continuation of the important technical work needed to support long-term reform of the international financial system. Key spaces are likely to include:

- ▶ The Circle of Finance Ministers;
- ▶ Coalition of Finance Ministers for Climate Action;
- ▶ Network for Greening the Financial System (NGFS);
- ▶ The 2026 G7 Finance Track, supported by the NGFS and the 4P Eminent Persons Group.

Background

Climate change introduces complex and systemic macroeconomic risks that directly affect financial stability, especially in vulnerable EMDEs⁸

The NGFS has undertaken significant work to develop scenarios (including most recently its first vintage of short-term scenarios) that model how both physical and transition risks can impair financial asset values, disrupt credit markets, strain fiscal resources and weaken overall economic performance. These effects are not felt solely domestically nor confined to particular sectors but are amplified across borders and value chains. This increases the risk of liquidity stress, amplifies sovereign debt vulnerabilities and challenges the resilience of financial institutions.⁹ Addressing these broader risks is essential for safeguarding long-term economic stability and ensuring that financial systems are equipped to support a just and orderly transition.

These macroeconomic effects are particularly acute for EMDEs

These risks have direct implications for financial stability, particularly in lower income countries where climate vulnerabilities are more acute and institutional capacity to manage shocks is often limited. Work undertaken by both the FSB¹⁰ and the OECD¹¹ shows that for

⁸ South African Reserve Bank, August 2025, [Climate-related transition risks in Southern African banks: financial exposure and policy implications](#); FSB, January 2025, [Assessment of Climate-Related Vulnerabilities - Analytical framework and toolkit](#)

⁹ E3G, September 2025, [Climate change as a macroeconomic risk multiplier](#)

¹⁰ FSB, January 2025, [Assessment of Climate-Related Vulnerabilities - analytical framework and toolkit](#)

¹¹ OECD, June 2025, [Supporting emerging markets and developing economies in developing their local capital markets](#); OECD, August 2025, [The macroeconomic implications of extreme weather events](#)

EMDEs, the adverse macroeconomic impacts from climate, including weather-driven commodity price inflation and the climate-sovereign debt nexus,¹² accompany and are exacerbated by pre-existing risks. Limited domestic capital markets, combined with commodity-reliant economies, means that these economies are less able to deal with climate-related shocks. These shocks range from exogenous food price shocks and the inflationary effects of extreme weather events to the application of climate trade policies such as the Carbon Border Adjustment Mechanism.¹³ While being more vulnerable to financial volatility, these countries are also often the first to feel the effects of “flight to safety” behaviour, compounding these effects.

These effects are international and systemic

At the same time, due to the interconnectedness of the financial sector and supply chains in the real economy, it is increasingly recognised that a strong transition in EMDEs is essential for global financial stability. This has been seen particularly clearly through the international spillover effects from extreme weather events on commodity prices for advanced economies as net importers of agricultural products.¹⁴ This is then transmitted, via feedback loops, from the real economy to the financial system through impacts on bank lending and availability of insurance coverage. These systemic vulnerabilities make financing mitigation and adaptation in EMDEs critical for both the global transition of the real economy and global financial stability. As global financial and supply chain integration continues, both advanced markets such as London and EMDEs are increasingly vulnerable to spillovers from climate-related financial disruption.

At a high-level this can be transmitted through the general dampening effect of a delayed transition on economic productivity and GDP, thereby impacting lending and insurance availability,¹⁵ while also through agricultural commodity price shocks and the impact of future pandemics on supply chains. For example, while EMDEs are the first to feel the effects of “flight to safety” behaviours, advanced economies increasingly rely on importing agricultural and mining products from the rest of the world. These supply chains could be impacted where climate-related shocks manifest across several developing countries or at the same time as other significant macroeconomic events.

¹² E3G, July 2024, [Breaking the cycle of risk: Addressing resilience and debt for a new global financial architecture](#)

¹³ South African Reserve Bank, August 2025, [Climate-related transition risks in Southern African banks: financial exposure and policy implications](#)

¹⁴ NGFS, October 2024, [NGFS Technical Document: Climate change, macroeconomy and monetary policy](#)

¹⁵ World Bank, June 2021, [Climate-Related and Environmental Risks for the Banking Sector in Latin America and the Caribbean: A Preliminary Assessment](#)

Why prudential reform matters

Prudential frameworks need to better support internationally active financial institutions in managing systemic vulnerabilities resulting from climate change. There are areas where current frameworks: (i) do not adequately support the development of effective financial policy to address climate risks (such as financial safety nets); (ii) institutionalise systemic shortcomings in credit rating methodologies; and (iii) lag behind the evolving risk profiles of green infrastructure projects in EMDEs. While climate change can exacerbate existing macroeconomic vulnerabilities, established challenges experienced by EMDEs, such as economic volatility, currency fluctuations, weak legal and regulatory frameworks and political volatility, are increasingly manageable¹⁶.

The role of central banks and supervisors

Addressing the financial stability implications from climate change is evidently in line with central banks' core mandate. This includes both the incorporation of climate risks into scenario analysis and transition planning within prudential frameworks, and financial stability surveillance of the financial sector undertaken by both the FSB and national authorities. The methodologies and scenarios utilised within these exercises will need to evolve to properly incorporate the impact of compounding risks and tipping points, and may need to be developed to incorporate how climate dynamics could influence inflation, economic productivity, and financial intermediation over time. This could include the development of appropriate reverse stress testing, and new modalities for cross-border and cross-sectoral cooperation.

Currently a substantial proportion of the required global climate investment relates to infrastructure. There is increasing evidence that shows there are gaps between risk perception and actual risk of investing in these projects. Therefore, the treatment of these assets in developing countries under Basel in particular, more specifically the calibration of Risk Weights, may not accurately reflect historic risk profiles.

However, while rationale and development requirements are clear, narrow interpretations of central bank mandates which do not account for the role of the global climate transition in preserving financial and price stability, are hampering the pace at which climate risk is integrated into prudential frameworks.¹⁷

¹⁶ OECD, 2025, [Mobilising private finance for development, climate and biodiversity in emerging markets and developing economies](#)

¹⁷ NGFS, November 2024, [Synthesis report on the greening of the financial system](#)

Gaps in the climate information architecture

When central banks and financial supervisors use scenario-based tools to assess how climate-related risks could impact asset values, capital buffers, and credit portfolios, they provide clear signals to markets about where there is the need and the opportunity for investment. Risks can be both acute (extreme weather events can put considerable strain on governments' fiscal space, particularly in EMDEs where insurance protection gaps are larger) and chronic.

The World Bank has supported individual countries in assessing macroeconomic and financial stability vulnerabilities resulting from nature degradation, for example in countries such as Brazil and Malaysia, including analysing exposure of bank credit portfolios to ecosystem collapse.¹⁸ Meanwhile, the FSB's analytical framework is aimed at enabling more consistent identification and comparison of climate vulnerabilities across jurisdictions, which can enhance transparency and allow firms to better price risks and opportunities. This encourages capital reallocation towards low-carbon sectors and reduces risk perceptions that deter long-term investment.

The risks identified by these exercises are taking on an increasingly international dimension, emphasising the spillover effects from more integrated financial systems and supply chains. Therefore, as these dynamics develop alongside the compounding effects from climate change and increasing risk of tipping points being reached, prudential frameworks must evolve to be more adaptive and forward-looking.

Both the G7 Finance Ministers' 2024 Stresa Annex and the FSB analytical framework call for the supervisory use of forward-looking metrics such as scenario analysis and transition planning. These metrics should support investment into credible net-zero pathways and should, through exposure and transition risk indicators, operate to flag emerging vulnerabilities within financial systems. In this way, central banks and regulators can support the implementation by other national authorities of investable, science-backed NDCs.

However, the existing scenarios used by firms and regulators have received significant criticism both from academia and industry participants, e.g. due to limitations in how they address tail risks and cascading risks. The current suite of scenarios in use need to evolve further if they are to adequately support the identification of financial vulnerabilities, provide effective market signalling, and lead to the development of effective financial safety nets. This will include updating the models to ensure they can handle compounding

¹⁸ World Bank, August 2021, [Policy Research Working Paper, 9759: Nature-related Financial Risks in Brazil](#); World Bank and Bank Negara Malaysia, March 2022, [An Exploration of Nature-Related Financial Risks in Malaysia](#)

risks, integrating with existing natural catastrophe modelling capabilities and understanding of international spillover effects.

Recommendation 1: Central banks, supported by the FSB, should cooperate across borders and sectors to improve climate scenario analysis and stress testing

Central banks in developed economies should work closely with counterparts in developing economies, across borders and sectors, to support the evolution of capabilities and develop global capacity-building for scenario analysis and stress testing, as well as transition planning. This should be focused on:

- ▶ Strengthening the inclusion of climate risk in the Financial Stability Surveillance Frameworks by international forums (such as the FSB) and national authorities to support better understanding of climate-related financial vulnerabilities in EMDE contexts;
- ▶ Continued development by the NGFS and its members of climate scenario analysis and stress testing capabilities to include compounding risks and tipping points, as well as reverse stress testing.

Reforming the prudential treatment of cross-border project financing for green infrastructure

Beyond the role of scenario analysis and stress testing, prudential regulation can have an important but unseen impact on the shape and size of financial flows into particular sectors or countries. It can do this through a number of channels, including through the way in which the credit risk of non-OECD countries and MDBs is reflected under Basel III, which in turn influences the cost of capital for investments in those countries. Investments are particularly needed into green infrastructure in EMDEs: private sector investment in infrastructure in low- and middle-income countries remains below pre-pandemic levels.

There is an evidence base suggesting that the treatment of certain investments under Basel does not necessarily reflect their real credit risk. This evidence has been developed by initiatives such as Global Emerging Markets (GEMs),¹⁹ the Global Infrastructure Hub²⁰ and Moody's,²¹ as well as being supported by anecdotal evidence including that gathered by the ICC through a survey of its members.

¹⁹ World Bank Group, March 2025, analysis completed by the IFC of the GEMs database to [assess whether emerging market risks for private investors are overstated](#)

²⁰ Global Infrastructure Hub, [Infrastructure Monitor 2024](#)

²¹ Moody's, [Emerging Markets Insights: Default and recovery rates for project finance bank loans, 1983-2020](#)

The calibration of existing capital requirements under Basel III relies on the assessment of the risk profile of specific assets (which are divided into particular asset classes) based on historical data that looks at credit, market and operational risks. Infrastructure and project finance are not currently assigned a specific asset class, meaning that from a risk perspective they are largely treated the same as lower quality corporate debt.²² Meanwhile, projects that are able to achieve a rating experience a phenomenon known as the ‘sovereign ceiling’, which limits their rating to that of the sovereign. This results in blanket capital requirement approaches that are not adequately tailored to asset performance.

According to analysis by the Global Infrastructure Hub, infrastructure debt consistently outperforms non-financial corporate debt across key credit risk metrics, including long-term default rates, across all country groupings. This improves again when comparing green with non-green infrastructure and including the presence of an MDB or PDB as a counterparty.²³ Infrastructure equities also consistently provide higher returns with lower volatility than other equities. While recovery rates have been slightly lower for green infrastructure projects, this effect is likely to be reduced as key industries, such as renewables, mature. Restructuring processes should improve and access to tailored insurance and guarantee products should increase.

Central bank and national authorities’ analysis of Basel III implementation is key to supporting the financial services sector in managing its exposure to financial stability risks. But, Basel III does not sufficiently recognise delayed global transition as a source of financial stability risk and therefore the potential impacts of these frameworks on cross-border green finance flows to EMDEs. There are already examples of microprudential tools, such as supporting factors, being used to promote investment aligned with economic objectives. These include the Infrastructure Supporting Factor applied successfully in both the EU and UK to encourage investment in infrastructure. This prior practice has led to the development of a significant base of technical analysis of the micro- and macro-economic impacts of applying such a supporting factor. Such approaches have previously been strongly supported by banks which have highlighted that similar adjustments would operate as an important realignment of incentives within prudential regulation to encourage increased investment in green projects in EMDEs.²⁴

However, a strong evidence base will be needed in order to support a review of the global pricing of risk weights and assess the impact on cross-border flows. Work is needed to close existing data gaps and increase transparency, including gathering detailed data on default rates at the project level, such as through the augmentation and publishing of the

²² OECD, 2025, [Mobilising private finance for development, climate and biodiversity in emerging markets and developing economies](#)

²³ Global Infrastructure Hub, Infrastructure Monitor 2024, Section 3, [Financial performance of infrastructure investment](#)

²⁴ EBA, November 2022, [Report on the Application of the Infrastructure Supporting Factor](#)

GEMs database and the development of local databases. This data could then support the refining of risk weights applied to infrastructure projects, including through the application of dynamic risk weights that better reflect risks at the pre- and post-operational stage.

Any review of the pricing of global risk weights should sit with the FSB. Therefore, to gain forward momentum on this issue, member supervisors and central bank governors would need to collaborate to ensure its inclusion within the FSB's annual work programme. A similar call was included in early drafts of the FFD4 Outcome Document, but did not make it into the final version, which may reflect tensions between FSB and BCBS members in relation to regulation and climate change.

The 2026 French G7 Presidency will offer a further opportunity to put this issue back onto the FSB's agenda. The expected focus of the French Presidency on deepening partnerships with EMDEs, and its strategy to engage countries from the BRICS bloc, may for example provide an avenue for ensuring the continuation of the work of the COP30 Circle of Finance Ministers including on this topic.

Recommendation 2: Countries should work in the short term towards longer-term goals that include strengthening the evidence base and working towards adjusting existing multilateral frameworks

Collaboration between national supervisors and regulators in the shorter term should support the achievement of longer term goals. These goals should include:

- ▶ Ensuring that the FSB includes in its annual work programme the expansion of its work on climate-related vulnerabilities for specific EMDE contexts;
- ▶ Enabling the FSB, IAIS and national authorities to support cross-border and sector collaboration to develop scenario analysis and stress testing to properly account for the impact of climate risk on firms' balance sheets and financial system stability and to support transition planning;
- ▶ Developing a stronger evidence base on the relative safety of green infrastructure assets and the inefficiencies of the design of capital charges under international prudential regulatory frameworks.
- ▶ Work towards a review of global risk weights by the FSB and a review of the Basel framework by the BCBS, with areas to consider including: the potential development of a dedicated infrastructure asset class, recalibration of risk weights as they apply to projects in EMDEs, preferential treatment for green infrastructure projects, and adequate reflection of the positive credit risk effect of the presence of MDBs and PDBs as counterparties.

Recommendation 3: Given expected limitations on some multilateral finance forums in 2026, countries should work together through new and additional forums

In this briefing we have identified a number of areas where collaboration is required across borders, including in multilateral forums, and where additional technical work is needed.

However, the political and practical forward pathway for meeting these needs is unclear.

2026 will be a key moment in the evolution of the sustainable finance agenda at the multilateral level. Under the US G20 Presidency, it is anticipated that the Sustainable Finance Working Group will be disbanded. The French G7 Presidency under President Emmanuel Macron, is also expected to major on deepening partnerships with developing countries, with a focus on issues such as debt sustainability and food security. This creates a strategic opening for France to step in and lead ongoing work on reforming the global financial architecture to better address climate risks under its G7 Presidency.

The FSB and BCBS have both signalled that future policy work on climate risk is unlikely in the near-term. Therefore, greater reliance will be placed on the technical work undertaken by the NGFS, the priorities of the 2026 G7 Finance Track and other forums which can create space for an emerging coalition of the willing on these topics.

A new leadership group has emerged through Brazil's convening of the COP30 Circle of Finance Ministers around the Baku to Belém Roadmap, but it is not yet clear whether the Circle's work under the COP31 Presidency will continue.

In 2025, a range of additional forums should be used to progress this agenda in the short term, ensuring the continuation of the important technical work needed to support long-term reform of the international financial system. Key spaces are likely to include:

- ▶ Circle of Finance Ministers;
- ▶ Coalition of Finance Ministers for Climate Action;
- ▶ Network for Greening the Financial System;
- ▶ The 2026 G7 Finance Track, supported by the NGFS and the 4P Eminent Persons Group.

Conclusion

Central banks and supervisors are uniquely positioned to act as conduits between climate science and economic actors. With access to granular data on firm exposures, they can help create an enabling environment for financial institutions to support the transition of the real economy – both domestically and internationally – while mitigating climate-related financial instability.

The Banque de France, as host of the NGFS Secretariat and in support of France's 2026 G7 Presidency, is well-placed to convene dialogues between finance and environment ministries and central banks, especially on emerging systemic risks such as the international spillover effects of extreme weather events on financial stability. Such work by France would need to be supported by effective coalitions of the willing who can carry on the technical work initiated under the G20 Sustainable Finance Working Group and potentially support a bridge over to future G20 presidencies.

ABOUT E3G

E3G is an independent think tank working to deliver a safe climate for all.

We drive systemic action on climate by identifying barriers and constructing coalitions to advance the solutions needed. We create spaces for honest dialogue, and help guide governments, businesses and the public on how to deliver change at the pace the planet demands.

More information is available at www.e3g.org

COPYRIGHT

This work is licensed under the Creative Commons Attribution – NonCommercial – ShareAlike 4.0 License.

© E3G 2025

AUTHORS

Faith Hammond is a Senior Policy Advisor in our Global Macro and Financial Resilience team. Within the Global Macro and Financial Resilience team Faith focuses on the role of regulators and central banks in supporting the global transition to Net Zero.

Kate Levick is E3G's Associate Director of Finance and Resilience, she leads E3G's activities on financial system reform, climate risk, and resilience across jurisdictions and at international level.

Salvatore Serravalle is Programme Lead for Global Macro and Financial Resilience. In this role he leads initiatives aimed at enhancing financial systems and macro-budgetary policy to accelerate the global transition to a low-carbon future.