February 14, 2022

Chief Counsel's Office
Office of the Comptroller of the Currency
A 400 7th St. SW, Suite 3E-218
Washington, DC 20219

Submitted via: https://regulations.gov/

Dear Sir / Madam,

Principles for Climate-Related Financial Risk Management for Large Banks ("Request for Feedback")

MSCI[1] welcomes the opportunity to comment on the Request for Feedback. As a leading provider of climate risk data and analytics to the global investment community, MSCI has collected climate-related and environmental, social and governance (ESG) disclosures from thousands of companies globally for over two decades and developed tools to assist investors in their analysis of climate and ESG risk to their portfolios. The systematic consideration of climate factors in the risk management process of banks and financial institutions is still at an early stage.

For the purposes of our response to the Request for Feedback, we have analyzed how listed U.S. based banks compare to the global sector average on climate-risk management practice from our Financing Environmental Impact Key Issue ratings methodology for banks/lenders.[2] Our research illustrates that the U.S. based banks lag the remainder of the global banking sector on selected indicators related to ESG and climate risk management practices. Please refer to Annex 1 attached, for detailed findings.

For the purposes of this submission, we comment in more detail in Annex 2 on those matters where we believe MSCI's expertise and experience to be most relevant. As a provider of climate risk data and analytics, we have an interest in the proposals and have the following general comments:

1. Enhancing the scope of banks covered. The physical and transition risks associated with climate change have the potential to impact banks of all sizes. Smaller banks with a less diversified portfolio and higher regional exposure may be more vulnerable to climate-related risks than larger banks with a wider geographical footprint and diversified loan book. This is supported by our analysis of the exposure of U.S. based banks to environmental risks in lending and underwriting activities, as well as limited risk mitigation (please refer to our response to Question 1 in Annex 2).

2. Using a well-established set of reference scenarios for stress testing. Technology exists today to quantitatively assess the resilience of investment portfolios to a net-zero climate transition and physical climate risks under a range of scenarios. The data and methodologies can also be applied to a bank's business lines. To enhance the comparability of stress test results, a

[1] MSCI ESG Ratings, research and data are produced by MSCI ESG Research LLC, a subsidiary of MSCI Inc.
[2] Please refer to the MSCI ESG Ratings Methodology

single set of reference scenarios e.g. from the Network for Greening the Financial System (NGFS), that support the shift from a qualitative to a quantitative approach over a clearly defined time horizon would be meaningful.

3. Align with international standard setters to minimize burden and optimize results. We support the efforts of the International Sustainability Standards Board (ISSB) to propose standardization of ESG disclosures that aim to capture issues that could be material to companies' enterprise value. The ISSB has initiated the standardization of disclosures, with the release of a climate-related disclosures prototype with the guidance of the Task Force on Climate-related Financial Disclosures (TCFD).[3] The framework published by the TCFD has already significantly advanced the convergence of climate-related reporting to be more robust and consistent.[4]

We provide the following attachments:

- **Annex 1**
  Detailed findings of our research on U.S. based banks' current approach to climate risk management.
- **Annex 2**
  Specific responses to the Request for Feedback.
- **Annex 3**
  Additional research paper references relating to the impact of a net-zero transition and physical climate risks on different asset classes and the use of climate scenarios for portfolio optimization, risk management and regulatory reporting purposes.

We would welcome a discussion with your Office to provide additional granular information on how banks can determine climate-related financial risks that are material and various tools and strategies that are currently available to incorporate climate risks into their risk management framework.

Please do not hesitate to contact us to discuss our submission.

Yours Sincerely,

/s/ Neil Acres
Managing Director
Head of Government & Regulatory Affairs
MSCI Inc.

[3] Climate Related Disclosures-Prototype
[4] TCFD-2021 Status Report

Annex 1

Research on U.S. based banks' current approach to climate risk management

MSCI ACWI Index[5] is a set of large- and mid-cap stocks across 23 developed and 25 emerging markets. It covers more than 2,900 constituents across 11 sectors and approximately 85% of the free float-adjusted market capitalization in each market. MSCI ACWI Investable Market Index (IMI)[6] captures large, mid and small cap representation across 23 Developed Markets (DM) and 25 Emerging Markets (EM) countries. With 9,296 constituents, the index is comprehensive, covering approximately 99% of the global equity investment opportunity set.

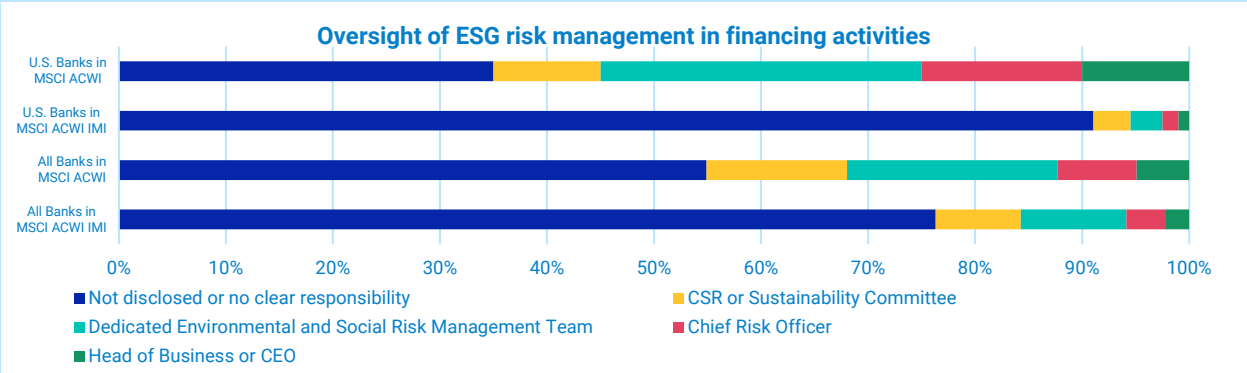
In the charts below, we display performance among the U.S. based banks in the MSCI ACWI Index (20 banks) and the MSCI ACWI IMI Index (ca. 200 banks), versus all the banks in MSCI's ESG Rating coverage with available data, in MSCI ACWI Index (ca. 244) and MSCI ACWI IMI Index (ca. 580 banks[7]) respectively.

The graphical representation compares the banks based on the areas of Governance, Strategy and Risk Management.

a. Governance

Oversight of ESG risk management in financing activities

The chart below shows that the U.S. banks that are constituents of the MSCI ACWI IMI Index lag other banks with respect to non-disclosure of where responsibility for oversight of ESG risk management in financing activities sits. The U.S banks in the MSCI ACWI Index fair better than banks in the MSCI ACWI Index with respect to this parameter.



Source: MSCI ESG Research LLC, as of January 31, 2022. The x-axis shows the % of companies assessed to have policies/practices aligned with the respective category on the chart. The practices are ordered from the weakest (no evidence) to what we consider the best practice.

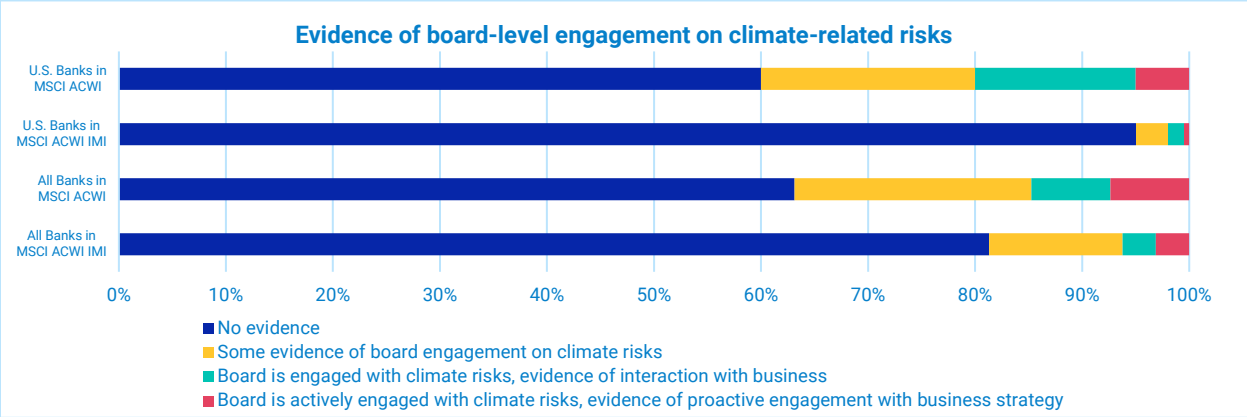
[5] MSCI's All Country World Index

[6] MSCI's Investable Market Index

[7] Based on companies in the Banks and Investment Banking & Brokerage industries that have Financing Environmental Impact as a weighted Key Issue

Evidence of board-level engagement on climate-related risks

The chart below shows that U.S. banks that are constituents of the MSCI ACWI IMI Index lag other banks in the index in demonstrating board level engagement on climate-related risks. The U.S banks in the MSCI ACWI Index are more or less at par with other banks in the MSCI ACWI Index.

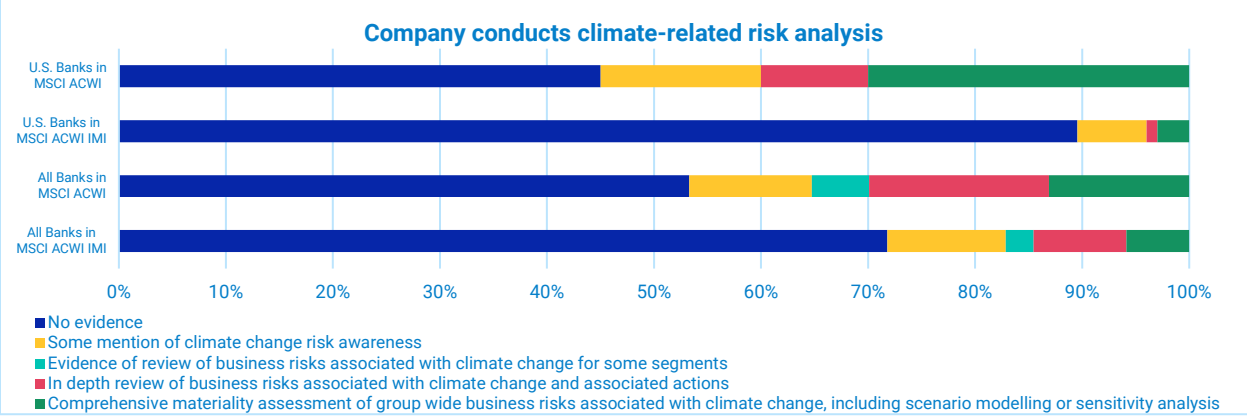


Source: MSCI ESG Research LLC, as of January 31, 2022. The x-axis shows the % of companies assessed to have policies/practices aligned with the respective category on the chart. The practices are ordered from the weakest (no evidence) to what we consider the best practice.

b. Strategy

Company conducts climate-related risk analysis

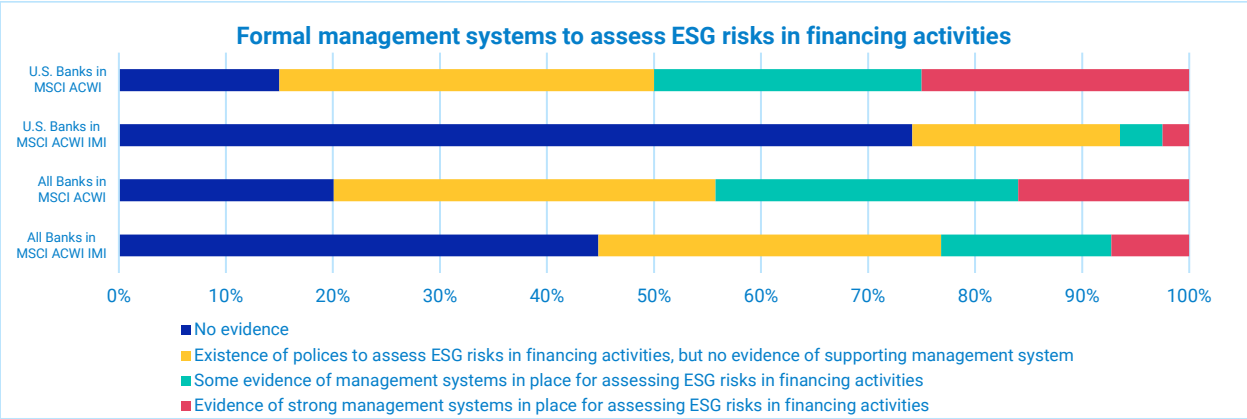
The chart below shows that the U.S. banks from the MSCI ACWI IMI Index lag other banks in analyzing climate-related risks. Whereas U.S banks in the MSCI ACWI Index fair better than their peers in the MSCI ACWI Index.



Source: MSCI ESG Research LLC, as of January 31, 2022. The x-axis shows the % of companies assessed to have policies/practices aligned with the respective category on the chart. The practices are ordered from the weakest (no evidence) to what we consider the best practice.

Formal management systems to assess ESG risks in financing activities

The below graph demonstrates that the U.S. banks from the MSCI ACWI IMI Index carry a huge scope to have a formal management system to assess ESG risks in its financing activities. Whereas U.S. banks from the MSCI ACWI Index are somewhat at par with their peers in the MSCI ACWI Index.

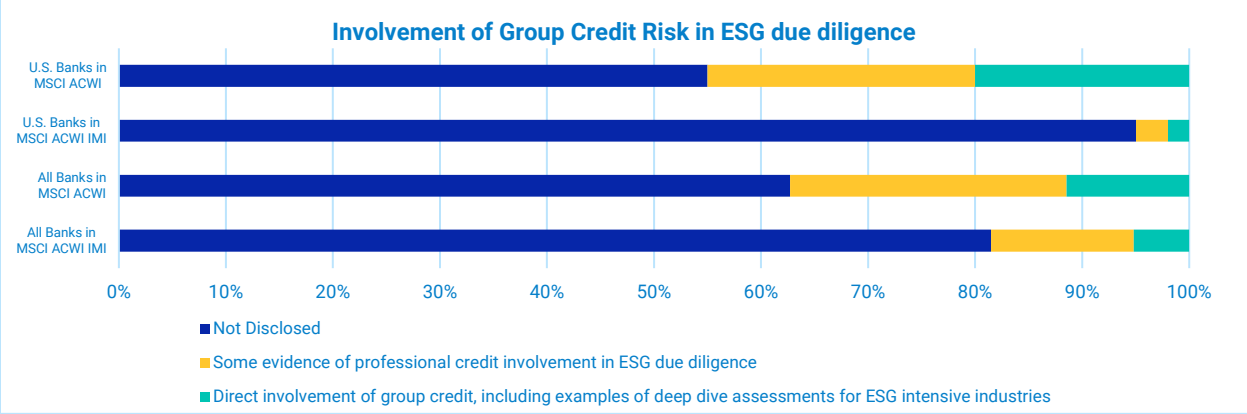


Source: MSCI ESG Research LLC, as of January 31, 2022. The x-axis shows the % of companies assessed to have policies/practices aligned with the respective category on the chart. The practices are ordered from the weakest (no evidence) to what we consider the best practice.

c. Risk Management

Involvement of Group Credit Risk in ESG due diligence

The below graph demonstrates that the majority of U.S. banks from the MSCI ACWI IMI Index do not disclose whether the group credit division is involved in conducting due diligence and detailed assessment of the credit portfolio on ESG issues. Whereas U.S. banks from the MSCI ACWI Index fair better than their peers in the MSCI ACWI Index.



Source: MSCI ESG Research LLC, as of January 31, 2022. The x-axis shows the % of companies assessed to have policies/practices aligned with the respective category on the chart. The practices are ordered from the weakest (no evidence) to what we consider the best practice.

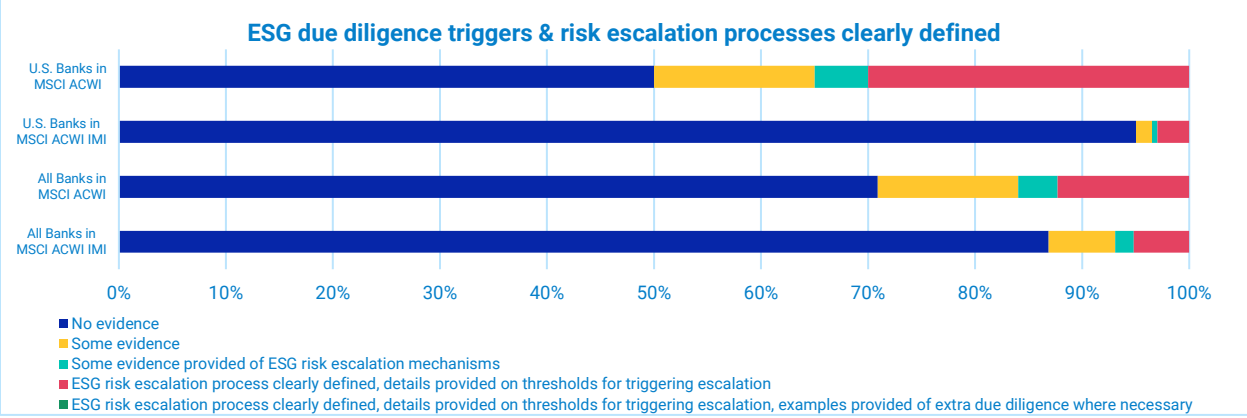
Formal training of risk officers & bankers on ESG risks & procedures

The below graph demonstrates that the majority of U.S. banks from the MSCI ACWI IMI Index do not disclose evidence on whether any formal training of risk officers and bankers are conducted on ESG risks and procedures as compared to their global peers. Whereas U.S. banks and other banks within the MSCI ACWI Index are at par on this indicator.

Source: MSCI ESG Research LLC, as of January 31, 2022. The x-axis shows the % of companies assessed to have policies/practices aligned with the respective category on the chart. The practices are ordered from the weakest (no evidence) to what we consider the best practice.

ESG due diligence triggers & risk escalation processes clearly defined

In the below chart, U.S. banks fair better than rest of the banks in defining ESG due diligence triggers and having risk escalation processes, as compared to the rest in the MSCI ACWI index. However, U.S. banks lag their peers in the MSCI ACWI IMI Index.



Source: MSCI ESG Research LLC, as of January 31, 2022. The x-axis shows the % of companies assessed to have policies/practices aligned with the respective category on the chart. The practices are ordered from the weakest (no evidence) to what we consider the best practice.

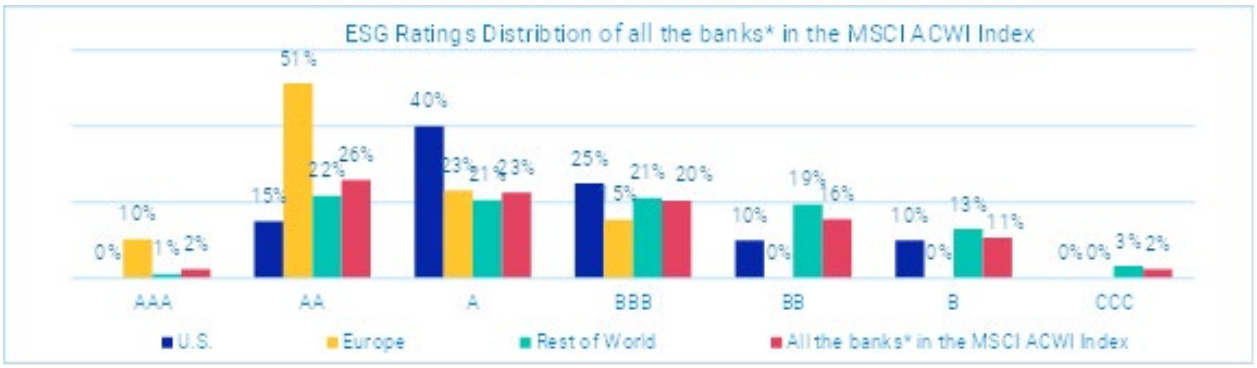
Annex 2

MSCI responses to the questions posed in the Request for Feedback

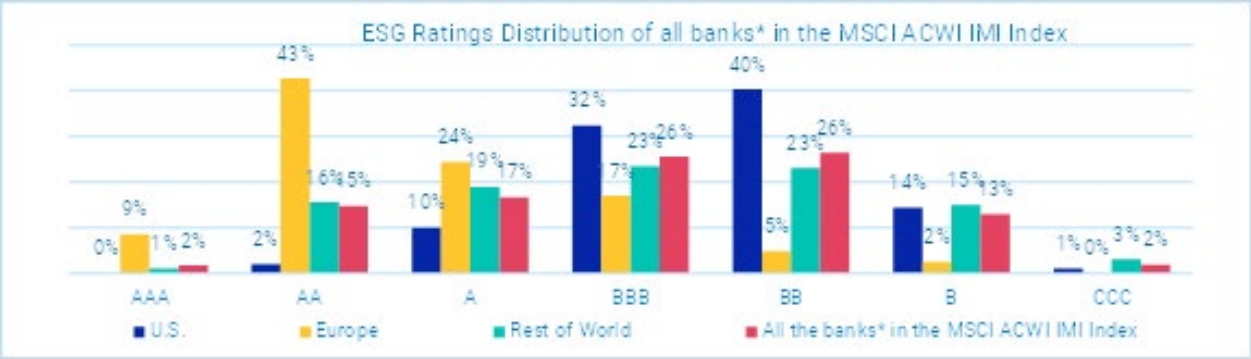
1. Are there additional categories of banks (i.e., based on asset size, location, business model) to which these principles should apply?

We understand the focus of the Request for Feedback on systemically important large banks, but note that the high size threshold of USD100 billion in total consolidated assets may potentially exclude the vast majority of banks in the U.S. According to the most recent statistics from the Federal Reserve, there are only around 30-35 U.S. banks which hold total assets over $100bn.[8]

In our ESG Ratings, MSCI uses a rules-based methodology to identify industry leaders (AAA to AA) and laggards (B and CCC rated) according to their exposure to ESG risks and how well they manage those risks relative to peers. MSCI ESG Ratings serve as a tool to evaluate banks' long-term resilience to financially relevant ESG risks, including environmental risks. As regards environmental risks for the banking sector, we measure how exposed banks are to environmental risks in lending and underwriting activities and assess their risk mitigation practices. As can be seen in the graph below, 40% of U.S. banks within the MSCI ACWI Index achieved a slightly above average ESG Rating of A as of January 2022, while if the sample expands to all the banks in the ACWI IMI Index – including small cap representation – this shifts to 40% of U.S. banks having a slightly below average ESG Rating of BB.[9]



[8] Federal Reserve Statistical Release, Large Commercial Banks, September 30, 2021
[9] Based on companies in the Banks and Investment Banking & Brokerage industries that have Financing Environmental Impact as a weighted Key Issue



*Source: MSCI ESG Research LLC, as of January 31, 2022 *Based on companies in Banks and Investment Banking & Brokerage industries that have Financing Environmental Impact as a weight Key Issue.*

Taking the above findings into account, where the aim is to have a more comprehensive understanding of macroprudential climate-related risks, there may be benefits of lowering the $100bn threshold to bring in scope a greater part of the U.S. banking system through a phase-in approach. Alternatively, a proportionate application may be considered to align supervisory expectations with the risk profile and business model of the bank. Banks that are outside the threshold of holding assets over $100bn may be invited to consider these principles as a best practice.

2. How could future guidance assist a bank in developing its climate-related financial risk management practices commensurate to its size, complexity, risk profile, and scope of operations?

Many of the leading regulatory bodies around the world that are focusing on climate-related risks have embedded a principle of proportionality to their supervisory expectations or rules. The Bank for International Settlement (BIS) encourages banks to develop climate risk management practices that are proportionate to their size, business model and complexity.[10]

3. What challenges do banks face in incorporating these principles into their risk management systems? How should the OCC further engage with banks to understand those challenges?

Jurisdictions that have already implemented climate stress tests for financial institutions may offer useful examples. In 2019, the Bank of England established an industry forum, the Climate Financial Risk Forum (CFRF), to support further regulatory engagement around climate-related financial risk management, which was jointly convened by the Prudential Regulatory Authority and the Financial Conduct Authority to build capacity and share best practice.[11]

Out of the102 members of the Net Zero Banking Alliance, there are currently 9 U.S. banks.[12] Two of these institutions are inaugural members of the Risk Management Association's Climate Risk Consortium alongside 17 other U.S. banks. Launched in September 2021, the focus of this

[10] Basel Committee on Banking Supervision - Principles for the effective management and supervision of climate-related financial risks
[11] Climate Financial Risk Forum | Bank of England
[12] Members – United Nations Environment – Finance Initiative (unepfi.org)

initiative is on setting standards and recommendations for climate-related governance, disclosure and risk management principles. [13]

4. What specific tools or strategies have banks used to successfully incorporate climate-related financial risks into their risk management frameworks?

From our work with clients, we have seen interest by some large U.S. banks to integrate climate risk assessments into their enterprise level risk management system within established climate data modeling teams. These teams are focused on building a better understanding of quantitative climate data factors ranging from transition to physical risks. However, the number of U.S. banks carrying out climate risk assessments at this granular level is still relatively small in our experience.

We also work with large U.S. banks that integrate climate-related data into their credit risk management process. Banks are able to integrate climate and ESG data into their centralized credit risk system to supplement the due diligence process of their underwriting activities.

Adding to this, banks that operate asset and wealth management lines of business are integrating climate data into risk, investment, and portfolio reporting transparency processes to meet emerging regulatory standards, asset owner requirements, and to ensure that they are able to understand the short and long-term climate risks that may impact the performance of their portfolios.

Beyond these areas, we also observe interest in climate and ESG products coming from capital markets and investment banking teams, sales and trading teams, sell side research teams and asset servicing.

5. How do banks determine when climate-related financial risks are material and warrant greater than routine attention by the board and management?

Climate-related financial risk exposures should be clearly defined, aligned with the bank's risk appetite, and supported by appropriate quantitative metrics. Materiality assessments should be conducted by the banks regularly to reflect the speed at which the understanding of climate risks grows and also the increasing frequency and scale of the risks themselves.

MSCI is able to support banks to assess their material climate risks by providing access to over 900 climate change metrics including emission data, fossil fuel exposure, clean tech solutions and forward-looking indicators (see Table below) to facilitate integration into traditional financial risk and portfolio management.

[13] RMA- Climate Risk Consortium

Forward-looking climate risk indicators that can be used for scenario analysis	
Climate Value-at-Risk	Helps financial institutions estimate scenario-specific valuation impact/ risk for transition and physical impacts and captures policy risk across value chain, cleantech opportunities and physical climate risks. Output: % of asset or loan value, security or issuer specific. Use Case: risk management, scenario analysis.
Implied Temperature Rise	Designed to estimate how companies and portfolios align with global temperature targets and captures companies' budget and projected emissions across all 3 scopes. Output: °C of warming (2100), issuer specific. Use Case: reporting, portfolio construction, engagement, target setting.
Low Carbon Transition Score	Built to assess current and potential exposure to transition risks & opportunities through both companies' operations & business model. Output: 0-10 score & 5 categories, issuer specific. Use Case: portfolio construction, asset allocation.

6. What time horizon do banks consider relevant when identifying and assessing the materiality of climate-related financial risks?

No comment.

7. What, if any, specific products, practices, and strategies–for example, insurance or derivatives contracts or other capital market instruments–do banks use to hedge, transfer, or mitigate climate-related financial risks?

No comment.

8. What, if any, climate-related financial products or services–for example, "green bonds," derivatives, dedicated investment funds, or other instruments that take climate-related considerations into account–do banks offer to clients and customers? What risks, if any, do these products or services pose?

No comment.

9. How do banks currently consider the impacts of climate-related financial risk mitigation strategies and financial products on households and communities, specifically LMI and other disadvantaged communities?

No comment.

10. What, if any, specific climate-related data, metrics, tools, and models from borrowers and other counterparties do banks need to identify, measure, monitor, and control their own climate-related financial risks? How do banks currently obtain this information? What gaps and other concerns are there with respect to these data, metrics, tools, or models?

A number of banks globally obtain a range of ESG and climate-related information and tools from MSCI. These include:

(i) Investment portfolio

MSCI offers the following tools to banks to identify, measure, monitor, report and control their own climate-related financial risks.

a. **External Reporting** - Report to investors, shareholders and other stakeholders on the climate-alignment of portfolios, progress against net-zero commitments and alignment with key temperature thresholds.
b. **Climate Risk Management / Scenario Analysis** - Identify and understand climate risk exposures and trends within and across funds and portfolios. Deepen insight into climate-related risks and opportunities, stress test portfolios and model scenarios to inform investment decision-making.
c. **Internal Reporting** – Streamline internal reporting of risks associated with the transition to a net-zero economy and the physical manifestations of a warming world. Visualize climate risk exposures and trends at the enterprise level and across funds and portfolios.
d. **TCFD Aligned Reporting** - Understand bank's complete carbon footprint and report on climate-related governance, strategy, risk management, and metrics and targets in line with the TCFD. Available as a managed service that features portfolio-data management, batch reporting and customization capabilities.

(ii) Loans and lending activities

Assessing climate risks in banks' lending activities can be challenging, due to limited disclosure by credit counterparties. MSCI's environmental risk exposure analysis includes:

- A focus on commercial lending, as the environmental impact from this type of lending is easier to trace and quantify compared to retail lending.
- An analysis of the commercial loan book to determine the lender's concentration in different industries.
- Assignment of an Environmental Intensity Score to each loan segment and calculating a Weighted Average Financing Intensity of the loan book.
- Comparing the scores among all banks to arrive at a final picture of the environmental intensity of each lender's loan portfolio relative to peers.

(iii) Capital markets and investment banking

In our continued engagement with U.S. based banks, we observe that they are incorporating the use of climate-related data and tools in their capital markets and investment banking divisions. For example, MSCI is beginning to provide ESG and climate assessments of pre-IPO private companies to support investment banking teams advising those companies. Banks' sales and trading teams are also using ESG ratings and climate metrics to support issuance of OTC and

structured products that integrate ESG and climate considerations into their portfolio constructions.

11. How could existing regulatory reporting requirements be augmented to better capture banks' exposure to climate-related financial risks?

MSCI supports a framework that supplements quantitative disclosures with a qualitative overlay of a banks' views on its climate risks and opportunities. However, "boilerplate statements" should be discouraged in favor of meaningful disclosure that explains how these risks and opportunities are being managed and how they might be expected to impact the company in the foreseeable future. MSCI supports alignment of public disclosures that align with the TCFD recommendations, particularly as they pertain to quantitative and forward-looking metrics and targets. We note this was also a recommendation (Recommendation 3.2) put forward by the Financial Stability Oversight Council (FSOC) in its *Report on Climate-Related Financial Risk*.[14]

12. Scenario analysis is an important component of climate risk management that requires assumptions about plausible future states of the world. How do banks use climate scenario models, analysis, or tools and what challenges do they face?

MSCI agrees that climate scenario models, analysis or tools are of paramount importance to gauge the effects of climate change spread across various time horizons. Scenario analysis provides a powerful tool for banks to understand the implications of climate change for their portfolios. However, one of the major challenges is the use of varied scenarios and tools by banks, which means that results may not be comparable. Secondly, banks and financial institutions are expected to determine which climate-related and environmental risks are material in the short, medium and long term with regard to their business strategy by using scenario analysis. The assumptions can span from quantitative and/or qualitative factors and not solely based on historical experiences.

We note that there are a range of models currently available in the market to assist banks with forward-looking scenario analysis for certain lines of business. Banks use tools made available by MSCI, such as Climate Value-at-Risk to gain a forward-looking lens when conducting scenario analysis. For example, by calculating the financial risks from climate change per security and per scenario, Climate Value-at-Risk provides a framework that can help banks identify and understand these risks and take necessary action for effective risk management and regulatory reporting purposes. The MSCI Climate Value-at-Risk model has three main underlying components which can be used separately or in aggregate:

1. **Policy risk:** This component aggregates future policy costs based on an end of the century time horizon. By overlaying climate policy outlooks and future emission reduction price estimates onto company data, the model provides insights into how current and forthcoming climate policies could affect companies.
2. **Technology opportunities:** This component is based on company-specific data on the patents each company holds related to low-carbon technologies, providing insights into

[14] FSOC's Report on Climate-Related Financial Risk

how companies' strategic investments could affect their future competitive positioning in a low carbon economy.

3. **Physical risks:** This component estimates the impact and financial risk relating to several extreme weather hazards, such as extreme heat and cold and flood risk. An extensive asset location database comprising of over 400,000 company facilities has been overlaid with hazards maps. Based on sector-based vulnerabilities, each location's climate-related revenue loss for eight extreme weather hazards is computed with the help of damage and business interruption functions.

13. What factors are most salient for the OCC to consider when designing and executing scenario analysis exercises?

MSCI notes that using different models and scenarios leads to results that are not comparable. While this gives banks some flexibility to choose a model for self-examination, it is important for the market to be able to effectively compare the results of a prescribed scenario analysis on various banks. This could be solved by banks having a minimum set of specific climate scenarios to consider. It would further be helpful if the OCC guidance around scenario analysis were to provide examples of acceptable Representative Concentration Pathways (RCPs), Integrated Assessment Models (IAMs) and/or Shared Socioeconomic Pathways (SSPs),and prescribe precise time horizons.

Regulators around the world are adopting scenarios developed by the NGFS and requiring banks and financial institutions to align their climate stress tests accordingly (e.g. Bank of England[15], European Central Bank[16], Hong Kong Monetary Authority[17]). We observe that financial authorities, including regulators and supervisory bodies, are increasingly involved in assessing climate-related financial risks and conducting stress tests for banks and insurance companies to quantify their exposure to these risks. Such exercises were completed in the Netherlands and France, and are underway in the EU, UK, Australia, Singapore and Canada.[18] More countries are expected to integrate climate-related risks into macroprudential regimes for the financial sector, in the future.[19] We support improved climate data collection from banks to make stress tests comparable and evaluate whether climate change risks threaten financial stability.

[15] Key elements of the 2021 Biennial Exploratory Scenario: Financial risks from climate change | Bank of England
[16] ECB Banking Supervision launches 2022 climate risk stress test (europa.eu)
[17] Pilot Banking Sector Climate Risk Stress Test (hkma.gov.hk)
[18] FSI Insights on policy implementation No 34 Stress-testing banks for climate change – a comparison of practices
[19] NGFS publishes the report "Scenarios in Action: a progress report on global supervisory and central bank climate scenario exercises" | Banque de France

Annex 3

Additional research on the impact of a net-zero transition and physical climate risks on different asset classes and use of climate scenarios for portfolio optimization, risk management and regulatory reporting purposes

MSCI Research	Details	Link
Climate scenario analysis at MSCI	Introduces our approach to climate scenario to help clients identify and understand financial risks from climate change and take actions.	Scenario Analysis - MSCI
Breaking Down Corporate Net Zero Climate Targets	An increasing number of companies are setting net-zero climate targets. This MSCI report outlines an analytical framework to assess these targets.	Breaking Down Corporate Net-Zero Climate Target (msci.com)
Climate and Net-Zero Solutions	MSCI offers a suite of tools to help institutional investors benchmark, measure and manage portfolio exposure to climate risk, identify low carbon investment opportunities, and support investors seeking to set a net-zero target.	Climate and Net-Zero Solutions
Corporate Bonds and Climate-Change Risk	In this report, MSCI focuses on the portfolios of developed-market corporate bonds and studies the financial materiality of climate-change risk for these portfolios.	In Transition to a New Economy: Corporate Bonds and Climate-Change Risk (msci.com)
How Climate Change Could Impact Credit Risk	This MSCI article investigates how different climate scenarios could impact the five-year default probability of a large USD and EUR bond issuers.	How Climate Change Could Impact Credit Risk - MSCI

MSCI Research	Details	Link
Stress Testing Portfolios for Climate-Change Risk	Climate scenario analysis provides a powerful tool for understanding the implications of climate change in portfolios. Using two of these scenarios, MSCI finds significantly higher costs for energy companies in a “late action” scenario but also rising impacts for otherwise less exposed firms like those within food and staples retail.	Stress Testing Portfolios for Climate-Change Risk - MSCI
Net-Zero Alignment: Portfolio Construction Approaches for Investors	How can investors align with a net-zero pathway in their portfolios? The report uses MSCI’s Implied Temperature Rise (ITR) metric, which aims to show the temperature alignment of companies, portfolios and funds with global climate targets.	Net-Zero Alignment (msci.com)
Understanding Carbon Exposure in Private Assets	Since the Paris Agreement, there has been growing scrutiny on carbon emissions by public companies, but it is much tougher for investors to evaluate their exposure to carbon from privately held assets.	Understanding Carbon Exposure in Private Assets - MSCI
New Frontiers in Carbon Footprinting: Private-Equity and Debt Funds	In this article, MSCI partners with Burgiss to estimate carbon-emission intensities of private-equity and -debt funds with reported revenue figures in the Burgiss Transparency Database.	New Frontiers in Carbon Foot printing: Private-Equity and - Debt Funds - MSCI