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Office of the Comptroller of the Currency
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FEDERAL RESERVE SYSTEM
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FEDERAL DEPOSIT INSURANCE CORPORATION
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Principles for Climate-Related Financial Risk Management for Large Financial Institutions

AGENCY: Office of the Comptroller of the Currency (OCC), Treasury; Board of Governors of the Federal Reserve System (Board); and Federal Deposit Insurance Corporation (FDIC).

ACTION: Final interagency guidance.

SUMMARY: The OCC, Board, and FDIC (together, the agencies) are jointly issuing principles that provide a high-level framework for the safe and sound management of exposures to climate-related financial risks (principles). Although all financial institutions, regardless of size, may have material exposures to climate-related financial risks, these principles are intended for the largest financial institutions, those with over $100 billion in total consolidated assets. The principles are intended to support efforts by large financial institutions to focus on key aspects of climate-related financial risk management.

DATES: The final interagency guidance is available on [INSERT DATE OF PUBLICATION IN THE FEDERAL REGISTER].

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SUPPLEMENTARY INFORMATION:

I. Background

On December 16, 2021, the OCC issued draft Principles for Climate-Related Financial Risk Management for Large Banks (OCC draft principles) and requested feedback from the

public with comments due on February 14, 2022.[1] On April 4, 2022, the FDIC issued a Request for Comment on a Statement of Principles for Climate-Related Financial Risk Management for Large Financial Institutions (FDIC draft principles) with comments due on June 3, 2022.[2] On December 2, 2022, the Board issued draft Principles for Climate-Related Financial Risk Management for Large Financial Institutions (Board draft principles) with comments due on February 6, 2023.[3]

Financial institutions are likely to be affected by both the physical risks and transition risks associated with climate change (collectively, climate-related financial risks).[4] Weaknesses in how financial institutions identify, measure, monitor, and control climate-related financial risks could adversely affect financial institutions' safety and soundness. The proposed OCC draft principles, FDIC draft principles, and Board draft principles (collectively, draft principles) were substantively similar and proposed a high-level framework for the safe and sound management of exposures to climate-related financial risks, consistent with the risk management framework described in the agencies' existing rules and guidance. Although all financial institutions, regardless of size, may have material exposures to climate-related financial risks, the draft principles were intended to support key climate-related financial risk management efforts by the largest financial institutions, those with over $100 billion in total consolidated assets.

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[1] OCC Bulletin 2021-62, Risk Management: Principles for Climate-Related Financial Risk Management for Large Banks; Request for Feedback, (December 16, 2021), *https://occ.gov/news-issuances/bulletins/2021/bulletin-2021-62.html*.

[2] 87 FR 19507 (April 4, 2022).

[3] 87 FR 75267 (December 8, 2022).

[4] Physical risks refer to the harm to people and property arising from acute, climate-related events, such as hurricanes, wildfires, floods, and heatwaves, and chronic shifts in climate, including higher average temperatures, changes in precipitation patterns, sea level rise, and ocean acidification. Transition risks refer to stresses to institutions or sectors arising from the shifts in policy, consumer and business sentiment, or technologies associated with the changes that would be part of a transition to a lower carbon economy.

The agencies seek to promote consistency in their climate-related financial risk management guidance. Accordingly, following the issuance of the draft principles and collective review of comments received on each of the OCC draft principles, FDIC draft principles, and Board draft principles, the agencies are now jointly issuing final interagency Principles for Climate-Related Financial Risk Management for Large Financial Institutions (principles) that provide a high-level framework for the safe and sound management of exposures to climate-related financial risks.

II. Discussion of Public Comments

The OCC received nearly 100 unique comments on the OCC draft principles from individuals and organizations. Several of these letters were signed by or included individual feedback from multiple individuals or organizations (and in one case, more than 17,700 individuals). Approximately 4,470 individuals submitted a substantially similar letter directly to the OCC.

The FDIC received more than 70 unique comments on the FDIC draft principles from individuals and organizations. Several of the letters were submitted on behalf of, or signed by, numerous individuals and organizations.

The Board received more than 100 unique comments on the Board draft principles from individuals and organizations. Several of the letters were submitted on behalf of, or signed by, numerous individuals or organizations.

Commenters included financial services trade groups, individual banks, environmental groups, public interest and advocacy groups, data and risk model providers, governmental organizations, community groups, and individuals, among other respondents.

The agencies received a wide range of comments that both supported and opposed the

finalization of the draft principles. Many commenters viewed the draft principles as an important step to support large financial institutions in managing climate-related financial risks. Other commenters asserted that financial institutions already effectively manage climate-related financial risks or do not face material climate-related financial risks. Some commenters expressed a view that the agencies were providing special treatment to climate-related financial risks relative to other risks. Many commenters indicated practices to address climate-related financial risks are evolving, and they supported the high-level and flexible nature of the draft principles, while others encouraged the agencies to take additional steps to address climate-related financial risks, including considering more detailed guidance. Most unique commenters offered suggestions for changes to the draft principles or requested additional guidance in specific areas. These comments are summarized below.

Authority. Some commenters asserted that the draft principles extend beyond the agencies' authority. Other commenters raised concerns that the draft principles would restrict or discourage provision of credit to, or otherwise disproportionately impact, certain industries, geographies, or other groups. Some commenters asserted that the draft principles could better address the role that they believe financial institutions should play in supporting or accelerating a transition to a lower carbon economy.

The agencies are responsible for ensuring the safety and soundness of supervised financial institutions, among other responsibilities. Similar to other risks faced by financial institutions, climate-related financial risks can affect financial institutions' safety and soundness. The principles are focused on ensuring that financial institutions understand and appropriately manage their material climate-related financial risks. The agencies are providing guidance to financial institutions through these principles on the management of climate-related financial

risks just as the agencies provide guidance to financial institutions in identifying and managing other risks.

The agencies did not incorporate suggestions for changes to the draft principles that extend beyond the agencies' statutory mandates relating to safety and soundness. For example, the agencies did not incorporate changes in response to suggestions that the agencies promote a transition to a lower carbon economy. The agencies encourage financial institutions to take a risk-based approach in assessing the climate-related financial risks associated with their customer relationships and to take into account the financial institution's ability to manage the risk. The principles neither prohibit nor discourage financial institutions from providing banking services to customers of any specific class or type, as permitted by law or regulation. The decision regarding whether to make a loan or to open, close, or maintain an account rests with the financial institution, so long as the financial institution complies with applicable laws and regulations.

Scope. Some commenters supported draft principles that were intended for financial institutions with total assets over $100 billion. Other commenters proposed that the draft principles cover financial institutions of all sizes. Some requested that the draft principles be tailored to financial institutions based on the size, complexity, or risk profile of the financial institution. Several commenters noted that the agencies should implement a phased-in approach for smaller financial institutions. Other commenters expressed concern that the draft principles could unintentionally impact smaller financial institutions, including community banks, noting the potential burden the principles could impose on these smaller financial institutions.

Effective risk management practices should be appropriate to the size of the financial institution and the nature, scope, and risk of its activities. In keeping with the agencies' risk-

based approach to supervision, the principles are intended for financial institutions with more than $100 billion in total consolidated assets. The principles are intended to provide guidance to large financial institutions as they develop strategies, deploy resources, and build capacity to identify, measure, monitor, and control for climate-related financial risks.

Several commenters requested clarification regarding the draft principles' application to foreign banking organizations and branches and agencies of foreign banks operating in the United States. The principles are intended for foreign banking organizations with combined United States operations of greater than $100 billion. The principles also are intended for any branch or agency of a foreign banking organization that individually has total assets of greater than $100 billion.[5]

Financial institutions' public climate commitments. Several commenters suggested that the draft principles should encourage or mandate financial institutions to develop plans to transition to a lower carbon economy, to adopt credible commitments to align their portfolios with net zero greenhouse gas emissions by 2050, or to directly support their customers through such a transition. Some commenters asked the agencies to hold financial institutions accountable if financial institutions' public commitments to address climate change do not match their actions. Other commenters argued that the draft principles should recognize the aspirational nature of financial institutions' public commitments.

The agencies did not incorporate suggestions for changes to the draft principles that extend beyond the agencies' statutory mandate relating to safety and soundness, including

[5] The Board is responsible for the overall supervision and regulation of the U.S. operations of all foreign banking organizations. The OCC, the FDIC, and the state banking authorities have supervisory authority over the national and state bank subsidiaries and federal and state branches and agencies of foreign banking organizations, respectively, in addition to the Board's supervisory and regulatory responsibilities over some of these entities.

changes in response to suggestions that the agencies promote a transition to a lower carbon economy. Similar to the draft principles, the principles state that any financial institutions' climate-related strategies should align with and support the institution's broader strategy, risk appetite, and risk management framework. In addition, when financial institutions engage in public communication of their climate-related strategies, boards of directors and management should confirm that any public statements about their financial institutions' climate-related strategies and commitments are consistent with their internal strategies, risk appetite statements, and risk management frameworks. This type of oversight is consistent with effective governance and risk management and intended to help financial institutions avoid legal and compliance risk.

Low-and-moderate-income (LMI) and other underserved consumers and communities. Many commenters asked that the agencies acknowledge the potential unintended consequences of financial institutions' climate risk management strategies on low-and-moderate-income and other underserved consumers and communities. Some commenters also requested additional clarification on how financial institutions may support communities that are disproportionately impacted by the effects of climate change, as well as additional guidance on how financial institutions can manage climate-related financial risks in a manner that minimizes adverse impacts on such consumers and communities. Some commenters also suggested that the principles should provide further guidance on how financial institutions can manage climate-related financial risks consistent with their obligations under fair lending and fair housing laws.

The agencies recognize that both the effects of climate change and the actions that financial institutions may take to manage climate-related financial risks could potentially have a disproportionate impact on LMI and other underserved consumers and communities. The agencies expect financial institutions to manage climate-related financial risks in a manner that

will allow them to continue to prudently meet the financial services needs of their communities, including LMI and other underserved consumers and communities, and to ensure compliance with fair housing and fair lending laws. For example, the principles clarify that financial institutions should ensure that fair lending monitoring programs review whether and how the financial institution's risk mitigation measures potentially discriminate against consumers on a prohibited basis, such as race, color, or national origin.

Governance. Many commenters supported the flexibility provided by the draft principles for financial institutions to incorporate climate-related financial risks within existing organizational structures or to establish new structures for climate-related financial risks. Many commenters requested that the draft principles further distinguish between the responsibilities of the boards of directors and of management. Some commenters noted that expectations that financial institutions consider whether incorporation of climate-related financial risks into governance and risk management processes may warrant changes to compensation policies would be overly prescriptive.

The agencies have made changes to the draft principles to clarify the role of the boards of directors in overseeing the financial institution's risk-taking activities and the role of management in executing the strategic plan and risk management framework. The agencies emphasize that sound compensation programs continue to be important to promote sound risk management and to protect the safety and soundness of financial institutions. As the agencies have existing guidelines and guidance on compensation,[6] the principles do not include a specific discussion of compensation policies.

[6] *See* 12 CFR part 30, appendix A and appendix D (OCC); 12 CFR part 364, appendix A (FDIC); 12 CFR part 208, appendix D-1 (Board); and Guidance on Sound Incentive Compensation Policies, 75 FR 36396 (June 25, 2010).

Materiality of risk. Several commenters requested further clarification of how financial institutions should determine whether climate-related financial risks are material. Some commenters requested clarification that financial institutions have the flexibility to make their own materiality determinations. Some commenters provided specific recommendations for assessing materiality. Some commenters requested that the agencies distinguish materiality in the context of the draft principles from the concept of materiality in securities laws. Other commenters asserted that climate-related financial risks are rarely or not material to the risk profile of financial institutions.

The principles provide that financial institutions' management should employ comprehensive processes for identifying climate-related financial risks consistent with methods used to identify other types of emerging and material risks. The agencies made changes to the draft principles to clarify that management should incorporate climate-related financial risks into their risk management frameworks where those risks are material.

Coordination. Many commenters urged the agencies to coordinate amongst each other and work with other U.S. and international regulators and federal agencies to harmonize approaches and to share knowledge with respect to climate-related financial risks.

The agencies agree with commenters that interagency coordination plays an important role in the effective issuance of guidance on climate-related financial risks. Accordingly, the agencies have jointly issued these principles and intend to continue to coordinate with other U.S. regulators and international counterparts, where appropriate.

Other comments. The agencies received a number of detailed comments on other aspects of the draft principles, some of which were responsive to specific questions posed in the draft principles. These comments included responses associated with supervisory approaches, time

horizons for identifying the materiality of climate-related financial risks, relationships between climate-related financial risks and other risks, specific tools and resources used to manage and mitigate climate-related financial risks, approaches to scenario analysis, climate-related financial products offered by financial institutions, data- and modeling-related challenges, and reporting and disclosure issues. The responses also included feedback on how climate-related financial risks should be considered in merger and acquisition decisions and the challenges and costs of incorporating the principles into risk management frameworks.[7]

Comments received on the draft principles were considered in the development of the principles and will assist the agencies as they consider whether and how to provide additional guidance in the future.

III. Paperwork Reduction Act

The Paperwork Reduction Act of 1995 (44 U.S.C. 3501–3521) (PRA) states that no agency may conduct or sponsor, nor is the respondent required to respond to, an information collection unless it displays a currently valid Office of Management and Budget (OMB) control number.

[7] Some commenters also asserted that the draft principles were legislative rules subject to Administrative Procedure Act (APA) notice and comment requirements and that the draft principles violated the agencies' rule on guidance. The principles are being issued as guidance and, consistent with the agencies' rule on guidance, they will not have the force and effect of law. They do not establish any specific requirements applicable to financial institutions. Moreover, the principles are not subject to APA notice and comment requirements. 5 U.S.C. 533(b) (excluding interpretive rules, general statements of policy, and rules of agency organization, procedures, or practice from the notice and comment requirement). That the agencies sought public comment on the draft principles does not mean that the principles are intended to be a regulation or to have the force and effect of law. Rather, the comment process helps the agencies improve their understanding of the issue, gather information on financial institutions' risk management practices, or seek ways to achieve supervisory objectives most effectively and with the least burden on financial institutions.

The principles do not revise any existing, or create any new, information collections pursuant to the PRA. Rather, any reporting, recordkeeping, or disclosure activities mentioned in the principles are usual and customary and should occur in the normal course of business as defined in the PRA.[8] Consequently, no submissions will be made to the OMB for review.

IV. Principles for Climate-Related Financial Risk for Large Financial Institutions

The financial impacts that result from the economic effects of climate change and the transition to a lower carbon economy pose an emerging risk to the safety and soundness of financial institutions[9] and the financial stability of the United States. Financial institutions are likely to be affected by both the physical risks and transition risks associated with climate change (collectively, climate-related financial risks). Physical risks refer to the harm to people and property arising from acute, climate-related events, such as hurricanes, wildfires, floods, and heatwaves, and chronic shifts in climate, including higher average temperatures, changes in precipitation patterns, sea level rise, and ocean acidification.[10] Transition risks refer to stresses to institutions or sectors arising from the shifts in policy, consumer and business sentiment, or technologies associated with the changes that would be part of a transition to a lower carbon

[8] 5 CFR 1320.3(b)(2).

[9] In this issuance, the term "financial institution" or "institution" includes national banks, Federal savings associations, U.S. branches and agencies of foreign banks, state nonmember banks, state savings associations, state member banks, bank holding companies, savings and loan holding companies, intermediate holding companies, foreign banking organizations with respect to their U.S. operations, and non-bank systemically important financial institutions (SIFIs) supervised by the Board.

[10] The Financial Stability Oversight Council has described the impacts of physical risks as follows: "The intensity and frequency of extreme weather and climate-related disaster events are increasing and already imposing substantial economic costs. Such costs to the economy are expected to increase further as the cumulative impacts of past and ongoing global emissions continue to drive rising global temperatures and related climate changes, leading to increased climate-related risks to the financial system." *Report on Climate-Related Financial Risk*, Financial Stability Oversight Council, page 10 (Oct. 21, 2021) (FSOC Climate Report), available at *https://home.treasury.gov/system/files/261/FSOC-Climate-Report.pdf*.

economy.[11]

Physical and transition risks associated with climate change could affect households, communities, businesses, and governments – damaging property, impeding business activity, affecting income, and altering the value of assets and liabilities. These risks may be propagated 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.[12]

Weaknesses in how a financial institution identifies, measures, monitors, and controls the physical and transition risks associated with a changing climate could adversely affect a financial institution's safety and soundness. The adverse effects of climate change could also include a potentially disproportionate impact on the financially vulnerable, including low-and-moderate-income (LMI) and other underserved consumers and communities.[13]

These principles provide a high-level framework for the safe and sound management of exposures to climate-related financial risks, consistent with the risk management frameworks described in the agencies' existing rules and guidance.

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[11] The Financial Stability Oversight Council has described the impacts of transition risks as: "…[Changing] public policy, adoption of new technologies, and shifting consumer and investor preferences have the potential to impact the allocation of capital….If these changes occur in a disorderly way owing to substantial delays in action or abrupt changes in policy, their impact on firms, market participants, individuals, and communities is likely to be more sudden and disruptive." FSOC Climate Report, page 13.

[12] FSOC Climate Report, page 13.

[13] For further information, *see* Staff Reports, Federal Reserve Bank of New York, *Understanding the Linkages between Climate Change and Inequality in the United States*, No. 991 (Nov. 2021), available at *https://www.newyorkfed.org/research/staff_reports/sr991.html*.

The principles are intended to support efforts by financial institutions to focus on key aspects of climate-related financial risk management. The principles are designed to help financial institutions' boards of directors (boards) and management make progress toward incorporating climate-related financial risks into risk management frameworks in a manner consistent with safe and sound practices. The principles are intended to explain and supplement existing risk management standards and guidance on the role of boards and management.[14]

Although all financial institutions, regardless of size, may have material exposures to climate-related financial risks, these principles are intended for the largest financial institutions, those with over $100 billion in total consolidated assets.[15] Effective risk management practices should be appropriate to the size of the financial institution and the nature, scope, and risk of its activities. In keeping with the agencies' risk-based approach to supervision, the agencies anticipate that differences in large financial institutions' complexity of operations and business models will result in different approaches to addressing climate-related financial risks. Some large financial institutions are already developing governance structures, processes, and analytical methodologies to identify, measure, monitor, and control for these risks. The agencies

[14] References to the board and management throughout these principles should be understood in accordance with their respective roles and responsibilities and is not intended to conflict with existing guidance regarding the roles of board and management or advocate for a specific board structure. *See, e.g.*, SR 21-3/CA 21-1: Supervisory Guidance on Board of Directors' Effectiveness (Feb. 26, 2021), *https://www.federalreserve.gov/supervisionreg/srletters/SR2103.htm*; OCC Guidelines Establishing Heightened Standards for Certain Large Insured National Banks, Insured Federal Savings Associations, and Insured Federal Branches, 12 CFR part 30, appendix D.

[15] The principles are intended for financial institutions with over $100 billion in total consolidated assets. With respect to foreign banking organizations, this includes organizations with combined United States operations of greater than $100 billion. The principles also are intended for any branch or agency of a foreign banking organization that individually has total assets of greater than $100 billion.

understand that expertise in climate risk and the incorporation of climate-related financial risks into risk management frameworks remain under development in many large financial institutions and will continue to evolve over time. The agencies also recognize that the incorporation of material climate-related financial risks into various planning processes will be iterative, as measurement methodologies, models, and data for analyzing these risks continue to mature. The agencies encourage large financial institutions to take a risk-based approach in assessing the climate-related financial risks associated with individual customer relationships and to take into account the financial institution's ability to manage the risk. The principles neither prohibit nor discourage financial institutions from providing banking services to customers of any specific class or type, as permitted by law or regulation. The decision regarding whether to make a loan or to open, close, or maintain an account rests with the financial institution, so long as the financial institution complies with applicable laws and regulations.

The principles are intended to promote a consistent understanding of the effective management of climate-related financial risks. The agencies may consider providing additional resources or guidance, as appropriate, to support financial institutions in prudently managing these risks while continuing to meet the financial services needs of their communities.

General Principles

Governance. An effective risk management framework is essential to a financial institution's safe and sound operation. A financial institution's board should understand the effects of climate-related financial risks on the financial institution in order to oversee management's implementation of the institution's business strategy, risk management, and risk appetite. The board should oversee the financial institution's risk-taking activities, hold management accountable for adhering to the risk management framework, and allocate

appropriate resources to support climate-related financial risk management. The board should direct management to provide timely, accurate, and well-organized information to permit the board to oversee the measurement and management of climate-related financial risks to the financial institution. The board should acquire sufficient information to understand the implications of climate-related financial risks across various scenarios and planning horizons, which may include those that extend beyond the financial institution's typical strategic planning horizon. If weaknesses or gaps in climate-related financial risk management are identified, the information provided is incomplete, or as otherwise warranted, the board should challenge management's assessments and recommendations. The board and management should support the stature and independence of the financial institution's risk management and internal audit functions and, in their respective roles, assign accountability for climate-related financial risks within existing organizational structures or establish new structures for climate-related financial risks.

Management is responsible for implementing the financial institution's policies in accordance with the board's strategic direction and for executing the financial institution's overall strategic plan and risk management framework. This responsibility includes assuring that there is sufficient expertise to execute the strategic plan and effectively managing all risks, including climate-related financial risks. This also includes management's responsibility to oversee the development and implementation of processes to identify, measure, monitor, and control climate-related financial risks within the financial institution's existing risk management framework. Management should also hold staff accountable for controlling risks within established lines of authority and responsibility. Management is responsible for regularly reporting to the board on the level and nature of risks to the financial institution, including

material climate-related financial risks. Management should provide the board with sufficient information for the board to understand the impacts of material climate-related financial risks to the financial institution's risk profile and make sound, well-informed decisions. Where dedicated climate risk organizational structures are established by the board, management should clearly define these units' responsibilities and interaction with existing governance structures.

Policies, Procedures, and Limits. Management should incorporate material climate-related financial risks into policies, procedures, and limits to provide detailed guidance on the financial institution's approach to these risks in line with the strategy and risk appetite set by the board. Policies, procedures, and limits should be modified when necessary to reflect: (i) the distinctive characteristics of climate-related financial risks, such as the potentially longer time horizon and forward-looking nature of the risks; and (ii) changes to the financial institution's operating environment or activities.

Strategic Planning. The board should consider material climate-related financial risk exposures when setting and monitoring the financial institution's overall business strategy, risk appetite, and when overseeing management's implementation of capital plans. As part of forward-looking strategic planning, the board should consider and management should address the potential impact of material climate-related financial risk exposures on the financial institution's financial condition, operations (including geographic locations), and business objectives over various time horizons. The board should encourage management to consider climate-related financial risk impacts on the financial institution's other operational and legal risks. Additionally, the board should encourage management to consider the impact that the financial institution's strategies to mitigate climate-related financial risks could have on LMI and

other underserved communities and their access to financial products and services, consistent with the financial institution's obligations under applicable consumer protection laws.

Any climate-related strategies and commitments should align with and support the financial institution's broader strategy, risk appetite, and risk management framework. In addition, where financial institutions engage in public communication of their climate-related strategies, boards and management should assure that any public statements about their institutions' climate-related strategies and commitments are consistent with their internal strategies, risk appetite statements, and risk management frameworks.

Risk Management. Climate-related financial risks can impact financial institutions through a range of traditional risk types. Management should oversee the development and implementation of processes to identify, measure, monitor, and control exposures to climate-related financial risks within the financial institution's existing risk management framework. Financial institutions with sound risk management employ a comprehensive process to identify emerging and material risks related to the financial institution's business activities. The risk identification process should include input from stakeholders across the organization with relevant expertise (e.g., business units, independent risk management, internal audit, and legal). Risk identification includes assessment of climate-related financial risks across a range of plausible scenarios and under various time horizons.

As part of sound risk management, management should develop processes to measure and monitor material climate-related financial risks and to communicate and report the materiality of those risks to internal stakeholders. Material climate-related financial risk exposures should be clearly defined, aligned with the financial institution's risk appetite, and supported by appropriate metrics (e.g., risk limits and key risk indicators) and escalation

processes. Management should incorporate material climate-related financial risks into the financial institution's risk management system, including internal controls and internal audit.

Tools and approaches for measuring and monitoring exposures to climate-related financial risks include, among others, exposure analysis, heat maps, climate risk dashboards, and scenario analysis. These tools can be leveraged to assess a financial institution's exposure to both physical and transition risks in both the shorter and longer term. Outputs should inform the risk identification process and the short- and long-term financial risks to a financial institution's business model from climate change.

Data, Risk Measurement, and Reporting. Sound climate-related financial risk management depends on the availability of timely, accurate, consistent, complete, and relevant data. Management should incorporate climate-related financial risk information into the financial institution's internal reporting, monitoring, and escalation processes to facilitate timely and sound decision-making across the financial institution. Effective risk data aggregation and reporting capabilities allow management to capture and report climate-related financial risk exposures, segmented or stratified by physical and transition risks, based upon the complexity and types of exposures. Available data, risk measurement tools, modeling methodologies, and reporting practices continue to evolve at a rapid pace; management should monitor these developments and incorporate them into the institution's climate-related financial risk management as warranted.

Scenario Analysis. Climate-related scenario analysis is emerging as an important approach for identifying, measuring, and managing climate-related financial risks. For the purposes of these principles, climate-related scenario analysis refers to exercises used to conduct a forward-looking assessment of the potential impact on a financial institution of changes in the

economy, changes in the financial system, or the distribution of physical hazards resulting from climate-related financial risks. These exercises differ from traditional stress testing exercises that typically assess the potential impacts of transitory shocks to near-term economic and financial conditions. An effective climate-related scenario analysis framework provides a comprehensive and forward-looking perspective that financial institutions can apply alongside existing risk management practices to evaluate the resiliency of a financial institution's strategy and risk management to the structural changes arising from climate-related financial risks.

Management should develop and implement climate-related scenario analysis frameworks in a manner commensurate to the financial institution's size, complexity, business activity, and risk profile. These frameworks should include clearly defined objectives that reflect the financial institution's overall climate-related financial risk management strategies. These objectives could include, for example, exploring the impacts of climate-related financial risks on the financial institution's strategy and business model, identifying and measuring vulnerability to relevant climate-related financial risk factors including physical and transition risks, and estimating climate-related exposures and potential losses across a range of scenarios, including extreme but plausible scenarios. A climate-related scenario analysis framework can also assist management in identifying data and methodological limitations and uncertainty in climate-related financial risk management and informing management's assessment of the adequacy of the institution's climate-related financial risk management framework.

Climate-related scenario analyses should be subject to management oversight, validation, and quality control standards that would be commensurate to the financial institution's risk. Climate-related scenario analysis results should be clearly and regularly communicated to the board and all relevant individuals within the financial institution, including an appropriate

level of information necessary to effectively convey the assumptions, limitations, and uncertainty of results.

Management of Risk Areas

A risk assessment process is part of a sound risk management framework, and it allows management to identify emerging risks and to develop and implement appropriate strategies to mitigate those material risks. Management should consider and incorporate climate-related financial risks when identifying and mitigating all types of risk. These risk assessment principles describe how climate-related financial risks can be addressed in various risk categories.

Credit Risk. Management should consider climate-related financial risks as part of the underwriting and ongoing monitoring of portfolios. Effective credit risk management practices could include monitoring climate-related credit risks through sectoral, geographic, and single-name concentration analyses, including credit risk concentrations stemming from physical and transition risks. As part of concentration risk analysis, management should assess potential changes in correlations across exposures or asset classes. Consistent with the financial institution's risk appetite statement, management should determine credit risk tolerances and lending limits related to material climate-related financial risks.

Liquidity Risk. Consistent with sound oversight and liquidity risk management, management should assess whether climate-related financial risks could affect its liquidity position and, if so, incorporate those risks into their liquidity risk management practices and liquidity buffers.

Other Financial Risk. Management should monitor interest rate risk and other model inputs for greater volatility or less predictability due to climate-related financial risks. Where appropriate, management should account for this uncertainty in their risk measurements and

controls. Management should monitor how climate-related financial risks affect the financial institution's exposure to risk related to changing prices. While market participants are still researching how to measure climate-related price risk, management should use the best measurement methodologies reasonably available to them and refine them over time.

Operational Risk. Management should consider how climate-related financial risk exposures may adversely impact a financial institution's operations, control environment, and operational resilience. Sound operational risk management includes incorporating an assessment across all business lines and operations, including operations performed by third parties, and considering climate-related impacts on business continuity and the evolving legal and regulatory landscape.

Legal and Compliance Risk. Management should consider how climate-related financial risks and risk mitigation measures affect the legal and regulatory landscape in which the financial institution operates. This should include, but is not limited to, taking into account possible changes to legal requirements for, or underwriting considerations related to, flood or disaster-related insurance, and ensuring that fair lending monitoring programs review whether and how the financial institution's risk mitigation measures potentially discriminate against consumers on a prohibited basis, such as race, color, or national origin.

Other Nonfinancial Risk. Consistent with sound oversight, the board and management should monitor how the execution of strategic decisions and the operating environment affect the financial institution's financial condition and operational resilience. Management should also consider the extent to which the financial institution's activities may increase the risk of negative financial impact and should implement adequate measures to account for these risks where material.

Michael J. Hsu,
Acting Comptroller of the Currency.

By order of the Board of Governors of the Federal Reserve System.
Ann E. Misback,
Secretary of the Board.

Federal Deposit Insurance Corporation.
By order of the Board of Directors.
Dated at Washington, DC, on October 24, 2023.
James P. Sheesley,
Assistant Executive Secretary.

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