

### **T7** Task Force Sustainable Economic Recovery

# POLICY BRIEF SCALING UP SUSTAINABLE FINANCE TO ENABLE SUSTAINABLE ECONOMIC RECOVERIES

#### 30.04.2022

Ulrich Volz SOAS, University of London & German Development Institute / Deutsches Institut für Entwicklungspolitik (DIE) Kathrin Berensmann German Development Institute / Deutsches Institut für Entwicklungspolitik (DIE) Simon Dikau Grantham Research Institute on Climate Change and the Environment, London School of Economics and Political Science Stephany Griffith-Jones Initiative for Policy Dialogue at Columbia University Irene Monasterolo EDHEC Business School and EDHEC-Risk Institute

Anthony Lacavaro People Centered Internet



GERMA

## Abstract

To enable sustainable recoveries from Covid-19 and meet the goals set out in the Paris agreement and in the Agenda 2030 for Sustainable Development, the global financial system needs to be rewired. Finance needs to properly account for sustainability risks and impacts, and it needs to be aligned with internationally agreed sustainability goals. To scale up sustainable finance and align all financial flows with climate and sustainability goals, this policy brief makes ten recommendations for the G7: (1) Intensify efforts to develop, align and implement science-based sustainable finance taxonomies across the G7. (2) Make disclosures of climate-related risks and opportunities mandatory for all publicly quoted companies, large private companies, and supervised financial institutions and introduce a harmonised standard across the G7. (3) Make the publication of net-zero transition plans mandatory for all publicly quoted companies, large private companies, and supervised financial institutions. (4) Introduce and advance mandatory climate stress testing. (5) Adjust prudential frameworks to account for climaterelated and other environmental risks. (6) Decarbonise the portfolios and operations of all public financial institutions and central banks. (7) Enhance the role of national development banks (NDBs) and explore options for creating new NDBs to scale up financing for the SDGs. (8) Harness the potential of digital finance to scale up sustainable finance and investment and strengthen citizen-centric finance. (9) Promote the issuance of sustainability-linked and just transition bonds. (10) Scale-up sustainable and climate finance for developing countries.



# Challenge

Germany's G7 presidency has made coordinated and ambitious climate action its central priority. Besides carbon pricing, the Finance Track is focusing on international climate finance, sustainable financing to conserve biodiversity, and strengthening sustainable finance in the international financial system (G7 Germany 2022). The economic shock caused by the Covid-19 pandemic and the resulting fiscal challenges threaten to set back the climate and sustainability agendas. To enable sustainable recoveries from Covid-19 and meet the goals set out in the Paris agreement and in the Agenda 2030 for Sustainable Development, the global financial system needs to be rewired. Finance needs to properly account for sustainability risks and impacts, and it needs to be aligned with internationally agreed sustainability goals.

One the one hand, there is an urgent need to massively scale up sustainable finance through investment in climate-resilient infrastructure, low-carbon technologies, and other areas to achieve the SDGs and a just transition. For instance, the International Renewable Energy Agency estimates that US\$5.7tn in annual investment is needed every year until 2030 for solar, wind and other forms of clean power to ensure that global warming does not exceed "dangerous thresholds" (IRENA 2022).

On the other hand, the financial system needs to stop financing companies that engage in harmful activities that worsen environmental degradation and the climate crisis, and undermine the achievement of the internationally agreed sustainability goals. Although the importance of environmental, social and governance (ESG) risks has been widely recognised and ESG investments have bourgeoned, there is a prevalent problem in finance with "greenwashing", i.e., the practice of providing misleading claims of the supposed environmental impact of financial asset. Moreover, while a growing number of financial institutions have pledged to align their portfolios with "net-zero", finance continues to flow into areas that are clearly undermining the climate goals. In 2021, major global banks provided US\$742bn in financing to coal, oil and gas companies (RAN 2022). Since the signing of the Paris Agreement in 2016, the world's 60 largest banks have provided a total of US\$4.6tn to financing fossil fuels. Global financial institutions also continue to fund activities that drive deforestation and land-use change, major sources of global carbon emissions and important drivers of biodiversity loss. Between March 2015 and October 2020, 150 financial institutions provided around US\$5.5 trillion of capital to the 350 companies with the greatest exposure to tropical deforestation (Forest 500 2022). Many of the financial institutions funding fossil fuel exploitation or deforestation globally are headquartered in G7 countries.

While the volumes of green and sustainable lending and investment have increased substantially over recent years, financial markets are far from being aligned with climate and sustainability goals. As highlighted in the *G20 Sustainable Finance Roadmap*, agreed by the G20 under the Italian Presidency, the emerging rules, frameworks and architecture for sustainable finance are fragmented and need to be internationally better aligned to increase the integrity of markets (G20 SFGW 2021). Empirical evidence suggests that banks increase their cross-border lending in response to higher climate policy stringency in their home countries (Benincasa et al. 2021). It is hence important that G7 countries not only work towards a global consensus for basic sustainable banking and finance standards, taxonomies and regulations, but



also make sure that their domestic sustainability standards apply to overseas financing activities of domestic financial institutions.

# Proposals

To scale up sustainable finance and align all financial flows with climate and sustainability goals, we propose that the G7 take the following ten actions:

1. Intensify efforts to develop, align and implement science-based sustainable finance taxonomies across the G7. In all G7 countries except the United States, green taxonomy regulations or guidance are already in place (EU member countries and Japan) or currently under development (Canada and the United Kingdom).<sup>1</sup> The EU and China have been leading efforts in harmonising taxonomies through the International Platform on Sustainable Finance (IPSF), whose membership includes also Canada, Japan and the United Kingdom. The IPSF is currently developing a green Common Ground Taxonomy – a uniform basic taxonomy that offers a methodology for comparing taxonomies in various jurisdictions. Currently, this taxonomy is focussed on a comparison of the EU and the Chinese green taxonomies. The Common Ground Taxonomy constitutes a meaningful step towards aligning standards for sustainable finance and is in accordance with other international fora and their roadmaps, including the roadmap of the G20 Working Group on Sustainable Finance. The G7 should support the Common Ground Taxonomy and constructively engage in further developing the methodology and expanding this taxonomy to new sectors. Moreover, the G7 should work towards developing a dirty taxonomy, a defined classification and list of high-emission or otherwise harmful economic activities. The identification of high-risk assets could be a useful approach for sustainable finance policymakers to identify, reduce and mitigate the risks of environmentally harmful investments.

2. Make disclosures of climate-related risks and opportunities mandatory for all publicly quoted companies, large private companies, and supervised financial institutions and introduce a harmonised standard across the G7. Canada, the EU, Japan, and the UK have already started to make sustainability- or climate-related financial disclosure requirements mandatory for parts of the corporate sector, or announced to do so, while in the US the Securities and Exchange Commission has recently revealed a proposal to require that public companies disclose climate-related information (Table 1). The G7 should seek agreement to make disclosures of climate-related risks and opportunities mandatory for all publicly quoted companies, large private companies, and financial institutions, in line with the recommendations of the Taskforce on Climate-related Financial Disclosures (TCFD). The G7's financial authorities should also issue clear and harmonised guidelines regarding the use of metrics for disclosures. Disclosure requirements should be enhanced to include disclosures of nature-related risks once the recommendations of the Taskforce on Nature-related Financial Disclosures (TNFD) are released in 2023. In this context, the G7 authorities should also engage with private sector initiatives seeking to create a global baseline for



<sup>&</sup>lt;sup>1</sup> For an overview of global green taxonomy development see Xu et al. (2022).

sustainability disclosure standards and to improve the consistency, comparability and reliability of reporting, including the recently formed International Sustainability Standards Board.

Country	Planned or enacted regulation	Date announced / adopted	Enforceable from	Applicable to
Canada	The Office of the Superintendent of Financial Institutions will consult federally regulated financial institutions on climate disclosure guidelines in 2022	April 2022	Starting in 2024	All federally regulated financial institutions
European Union	Sustainable Finance Disclosure Regulation	December 2019	March 2021	Asset managers and pension providers offering investment products, and financial advisers
	Proposal for a Corporate Sustainability Reporting Directive	April 2021	Under negotiation, expected to apply from January 2024	All large companies (2 out of 3 criteria met) with revenues > EUR 40 million, total assets > EUR 20 million, or > 250 employees; all companies with listed securities on EU-regulated markets, except micro-undertakings. Listed small and medium- sized enterprises benefit from +3 years for implementation.
France	Article 173-VI (for investors) and Article 173-IV (for companies) of France's Law on Energy Transition for Green Growth	August 2015	June 2017	Investors with a balance sheet of above €500 million and listed companies
Japan	The Financial Services Agency and the Tokyo Stock Exchange are expected to revise the Corporate Governance Code to enhance climate disclosures of companies listed on the prime market.	March 2020	April 2022	Initially for companies listed on the prime market, but then expanding to cover all companies that submit annual securities reports.
United Kingdom	Climate-related reporting requirements by the Financial Conduct Authority	November 2020	December 2021	Premium listed companies, issuers of standard listed shares and global depositary receipts, asset managers, life insurers, and FCA-regulated pension providers.
	Companies (Strategic Report) (Climate-related Financial Disclosure) Regulations 2022 and the Limited Liability Partnerships (Climate-related Financial Disclosure) Regulations 2022	January 2022	April 2022	All Relevant Public Interest Entities (UK companies that have more than 500 employees and have either transferable securities admitted to trading on a UK regulated market or are banking companies or insurance companies); UK registered companies with securities admitted to the Alternative Investment Market with more than 500 employees; UK registered companies not included in the categories above, which have more than 500 employees and a turnover of more than £500m; large Limited Liability Partnerships (LLPs) which are not traded or banking LLPs and have more than 500 employees and a turnover of more than £500m and; traded or banking LLPs which have more than 500 employees.
United States	The US The Securities and Exchange Commission proposed rules to enhance and standardise climate- related disclosures for investors	March 2022	Proposed to be phased in during fiscal year 2023 for inclusion in the annual report to be filed in 2024	All companies (including foreign companies) publicly traded in the US.

Table 1: Overview of G7 disclosure standards and initiatives.

Source: Compiled with information from national authorities and the European Commission.

**3.** Make the publication of net-zero transition plans mandatory for all publicly quoted companies, large private companies, and supervised financial institutions. Transition plans for financial and non-financial institutions are increasingly seen as an important forward-looking instrument to assess alignment and transition risks and deliver policy goals to reach net-zero emissions before 2050. The UK Government is requiring large companies and certain financial sector firms to publish a transition plan from 2023. Mandatory transition plans have also been proposed for large EU corporates as part of the expanded Corporate Sustainability Reporting Directive put forward by the European Commission in April 2021. To



overcome key prudential risk assessment challenges, leading European supervisors have called for a requirement for banks to publish transitions plans that could be assessed by supervisors, potentially also leading to a capital add-on in case of a misalignment with the EU's climate policy target of net-zero by 2050 (Elderson 2021, Villeroy de Galhau 2022). The G7 should agree to make net-zero transition plans mandatory for all publicly quoted companies, large private companies, and supervised financial institutions and explore the role of supervisors in their design and assessment.

4. Introduce and advance mandatory climate stress testing. Climate stress test are a powerful tool to assess the largest direct and indirect losses for financial institutions conditioned to climate scenarios, and to assess under which conditions financial institutions can absorb or amplify risk (Battiston and Monasterolo 2022). Central banks and supervisors in all G7 countries have started working on climate stress tests to evaluate both short-term and long-term climate risks for individual financial institutions and at the level of the financial system (e.g., Allen et al. 2020, ECB 2021, EIOPA 2021). Many supervisors have built on the development of supervisory climate scenarios co-developed by the Network of Central Banks and Supervisors for Greening the Financial System (NGFS) with an expert group of climate scientists and economists. However, the current generation of supervisory scenarios still neglects the role of finance and its complexity. Recent research showed that accounting for investors' expectations and how investors adjust risk pricing when those expectations change, can change the orderly and disorderly transition trajectories considerably, leading to market instability and insufficient allocation of capital to low-carbon investments, thus making the difference between achieving or failing the low-carbon transition (Battiston et al. 2021). It is therefore necessary to enhance current NGFS climate scenarios to capture the missing feedback from financial actors' expectations to firms' investment decisions and scenarios, to properly assess climate financial risks and opportunities (Gourdel et al. 2021). Importantly, the G7 financial supervisors should make climate stress tests mandatory for all financial institutions. Moreover, financial supervisors should conduct regular stress tests of the financial system at large.

**5.** Adjust prudential frameworks to account for climate-related and other environmental risks. Climate and other environmental risks need to be properly reflected in prudential frameworks. Because the analysis of climate-related financial risks is complex and complicated by data gaps and imperfect metrics, supervisors have understandably hesitated to adjust capital requirements or other regulatory instruments. However, given the urgency to mitigate the major risks not only for individual financial institutions but also the financial system and economy at large, regulators should address stranded asset risks from fossil fuel exposures that are straightforward to identify. Whilst continuing to work on more sophisticated risk assessment methodologies, G7 supervisors should agree to introduce stricter capital requirements for carbon-intensive lending as systemic risk buffers (Dafermos and Nikolaidi 2021) and explore the implications of the proposal for 'one-for-one' capital requirements for financial institutions funding new fossil-fuel projects (Philipponnat 2020, Lallemand 2021). Such a one-for-one standard was recommended by the Basel Committee on Banking Supervision (2021) for certain cryptocurrencies' exposures and is fully in line with established supervisory practices.

**6.** Decarbonise the portfolios and operations of all public financial institutions and central banks. Public financial institutions should lead by example when it comes to supporting the scaling up of green finance and aligning their portfolios with the net-zero transition. However, for the time being, many publicly owned financial institutions, including export credit agencies and state-owned banks, continue to finance high-emission activities (Macquarie et al. 2020). Moreover, G7 central banks have shown a carbon bias in their policy portfolios (Matikainen et al. 2017, Dafermos et al. 2020, Schoenmaker 2021). G7 governments should request all public financial institutions in G7 countries to align their lending and/or investment portfolios with net-zero pathways, exclude the financing of new carbon-intensive projects, and provide no new funding to large corporations that have no credible net-zero transition plan. G7 governments should also urge multilateral development banks to do the same.

7. Enhance the role of national development banks (NDBs) and explore options for creating new NDBs to scale up financing for the SDGs. NDBs can play an important role in advancing a just transition to a low-carbon, climate-resilient economy and in financing the SDGs as financiers of low-carbon, climate-resilient infrastructure investment, as mobilisers of external finance, as pipeline developers that can identify and develop bankable projects and/or invest in demonstration projects and new technologies that prove commercial viability, and as policy influencers that can help shape broad and specific policy frameworks to encourage and channel private investment to LCCR infrastructure (Griffith-Jones et al. 2020). The G7 should increase the capital of existing NDBs and update their missions with the goal of supporting a just, net-zero transition. The G7 should also explore options for creating new NDBs in order ramp up climate and SDG finance.

8. Harness the potential of digital finance to scale up sustainable finance and investment and strengthen citizen-centric finance. Numerous barriers limit the mobilisation of sustainable finance, including data gaps and challenges in quantifying risks and impacts. Digital technologies (including big data, artificial intelligence, mobile platforms, and distributed ledger technologies, IoT, and earth observation technologies) can help to address the barriers that limit the scalability of sustainable finance. Digital finance can also help to promote goals such as financial inclusion and energy justice, both of which are key issues in achieving a just transition. Central banks, supervisors and policymakers can assume the role of digital data infrastructure enablers and developers to enhance the ability of digital technologies to help the mainstreaming and scaling up of sustainable finance (Dikau et al. 2022). Working with market participants, they can build digital infrastructures to unlock access to standardised, quantified and comparable sustainability data; and support the development of digital infrastructure for disclosure data as well as for sourcing and aggregating data directly from the real-economy (Dikau et al. 2022). G7 central banks and supervisors should work with the Bank for International Settlements' Innovation Hub and market participants to foster digital sustainable finance solutions for fostering inclusion and innovation in the real economy by broadening sustainability choices and providing new sources of finance, not least to micro, small and medium enterprises. G7 central banks and supervisors should also work with public and private financial institutions to advance innovative fintech solutions to scale up sustainable investment and novel approaches of citizen-centric finance (DFTF 2020, Chen and Volz 2022).



**9. Promote the issuance of sustainability-linked and just transition bonds.** To deal with the potentially large distributive effects of structural economic changes affecting employment and livelihoods associated with a transition away from fossil fuels and cascading climate risks and spillovers, governments need to proactively support a just transition. To finance such policies, G7 governments should issue sovereign just transition bonds – sovereign bonds whose proceeds are ring-fenced for activities that support a just transition (Robins 2020). This would not only raise funds for governments to finance targeted investments supporting structural change and new employment opportunities in regions affected by the decarbonisation of the economy. It would also have an important signalling effect across the financial system on the significance of the just transition (Robins 2020). The SDG-linked sovereign bond issued by the Mexican government in 2020 to raise funds for the country's most vulnerable municipalities (IISD 2020) is a good example. G7 governments should also consider the issuance of sovereign sustainability-linked bonds, following the recent example of Chile.

10. Scale-up sustainable and climate finance for developing countries. Developing and emerging economies have enormous investment needs in climate adaptation and mitigation, and other areas to attain better and more inclusive economic, social, and environmental conditions. Before Covid-19, the UN estimated that developing countries were facing an annual financing shortfall of US\$2.5 trillion for advancing the Sustainable Development Goals. The pandemic and the effects of the Russian invasion in Ukraine on global food and commodity prices have widened this financing gap for many countries, while limiting their ability to raise public and private capital. There is an urgent need to scale up financing for development, and to make sure that all financial flows are aligned with climate and other sustainability goals. Critically, all G7 members need to fulfil their development and climate finance commitments. In terms of climate finance, the G7 should go beyond the US\$100 billion annually committed and live up to their historical responsibilities to address loss and damage in the Global South. To this end, they should provide additional funding to a newly established a Loss and Damage Facility as proposed by the G77 and China at COP26 in Glasgow. Moreover, all G7 countries should commit to donating all Special Drawing Rights (SDRs) they have received from the International Monetary Fund's historic \$650 billion allocation in August 2021 either to multilateral development banks or other prescribed holders of SDRs so they can be used to finance sustainable development and climate action. Last but not least, G7 countries should also work with China, other G20 countries and groups of debtor countries on an ambitious scheme for sovereign debt relief from private and public creditors for all countries that need it to provide the basis for green and inclusive recoveries (Volz et al. 2022).

### Implementation

As the G7 comprises major key players in global finance, it provides an important platform for advancing the sustainable finance agenda and working towards a global governance architecture for sustainable finance with standards and regulations that are grounded in science. While most of the proposed actions can be taken unilaterally by individual G7 countries, a collective approach would be desirable in order to establish international standards for disclosures, taxonomies and regulatory practices to combat greenwashing, better mitigate risks and scale up sustainable finance. All G7 members are also members of



the G20 Sustainable Finance Working Group (SFWG) and as such should seek to raise the SFWG's ambitions and advance discussion on the proposed actions at the G20 level. The *G20 Sustainable Finance Roadmap* (G20 SFWG 2021) is promoting a rather narrow risk-based approach and is placing too much emphasis on market forces to adequately price climate and environmental risks. While establishing common standards through harmonised taxonomies is fundamental, and enhancing transparency through disclosures and stress tests is crucial, a more proactive regulatory approach by policy makers and supervisors is needed to align finance with climate and sustainability goals. The G7 – or at least a subgroup of G7 countries – should seek to raise the ambition of the G20 SFWG to not only scale up sustainable finance and investment, but also rule out the financing of harmful activities that undermine the achievement of the Paris climate goals and thereby threaten global prosperity.

### References

Allen, T., Dees, S., Boissinot, J., Caicedo, G.C.M., Chouard, V., Clerc, L., De Gaye, A., Devulder, A., Diot, S., Lisack, N., Pegoraro, F., Rabaté, M., Svartzman, R., and Vernet, L. (2020). "Climate-related scenarios for financial stability assessment: An application to France", Banque de France Working Paper No 774. Paris: Banque de France. <u>https://publications.banque-france.fr/sites/default/files/medias/documents/wp774.pdf</u>.

Basel Committee on Banking Supervision (2021). "Prudential treatment of cryptoasset exposures", Consultative Document issued for comment. <u>https://www.bis.org/bcbs/publ/d519.pdf</u>.

Battiston, S., and Monasterolo, I. (2022). "Enhanced scenarios for climate stress tests". INSPIRE Sustainable Central Banking Toolbox Policy Briefing Paper, forthcoming. London: London School of Economics and Social Science and SOAS University of London.

Battiston, S., Monasterolo, I., Riahi, K., and van Ruijven, B.J. (2021). "Accounting for finance is key for climate mitigation pathways", *Science*, 372(6545), 918-920. <u>https://doi.org/10.1126/science.abf3877</u>.

Benincasa, E., Benincasa, E., Kabas, G., and Ongena, S.R.G. (2021). ""There is No Planet B", But for Banks There are "Countries B to Z": Domestic Climate Policy and Cross-Border Bank Lending", CEPR Discussion Paper No. DP16665, London: Centre for Economic Policy Research. https://cepr.org/active/publications/discussion\_papers/dp.php?dpno=16665.

Chen, Y., Volz, U. (2022). "Scaling up sustainable investment through blockchain-based project bonds", *Development Policy Review* 40(3), e12582. <u>https://doi.org/10.1111/dpr.12582</u>.

Dafermos, Y., Nikolaidi, M.(2021). "How can green differentiated capital requirements affect climate risks? A dynamic macrofinancial analysis", *Journal of Financial Stability* 54, 100871. <u>https://doi.org/10.1016/j.jfs.2021.100871</u>.

Dafermos, Y., Gabor, D., Nikolaidi, M., Pawloff, A., and van Lerven, F., (2020). *Decarbonising is easy: Beyond market neutrality in the ECB's corporate QE*. London: New Economics Foundation. <u>https://eprints.soas.ac.uk/34178/1/Dafermos%20et%20al%20%282020%29%20Decarbonising%20is%20eas y.pdf</u>.



DFTF (2020). *People's money: Harnessing digitalization to finance a sustainable future*. Final Report of the UN Secretary-General's Task Force on Digital Financing of the Sustainable Development Goals. New York: United Nations. <u>https://digitalfinancingtaskforce.org/wp-content/uploads/2020/08/DF-Task-Force-Full-Report-Aug-2020-1.pdf</u>.

Elderson, F. (2021). "Overcoming the tragedy of the horizon: requiring banks to translate 2050 targets into milestones", Keynote speech by Frank Elderson, Member of the Executive Board of the ECB and Vice-Chair of the Supervisory Board of the ECB, at the Financial Market Authority's Supervisory Conference, Vienna, 20 October. <u>https://www.ecb.europa.eu/press/key/date/2021/html/ecb.sp211020~03fba70983.en.html</u>.

Forest 500 (2022). 2022 annual report. A climate wake-up: but business failing to hear the alarm on deforestation. <u>https://forest500.org/sites/default/files/forest500\_2022report\_final.pdf</u>.

G7 Germany (2022). "Policy paper – G7 Presidency in the Finance Track". Berlin: Federal Ministry of Finance, 27 January. <u>https://www.bundesfinanzministerium.de/Content/EN/Downloads/G7-G20/policy-paper-g7-presidency.pdf?</u> blob=publicationFile&v=11.

G20 SFWG (2021). *G20 sustainable finance roadmap*, G20 Sustainable Finance Working Group, 1 October. <u>https://g20sfwg.org/wp-content/uploads/2021/10/G20-Sustainable-Finance-Roadmap.pdf</u>.

Gourdel, R., Monasterolo, I, Dunz, N., Mazzocchetti, A., and Parisi, L. (2021). "Assessing the double materiality of climate financial risks in the euro-area economy and banking sector", ECB Working Paper, forthcoming, Frankfurt: European Central Bank. <u>https://bit.ly/2YWrRcA</u>.

Griffith-Jones, S., Attridge, S., and Gouett, M. (2020). *Securing climate finance through national development banks*. London: Overseas Development Institute. https://cdn.odi.org/media/documents/200124\_ndbs\_web.pdf.

IIISD (2020), "Mexico Issues Sovereign SDG Bond for Most Vulnerable Municipalities", SDG Knowledge Hub, 22 September. <u>https://sdg.iisd.org/news/mexico-issues-sovereign-sdg-bond-for-most-vulnerable-municipalities/</u>.

IRENA (2022). *World energy transitions outlook: 1.5°C Pathway*. Paris: International Renewable Energy Agency. <u>https://www.irena.org/publications/2022/Mar/World-Energy-Transitions-Outlook-2022</u>.

Lallemand, B. (2021). "The one-for-one rule: A way for COP26 ambitions to manifest in financial regulation", Finance Watch, 27 October. <u>https://www.finance-watch.org/the-one-for-one-rule-a-way-for-cop26-ambitions-to-manifest-in-policy/</u>.

Macquarie, R., Naran, B., Rosane, R., and Wetherbee, C. (2020). *Improving tracking of high-GHG finance in the power sector*. San Francisco: Climate Policy Initiative. <u>https://www.climatepolicyinitiative.org/wp-content/uploads/2020/12/1.-Improving-Tracking-of-High-GHG-Finance-in-the-Power-Sector-4.pdf</u>.

Matikainen, S., Campiglio, E. and Zenghelis, D., (2017) "The climate impact of quantitative easing", Grantham Research Institute on Climate Change and the Environment Policy Paper, London: London School



of Economics and Political Science. <u>https://www.lse.ac.uk/granthaminstitute/wp-</u>content/uploads/2017/05/ClimateImpactQuantEasing Matikainen-et-al-1.pdf.

Philipponnat, T. (2020). Breaking the climate-finance doom loop. How banking prudential regulation can tackle the link between climate change and financial instability. Brussels: Finance Watch. https://www.finance-watch.org/wp-content/uploads/2020/06/Breaking-the-climate-finance-doom-loop Finance-Watch-report.pdf.

RAN et al. (2022). *Banking on Climate Chaos 2022*. Rainforest Action Network (RAN), BankTrack, Indigenous Environmental Network, Oil Change International, Reclaim Finance, Sierra Club, and urgewald. <u>https://www.ran.org/wp-content/uploads/2022/03/BOCC\_2022\_vSPREAD.pdf</u>.

Robins, N. (2020). "Why governments need to issue just transition sovereign bonds and how they could do it", Commentary, 20 January. <u>https://www.lse.ac.uk/granthaminstitute/news/why-governments-need-to-issue-just-transition-sovereign-bonds-and-how-they-could-do-it/</u>.

Schoenmaker, D. (2021). "Greening monetary policy", *Climate Policy* 21(4), 581-592. <u>https://doi.org/10.1080/14693062.2020.1868392</u>.

Villeroy de Galhau, F. (2022). "Europe in motion for climate transition: snapshot, video and scenario of the risks", Speech by François Villeroy de Galhau, Governor of the Banque de France, at the 7th annual Sustainability week, London, 22 March. <u>https://www.banque-france.fr/en/intervention/7th-annual-sustainability-week-europe-motion-climate-transition-snapshot-video-and-scenario-risks</u>.

Volz, U., Berensmann, K., Burke, S., Gallagher, K.P., Griffith-Jones, S., Kessler, M., Monasterolo, I. (2022). "Addressing the debt crisis in the Global South: Debt relief for sustainable recoveries", T7 Policy Brief. <u>https://www.think7.org/wp-content/uploads/2022/04/Recovery\_Addressing-the-Debt-Crisis-in-the-Global-South-Debt-Relief-for-Sustainable-Recoveries\_Volz\_Berensmann\_Burke\_Gallagher\_Griffith-Jones\_Kessler\_Monasterolo.pdf</u>.

Xu, X., Xie, W., and Deng, M. (2022). Global green taxonomy development, alignment, and implementation. <u>https://www.climatebonds.net/files/reports/cbi\_taxonomy\_ukpact\_2022\_eng.pdf</u>.



### About the Authors

Ulrich Volz - SOAS, University of London and German Development Institute



Ulrich Volz is Director of the Centre for Sustainable Finance and Professor of Economics at SOAS, University of London. He is also a Senior Research Fellow at the German Development Institute, a Visiting Professor at the London School of Economics and Political Science, and an Honorary Professor of Economics at the University of Leipzig. Ulrich is a director of the Global Research Alliance for Sustainable Finance and Investment and serves on the advisory panel of the Glasgow Financial Alliance for Net Zero. He is co-chair of the Debt Relief for Green and Inclusive Recovery Initiative and member of the NGFS-INSPIRE Study Group on Biodiversity and Financial Stability. Ulrich was Banque de France Chair at EHESS in Paris, and taught at Peking University, Kobe University, Hertie School of Governance, Freie Universität Berlin, Central University of Finance and Economics, and the Institute of Developing Economies (IDE-JETRO). He spent stints working at the ECB and EBRD and held visiting positions at the University of Oxford, University of Birmingham, ECB, Bank Indonesia, and Aoyama Gakuin University. Ulrich was part of the UN Inquiry into the Design of a Sustainable Financial System and has acted as an advisor to several governments, central banks, international organisations and development agencies on matters of macroeconomic policy, sustainable finance and development.

Kathrin Berensmann – German Development Institute / Deutsches Institut für Entwicklungspolitik (DIE)



Kathrin Berensmann is a Senior Researcher at the German Development Institute / Deutsches Institut für Entwicklungspolitik (DIE), where she has led various research projects in the field of world economy and development financing. Kathrin holds a Master degree in Economics and a Ph.D. in Economics from the University of Würzburg (Germany). Her main areas of specialisation are international financial architecture, the global debt governance system for developing countries, financing for development, and sustainable finance.



**Simon Dikau** – Grantham Research Institute on Climate Change and the Environment, London School of Economics and Political Science



Simon Dikau is Research Officer at the Grantham Research Institute on Climate Change and the Environment at the London School of Economics and Political Science. He is also the Research Director of the International Network for Sustainable Financial Policy Insights Research and Exchange (INSPIRE), a global research network and research stakeholder of the Network of Central Banks and Financial Supervisors for Greening the Financial System (NGFS). He is the Global Manager of the 'Joint NGFS-INSPIRE Study Group on Biodiversity and Financial Stability', which is the first cross-institutional working group of its kind, with members from over 30 central banks and supervisors worldwide. At INSPIRE, Simon is leading the intersection between the NGFS and the broader research community through the development of research strategies and technical capacity building programmes for central banks and supervisors on climate-related risks assessment, prudential policy and the alignment of central banks' balance sheets and operations. Simon has authored numerous research and policy publications on central banking and sustainable finance. He is a lead author of three NGFS reports, the latest one being on 'Central banking in the biosphere: Biodiversity loss, financial risk and system stability' (2022). He is co-author of a report on 'Climate-neutral central banking: How the European System of Central Banks can support the transition to net-zero' (2021) and has co-authored numerous further reports on central banking, financial supervision, environmental risks and financial alignment questions. He has published articles in refereed journals, including Ecological Economics and Climate Policy.

#### Stephany Griffith-Jones – Columbia University



Stephany Griffith-Jones is Financial Markets Director at the Initiative for Policy Dialogue, based at Columbia University; Emeritus Professorial Fellow at the Institute of Development Studies at Sussex University; a Senior Research Associate at the Overseas Development Institute; a non-resident Fellow at the Center for Global Development; and a Distinguished Fellow at ClimateWorks Foundation. From 1 May 2022, she will be a Board Member of the Central Bank of Chile. Professor Griffith-Jones is researching and providing policy advice on reforming international and national financial architecture, with emphasis on a development perspective, and special focus on development banks; capital flows to emerging and low-income economies; debt crises and their



management; and debt for nature and development swaps. She has led many major international research projects on international and domestic financial issues. Publishing widely, having written or edited over 25 books and numerous journal and newspaper articles. A 2010 OUP book, coedited with Joseph Stiglitz and Jose Antonio Ocampo, *Time for a Visible Hand*, dealt with financial regulation. Her most recent book, co-edited with Jose Antonio Ocampo, *The Future of National Development Banks*, was published by OUP in 2018. She has advised many international organizations, including the European Commission, European Parliament, World Bank, Commonwealth Secretariat, IADB, and various UN agencies and several governments and central banks, including in the UK, Chile, Sweden, South Africa, Tanzania, Brazil and Czech Republic.

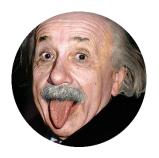
#### Irene Monasterolo - EDHEC Business School and EDHEC-Risk Institute



Irene Monasterolo is Professor of Climate Finance at EDHEC Business School and EDHEC-Risk Institute in Nice (FR). Irene's research is contributing to understand the role of finance in the low-carbon transition, and the implications of climate change on investment decisions and financial stability. Irene has co-developed the Climate Policy Relevant Sectors (CPRS), a sciencebased classification of assets into classes of climate transition risk, and the climate stress-test of the financial system, which embeds climate scenarios in asset pricing, financial risk metrics and portfolio risk assessment. The CPRS and climate stress-test methodology have been applied by several financial supervisors and institutions. Irene's research has been published in top and high-ranked journals in the field, including Science, Nature Climate Change, and Journal of Banking and Finance, as well as Brookings and UN PRI. She is editorial board member of Ecological Economics Journal, and she has served as guest editor for Journal of Financial Stability's special issue on "Climate risk and financial stability". Irene has supported several international financial institutions, including the World Bank, in the assessment of the macroeconomic and financial impacts of climate tail risks, and has co-authored several reports with financial supervisors and institutions, including EIOPA (2019), the Austrian National Bank (2020), the World Bank (2022), and the Network For Greening the Financial System. Irene is co-founder of CLIMAFIN.



### Anthony Lacavaro – People Centered Internet



Put your bio here. To get a round cropped picture, you can use <u>https://crop-</u> <u>circle.imageonline.co/</u> which is easy to use and works with no registration.









Deutsches Institut für

Entwicklungspolitik

German Development Institute



The Think7 engagement group under the German G7 presidency 2022 is jointly chaired by the Global Solutions Initiative and the German Development Institute / Deutsches Institut für Entwicklungspolitik (DIE) as mandated by the German Federal Chancellery.





Deutsches Institut für Entwicklungspolitik German Development Institute

Publisher: