



Climate change and banks: regulators turn their focus to risk management and metrics

Hardly a week goes by without another policy statement or guidance document on climate change being issued by a standard setter, bank regulator or international agency, and with politicians, NGOs and environmental activists increasingly vocal on the subject, it is hard for banks to identify the issues that will have direct relevance for their operations.

Arab Banker's Editor, Andrew Cunningham, describes how regulators' thinking on climate change risks has been evolving, and highlights some important recent publications.

A recent presentation by a London-based consulting firm identified 21 key documents on climate change that their clients should be incorporating into their strategic planning. And those 21 only scratched the surface of the literature on climate change-related disclosures and risk management for financial institutions.

In Western Europe, public dialogue on climate change has become shrill in recent years, partly due to the activities of protest movements such as Extinction Rebellion – some of whose adherents disrupt public transport and block roads in the middle of cities – and partly also as political parties compete to be seen as the most concerned and alarmed about the effects of climate change.

From the point of view of banks, the focus is narrowing rather than broadening, and becoming more technical and less general. The pressure for more disclosure of climate change-related risks continues, but there is increasing interest from regulators on quantifying the effect of climate change on banks' earnings and capital.

Financial regulators have for some years been assessing the effect that climate change might have on banking systems as a whole. These assessments took into account both physical risks and transition risks – the duality around which all

thinking on climate change risks has coalesced in recent years.

Physical risks are those that arise from more severe climate and weather-related events, such as flooding, forest fires or drought. Transition risks are those that arise as economies implement measures to reduce carbon output. These include higher taxes on certain industries that might then become less profitable – and so less able to repay their loans to banks.

Transition risks raise the possibility of financial institutions holding 'stranded assets' – investments in or loans to industries that are no longer profitable due to changes in tax regimes or because few customers want to buy their products.

In 2018, De Nederlandsche Bank (DNB – the Dutch central bank) conducted an 'Energy Stress Test' that made some plausible assumptions about technological developments and policy changes. It concluded that, under their scenario, Dutch banks' CET 1 capital ratios would fall by 4.3%. In a separate study, in 2019, DNB found that 8.8% of Dutch banks' mortgage exposures were located in flood-risk zones.

In 2020, France's banking regulator, the Autorité de Contrôle Prudentiel et de Résolution (ACPR) conducted a pilot exercise on climate risk, based on a 30-year time horizon and a dynamic balance sheet assumption from 2025 to 2050. (Under the dynamic assumption, banks had to predict how their balance sheet would evolve over 25 years, taking into account both physical and transition risks.) The ACPR concluded that French banks' exposures within France benefited from the high share of nuclear power in electricity production in France (as opposed, say, to coal-fired production plants) but the authority noted that nuclear power is subject to particular risks – during a severe drought in France in 2020, falling water levels hampered the cooling of some nuclear power plants, forcing a temporary move back to coal-fired power stations.

Macro-studies such as these have led to increasingly prescriptive statements from supervisors on steps that banks should take to incorporate climate risks into their broader risk-governance frameworks.

In January 2020, Germany's financial regulatory authority, BaFin, issued a Guidance Note on Dealing with

Sustainability Risks. The note was interesting in its scope, if not in its detail. Sections entitled ‘Risk Control function’, ‘Compliance function’ and ‘Internal Audit function’ were barely 50 words long, but their effect was to put those functions on notice, along with many other areas of a bank’s operations, that they are expected to integrate sustainability risks arising from climate change into their everyday work.

More detailed guidance came in May 2020, when the European Central Bank (ECB), which supervises banks in the Eurozone, issued guidance on climate-related and environmental risks. The document made clear that the European financial authorities expected banks to incorporate risks related to climate change into their overall risk-management framework – including their risk-appetite statements – and capital-planning exercises.

From the end of 2020, ‘significant institutions’ in the Eurozone – about 120 banks that are directly supervised by the authorities in Frankfurt – have been required to inform the ECB of any ways in which their own practices diverge from the guidance in the May 2020 document.

In the UK, the head of the Prudential Regulation Authority (PRA), Sam Woods, wrote to bank CEOs in July 2020 telling them that they should have “fully embedded” their approaches to managing climate-related financial risks throughout their organisation by the end of 2021. In his letter, Woods noted that the end-2021 deadline would mark two-and-a-half years since the PRA had issued clear supervisory guidance on climate change risks, and two years since banks had been required to allocate responsibility for climate-related financial risks to a named senior manager.

Despite these exhortations, banks still have difficulty in identifying the various ways in which climate change risks can be transmitted to their own individual operations, and also how to quantify those risks.

In April 2021, the Basel Committee on Banking Supervision published separate studies to provide guidance on both those questions.

The first, on transmission channels, noted that in the past, research focussed on how climate-related risks affect economies or individual industry sectors and not on the ways in which climate-related risks flow through onto banks’ balance sheets and income statements.

The Committee identified transmission channels as, for example, companies, households and local governments, to which banks might lend, but also assets such as shares or property that they might hold on their balance sheets.

The Committee also recognised that the extent to which climate risks affect those channels will vary depending on factors such as geography, the degree to which a country’s economy is diversified and the ability of a government to make policy changes.

For banks in the Middle East, such ‘Sources of Variability’ as they are known, could be significant. The macro-economic effect of financial institutions refusing to invest in oil and gas assets will be greater in Algeria and Iraq, which rely on foreign investment, than in Qatar and Saudi Arabia, which have large financial resources of their own.

It will be interesting to see whether the Iraqi government will be able to attract the billions of dollars in private-sector investment that it needs to develop its oil industry – and support its budget.

The inability of some oil-and-gas-exporting countries in the Middle East to develop new, carbon-neutral industries,

or even simply for their governments to reduce expenditure as revenues from oil and gas decline, could make them more vulnerable to aspects of climate change than, say, countries in Western Europe that have more diverse economies and more flexible policy environments.

The Basel Committee is clear that the impact of climate change risks, however great or small they may be, can be seen through traditional categories, such as credit, market, operational and liquidity risk. The Committee also identified reputational risk as a relevant category, arising from changing market or consumer sentiment.

The Basel Committee’s second study, addressing the measurement of risks, reinforced the point that the impact of climate change risks can be mapped to traditional risk categories but it also recognised how difficult it will be to quantify those impacts in monetary terms.

For example, the variability of climate change impact – already mentioned above – will compel banks to conduct highly granular analysis for risks that may appear to be similar. A company’s ability to service its debts can, to a significant extent, be assessed through reference to some standard financial cash-flow ratios which are common to all companies in the same industry. As a result, losses can be modelled across industries and geographies with some degree of confidence. However, the effects of climate change may cut across debt-service ability in different ways, depending on the extent to which the company’s home country or home government is affected and how it is able to respond. As a result, the applicability of credit models will be reduced.

Another problem arises from the unprecedented nature of the climate change threat. Many risk models depend on data sets from previous economic cycles to predict how assets will perform in future. No such data sets for previous climate threats exist.

A further challenge arises from the time horizon over which climate change risks should be assessed. Oil-exporting countries in the Middle East provide an example. Suppose a bank takes a long-term exposure to a liquefied natural gas (LNG) project – the success of that investment will be heavily dependent on the pace at which the global energy mix moves away from LNG and towards greater use of sustainable energy. But judging the pace of that transition is complex and dependent on multiple factors.

The Basel Committee’s guidance will lead to greater pressure from regulators for banks to incorporate climate change into their capital-planning processes. The Bank of England’s Biennial Exploratory Scenario, issued in June 2021, which is part of the stress-testing regime that it applies to major UK banks and insurance companies, states that the results of the exercise will not be used to set banks’ capital requirements; but it is clearly understood that banks will be projecting what their climate-related losses would be under the Scenario, even if no supervisory action follows – for the moment.

Such initiatives are not confined to Western Europe. Bank regulators in Singapore and in Australia have issued firm statements on the financial risks of climate change and how they expect their banks to respond.

Can it be long before financial regulators in the Middle East start to draw on the wealth of literature available and start imposing climate-related risk requirements on their own banks? ■