GUIDANCE FOR NEW YORK STATE REGULATED BANKING AND MORTGAGE ORGANIZATIONS RELATING TO MANAGEMENT OF MATERIAL FINANCIAL AND OPERATIONAL RISKS FROM CLIMATE CHANGE

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Table of Contents

I. Introduction 2

II. Overarching Themes 4

A. Financial Risks from Climate Change 4

B. Managing Climate-Related Financial and Operational Risks While Providing Fair Lending to All Communities........ 7

C. Operational Resiliency 9

D. Proportionate Approach........ 9

III. Supervisory Guidance........ 10

A. Corporate Governance 10

(i) Business Environment and Strategy 11

(ii) Board and Management Oversight 11

(iii) Policies, Procedures, and Limits........ 12

B. Internal Control Framework........ 13

C. Risk Management Process 13

(i) Identify Risk 14

(ii) Measure Risk........ 14

(iii) Monitor Risk 14

(iv) Control Risk 14

(v) Climate Risks as Drivers of Existing Risk Categories 15

D. Data Aggregation and Reporting 16

E. Scenario Analysis........ 17

IV. Implementation and Reporting........ 18

I. Introduction

1. Climate change poses a wide range of potential and possibly significant risks to the safety and soundness of the financial system.[1] Risks that directly affect financial institutions, particularly where those risks are new and evolving, inform the prudential objectives of the New York State Department of Financial Service ("DFS") as it seeks to assess and promote the safety and soundness of its supervised institutions and to foster the resilience of the global financial system. To continue to thrive despite these challenges, New York State-regulated banking and mortgage institutions need to understand and appropriately manage material financial and operational risks associated with climate change as a matter of safety and soundness.

2. On October 29, 2020, DFS issued industry guidance highlighting the impact of risk drivers from climate change on its regulated institutions.[2] That letter set forth DFS's expectation that regulated institutions start integrating both financial and operational risks from climate change into their governance frameworks, risk management processes, and business strategies, and start developing their approach to climate-related financial risk disclosure.

3. DFS is issuing this guidance ("Guidance")[3] to support efforts by regulated institutions in assessing and managing their material climate-related financial and operational risks. Illustrative examples, which should not be viewed as mandatory or exhaustive, are provided throughout the Guidance for explanation and clarification purposes.

4. This Guidance applies to New York State-regulated banking organizations, New York State-licensed branches and agencies of foreign banking organizations ("FBOs"), and New York State-regulated mortgage bankers and mortgage servicers ("Originators and Servicers," and collectively, "Regulated Organizations").

5. References to boards of directors of Regulated Organizations throughout this document include equivalent bodies that perform the same functions as boards of directors.

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[1] The federal Financial Stability Oversight Council ("FSOC") has observed that "[t]ransition and physical risks associated with climate change will affect households, communities, businesses, and governments—damaging property, impeding business activity, impacting income, and altering the value of assets and liabilities. These shifts may be propagated through interconnections throughout the economy and financial system. As a result, the financial sector may experience credit and market risks associated with loss of income, defaults, and changes in the values of assets, liquidity risks associated with changing demand for liquidity, operational risks associated with disruptions to infrastructure or other channels, or legal risks." FIN. STABILITY OVERSIGHT COUNCIL, REPORT ON CLIMATE-RELATED FINANCIAL RISK 2021 13 (2021), https://home.treasury.gov/system/files/261/FSOC-Climate-Report.pdf [https://perma.cc/37AK-AGYV] [hereinafter FSOC, *Climate Report 2021*].

[2] *Industry Letter: Climate Change and Financial Risks*, N.Y. STATE DEP'T OF FIN. SERV. (Oct. 29, 2020), https://www.dfs.ny.gov/industry_guidance/industry_letters/il20201029_climate_change_financial_risks [https://perma.cc/56BD-W3C4].

[3] The objective of this supervisory guidance is consistent with interagency guidance implemented by federal banking regulators. *See, e.g.*, 12 C.F.R. § 262.7.

6. This Guidance is intended to address material financial and operational risks related to climate change faced by Regulated Organizations in the context of risk assessment, risk management, and risk appetite setting. The quantification of these risks is a developing area with data and measurement challenges. A Regulated Organization's assessment of materiality may be based on the nature, scale, and complexity of its business, and FBOs may take into account home-country regulators' requirements, as appropriate. Consistent with risk management practices for other new or emerging risks, organizations should periodically reassess their materiality assumptions, especially in the event of a significant change in circumstances, such as a material regulatory development or a material change to business strategies.

7. DFS's interest in climate-related financial and operational risk pertains specifically to the safety and soundness and operational resilience of its Regulated Organizations, and this Guidance advises Regulated Organizations on how they may incorporate these novel and evolving risks into their existing risk management frameworks, consistent with established risk appetites and business strategies. In line with the risk management framework described in established supervisory guidance, Regulated Organizations should ensure the resilience of their processes in the face of changing risk conditions.[4]

8. For the avoidance of doubt, this Guidance neither prohibits nor establishes limits for providing loans or other banking or mortgage-related services to customers of any specific class or type, as permitted by law or regulation. Further, this Guidance is not intended to and does not instruct Regulated Organizations on the outcomes of their specific risk assessments, including how credit or investment decisions might evolve to account for climate-related financial risks.

9. Regulated Organizations should be mindful that changes to their risk management frameworks to account for climate-related financial and operational risks must not unduly harm or disadvantage at-risk communities. In applying this Guidance, Regulated Organizations should continue to develop and effect reasonable risk-based business strategies and should seek to avoid unnecessary market disruptions. Further, they must in all instances adhere to applicable consumer protection laws, regulations, and guidance, including fair lending considerations.

10. Many aspects of changing climate conditions, including the financial and operational risks that may arise as a consequence, are new or evolving, meaning that as with other types of

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[4] The suggested approach is consistent with the risk management focus of other prudential regulators, such as the Board of Governors of the Federal Reserve System and the Office of the Comptroller of the Currency ("OCC"). *See, e.g.*, *SR 95-51* (*Rating the Adequacy of Risk Management Processes and Internal Controls at State Member Banks and Bank Holding Companies)*, BD. OF GOVERNORS OF THE FED. RSRV. SYS. (Nov. 14, 1995, *revised* Feb. 26, 2021), https://www.federalreserve.gov/boarddocs/srletters/1995/sr9551.htm [https://perma.cc/PCH2-LU8U]; *SR 16-11* (*Supervisory Guidance for Assessing Risk Management at Supervised Institutions with Total Consolidated Assets Less than $100 Billion)*, BD. OF GOVERNORS OF THE FED. RSRV. SYS. (June 8, 2016, *revised* Feb. 17, 2021), https://www.federalreserve.gov/supervisionreg/srletters/SR1611.pdf [https://perma.cc/BTX9-LVPL]; *Comptroller's Handbook: Examination Process, Large Bank Supervision*, OFF. OF THE COMPTROLLER OF THE CURRENCY 11–12 (June 2018, revised Mar. 2022), https://www.occ.gov/publications-and-resources/publications/comptrollers-handbook/files/large-bank-supervision/pub-ch-large-bank-supervision.pdf [https://perma.cc/4WXC-VVJP]; *Comptroller's Handbook: Examination Process, Community Bank Supervision*, OFF. OF THE COMPTROLLER OF THE CURRENCY 14–15 (Sept. 30, 2019), https://www.occ.gov/publications-and-resources/publications/comptrollers-handbook/files/community-bank-supervision/pub-ch-community-bank-supervision.pdf [https://perma.cc/49KA-7KK2].

dynamic and evolving risks, Regulated Organizations may need to assess information that is incomplete, supplementing with reasonable estimates where possible and appropriate. However, organizations should not let uncertainty and data gaps justify inaction. Rather, as Regulated Organizations build their capacity to assess and manage climate-related financial and operational risks, they may take an iterative approach that leverages further developments in methodologies and improved data availability.

11. DFS encourages Regulated Organizations to make progress in implementing the Guidance expectations in a proportionate manner. DFS also recognizes that Regulated Organizations may need time to develop a suitable implementation strategy in the current economic and regulatory environment. Consequently, as discussed in Section IV. below, the Department has not established an implementation timeline at this time. As the effects of climate-related financial and operational risk drivers extend beyond individual organizations to the broader financial system and the economy, DFS will continue to coordinate with its state, federal, and international counterparts on climate-related supervision.

II. Overarching Themes

12. Regulated Organizations that are assessing and managing material climate-related financial and operational risks should account for three key themes: the physical and transition risk channels that give rise to climate-related financial risks, the centrality of operational resilience to an institution's safety and soundness, and the requirement to ensure compliance with all applicable consumer-protection considerations—including fair lending—in adapting the institution's risk management framework to account for material climate-related financial and operational risks. Regulated Organizations should take a proportionate approach when developing an implementation framework that accounts for these considerations.

A. Financial Risks from Climate Change

13. Climate-related financial risks can be broadly categorized into two primary channels—physical risks and transition risks—and Regulated Organizations should consider the effects of each of these types of risks on their safety and soundness, including operational resilience.

14. Physical risks arise from the increasing frequency, severity, and volatility of acute events, such as hurricanes, floods, and wildfires. They may also stem from chronic shifts in weather patterns that cause or exacerbate conditions such as sea level rise, flooding and coastal erosion, droughts, and heat waves. Such conditions can result in damage to real property and infrastructure, disruption of agriculture production, and increased mortality risk.[5] Climate change is associated with increased heat and precipitation extremes across the globe, along with the likelihood of multiple perils occurring at once (*e.g.*, concurrent heat waves and droughts, flooding caused by storm surge and extreme rainfall). Communities across New York

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[5] *Extreme Heat*, READY.GOV (June 6, 2023), https://www.ready.gov/heat [https://perma.cc/9AB9-99BE].

are already experiencing impacts from physical risk, and the associated environmental, economic, and social effects are expected to increase over the coming decades.[6]

15. Significant changes in physical conditions have economic consequences that can directly affect financial institutions and may have negative implications for their resilience, including operational resilience, and safety and soundness, if not properly mitigated and managed. For example:

- Climate-related natural disasters can cause business disruption, destruction of capital, increased costs to recover from disasters, stress on infrastructure, reduced revenue, and human migration, each of which may significantly affect a Regulated Organization's clients or even the institution itself.
- These conditions can lead to lower residential and commercial property values, lower household wealth, lower corporate profitability, and stress on social and economic systems. Such consequences may in turn translate into financial and credit market losses that affect Regulated Organizations' balance sheets. Organizations may also face increased liquidity, legal, and operational risks associated with these conditions.[7]
- While insurance is an important mitigant to climate-related financial risks, continued availability of the same level or type of coverage is not assured. Increased physical risks may lead insurers to increase premiums, or reduce or even withdraw coverage in high-risk markets, which may impact the economic and financial health of households, businesses, and governments in affected areas and may cause Regulated Organizations to absorb directly a greater portion of losses.[8]

16. Depending on their geographic coverage and business arrangements, Originators and Servicers that do not own underlying loans as assets may be directly subject to physical risks associated with climate change as follows:

- Increased operating costs associated with response to and recovery from severe weather events, such as additional increased staffing costs.
- Requirements to repair damaged properties before they can be transferred to investors may decrease anticipated revenues.

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[6] *Climate Change Effects and Impacts*, N.Y. STATE DEP'T OF ENV'T CONSERVATION, https://www.dec.ny.gov/energy/94702.html#Predictions [https://perma.cc/T9AM-44JQ] [hereinafter NYDEC, *Climate Change Effects and Impacts*].

[7] FSOC, *Climate Report 2021*, *supra* note 1, at 18. *See also, Estimating Credit Union Exposure to Climate-Related Physical Risks,* NAT'L CREDIT UNION ADMIN. (Apr. 19, 2023), https://ncua.gov/news/publication-search/climate-financial-risk/estimating-credit-union-exposure-climate-related-physical-risks [https://perma.cc/2XWD-S49U].

[8] FSOC, *Climate Report 2021*, *supra* note 1, at 18 (noting that while insurers may choose to implement increased premiums or withdraw from at-risk markets in response to climate-related financial risks, this may affect "the economic and financial health of households, businesses, and governments" in these communities).

- The time needed to return a property to a habitable condition prior to title transfer may result in delayed sales timing and an increase in anticipated carrying costs for the institution's portfolio.

- Mortgage delinquency rates, which can go up after natural disasters,[9] leading to the need for more servicing staff and higher costs. If a loan defaults, the servicing revenue stream associated with it also ceases.

17. Transition risks arise from economic and behavioral shifts driven by policy and regulations, adoption of new technologies, consumer, and investor preferences, and changing liability risks. Because of the potentially widespread direct and indirect impacts associated with transition risks, the Financial Stability Oversight Council recognized that disorderly climate-driven economic transition increases risk to financial stability.[10]

18. Transition risks can affect Regulated Organizations directly or indirectly. Direct impacts may include re-valuation of assets that turn out to be worth less than originally modeled due to changes affecting certain sectors or businesses. Costs to reinvest in and replace infrastructure affected by impacts of climate change may also directly affect Regulated Organizations, as can financial, credit, and market consequences arising from transition risks that are reflected on a Regulated Organization's balance sheet, including its loans and investments. Indirect consequences of transition risks may arise, if, for example, a company with significant operations in a discrete geographic area faces declining revenue prospects associated with its exposure to climate-related financial risk. The ramifications of this financial impact may include loss of household income, population outflows, and attendant declines in property values, which could affect an organization's customer base and mortgage portfolio.

19. Although climate-driven change is already causing adverse impacts in New York[11] as well as across the globe[12], the exact manifestations and timing of future effects are inherently uncertain. This makes it important for a Regulated Organization to consider not only expected annual losses—typically average annual loss or median losses based on past experience—but also the effect of tail events that might occur in an extreme year. Recent examples of unprecedented weather events (such as flash flooding from severe rainstorms[13], widespread

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[9] Amy Gromowski, *The Impact of Natural Catastrophe on Mortgage Delinquency*, CoreLogic (Sept. 28, 2018), https://www.corelogic.com/intelligence/the-impact-of-natural-catastrophe-on-mortgage-delinquency/ [https://perma.cc/RWA6-ZF8Z].

[10] FSOC, *Climate Report 2021*, *supra* note 1, at 11.

[11] NYDEC, *Climate Change Effects and Impacts*, *supra* note 6; *Observed and Projected Climate Change in New York State: An Overview*, N.Y. State Dep't of Env't Conservation (Aug. 2021), https://www.dec.ny.gov/docs/administration_pdf/ccnys2021.pdf [https://perma.cc/72DF-254T].

[12] The Intergovernmental Panel on Climate Change ("IPCC"), a United Nations body composed of climate scientists representing 195-member nations, has prepared assessments of the causes and impacts from climate change based on consensus of its participants. Working Group 1 – The Physical Science Basis, Intergovernmental Panel on Climate Change, Headline Statements from the Summary for Policymakers 1–2 (2021) https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_Headline_Statements.pdf [https://perma.cc/LU86-6N65] (summarizing the IPCC's findings related to climate change and risk).

[13] Scott Dance et. al., *Historic and Deadly Northeast Floods Trap Residents, Destroy Roads*, Wash. Post, July 10. 2023, https://www.washingtonpost.com/weather/2023/07/10/northeast-storms-flash-floods-rain/ [https://perma.cc/7JY7-BJP5].

heat waves of extended duration[14], and multiple wildfires creating hazardous air quality conditions[15]) indicate that extreme events are more likely to occur in the future than their estimated probability based solely on historical records.[16] As a result, when assessing the financial impacts of physical and transition risk, Regulated Organizations should take a forward-looking approach, rather than solely relying on historical data.[17]

B. Managing Climate-Related Financial and Operational Risks While Providing Fair Lending to All Communities

22. Although no one is spared from its impact, due to decades of systemic racism and redlining, many low- and moderate-income ("LMI") communities and communities of color are harmed disproportionately by climate change and natural disasters.[18] For example, LMI communities and communities of color tend to be more susceptible to flooding and heat wave risks exacerbated by climate change.[19] In hard-hit communities, climate change is expected to undermine economic output, reduce already limited household income and wealth, and diminish access to capital. Compounding the problem, LMI communities also have fewer resources to recover from natural disasters. Financial institutions' actions to address climate-related financial and operational risks could have an unintended but disproportionate impact on financially vulnerable communities (*e.g.*, exposing those communities to higher insurance or credit costs), exacerbating existing inequities.[20] Bearing in mind the particular challenges that LMI communities face in the midst of changing climate conditions, the Department expects

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[14] Judson Jones & John Keefe, *Unrelenting Heat Returns to the Southern U.S.*, N.Y. TIMES, July 31, 2023, https://www.nytimes.com/article/heat-forecast-us-south.html [https://perma.cc/L3NM-UC2K].

[15] Lola Fadulu & Jesse McKinley, *Upstate New York Bears the Brunt of the State's Smoke Pollution,* N.Y. TIMES, June 29, 2023, https://www.nytimes.com/2023/06/29/nyregion/new-york-air-quality-wildfire-smoke.html [https://perma.cc/2TZS-FNZ9].

[16] *Global Climate Summary for June 2023,* CLIMATE.GOV, https://www.climate.gov/news-features/understanding-climate/global-climate-summary-june-2023 [https://perma.cc/9LZ7-47G6] (summarizing the June 2023 Global Climate Report, prepared by the National Oceanic and Atmospheric Administration's National Centers for Environmental Information (NOAA), https://www.ncei.noaa.gov/access/monitoring/monthly-report/global/202306 [https://perma.cc/L22F-8RA4]).

[17] It is nonetheless important to consider historical data showing that unprecedented physical risk events have already affected the viability of smaller institutions. *See Estimating Credit Union Exposure to Climate-Related Physical Risks*, NAT'L CREDIT UNION ADMIN. (Apr. 19, 2023), https://ncua.gov/news/publication-search/climate-financial-risk/estimating-credit-union-exposure-climate-related-physical-risks [https://perma.cc/J6JF-SS3J] (reviewing the risks outlined by FEMA's national risk index to minority depository institutions, federally insured credit unions, and communities as a whole in the instance of natural hazards).

[18] *Framing the Challenge of Urban Flooding in the United States*, NATIONAL ACADS. OF SCIENCES, ENGINEERING, & MEDICINE 69 (2019), https://doi.org/10.17226/25381 [https://perma.cc/6ULL-AHNK]; Jeremy Hoffman et al., *The Effects of Historical Housing Policies on Resident Exposure to Intra-Urban Heat: A Study of 108 U.S. Urban Areas*, 8 CLIMATE 12 (Jan. 15, 2020), www.mdpi.com/2225-1154/8/1/12/htm [https://perma.cc/MKB5-5DVL]; RUCHI AVTAR ET AL., FED. RESERVE BANK OF N.Y, STAFF REPORT: UNDERSTANDING THE LINKAGES BETWEEN CLIMATE CHANGE AND INEQUALITY IN THE UNITED STATES (Nov. 2021), https://www.newyorkfed.org/medialibrary/media/research/staff_reports/sr991.pdf [https://perma.cc/N7GY-SHPD].

[19] Bev Wilson, *Urban Heat Management and the Legacy of Redlining*, 86 J. OF THE AM. PLAN. ASS'N 443 (May 22, 2020), https://www.tandfonline.com/doi/full/10.1080/01944363.2020.1759127.

[20] FSOC, *Climate Report 2021*, *supra* note 1 at 22.

Regulated Organizations to minimize and affirmatively mitigate disproportionate impacts that may violate fair lending laws and other applicable consumer-protection laws, regulations, and guidance.

23. Regulated Organizations must manage climate-related financial risks prudently while continuing to ensure fair access to capital and credit. Regulated Organizations are reminded that the practices outlined in this Guidance do not modify their obligations to comply with fair lending laws and other applicable consumer protection laws, regulations, and guidance. They should not base their risk management response to climate change on the concept or practice of disinvesting from low-income communities or communities of color, or by making credit or banking more difficult or expensive for members of these communities to obtain. To ensure that a Regulated Organization manages its compliance risk appropriately, its board should direct management to incorporate consideration of fair-lending and consumer-protection requirements into the organization's internal processes for management of climate-related financial risk.

24. The New York State Community Reinvestment Act ("CRA")[21]—like its federal counterpart[22]—encourages financial institutions to meet the credit needs of their communities, including LMI communities, emphasizing financial institutions' continuing and affirmative obligation to help meet the credit needs of the local communities in which they operate.[23] Regulated Organizations may wish to explore opportunities to mitigate their climate-related financial risk through financing or investments that enhance communities' climate resiliency and are eligible for credit under New York's CRA. Such eligible activities may include, for example, financing or investment in improvements to infrastructure, multifamily affordable housing projects, or community facilities that can help reduce the adverse effects on LMI communities of damage from flooding, heat risks or other physical risk impacts. Further details can be found in the DFS Industry Letter titled "CRA Consideration for Activities that Contribute to Climate Mitigation and Adaptation."[24]

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[21] N.Y. BANKING LAW § 28-b(4) (Consol. 2023).

[22] The federal counterpart is known as the Community Reinvestment Act of 1977. 12 U.S.C. §§ 2901–2908 (2023). The final rule amending the regulations implementing the federal Community Reinvestment Act added a new category of "disaster preparedness and weather resiliency activities". Similar to New York's CRA, it focuses on proactive measures that help LMI communities withstand and adapt to changing physical risks. BD. OF GOVERNORS OF THE FED. RSRV. SYS. ET. AL. (Oct. 24, 2023), https://www.federalreserve.gov/newsevents/pressreleases/files/frn-cra-20231024.pdf [https://perma.cc/5B5E-4WUG].

[23] *See* N.Y. BANKING LAW § 28-b(4) (Consol. 2023). Similar provisions apply to certain mortgage bankers per N.Y. BANKING LAW § 28-bb(4) (Consol. 2023).

[24] *Industry Letter: CRA Consideration for Activities that Contribute to Climate Mitigation and Adaptation*, N.Y. STATE DEP'T OF FIN. SERV. (Feb. 9, 2021), https://www.dfs.ny.gov/industry_guidance/industry_letters/il20210209_cra_consideration [https://perma.cc/V7V8-YWQJ]. More recently, the final rule amending the regulations implementing the federal Community Reinvestment Act added a new category of "disaster preparedness and weather resiliency activities." It similarly focuses on proactive measures that help LMI communities withstand and adapt to changing physical risks. BD. OF GOVERNORS OF THE FED. RSRV. SYS. ET. AL. (Oct. 24, 2023), https://www.federalreserve.gov/newsevents/pressreleases/files/frn-cra-20231024.pdf [https://perma.cc/5B5E-4WUG].

C. Operational Resiliency

25. Operational resilience is essential to each Regulated Organization's safety and soundness. As defined in federal interagency guidance, operational resilience means "the ability to deliver operations, including critical operations and core business lines, through a disruption from any hazard. It is the outcome of effective operational risk management combined with sufficient financial and operational resources to prepare, adapt, withstand, and recover from disruptions."[25] Regulated Organizations' resiliency is also critical for preventing future systemic risk and disruptions to financial services. Given the state's significance as a global financial center, interruption of organizations' operations may have worldwide impacts. To minimize risks to both local communities and to the larger financial system, Regulated Organizations should develop and implement measures to prepare, adapt, withstand, and recover from evolving changes to their operating environment over the short, medium, and long term.

26. As severe weather events have increased in frequency and become more costly, Regulated Organizations are facing growing challenges to ensuring operational resilience. The National Oceanic and Atmospheric Administration reports an increasing number of billion-dollar loss events, both on a national level and in New York State, arising from severe weather events and exacerbated by climate change.[26] Consistent with prudent management of other emerging operational risks, Regulated Organizations should ensure that their governance structure and risk management processes are adequate to preserve and strengthen operational resiliency in the face of increasing physical risks and to maintain their ability to provide critical financial services to their customers.

D. Proportionate Approach

27. Climate change may affect different Regulated Organizations in different ways and to different degrees, depending on factors such as size, complexity, geographic distribution, business lines, and investment strategies, among others. Smaller organizations are not necessarily less exposed to climate-related financial risk, because they may have concentrated business lines or geographies that are highly exposed to climate-related financial risks without the risk-mitigating benefit of diversification available to larger organizations.[27] Further,

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[25] SR 20-24 (*Sound Practices to Strengthen Operational Resilience),* OFF. OF THE COMPTROLLER OF THE CURRENCY, BD. OF GOVERNORS OF THE FED. RSRV. SYS., AND FED. DEPOSIT INS. CORP. (Nov. 2, 2020), https://www.federalreserve.gov/supervisionreg/srletters/SR2024.htm [https://perma.cc/UK8A-93T8]

[26] In New York, the average rate of billion-dollar loss events since 1980 has been 1.9 per year. However, over the period from 2018 to 2022, that rate more than doubled to 4.0 billion-dollar events per year, with a Consumer Product Index-adjusted average cost of $2.8 billion per event. *Billion-Dollar Weather and Climate Disasters- New York Summary*, NOAA, https://www.ncei.noaa.gov/access/billions/state-summary/NY [https://perma.cc/3QT6-GZ7R]. Nationwide, over the same period, an annual average of 18 billion-dollar loss events occurred, more than doubling the annual average number of 8.1 such events since 1980. *Billion-Dollar Weather and Climate Disasters – Overview,* NOAA, https://www.ncei.noaa.gov/access/billions/ [https://perma.cc/57PK-77VE].

[27] The federal banking regulators have recognized in their interagency principles that, regardless of size, "all financial institutions may have material exposures to climate-related financial risks." *Principles for Climate-Related Financial Risk Management for Large Financial Institutions,* OFF. OF THE COMPTROLLER OF THE CURRENCY, BD. OF GOVERNORS OF THE FED. RSRV. SYS., AND FED. DEPOSIT INS. CORP., 88 Fed. Reg. 74183, 74186 (Oct. 30, 2023).

Regulated Organizations do not all have the same level of resources to manage these risks and may be at different points in the process of incorporating these risks into their strategy, governance, and risk management. Regulated Organizations should take a proportionate approach to the management of the climate-related financial risks they face, appropriate to each organization's exposure to these risks.[28]

28. A Regulated Organization that is part of a group of affiliated entities or a holding/parent company structure ("Group") may leverage the policies, procedures, and processes for managing climate-related financial risks developed at the Group level or other appropriate organizational level (*e.g.*, an intermediate holding company or "IHC") if: (1) the risks considered at the Group or IHC level include those facing the Regulated Organization; (2) the policies, procedures, and processes developed at the Group or IHC level are implemented at the level of the Regulated Organization; and (3) the Regulated Organization has appropriate access to relevant resources and expertise centralized at the Group or IHC level. If these conditions are met, the Regulated Organization may rely on the climate-related financial risk management and governance framework or program at the Group, IHC, or similar level for the purposes of the Guidance.

29. For an FBO, if the risk management process and control functions are performed outside of the United States, the FBO's oversight function, policies and procedures, and information systems should be sufficiently transparent to allow U.S. supervisors to assess their adequacy for the branch or agency in relation to the FBO's climate-related financial and operational risks. Further, it is critical that the FBO keep its head office apprised of the U.S. regulatory expectations pertinent to its U.S. operations, including guidance and direction on climate-related financial and operational risks. Additionally, the FBO's U.S. senior management should demonstrate and maintain a thorough understanding of all relevant risks, including climate-related financial and operational risks affecting the U.S. operations and the associated management information systems used to monitor and manage these risks within the U.S. operations. U.S. management should inform the FBO's head office of these risks, to the extent they are material or if their disclosure is otherwise required by the head office.

III. Supervisory Guidance

30. Regulated Organizations should take a strategic approach to managing material climate-related financial and operational risks, considering both current and forward-looking risks and identifying actions required to manage those risks in a manner proportionate to the nature, scale, and complexity of their businesses, as follows:

A. Corporate Governance

31. A Regulated Organization's board of directors and management, consistent with their respective roles, are expected to care for the organization's operational resilience and safety

[28] DFS recognizes that, given the diversity of products, business models, and customers of Regulated Organizations, a flexible approach is warranted, as no "one size fits all" solution would be appropriate for all entities.

and soundness on an ongoing basis and with respect to all material risks. Accordingly, DFS expects that a Regulated Organization's governance framework will ensure that there is a process in place for identifying, measuring, monitoring, and controlling that organization's material financial and operational risks associated with climate change.

(i) Business Environment and Strategy

32. Consistent with existing risk assessment and risk management strategies, Regulated Organizations should develop and implement sound processes for understanding and assessing the potential impact of material climate-related financial and operational risks on businesses and on the environments in which they operate in the short, medium, and long term, to inform the strategy communicated to, and operationalized by, each organization's business units and product lines. The board should consider material climate-related financial and operational risk exposures when setting and monitoring the organization's overall business strategy and risk appetite.

33. In order to supplement existing risk management frameworks to accommodate climate-related financial and operational risks, Regulated Organizations should consider questions such as: which business areas are or may in the future be exposed to these risks, what is the resiliency of the organization's business models, what is the current or potential future materiality of the risks, and whether climate-related financial and operational risks require consideration across all business areas and processes, or only those areas or processes that are or may be particularly exposed.

34. Any risk-mitigation strategies for climate-related financial and operational risk should align with and support the Regulated Organization's broader strategy, risk appetite, and risk management framework. In addition, the board should hold management responsible for ensuring that any public statements about the organization's climate-related strategies and commitments are consistent with the organization's internal strategies, risk appetite statements, and risk management frameworks.

(ii) Board and Management Oversight

35. An effective risk governance framework is essential to a Regulated Organization's safe and sound operation. The organization's board or other governing body should establish a risk management framework that integrates climate-related financial and operational risks and should exercise effective oversight of, and hold management accountable for, its implementation. This risk management framework should be implemented through clear and specific allocation of roles and responsibilities, as well as allocation of appropriate resources.

36. Responsibility and accountability may be integrated within existing organizational structures or by establishing new structures for climate-related financial and operational risks. As climate change could impact multiple business units and require expertise from multiple functions, a cross-functional perspective may be needed to understand the changing risk landscape and identify potential ways to address climate-related financial and operational risks.

37. The board should integrate climate-related financial and operational risks into the organization's risk appetite framework. Material climate-related financial and operational risks should be clearly defined, with thresholds for materiality clarified. The risk management

framework in place should ensure that when risk limits are breached, there is a defined process for escalating and addressing them.

38. The board should consider the relevant time horizons for the potential materialization of climate-related financial and operational risks. While some risks may materialize in the short or medium term, others may stretch beyond the Regulated Organization's traditional capital or strategic planning horizons but within the maturities of some longer-dated positions. Given the uncertainty around the timing of these risks and their potential outcomes, Regulated Organizations should take a dynamic approach to developing their risk management frameworks, in a manner proportionate to the nature, scale, and complexity of their businesses. In establishing time horizons for risk analysis, and consistent with existing and evolving business strategies and risk appetites, Regulated Organizations should also consider the expected longevity of customer relationships, which may in some instances well exceed the tenor of any specific financial instruments or positions.

39. The board should continue to oversee the Regulated Organization's risk-taking activities. For example, the board should ensure that credit management, especially the loan committee or equivalent body responsible for overseeing and managing credit risk, is fully capable of and will be held accountable for implementing the organization's business strategies and adhering to the risk management framework that integrates climate-related financial risks.

40. Management is responsible for implementing the Regulated Organization's policies in accordance with the board's strategic direction and for executing the organization's overall strategic plan and risk management framework. To facilitate board oversight, management should capture and report on the level and nature of material and emerging climate-related financial and operational risk exposures and highlight where available data shows concentration of climate-related financial and operational risks. The reporting should highlight the limitations and uncertainty related to the analysis. Management should also document and report on the processes used for such assessments. Such reporting should be timely and updated at regular intervals or when meaningful developments occur.[29]

41. A Regulated Organization's board and management, including senior management, should have a sufficient level of knowledge to understand how climate-related financial and operational risks might affect their organization. Regulated Organizations should build capacity over time and ensure appropriate board and management education on climate-related topics.

(iii) Policies, Procedures, and Limits

42. Management of material financial and operational risks from climate change should be embedded in policies, procedures, and controls across all relevant functions and business units of Regulated Organizations, in line with the strategy and risk appetite set by each institution's board. Policies, procedures, and limits should be modified when necessary to reflect the

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[29] *See* Paul Smith & Lihuan Zhou, *Physically Fit? How Financial Institutions Can Better Disclose Climate-Related Physical Risks in Line with Recommendations of the TCFD,* UNEP FIN. INITIATIVE & WORLD RES. INST. (Dec. 2022), https://www.unepfi.org/wordpress/wp-content/uploads/2022/12/Physically-fit.pdf [https://perma.cc/3C75-QM9V] (discussing approaches to assessing, managing, and disclosing physical risks pursuant to the recommendations of the Task Force on Climate-Related Financial Disclosures).

distinctive nature of climate-related financial and operational risks and changes, if any, to an organization's operating environment or activities.[30]

B. Internal Control Framework

43. Regulated Organizations should incorporate climate-related financial and operational risks into their internal control frameworks across the three lines of defense, to ensure sound, comprehensive, and effective identification, measurement, monitoring, and control of material climate-related financial and operational risks. A Regulated Organization's governance structure should establish clear lines of authority and responsibility for monitoring adherence to policies and procedures related to climate-related financial and operational risks including the following:

(a) The first line of defense—the risk-taking function—should assess climate-related financial risks during client onboarding, credit application, and credit review processes. While this Guidance does not impose restrictions on the type or amount of credit that Regulated Organizations may provide, each organization's credit underwriting and monitoring processes should include reviewing how physical and transition risks may impact its clients, their business strategies, and their business environment. These assessment frameworks must also comply with applicable consumer protection laws, regulations, and guidance, including all fair lending considerations.

(b) The second line of defense—the risk management function—should undertake independent climate-related financial risk assessment and monitoring, including potentially challenging the assessment conducted by the first line of defense. The compliance function is responsible for assessing the organization's adherence to relevant climate-related rules and regulations. It should ensure that internal policies and procedures are compliant with climate-related standards, directives, charters, or codes of conduct to which the Regulated Organization is subject, as well as with applicable consumer protection laws, regulations, and guidance, including fair lending considerations.

(c) The third line of defense—the internal audit function—should, consistent with their role in an organization's risk management framework generally, conduct regular independent reviews of their organization's climate-related internal control framework and systems, including in light of changes in the methodology, business model, and risk profile of the organization, as well as in the quality of underlying data.

C. Risk Management Process

44. Regulated Organizations should identify, measure, monitor, and control material climate-related financial and operational risks through their existing risk management framework, including existing risk categories, in line with their board-approved risk appetites, as follows:

[30] Such policies and controls may evolve in an iterative and progressive manner, as Regulated Organizations build their capacity to assess the potential effects of applicable climate-related financial risks on their business over relevant timeframes, and as data availability and methodologies for quantitative assessments improve.

(i) Identify Risk

45. Consistent with the need to identify emerging and material risks, Regulated Organizations should consider how physical and transition risks may impact specific asset classes, sectors, counterparties, geographical locations, and operations, in order to tailor existing risk frameworks to account for these considerations.

46. Identification of these risk drivers should occur at the transaction, portfolio, and entity or Group level(s), as appropriate. For larger organizations with more complex operations, the board and senior management also should identify how climate-related financial and operational risks might influence interdependencies and correlations across portfolios and lines of business, which may amplify or mitigate risk exposures.

(ii) Measure Risk

47. Regulated Organizations should develop appropriate key risk measurement tools or indicators for effective management of material climate-related financial risks, as part of existing risk measurement systems. Climate scenario analysis may prove useful for assessing the potential financial impact of climate-related financial risks, as further detailed in Section E, below.

(iii) Monitor Risk

48. Regulated Organizations should regularly monitor risk positions and exceptions to operating within established policies, limits, and risk appetites related to climate-related financial risks. Given the evolving nature of climate-related financial risks and the potential for additional risk transmission channels that might not yet be recognized, Regulated Organizations should monitor emerging risks and ensure that related risk data and metrics are updated regularly. Regulated Organizations also should monitor the impacts from climate-related financial and operational risks on outsourcing arrangements, service providers, supply chains, and business continuity planning.

(iv) Control Risk

49. The board of a Regulated Organization should direct and supervise management's establishment and implementation of plans to mitigate and manage each organization's exposures to material climate-related financial risks, including holding management accountable for implementing such controls. As part of its oversight role, the board should review and assess the effectiveness of these plans regularly.

50. As with other types of financial risk, mitigation measures pertaining to climate-related financial risk may include, but are not limited to, setting internal limits on existing risk areas to account for material risk, reflecting risk-related costs through risk-based pricing measures, and/or adjusting qualitative factors used to determine Allowance for Credit Losses ("ACL") to account for likely future credit losses associated with the organization's existing portfolio that may differ from historical loss experience. Establishment and application of mitigation approaches may be an iterative process as data availability improves and more advanced measurement tools are developed. Regulated Organizations also may support their customers to enhance their resiliency efforts where customer appetite for assistance exists—and this can also serve to mitigate Regulated Organizations' climate-related financial risk.

(v) Climate Risks as Drivers of Existing Risk Categories

51. Management should consider and incorporate climate-related financial risks when identifying and mitigating all types of risk. Regulated Organizations should assess the impact of physical and transition risks as drivers of their existing risk categories, to the extent material and relevant, as follows:

(a) Credit Risk

52. Climate-related financial risk drivers may impact credit risk through changes in cash flows and/or asset values, which in turn change the probability of default and loss. This can occur, for example, through lower collateral valuation of real estate portfolios due to increased flood risk, loss of arable farmland due to prolonged drought, or reduced profitability due to business disruption from natural disasters. Credit risk could also increase if insurance is no longer available or affordable due to high physical risks in certain areas or for certain asset types, leading to decreased collateral values.

53. Regulated Organizations should familiarize themselves with how physical and transition risk drivers might have a material impact on their borrowers and counterparties and should consider climate-related financial risks that exist or may arise in their underwriting and ongoing portfolio monitoring practices. They should monitor climate-related credit risks, including credit risk concentrations stemming from physical and/or transition risks. As part of concentration risk analysis, Regulated Organizations should assess any changes in correlations across exposures or asset classes. While undertaking this analysis, Regulated Organizations are encouraged to continue extending credit in a manner consistent with their risk management frameworks, to avoid market disruptions, and to continue providing key products and services to New Yorkers, always taking into account applicable consumer protection laws, regulations, and guidance, including fair lending considerations.

(b) Liquidity Risk

54. Regulated Organizations should consider the impact of climate-related financial risk drivers on their ability to raise funds or liquidate assets, and on their customers' demand for liquidity. They should assess whether material climate-related financial risks could cause net cash outflows or depletion of liquidity buffers, assuming both business-as-usual and stressed conditions (considering severe yet plausible scenarios) and whether climate-related liquidity risks could negatively affect their safety and soundness. The integration of climate-related financial risks into internal liquidity assessment may be iterative and progressive, as the methodologies and data used to analyze these risks mature and analytical gaps are addressed.

(c) Market Risk

55. Climate-related financial risk may affect market risk when actual or anticipated severe physical events lead to shifts in market expectations, resulting in sudden repricing, higher volatility, or losses in asset values in certain markets. Likewise, climate-related financial risk drivers may lead to changes in issuers' borrowing costs, which could adversely affect the value of their securities, or to an abrupt repricing of financial assets. Regulated Organizations face market risk if the financial market has not priced in climate-related financial risks fully.

56. Regulated Organizations should consider the effect of climate-related financial risk drivers on their current and future investments, including whether and how these risks could lead to potential shifts in supply and demand for financial instruments (*e.g.*, securities and derivatives), products, and services, with a consequent impact on their values or otherwise on the organizations' safety and soundness.

(d) Legal/Compliance Risk

57. A Regulated Organization's management should consider how climate-related financial risk and risk mitigation measures affect the legal and regulatory landscape in which the organization operates. For example, legal or compliance risk may arise if there are changes to legal requirements for, or underwriting considerations related to, flood or disaster-related insurance. Another example would be potential fair lending concerns if the organization's risk mitigation measures disproportionately affect communities or households on a prohibited basis such as race, color, or national origin.

(e) Operational Risk

58. Climate-related financial and operational risk drivers may give rise to operational risk through extreme weather events or changing chronic conditions, which may damage or affect the physical plant and/or critical functions of a Regulated Organization or may affect its employees, customers, or third-party service providers. As highlighted in Section II.B, above, operational resilience is paramount to a Regulated Organization's safety and soundness, as well as to its ability to provide critical services to its customers, including New York consumers.

59. Given the centrality of operational resilience to overall institutional health and stability, Regulated Organizations should assess the impact of physical and transition risk drivers on their operations, control environment, and key customers and counterparty relationships. Assessment should be across all business lines and operations, including third-party operations as appropriate.

(f) Strategic Risk

60. Consistent with sound oversight, a Regulated Organization's board and management should monitor how the execution of strategic decisions and the operating environment affect the organization's financial condition and operational resilience. Strategic goals developed through a Regulated Organization's governance framework should consider climate-related financial risk drivers alongside other key risk drivers, including how they might affect achievement of those goals. For example, the potential physical risk impact of extreme or chronic weather events should be factored into assessing feasibility of goals and requirements for their implementation. Given the evolving nature of climate-related financial and operational risks and the uncertainty as to timing and magnitude of their impact, an organization's periodic reexamination and update of institutional strategic goals should account for the dynamic nature of climate-related financial and operational risks, as part of its regular slate of considerations.

D. Data Aggregation and Reporting

61. Regulated Organizations should ensure that their processes for aggregating data and for internal reporting are sufficient to monitor material climate-related financial risks and to produce

timely information to facilitate board and senior management decision-making. The sophistication of such monitoring and management information systems should be consistent with the nature, scale, complexity, and diversity of the organization's operations and level of exposure to climate-related financial risks.

62. As the required data for assessment of climate-related financial risks may not yet be captured by existing information technology infrastructure of financial institutions, Regulated Organizations should consider enhancing existing systems, where appropriate, to make it possible to identify, collect, and centralize the data necessary to assess material climate-related financial risks so that these risks can be considered alongside other dynamic risks that organizations monitor and manage.

E. Scenario Analysis

63. Similar to other forward-looking risk assessment frameworks that require an organization to evaluate its capacity to maintain a safe and sound, resilient operation while addressing the attendant challenges posed by a range of potential future conditions, climate scenario analysis can be a useful internal assessment tool to help identify, anticipate, manage, and measure climate-related financial risks. The relevant objectives, assumptions, time horizons, and possible responses would typically be different from those applicable in traditional stress testing exercises, however, as climate scenario analyses may not be well-suited to assess the potential impacts of transitory shocks to near-term economic and financial conditions or to factor into an organization's regulatory capital requirements.[31]

64. Regulated Organizations should consider using a range of climate scenarios based on assumptions regarding impact of climate-related financial and operational risks over different time horizons. Such analyses may be conducted for a variety of purposes, such as to assess the resiliency of their business models and strategies, to identify and measure vulnerability to relevant climate-related financial risk factors, including physical and transition risks, to estimate exposures and potential impacts, and to determine the materiality of climate-related financial risks. The assumptions used in such exercises can be quantitative and/or qualitative in nature and should rely on forward-looking information where available. The development and implementation of climate scenario analysis should be commensurate with a Regulated Organization's size, complexity, business activity, and risk profile.[32] An institution's approach to application of this forward-looking assessment may evolve as new methodologies and scenarios become available. In the near term, a climate-related scenario analysis framework can help an institution develop its climate-related financial and operational risk management capabilities by identifying data and methodological limitations and uncertainty in management of these risks and by informing the adequacy of the institution's risk management framework to address them.

[31] *See, e.g.*, *Guide to Climate Scenario Analysis for Central Banks and Supervisors*, NETWORK FOR GREENING THE FIN. SYS. 14 (June 2020), https://www.ngfs.net/sites/default/files/medias/documents/ngfs_guide_scenario_analysis_final.pdf [https://perma.cc/7H6H-LDNB].

[32] Regulated Organizations may rely on analyses conducted at the Group, IHC, or similar level, if the risks considered in such exercises include those relevant to the local organization.

IV. Implementation and Reporting

65. To provide Regulated Organizations with sufficient opportunity to integrate consideration of climate-related financial and operational risks into their governance frameworks, organizational structures, business strategies and risk management processes in a proportionate manner, the Department is not setting a timeline for implementation of Guidance expectations at this time.

66. Before establishing a concrete implementation timeline, DFS will request information from Regulated Organizations as to the steps they are taking, or plan to take within a specified period, to assess and manage their climate-related financial and operational risks. This request for information ("RFI") will solicit information relating to organizations' governance structures, business strategy and risk management processes, operational resiliency measures, and the metrics or targets Regulated Organizations are using or plan to use. If an entity has made public disclosures addressing the questions contained in the RFI, these disclosures can be referenced in the RFI response. Individual entities' responses will not be made public, and the Department is not, as part of this Guidance, otherwise instructing Regulated Organizations to undertake any additional disclosures.

67. The Department expects to issue this RFI during 2024. Responses to the RFI will help DFS to assess Regulated Organizations' overall level of progress in formulating a proportionate approach to these topics, and to understand what challenges they have encountered. Data collected as part of the RFI will be factored into the Department's determination of appropriate implementation timeline(s).

68. As part of setting one or more implementation timeline(s), DFS will coordinate with relevant federal banking regulators to determine when and how to incorporate an assessment of a Regulated Organization's implementation of this Guidance into supervisory examinations.