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FSOC Report on Climate-Related Financial Risk
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FSOC Report on Climate-related Financial Risks

On October 21, 2021, the **Financial Stability Oversight Council (FSOC or Council)** issued a report in response to the directive in Executive Order 14030, Climate-Related Financial Risk, to the Secretary of the Treasury to engage FSOC members on this topic and report on FSOC's activities.

The Council's work on climate-related financial risks is a key part of the government's **efforts to address the potential adverse effects caused by climate change**. These efforts will aid the ability of consumers, investors, financial institutions and other market participants to make informed decisions that better reflect future climate-related financial risks.



Key Takeaways

- ❖ **Recognizing the Emerging Threat:** FSOC identifies climate change as an **emerging threat to U.S. financial stability** for the first time. It also describes how the economic and financial consequences of climate change can be a source of shocks to the financial system and threaten financial stability.
- ❖ **Developing a Common Agenda to Respond:** The report emphasizes four key areas for FSOC members to measure, and when appropriate, address climate-related financial risks within their mandates:
 - **Building Capacity and Expanding Efforts to Address Climate-related Financial Risks:** FOSC members plan to invest further to **build capacity and expertise** to benefit from enhanced research efforts to help coordinate and promote knowledge sharing.
 - **Filling Climate-related Data and Methodological Gaps:** FSOC members will also seek to **coordinate with other government agencies** (non-FSOC member agencies) that have climate related data to integrate into their risk management, supervisory, and regulatory frameworks.
 - **Enhancing Public Climate-related Disclosures:** Members to take steps within their regulatory mandates, to **enhance company's disclosures on climate-related risk** to provide necessary information to regulators, market participants so they can make more informed decisions.
 - **Assessing and Mitigating Climate-related Risks to Financial Stability:** The council recommends its members to **leverage scenario analysis** to facilitate risk assessments under a range of scenarios to understand risks and prioritize next steps.
- ❖ **Enhancing Coordination across Members:** The report calls for **enhanced coordination across FSOC members**. A Climate-related Financial Risk Committee (CFRC) will be formed to identify priority areas for assessing and mitigating climate-related risks to the financial system.
- ❖ **Enhancing Cooperation in International Forums:** The report emphasizes the importance of **coordination of FSOC members with their international counterparts** both bilaterally and through relevant international bodies to address collective challenges.
- ❖ **Addressing the Needs of Vulnerable Populations:** The report emphasizes that the **adverse effects of climate change may disproportionately impact financially vulnerable populations, including lower-income communities, communities of color, and other disadvantaged or underserved communities**. Report also highlights work that is being undertaken, including at the Federal Insurance Office and the Financial Literacy and Education Commission, that will advance this critical priority.

Executive Summary

The report represents an initial overview of current efforts by the members of the FSOC to incorporate climate-related financial risk into their regulatory and supervisory activities, enhance climate-related disclosures, and assess climate related risks to the financial stability of the United States.

It contains over thirty recommendations on how the FSOC's constituent agencies can target and address the climate-related **physical and transition risks** facing the US financial system.



Executive Summary

- ❖ FSOC Members have accelerated their efforts to tackle climate-related financial risks over the past year. These efforts include those underway to **understand, assess, and manage climate-related risks to the entities within their statutory jurisdiction**, as well as an assessment **of implications of climate-related risks towards financial stability and identification of measures** that can promote resilience to these risks.
- ❖ The report:
 - discusses **framework for how climate risks can increase financial stability risks**, and how the approach of the Council to these issues is aligned with its core mission and statutory responsibilities;
 - reviews efforts underway across members of FSOC on climate-related financial risks and financial stability;
 - highlights the **data and methodological challenges** pertaining to measurement of climate-related financial risks and potential solutions to these challenges;
 - discusses the **critical role of consistent, comparable, and decision-useful climate-related disclosures** for investors, financial institutions, regulators, and the public in the measurement of climate-related financial risks;
 - presents important **challenges for assessments of the effect of climate-related financial risks on financial markets and institutions**, emphasizing the need for measurement tools to assess these risks and the key role that scenario analysis can play in the development and deployment of these critical assessments; and
 - includes **recommendations that FSOC and its members can adopt to strengthen the financial system** and make it more resilient to climate-related shocks and vulnerabilities.
- ❖ All FSOC members voted to recommend the report on October 21, 2021, except for Jelena McWilliams, Chair of the Federal Deposit Insurance Corporation, who abstained.
- ❖ The report will likely push agencies to further action. However, it does not mention any deadlines by which FSOC members should complete this proposed stocktaking exercise.

Approach/Framework to Tackle Climate-related Financial Risks



FSOC's approach to identifying risks and responding to emerging threats to financial stability is intended to integrate climate-related physical and transition risks, since **these stresses manifest as traditional risks to financial institutions** such as credit risk, liquidity risk, market risk, and operational risk.

While significant challenges remain to assess risks to financial stability from climate change, **these challenges reflect the complex transmission channels linking transition and physical risks** to the economy and financial sector.



The assessment of climate-related financial risks involves a series of steps:

- ❖ Defining the climate change risks and how they may affect the financial sector;
- ❖ Quantifying the effect of climate risks on economic activity;
- ❖ Evaluating the links between economic impacts and financial risks; and
- ❖ Assessing financial stability to create an adverse feedback loop between financial stress at institutions and markets and economic activity.



FSOC members face impediments to assessing and addressing climate-related financial risk. These impediments include:

- ❖ **Data Limitations:** While significant data related to climate change already exists, there remain gaps in connecting the science of climate change to financial risk assessments and real-world economic impacts.
- ❖ **Time Horizon:** Some impacts of climate change might materialize sooner, while others will manifest over a longer time horizon than businesses traditionally consider
- ❖ **Complexity and Uncertainty of Climate Risk:** The impacts of climate change and climate-related risk are non-linear and complex.
- ❖ **Policy and Economic Uncertainty:** A stable and clearly communicated policy framework can promote business planning and market dynamics to address climate risk.
- ❖ **Trade-offs:** Some FSOC members may face trade-offs between climate-related financial risk mitigation measures and their other mandated objectives.

❖ **Physical Risks** refer to the harm to people and property arising from acute, climate-related disaster events such as hurricanes, wildfires, floods, and heatwaves as well as longer-term chronic phenomena such as higher average temperatures, changes in precipitation patterns, sea-level rise, and ocean acidification.

❖ **Transition Risks** refer to stresses to certain institutions or sectors arising from the shifts in policy, consumer and business sentiment, or technologies associated with the changes necessary to limit climate change.

Regulatory and Supervisory Engagement with Climate-related Financial Risk

FSOC members are taking steps to standardize definitions, inventory data and identify key data gaps, determine decision-useful metrics, understand and address adverse impacts on vulnerable households and communities, enhance disclosures, and review their supervisory and regulatory tools.

Treasury Department

- ❖ Coordinates much of its domestic efforts on climate-related financial risks with FSOC. Internationally, Treasury plays a key role in U.S. **engagement on financial stability and regulatory matters**.
- ❖ Works with the **FRB, SEC, and other U.S. financial authorities** as appropriate to coordinate and advance U.S. policy views on how best to **promote a strong and resilient** global financial system.
- ❖ Assess climate-related **financial risks to critical infrastructure**.
- ❖ Leads collaborative efforts among the public and private sectors to **identify, assess, and manage operational risks** to sector critical infrastructure, including those arising from climate change.

Federal Deposit Insurance Corporation (FDIC)

- ❖ Regularly assesses environmental risk as part of the **semiannual Regional Risk Committee (RRC)** process.
- ❖ Performed research on the potential implications of climate-related financial risks.
- ❖ Following the RRCs, representatives from each region gather for the **Risk Roundtable** to discuss the most important risks from the regional meetings, including environmental concerns when pertinent.
- ❖ Internationally, the FDIC is **participating in the BCBS' Task Force on Climate-related Financial Risks**.

Federal Reserve Board (FRB)

- ❖ Recently established two new committees — **the Supervision Climate Committee and the Financial Stability Climate Committee** to bring together senior staff from the FRB and the Reserve Banks on climate-related issues, with a goal to incorporate climate-related financial risks into the FRB's supervision of financial firms through the work of the SCC and into its financial stability framework through the FSCC.
- ❖ From a microprudential perspective, **FRB's Supervision and Regulation Report** discusses how the effects of climate change can manifest in the financial system via traditional channels like credit, market, operational, and legal risks that affect the safety and soundness of individual firm.
- ❖ From a macroprudential perspective, the **Financial Stability Report** outlines how climate change could increase financial shocks and financial system vulnerabilities that could further amplify shocks.

Office of the Comptroller of the Currency (OCC)

- ❖ The **OCC's NRC** monitors systemic and supervision risks facing the federal banking system and receives quarterly briefings on climate-related financial risk to ensure that this risk is assessed appropriately under the agency's risk framework.
- ❖ NRC formed the **Climate Risk Implementation Committee**, chaired by the Climate Change Risk Office to identify weather and climate-related financial risks to OCC-supervised institutions and provide recommendations to senior OCC leadership on the integration of these risks into OCC policy, supervision, and research.
- ❖ The OCC will produce regular internal OCC-wide staff briefings to communicate agency activities and projected next steps to inform all OCC staff as to how severe weather events and long-term climate change may impact the safety and soundness of the federal banking system

Regulatory and Supervisory Engagement with Climate-related Financial Risk (contd.)

National Credit Union Administration (NCUA)

- ❖ The NCUA recently **established a Climate Financial Risk Working Group** with the goal of further incorporating climate-related financial risks into the agency's risk-monitoring framework.
- ❖ Its initial efforts are aimed at **developing internal expertise on the financial risks associated with climate change** and their implications for credit unions, credit union members, and the **National Credit Union Share Insurance Fund (NCUSIF)**.
- ❖ The NCUA plans to solicit information from credit unions and other stakeholders about whether and how extreme weather events and climate change factor into their risk-monitoring framework, business strategy, and product offerings.

State Bank Supervisors

- ❖ Climate-related financial risk initiatives are being pursued both individually and collectively with other state bank supervisors, including through the **Conference of State Bank Supervisors (CSBS)**.
- ❖ State bank supervisors are also exploring opportunities to collaborate with one another on climate-related initiatives, including **through district-level meetings and the formation of multi-state forums** facilitated by CSBS.
- ❖ State bank supervisors are also **exploring opportunities to engage with their federal and international counterparts**, for instance, by joining the NGFS.

Securities and Exchange Commission (SEC)

- ❖ In March 2021, the SEC ordered its staff to evaluate the disclosure rules and requested public comment on ways to improve climate disclosure.
- ❖ The SEC had previously addressed climate-related disclosures in its **2010 interpretive guidance**, in which it reiterated the obligations of companies under existing federal securities laws and regulations to consider climate change and its consequences as they prepare disclosure documents to be filed with us and provided to investors.
- ❖ SEC's oversight regarding climate-related disclosures, is primarily based on general anti-fraud provisions of the federal securities laws applicable to investment advisers and funds, as well as specific disclosure requirements that apply to investment advisers and funds.
- ❖ The **SEC's Division of Enforcement announced a task force** to proactively evaluate potential ESG-related misconduct. The task force is focused on potential violations of the securities laws, with a particular emphasis on any material misstatements or omissions in issuers' disclosure of climate-related risks.
- ❖ The task force is **also evaluating disclosure and compliance issues relating to investment advisers' and funds' ESG strategies**, in coordination with other offices to support the SEC's effort to address risks to investors.

Commodity Futures Trading Commission (CFTC)

- ❖ In March 2021, CFTC established the **Climate Risk Unit**, focused on accelerating CFTC engagement in industry-led and market-driven processes in the climate and wider ESG spaces to ensure that new products and markets facilitate hedging, price discovery, and capital allocation.
- ❖ The CFTC has also engaged on climate-related financial risk issues through its **Market Risk Advisory Committee**.
- ❖ On September 9, 2020, the MRAC's Climate-Related Market Risk Subcommittee (Climate Subcommittee) issued a report entitled **"Managing Climate Risk in the U.S. Financial System"**. The report catalogued how United States regulators can address the growing impact of climate related financial risk.
- ❖ The **Energy and Environmental Markets Advisory Committee** held a public meeting in June 2021 exploring the role of carbon markets in the transition to a net-zero economy, and in particular the linkages between primary, secondary, and derivative carbon markets.

Regulatory and Supervisory Engagement with Climate-related Financial Risk (contd.)

Consumer Financial Protection Bureau (CFPB)

- ❖ CFPB **established a climate working group** to better assess the impact of climate change on consumer financial well-being and on the markets for consumer financial products and services.
- ❖ This working group is charged with developing a research, public engagement, and policy agenda for the CFPB and will **collaborate with other agencies, consumer advocates, academics, and industry participants**. The working group will identify the data, resources, and expertise that will be necessary for the CFPB to carry out its agenda.

Federal Housing Finance Agency (FHFA)

- ❖ FHFA has been actively working to ensure it is accounting for climate-related financial risks in its prudential supervision and conservatorship oversight of Fannie Mae and Freddie Mac, and its prudential supervision of the Federal Home Loan Banks (the regulated entities).
- ❖ In May 2019, FHFA **formalized its agency-wide Disaster Response Team**. The DRT has experience coordinating with the regulated entities, other government agencies, external parties, and internal FHFA stakeholders during natural disasters.
- ❖ In January 2021, **FHFA issued a Climate and Natural Disaster Risk Management Request for Input**. The RFI requested information on a wide range of topics, including data availability, gaps, and data linkages; physical and transition risk; FHFA's supervisory and regulatory responsibilities; financial disclosures; affordability; and fairness and equity.

State Insurance Regulators

- ❖ Approximately 15 state insurance regulators have individually taken preliminary steps to expressly address climate-related financial risks. In addition, the National Association of Insurance Commissioners (NAIC) has provided forums in which states may discuss proposals for addressing climate-related financial risks.
- ❖ In 2020, the NAIC identified climate change as one of its top five regulatory priorities and **created a new Climate and Resiliency Task Force**. This new task force has five workstreams: Pre-disaster Mitigation, Solvency, Climate Risk Disclosure, Innovation, and Technology.
- ❖ All 50 states, the District of Columbia, Puerto Rico, and the U.S. Virgin Islands have adopted laws or regulations that are based on an NAIC model law and regulation, requiring medium and large insurers to conduct annually an **Own Risk and Solvency Assessment**, as part of the insurers' **Enterprise Risk Management framework**.
- ❖ None of the state or federal regulator has conducted a nationwide data collection or scenario analysis of insurers' exposure to climate-related financial risks till date.

Federal Insurance Office (FIO)

- ❖ FIO regularly engages with state insurance regulators, insurers, policyholder groups, and other stakeholders on climate-related issues as part of its statutory authorities to monitor all aspects of the insurance sector.
- ❖ FIO's **2021 annual report describes FIO's work on climate-related issues**, including its ongoing work on mitigation and post-disaster resilience.
- ❖ FIO is currently taking steps to implement the Executive Order's directives and is focusing its efforts on three **initial climate-related priorities**:
 - (1) Insurance Supervision and Regulation;
 - (2) Insurance Markets and Mitigation/Resilience; and
 - (3) Insurance Sector Engagement:

US Based Climate Committees and Working Groups

Existing climate-focused committees and working groups

- ❖ **CFPB Climate Working Group:** Group that assesses the impact of climate change on consumer financial well-being and on the markets for consumer financial products & services.
- ❖ **Climate and Natural Disaster Risk Working Group:** FHFA working group that aims to improve FHFA's understanding of climate and natural disaster risks and their impacts; review the regulated entities' risk management approaches; and ensure they continue to operate in a safe and sound manner.
- ❖ **Climate Financial Risk Working Group:** A NCUA working group with the goal of further incorporating climate-related financial risks into the agency's risk monitoring framework.
- ❖ **Climate-Related Market Risk Subcommittee of the Market Risk Advisory Committee (MRAC):** The CFTC's climate-related financial risk subcommittee issued a report on Sept. 9, 2020, entitled Managing Climate Risk in the U.S. Financial System
- ❖ **Energy and Environmental Markets Advisory Committee (EEMAC):** A CFTC federal advisory committee.
- ❖ **FHFA ESG Working Group:** Group that works to coordinate FHFA's ESG efforts.
- ❖ **Financial Stability Climate Committee (FSCC) and Supervision Climate Committee:** FRB subcommittees that work to bring together senior staff from the FRB and the Reserve Banks on climate-related issues.
- ❖ **National Risk Committee (NRC):** An OCC subcommittee which monitors systemic and supervision risks facing the federal banking system receives quarterly briefings on climate-related financial risk to ensure that the risk is assessed appropriately under the agency's risk framework.
- ❖ **Climate Risk Implementation Committee:** Formed by the NRC, this committee serves to identify weather and climate-related financial risks to OCC supervised institutions and provide recommendations to senior OCC leadership.
- ❖ **System Climate Network:** An FRB working group formed to collaborate and develop capacity to engage on the topic of the financial risks from climate change across the Federal Reserve System.

Newly announced climate committees in the FSOC report

- ❖ **Climate-related Financial Risk Committee (CFRC):**
 - The agenda of the committee will be "identify priority areas for assessing and mitigating climate-related risks to the financial system" and serve as a coordinating body to help FSOC members and other interested parties communicate.
- ❖ **Climate-related Financial Risk Advisory Committee (CFRAC):**
 - Formed to help FSOC gather information on and analysis of climate-related financial risks from a broad array of stakeholders, while its reports to the CFRC

Committees and Working Groups incorporating climate

- ❖ **FDIC Regional Risk Committees (RRC):**
 - Since 2006 FDIC has regularly assessed environmental risk as part of the semiannual RRC process and performed research on the potential implications of climate-related financial risks.
- ❖ **FSOC Data Committee:**
 - Through this pilot program OFR has initiated to serve as a climate data hub with another FSOC member and opened data discussions.
- ❖ **Corporation Finance Section of the North American Securities Administration Association (NASAA):**
 - The committee will examine and respond to federal and state securities law developments regarding ESG issues.

Climate-related Financial Risk—Data and Methods

Financial Regulators have identified a set of **challenges related to cataloging and analyzing existing data sources, data gaps, and combining different types of data**. The review of data is grouped in four major categories:

Data on the climate risks

- ❖ To **analyze climate-related financial risk**, data related to physical and transition risks that could impact households, businesses, the economy, and the financial sector must be captured.
- ❖ **Drivers of physical risk** resulting from climate change includes extreme weather events, ecosystem impacts, ecosystem shifts, and Sea-level rise and water scarcity.
- ❖ **Drivers of transition risk** resulting from climate change includes Public Policy Change, Technological Change, Changing Investor and Consumer Demand, and disruptive business models.

Data on exposures of nonfinancial entities

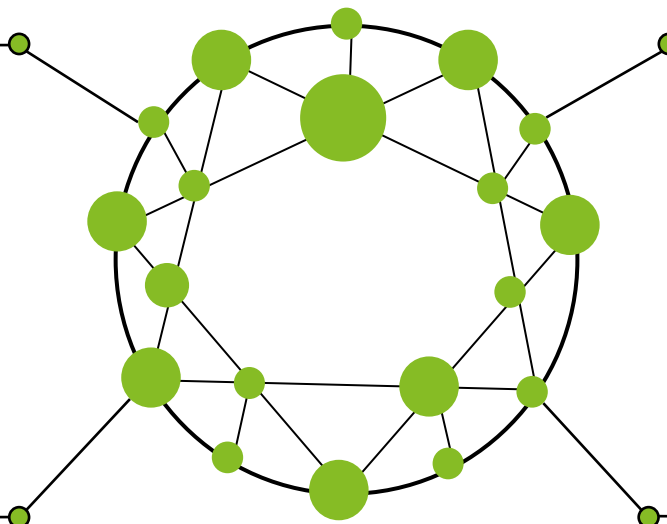
- ❖ Report highlights that the climate-related physical and transition risks to the financial system often stem from climate impacts on households and businesses and the necessity to **assess and quantify the impacts** in order to understand, model, and address climate-related financial risks faced by financial institutions and investors.
- ❖ **Examples of data on physical risk exposure** include local estimates of exposures and projected perils and damages based on geographic location and climate trends, data on physical characteristics of property and structures, data on credit and insurance exposures, and data on replacement costs.
- ❖ **The exposures of nonfinancial firms to transition risks** are influenced by various factors, including the degree to which reductions in GHG emissions affect industries, regions, or individual firms through losses on existing assets, shifts in business operations or supply chains, or other changes in market conditions. Entities can quantify these risks through **The Greenhouse Gas Protocol (GHG Protocol)**, which is now the global standard.

Data on risks to financial institutions and markets

- ❖ **Data on physical and transition risk exposure** will be available through Banks, Non-bank lenders, Federal Home Loan Banks, Fannie Mae, and Freddie Mac (GSEs), insurance firms, Funds and Asset Managers through their regulatory filings.
- ❖ **Assessment of physical risk** requires consideration of climate-related operational risks to financial sector critical infrastructure. Data from Location-based, Operations-based and Relationship-based models forms the critical component of the assessment.

Data required to assess systemwide resilience to climate-related financial risks

- ❖ The report highlights the **importance of stress test of large financial institutions** as they form an important input to the assessment of climate-related financial risks.
- ❖ The **report recommends set of scenarios** developed and published by the Network of Central Banks and Supervisors for Greening the Financial System (NGFS), which provide a range of data on transition risk, physical risk, and economic impacts associated with each scenario at a high level of aggregation.



Climate-related Disclosures

Banks, insurance companies, funds, or other financial entities can be subject to **public disclosure requirements** that apply independently of, or in addition to, public issuer disclosure requirements, depending on the mandate and regulatory or supervisory purposes of the regulator issuing them. Information about climate-related financial risks contained within disclosures can potentially help **assess threats to the safety and soundness of individual financial institutions and the financial system more broadly**, and ultimately, climate-related disclosures can help support financial stability.

Existing U.S. Regulatory Framework Relevant for Climate-related Disclosures:

- ❖ FSOC members are at different stages in their development of their disclosure requirements concerning regulated entities.
- ❖ SEC filings of public companies include **information about the risks posed to companies' properties and supply chains** due to increasing severe weather events, sea level rise, drought, or other physical effects of climate change and other related information.
- ❖ While private issuers generally are not subject to the disclosure requirements of public issuers, they sometimes disclose similar information to their investors on request, albeit not publicly.
- ❖ public disclosure requirements that apply to financial institutions generally do not contain specific requirements related to climate-related risks.
- ❖ Considering investor demand and the range of investment options offered to investors, SEC staff has stated that it will **review the accuracy and adequacy of certain ESG disclosures made by investment advisers and funds**. Investment advisers are also subject to extensive disclosure and governance requirements.
- ❖ Disclosure regime of designated contract markets and designated clearing organizations requires them to **disclose potential risks of using their services, including operational risks** that could prevent the entity from performing its services, such as cybersecurity risks, and potentially other business continuity concerns that could encompass climate-related risks, such as a natural disaster preventing a clearinghouse from clearing trades.
- ❖ In accordance with their statutory mandates, the **OCC, FDIC, and FRB require supervised institutions/banks to provide reporting on a variety of indicators related to their financial condition and risks**. Many large U.S. banking organizations are disclosing climate-related information using voluntary climate disclosure frameworks established by several international and nongovernmental organizations.
- ❖ Currently, there is no nationwide requirement for the disclosure of climate-related financial risks for the entirety of the U.S. insurance industry

Voluntary Climate-related Disclosures and U.S. Companies:

- ❖ In response to investor demand, US companies have started to **disclose climate-related risks using voluntary frameworks** established by several international and non-governmental organizations.
- ❖ Many international organizations are **starting to converge around the need for comparable disclosures** for investor decision making, attempting to establish a global baseline for climate-related disclosures.
- ❖ Some of the widely used voluntary frameworks are **Task Force on Climate-Related Financial Disclosure (TCFD), Carbon Disclosure Project (CDP), Climate Disclosure Standards Board (CDSB), Global Reporting Initiative (GRI), Value Reporting Foundation, Science Based Targets Initiative (SBTi), Paris Agreement Capital Transition Assessment (PACTA), and Partnership for Carbon Accounting Financials (PCAF)**
- ❖ TCFD is one of the leading frameworks used by companies in the United States for structuring climate-related disclosures and is being considered by U.S. regulators in the context of potential new disclosure requirements.
- ❖ Organizations and Standard Setting Bodies to **foster consistent, comparable, and decision-useful climate-related risk disclosures** globally.

The report calls for FSOC members to **assess appropriateness of climate-related disclosure requirements**, consistent with their mandate, they should consider how to promote the consistency, comparability, and decision-usefulness of any such disclosures by **leveraging the TCFD Framework**, enhancing the disclosure of GHG Emissions, and ensuring the consistency, comparability, and decision-usefulness of such disclosures.

TCFD Framework



- ❖ The council recommends its members to consider and **promote enhancing public reporting requirements for climate related risks** in a manner that builds on the four core elements of the Task Force on Climate Related Financial Disclosure (TCFD).
- ❖ Established by FSB, TCFD is a framework of recommendations for structuring **disclosures related to governance, strategy, risk management, and metrics and targets**.
- ❖ The framework is supported by **recommended disclosures and guidance** for implementation.
- ❖ Report suggests that the use of the TCFD recommendations could help **achieve more consistent, comparable, and decision-useful climate-related financial disclosures**.



The TCFD framework is intended to:

- ❖ be **widely adoptable and applicable** to organizations across sectors and jurisdictions.
- ❖ **facilitate disclosures** that can be included in financial filings.
- ❖ **promote the disclosure** of decision-useful, forward-looking information and
- ❖ include a **strong focus on physical and transition risks** and opportunities.

Governance

Disclose the organization's governance around climate-related risks and opportunities

(a) Describe the board's oversight of climate – related risks and opportunities.

(b) Describe management's role in assessing and managing climate – related risks and opportunities.

Strategy

Disclose the actual & potential impacts of climate-related risks & opportunities on the organization's businesses, strategy, & financial planning.

(a) Describe the climate – related risks and opportunities the organization has identified over the short, medium, and long term.

(b) Describe the impact of climate – related risks and opportunities on the organization's businesses, strategy, & financial planning

(c) Describe the resilience of the organization's strategy, taking into consideration diff. climate-related scenarios, incl. 2°C or lower scenario.

Risk Management

Disclose how the organization identifies, assesses and manages climate-related risk.

(a) Describe the organization's processes for identifying and assessing climate – related risks

(b) Describe the organization's processes for managing climate – related risks

(c) Describe how processes for identifying, managing & assessing climate – related risks are integrated into the organization's overall risk management

Metrics and Targets

Disclose the metrics and targets used to access and manage relevant climate-related risks and opportunities where such information is material.

(a) Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process.

(b) Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks.

(c) Describe the targets used by the organizations to manage climate-related risks and opportunities and performance against targets.

Implications for Financial Stability Assessments

The report **recommends Scenario Analysis to accelerate identification of data and knowledge gaps, as well as steps to address such gaps**. The report describes **Scenario Analysis as an emerging tool** in the study of climate-related financial risks, and international work has used this tool as part of the process for developing and assessing the data and analytic capacity to measure current and potential future exposures.

The report further describes how scenario analysis is different from stress testing:

- ❖ Stress tests may be tightly linked to regulatory requirements and supervisory expectations in ways that directly impact decisions, such as required loss-absorbing capital, at regulated entities, whereas, **scenario analysis may be exploratory in nature**, without direct regulatory implications.
- ❖ In addition, stress tests within the remit of regulators tend to focus on a shorter time horizon in order to determine the solvency and liquidity of an institution given an 'extreme but plausible' market risk or set of macroeconomic shocks, whereas **scenario analysis of climate-related financial risks may contemplate much longer time horizons** in order to assess medium- and long-term business model resilience against the changes in climate-related risks that may materialize over longer horizons.

Scenario Analysis as a tool for risk management:

The report describes scenario analysis is a **forward-looking process projection of risk outcomes** that is typically conducted in four steps:

- ❖ **Identify** physical and transition risk scenarios;
- ❖ **Link** the impacts of scenarios to financial risks;
- ❖ **Assess** counterparty and/or sector sensitivities to those risks; and
- ❖ **Extrapolate** the impacts of those sensitivities to calculate an aggregate measure of exposure and potential losses.

Data and Modeling Needed for Effective Measurement

- ❖ **Data collected related to physical and transition risk must be complemented by models** to gauge the impact of the climate risk factors on potential losses associated with affected assets and liabilities. Specification and parametrization of such models is challenging.
- ❖ Scenario analysis is a **leading approach to the assessment of climate-related financial risks at the individual institution level and to assessments of broad economic impacts**, including financial stability assessments.
- ❖ Acknowledging the growing materiality of climate change-related risk to the financial system, **an increasing number of overseas financial regulatory authorities are undertaking efforts to identify and quantify financial institutions' exposure** to such risks.

Activities to be carried out by FSOC members to enable monitoring and mitigation of climate-related risks:

- ❖ Recommending Treasury, financial regulators, and/or U.S. Government policy to mitigate risks.
- ❖ Leading public-private efforts to **develop risk mitigation approaches**.
- ❖ **Targeted sharing and distribution of information** on identified risks.
- ❖ Incorporating identified risks into **tabletop exercise programs** and working with interagency partners to **identify cross-sector risk mitigation efforts** and prioritize federal resources to them.
- ❖ The report emphasizes that **climate change will alter the operational risks** the financial system faces and, alongside other physical and transition risks, will shape how climate related financial risk impacts the financial system and financial stability.

Council Recommendations

The FSOC makes over 30 high-level recommendations, focused on collecting and analyzing data on climate-related financial risks, building regulatory capacity for assessing climate-related financial risks and requiring the public disclosure of such risks.

The report's recommendations will serve as a coordinated FSOC agenda, which members can implement in accordance with their respective mandates and authorities

Building Capacity and Expanding Efforts to Address Climate-related Financial Risks:

- The Council recommends that its members **prioritize internal investments** to expand their respective capacities to define, identify, measure, monitor, assess, and report on climate-related financial risks and their effects on financial stability.
- This should include **investments in staffing, training, expertise, data, analytic and modeling methodologies, and monitoring.**
- The Council also recommends that its members **enhance public communication of climate-related efforts**, including in annual reports and any relevant risk reports they publish

Filling Climate-related Data and Methodological Gaps:

- The Council recommends that its members **promptly identify and take the appropriate next steps** towards ensuring that they have consistent and reliable data to assist in assessing climate-related risks.
- Members should perform an **internal inventory of currently available data** and develop plans for acquiring necessary additional data through data collection, data sharing, or data procurement.
- FSOC members should also **develop consistent data standards, definitions, and relevant metrics, and coordinate** as they identify and fill data gaps & address data issues.

Enhancing Public Climate-related Disclosures:

- The Council recommends that its members **review their existing public disclosure requirements and consider updating them** to promote the consistency, comparability, and decision-usefulness of information on climate-related risks and opportunities.
- The Council also recommends that FSOC members issuing requirements for climate-related disclosures consider whether such **disclosures should include disclosure of greenhouse gas emissions**, as appropriate and practicable, to help determine exposure to material climate-related financial risks.
- In addition, FSOC members should **evaluate standardizing data formats for public climate risk disclosures** to promote comparability



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