

Appendix to CFL No. 448

“A new framework for assessing climate change risk in financial markets”

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A growing body of research and policy

Public sector representatives around the world are starting to focus on the impact of climate risk on financial institutions.¹ In 2015 The Financial Stability Board (FSB) launched the Task Force on Climate-Related Financial Disclosures. The Task Force has set out guidelines for how firms can assess and disclose climate change risk.² This focus has intensified in 2020: In July 2020 the FSB took stock of the experience of various financial authorities in including climate-related risks in financial stability monitoring.³ In April 2020 the Task Force on Climate-related Financial Risks, established by the Basel Committee on Banking Supervision, published its first report, taking stock of current regulatory and supervisory initiatives on climate-related financial risks by members of the Committee.⁴ In May 2020, the European Central Bank issued its Guide on climate-related and environmental risks.⁵ The guide sets out the ECB’s supervisory expectations relating to risk management and disclosure of climate risk by financial institutions. An assessment of euro area institutions by the European Central Bank shows firms have yet to develop comprehensive risk management approaches.⁶ In June 2020 the Network for Greening the Financial System, a group of 75 central banks and 13 observers, published a set of climate scenarios for assessing the potential impact of climate change risk on the economy and the financial system.⁷ In September 2020, the Climate-Related Market Risk Subcommittee of the CFTC’s Market Risk Advisory Committee (MRAC) issued a report on the impact of climate change on the financial markets: *Managing Climate Risk in the US Financial System*.⁸ The report finds that that climate change could pose systemic risks to the U.S. financial system, and articulates several recommendations for addressing this risk, starting with the recommendation that the United States establish a price on carbon. The report finds that the financial markets do not accurately price the climate impact of the companies that issue bonds and stocks. If an accurate methodology for assessing climate impact is developed, then the financial markets will be able to allocate in a more accurate and efficient manner the risk and the cost of polluting. In this context, accurate disclosure of climate change risk practices by market participants will take on a new relevance, as a tool that the market could use to price a company’s carbon footprint. As a result, companies would be incentivized to reduce carbon emissions. The focus of the MRAC subcommittee’s report is the U.S. financial system, and the focus of the ECB guide is supervision of financial institutions in Europe. Our focus in this article is global financial markets, with particular interest in exchange trading and derivative markets. Central clearing counterparties (CCPs) are still considering whether, and how, to price climate risk in their risk models.⁹ Some in the private sector have begun assessing the impact of physical risk, transition risk, and the overall productivity effects from climate change, and are placing increasingly greater emphasis on sustainability in the longer term in ways that promote environmental and other social objectives.¹⁰ In June 2020, Ceres, a sustainability nonprofit organization, issued a report titled, “Addressing Climate as a Systemic Risk: A call to action for U.S. financial regulators.”¹¹ The report invites U.S. regulators to address the systemic risk presented by climate change. In September 2020, the Institute of International Finance sponsored the Taskforce on Scaling

Voluntary Carbon Markets, an initiative aimed at creating and promoting the rapid growth of a voluntary market for trading carbon emission credits, as a way to create a set of market-led incentives to help meet the Paris Climate Agreement target to limit global warming to below 2°C and to pursue efforts to limit it to 1.5°C. This initiative is led by private sector representatives, with public sector representatives acting in a consultative capacity. Academics are also studying the impact of climate risk on the economy and developing quantitative models to assess the impact of climate policies.¹² In the November 2020 Financial Stability Report, the Board of Governors of the Federal Reserve System has addressed the financial stability implications of climate change. The report illustrates how climate risks can become financial stability risks, and notes that staff within the Federal Reserve System, in consultation with other U.S. agencies and international groups, continue to conduct research on the financial stability implications of climate change.

¹ See Board of Governors of the Federal Reserve System, *The Implications of Climate Change for Financial Stability*, Financial Stability Report, pp. 58–59, November 2020, available online <https://www.federalreserve.gov/publications/files/financial-stability-report-20201109.pdf>; Jerome Powell, 2020, “Transcript of Chair Powell’s Press Conference: January 29, 2020,” available online, <https://www.federalreserve.gov/mediacenter/files/FOMCpresconf20200129.pdf>; Glenn Rudebusch, 2019, “Climate Change and the Federal Reserve,” available online, <https://www.frbsf.org/economic-research/publications/economic-letter/2019/march/climate-change-and-federal-reserve/>; European Central Bank, 2020, “Guide on climate-related and environmental risks,” available online, https://www.bankingsupervision.europa.eu/legalframework/publiccons/pdf/climate-related_risks/ssm.202005_draft_guide_on_climate-related_and_environmental_risks.en.pdf; Monetary Authority of Singapore, 2020, “MAS Consults on Environmental Risk Management Guidelines for Financial Institutions” available online, <https://www.mas.gov.sg/news/media-releases/2020/mas-consults-on-environmental-risk-management-guidelines-for-financial-institutions>; Bank of England, 2017, “Topical article: The Bank of England’s response to climate change,” *Quarterly Bulletin*: 2017 Q2, available online, <https://www.bankofengland.co.uk/-/media/boe/files/quarterly-bulletin/2017/the-banks-response-to-climate-change.pdf?la=en&hash=7DF676C781E5FAEE994C2A210A6B9EEE44879387>.

² Today the TCFD Knowledge Hub contains hundreds of documents organized by the four thematically related areas for disclosure set out in TCFD’s recommendations: (i) Governance, (ii) Strategy (or Scenario Analysis), (iii) Risk Management, and (iv) Metrics and Targets. As of June 2019, when TCFD published its 2019 Status Report, the number of TCFD supporters had grown to 785. Available online, <https://www.fsb-tcdf.org/tcdf-knowledge-hub/>.

³ Available online, <https://www.fsb.org/2020/07/fsb-stocktake-considers-climate-risks-and-financial-stability/>.

⁴ BIS press release, 2020, “Basel Committee meets to review vulnerabilities and emerging risks, advance supervisory initiatives and promote Basel III implementation,” available online, <https://www.bis.org/press/p200227.htm>.

⁵ Available online, https://www.bankingsupervision.europa.eu/legalframework/publiccons/pdf/climate-related_risks/ssm.202005_draft_guide_on_climate-related_and_environmental_risks.en.pdf.

⁶ See European Central Bank, 2020.

⁷ Available online, [NGFS.net](https://www.ngfs.net).

⁸ Available online, <https://www.cftc.gov/sites/default/files/2020-09/9-9-20%20Report%20of%20the%20Subcommittee%20on%20Climate-Related%20Market%20Risk%20-%20Managing%20Climate%20Risk%20in%20the%20U.S.%20Financial%20System%20for%20posting.pdf>.

⁹ See Chicago Fed LaSalle Street podcast, 2020, “What Risk Managers from NASDAQ and Options Clearing Corp Learned From the Covid-19 Crisis: Perspectives on Resilience and Challenges During the Pandemic” by Ketan Patel, available online, <https://www.chicagofed.org/publications/lasalle-street-podcast/risk-management-during-covid>.

¹⁰ See Schroders, 2020, “Climate Change and Financial Markets,” available online,

<https://www.schroders.com/en/sysglobalassets/digital/insights/pdfs/2020/climate-change-and-financial-markets.pdf>; Fink, Larry, 2020, “A Fundamental Reshaping of Finance,” available online, <https://www.blackrock.com/us/individual/larry-fink-ceo-letter>; Vanguard, 2019, “Investment Stewardship: 2019 Annual Report,” available online, https://about.vanguard.com/investment-stewardship/perspectives-and-commentary/2019_investment_stewardship_annual_report.pdf; Taraporevala, Cyrus, 2020, “State Street Global Advisors CEO’s Letter on our 2020 Proxy Voting Agenda” available online, https://www.wlrk.com/docs/SSgA_CEO_Letter_on_our_2020_Proxy_Voting_Agenda.pdf.

¹¹ Available online, <https://www.ceres.org/resources/reports/addressing-climate-systemic-risk>.

¹² See Federal Reserve Bank of San Francisco, “The Economics of Climate Change”, available online, <https://www.frbsf.org/economic-research/events/2019/november/economics-of-climate-change/>; Prinn, Ronald and Reilly, John, 2019, “MIT Scenarios for Assessing Climate-Related Financial Risk,” available online, https://globalchange.mit.edu/sites/default/files/MITJPSPGC_Rpt339.pdf; Michael Bauer and Glenn Rudebusch, 2020, “The Rising Cost of Climate Change: Evidence from the Bond Market,” available online, <https://www.frbsf.org/economic-research/files/wp2020-25.pdf>.