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Climate Risk Is Heating Up: Is Your Bank Ready?

Financial institutions around the world have faced many challenges over the past year, from the health and operational impacts of the global COVID-19 crisis, to residual financial shocks across numerous industry sectors and the broader economy. Although pandemic-specific risks are expected to recede in the near to mid-term, one emerging area of risk is expected to only grow over time: climate change.

Following a year when the United States had its single-largest loss of acreage due to wildfires, and a record Atlantic hurricane season that caused catastrophic Gulf Coast flooding,[1] industries ranging from energy extraction to agriculture experienced devastating interruptions to business operations.

Incidents like these demonstrate how the developing risks of climate change are already having both short- and long-term impacts on the US and global economies. Yet, despite the urgency of the challenge, US financial institutions are far behind their international and non-bank counterparts in assessing and addressing climate risk. According to a survey of financial institutions by Moody's Analytics taken in late 2019,[2] more than three-quarters of US banks have not initiated climate risk activity. US regulators such as the Federal Reserve Board and the Securities and Exchange Commission are beginning to take action, and the time has come for banks to address these risks head-on.

[1] "Issue Alert: How US Banks Are Addressing Climate Risk and Sustainability," Moody's Analytics, February 2021. https://doc-0g-10-apps-viewer.googleusercontent.com/viewer/secure/pdf/veusofb56kpff2eg747mpk757gcda942/rtn9sent93hqmk5p8nr9548bcfodh8vm/1619533125000/drive/13911310775235212331/ACFrOgDU2F-k_19hGsUMFcaWKQ8HATbGSMKt8scllr2AQA7vNI4GFmo7JydMmlHHaHvHza_OHq2kxao6pCdtKz0fE7t-vy535O3A_BCBwFtHYSko_PeWaziq9CkfqyX0WunSWMkhcLHn3hUJXWNj?print=true&nonce=ke8nn0sr09d8u&user=13911310775235212331&hash=u22mu9nre2rvcgcpfd4vjocvgmqh3f3a

[2] Ibid.

What is climate risk?

Climate risk falls into two areas of impact: physical and transitional. Leading climate scientists agree that climate change is resulting in more—and more intense—extreme weather and climate-related events such as hurricanes, tornadoes, flooding, droughts, and wildfires. The physical effects of such climate events are easily observed, as they often result in damage to buildings and equipment, supply chain disruptions, and (all too often) loss of life. For example, according to the National Oceanic and Atmospheric Administration (NOAA), the US experienced 22 separate billion-dollar weather-related disasters in 2020, causing $95 billion in damages.

Since NOAA began tracking the economic impacts of climate events in 1980, the United States has suffered an estimated $1.875 trillion from 285 weather- and climate-related events.[3]

Transitional effects may be harder to see but can be just as devastating to an institution's long-term financial health, as they involve policies that will help the economy transition to zero carbon over time and affect companies active in the oil, gas, and energy sectors more than others. Such companies are frequent issuers of bonds and stocks, and these securities typically make up a significant proportion of an institution's portfolio. Transition risk may affect other sectors that produce carbon emissions, including auto manufacturing, airlines, agriculture, and aluminum production.

How climate risk affects the 5 Cs of Credit

Financial institutions typically apply the "5 Cs of Credit" to assess credit risk. Climate risk touches on each of these factors, so perhaps it is time to introduce climate as a "sixth C":

- **Capacity/cash flow:** Capacity refers to an applicant's ability to repay their obligations, and is assessed primarily through an analysis of their debt-to-income ratio. Climate events such as wildfires or floods can cause major disruptions to companies' operations and supply chains, resulting in more challenging operating conditions and less stable production and cash flow generation.
- **Character:** This term refers to a borrower's willingness or likelihood of repayment, based on past history and reputation. It is most commonly assessed using an individual's or organization's credit history or score. As a company's operations are disrupted due to climate change, its cash flows and ability to pay will be affected over time, ultimately creating an impact on its credit rating.
- **Collateral:** Assets such as real estate, equipment, and inventory are often used as security against a loan. Extreme weather events may damage properties, lowering the collateral value of both residential and commercial real estate, increasing loss given default (LGD), and reducing potential recovery values.
- **Capital:** The amount of financial resources applicants have at their disposal is another important factor in credit risk. As a business faces reduced cash flows and potentially physical losses due to climate risk, its financial and other resources diminish over time.
- **Conditions:** This is a catch-all term that includes factors such as loan purpose, amount financed, interest rates, loan terms, and structure. Conditions may also refer to economic, regulatory, and industry-specific variables that influence the viability of the loan and a borrower's ability to repay. As climate change impacts worsen and affect specific geographic regions and industry sectors, financial institutions' risk tolerances and ability to provide competitive terms to their borrowers will come under scrutiny.

3 "2020 U.S. billion-dollar weather and climate disasters in historical context," NOAA, accessed from Web, May 21, 2021. (https://www.climate.gov/news-features/blogs/beyond-data/2020-us-billion-dollar-weather-and-climate-disasters-historical).

What banks should do today

US financial institutions should take steps now to address climate risk challenges. The process begins with setting up an in-house climate risk assessment team, which typically resides within the Corporate Social Responsibility (CSR) or Environmental, Social, and Governance (ESG) functions. To understand the impact of climate risk on the institution's portfolio of holdings, credit administration and risk analytics teams should also be involved in incorporating climate risk into the current risk assessment.

Next, banks should analyze the potential impact of climate change on different asset classes within their portfolio. All asset classes are affected by climate change to varying degrees, and developing an understanding of which classes are most deeply affected and how these scenarios will have an impact on loss ratios, pricing, and other factors will help the organization prioritize which areas to focus on.

Lastly, institutions should explore various analytical approaches to linking climate with financial risk. Considerations include whether the current stress testing framework can be leveraged for this purpose, the identification of unique risk scenarios, and the ability to access additional data to run an institution-level climate stress test.

***To learn more** about how US banks are addressing climate risk and sustainability in their portfolios, download Moody's Analytics' recent Issue Alert. Visit our climate solutions page and contact us today to see how Moody's can help.*