General Council for Islamic Banks and Financial Institutions

CIBAFI

المجلس العام للبنوك والمؤسسات المالية الإسلامية

ISSUE 13 • September 2020

CIBAFI BRIEFING

Climate Change and its Implications for the Financial Industry

CIBAFI is pleased to present its thirteenth "Briefing" on Climate Change and its Implications for the Financial Industry. This Briefing highlights the initiatives being taken globally and the role of the financial institutions in combating climate change risks. It also presents how far climate change risks represent an important business concern for the Islamic banking industry, through the findings of a survey conducted by CIBAFI.

1. Introduction

Climate change is currently a major global issue and challenge. The earth's temperature is rising, and with effects including intense storms, rising sea levels, shifting wildlife populations and habitats and melting glaciers, climate change represents one of the biggest crises facing humanity. These vast cascades of environmental problems threaten the stability and the flourishing of both human and natural systems.

Global warming is generally associated with greenhouse gas (GHG) emissions. The most important GHG is carbon dioxide (CO_2). Over two centuries of industrialisation, CO_2 in the atmosphere has risen to record levels not seen in three million years. The World Meteorological Organization Greenhouse Gas Bulletin showed that globally averaged concentrations of GHGs reached new highs in 2018[1]. The increases in GHGs are caused mainly by human activities.

The impacts of climate change are global in scope and unprecedented in scale with significant influence on the natural ecosystems of the planet and other socio-economic activities.

Without strong initiatives and well-planned actions today, it will be more challenging and costly to deal with these impacts in the future. It is estimated that climate change impacts may perhaps push more than 100 million people into poverty by 2030[2].

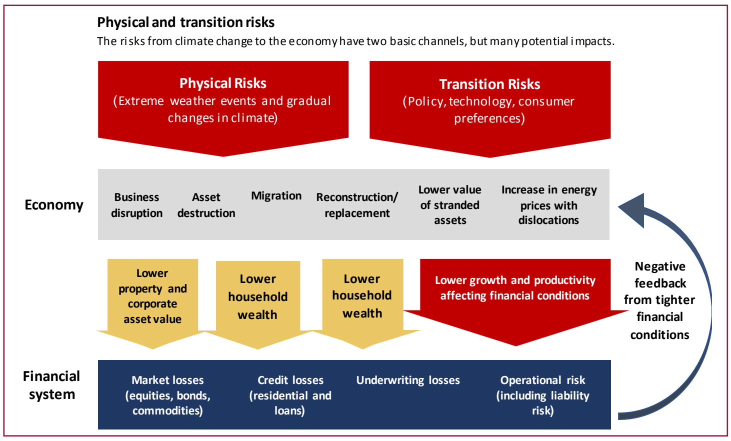
At the global level, multiple initiatives have been taken to mitigate the negative effects of climate change. On the international front, in 1992, countries joined the United Nations Framework Convention on Climate Change (UNFCCC), as a framework for global cooperation in combating climate change. Later in 1997, countries adopted the Kyoto Protocol to further strengthen the global response in mitigating climate change risks. The Kyoto Protocol legally binds signatory countries to achieve CO_2 emissions reduction goals.

More recently in December 2015, 196 parties came together and signed the Paris Agreement, during the 2015 Conference of Parties (COP 21)[3], with a common objective to reinforce the global response on climate change risk by limiting the global temperature increase to 2°C above pre-industrial levels in this century and pursuing efforts to further limit the increase to 1.5°C. In order to achieve this goal, the Paris Agreement requires all parties to put forward their best efforts, with the requirement that all parties regularly report on their emissions and implementation efforts through their nationally determined contribution (NDC) reports.

2. Climate Change Risk for the Financial Sector

Climate change has implications for individuals, businesses, and policymakers. According to Finance & Development, a quarterly publication of the International Monetary Fund[4], climate change affects the economy, through two main channels, as shown in the figure below.

Figure 1: Main channels through which climate change affects the economy



Physical Risk

The physical risk of climate change is associated with the economic costs and financial damages owing to rising rates of extreme weather events and the impacts of long-lasting changes in climate patterns.

For financial institutions, the effects of physical risk are felt mainly through their impact on investments and business counterparts/customers. If the possible financial effects are insured, this has a direct impact on the business model and risk management of the insurers which, if they are to survive, must either increase premiums or deny coverage (i.e for homes in areas vulnerable to flooding). In addition, with annual renewal/repricing of insurance contracts, a significant change in cost or availability will affect the default risk for a wider segment of businesses, leading to knock-on effects on bank financing and investments. On the other hand, where effects are not insured, the losses have to be borne by households, businesses and governments.

Transition Risk

Transition risks are related to uncertain financial effects resulting from the inadequately managed transition to a low-carbon economy, for example, policy shifts (GHG emission reduction policies such as carbon taxation), changes in market inclinations and cultural norms. A swift conversion to renewable energy or the depreciation of oil prices may impact the stability of the financial system in certain countries. For example, coal producers in some countries are coping with new or predicted policies curtailing GHG emissions. The share values of United States coal producers reflect this "carbon discount" which has resulted in higher financing costs and an underperformance compared to companies holding clean energy assets. Another aspect of transition risk manifests in the withdrawal of financing from market segments with high GHG emission which will impact the profitability of the projects related to this market segment.

There are five ways in which physical and transition risks can be materialized into financial risk[5]:

- **Credit risk:** climate change risks could cause a decline in borrowers' capacity to pay back their debts, thus leading to higher probabilities of default and a higher loss given default.
- **Market risk:** under an abrupt transition scenario, financial assets may be subject to a change in investors' assessment of profitability which could lead to fire sales and potentially causes a financial crisis. It has also been argued that the impact that climate change could have on the monetary policy goals of central banks could cause changes in monetary policy leading to a form of market risk.
- **Liquidity risk:** this can affect banks and other financial institutions. For example, banks that are affected by the credit and market risks could face difficulty in refinancing themselves in the short-term, which could create pressure on the interbank lending market.
- **Operational risk:** banks can be affected with operational risk through their direct exposure to climate-related risks. For example, if banks offices or datacenters are damaged by physical risks, there could be a possible impact on the bank's operational processes and other institutions connected to its value chain.
- **Insurance risk:** for the insurance/reinsurance industry, physical risks could cause higher insurance claims payments while transition risks could result in potential underpricing of new insurance products covering green technologies. It is also relevant to mention that, as acknowledged above, a significant pricing pressure in insurance contracts covering assets financed by banks could expose banks to variety of risks.

Having said that, there are also opportunities for the financial sector. In addition to the function of insurance in protecting against natural disasters and other impacts of climate change, the financial sector can play an important part in mobilizing the resources needed for the transition to a low-carbon economy, if the political will exists to make that transition as well as adaptation to increase resilience to the impacts of climate change.

The global investment to mitigate climate change risk is projected to be in trillions of US dollars, where an estimated investment of USD 6 trillion per year is needed for infrastructure sector until 2030[6].

A large part of these investments will be intermediated through the financial system. The opportunities for Islamic finance in infrastructure financing have been discussed in CIBAFI Briefing Issue 12, "Infrastructure Financing: Investment Opportunities for Islamic Finance".

The realisation of the impacts of climate change has also been one of the factors leading to the growth in sustainable finance across a wide range of asset classes. Estimates of the size of this sector vary widely, but its rapid growth is undisputed.

According to a report by the Global Sustainable Investment Alliance, around USD 31 trillion of funds is held in sustainable or green investments[7].

This is an area in which there are particular opportunities for Islamic finance; see CIBAFI Briefing Issue 11, "Islamic Finance and the United Nations Sustainable Development Goals".

3. Banking Industry Initiative

For major international banks, climate change is becoming a significant issue. Boston Common Asset Management conducts an annual survey of 58 international banks. In the latest survey[8], it was found that 78% were conducting climate risk assessments, 84% were participating in industry initiatives and knowledge sharing on sustainability, and 81% were publicly disclosing their engagement with policymakers on climate policy.

There are various specific initiatives in which the financial services industry is participating. One is the Collective Commitment to Climate Action under the United Nations Environment Programme Finance Initiative (UNEP FI) Principles of Responsible Banking where more than 170[9] signatory banks have committed to aligning their services and lending with the objectives of the Paris Agreement. Another is the Zero Carbon Buildings for All Initiative, launched at the UN Climate Action Summit in 2019, with commitment from different governments, financial institutions, private sector leader and civil society partners. As part of this, financial institutions agreed to align their financing for support of the Paris Agreement. The Partnership for Carbon Accounting Financials (PCAF) is a global collaboration of 70 financial institutions with total financial assets of more than USD 10 trillion. In August 2020, PCAF released for consultation a standard to provide financial institutions with shared methodologies and rules for measuring and disclosing the greenhouse gas emissions associated with their loans and investments.

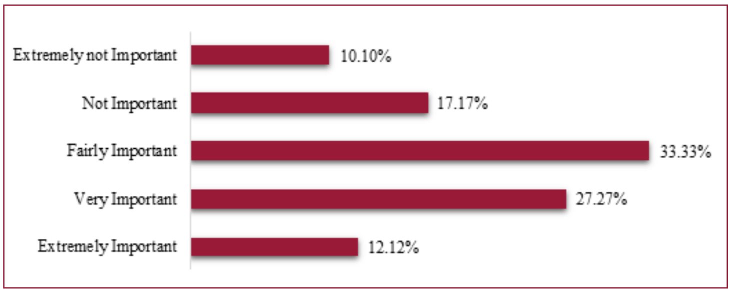
4. Islamic Banks and Climate Change: the CIBAFI Survey

Against this background, and in view of the subject's importance, CIBAFI conducted a survey to evaluate how far climate change finance risk represents an important business concern for the Islamic banking industry. How can climate change affect Islamic banks, what do they see as the climate change-related financial risks and what are the initiatives and measures they are taking/will take to contribute in addressing the issues related to climate change. A total of 101 Islamic banks from 35 countries participated in the survey to express their views on climate change.

The global responses are presented in the figure below. The majority of respondents recognize climate change as an important business concern.

Around 33% consider it to be fairly important, and almost 39% consider it to be either very important or extremely important.

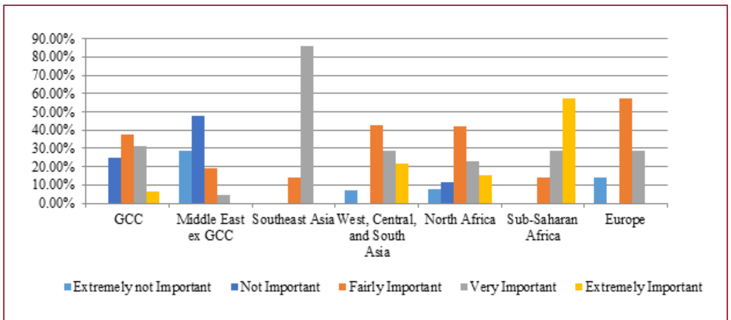
Figure 2: Climate Change as an important Concern



There was a marked difference between large and small banks. 65% of large banks rated the issue as very important or extremely important, and none rated it in the two lowest categories.

There were also some notable regional differences. For example, 76% of banks in the Middle East ex-GCC rated climate change as either not important or extremely not important, while only 25% of banks in the GCC did so, despite the climatic and economic similarities between the regions. The highest levels of concern seemed to be felt in Sub-Saharan Africa and West, Central and South Asia.

Figure 3: Climate Change as an important Concern - Regional Breakdown



We also asked two open-ended questions to allow the banks to explain how climate change can affect the bank's business and what are the financial risks associated with climate change, and what initiatives the bank was, or would be, taking in addressing the issues relating to climate change. The responses show that banks from different regions are aware of the risks and the impact of climate change on banks' business. A bank from the GCC said: "Climate change can affect business continuity in the event of climate disasters and may result in business interruptions and damage to projects funded by the bank". Additionally, a bank in West, Central, and South Asia said: "Climate change is a key challenge affecting operations and performance of all businesses directly or indirectly in the economy; hence it would have an impact on financial institutions who have provided finance and expecting recoveries from such businesses". A bank from the same region mentioned that: "The impact of climate change is real. It will affect the lives of billions of people in countries like ours. Likewise, it will also affect our profitability, increase cost, degrade our environment and above all will affect the financial viability of the projects of our institution".

As to initiatives being taken by Islamic banks, a bank from the GCC said: "Stabilizing global warming to 2°C or less is critical and will require: (i) significant policy support and (ii) investment to cut greenhouse gas emissions this century and adapt to warming that is already 'locked in' from historical emissions". Another bank from the same region focused on awareness to combat climate change.

Other solutions were suggested by banks from West, Central, and South Asia. A bank mentioned, "Promote businesses which are eco-friendly, and provide financing/introduce new products for eco-friendly solutions, such as solar power generation, etc.". This is an example of an Islamic bank seeking to address the issue directly as part of its strategy for its core business functions.

The majority of Islamic banks recognized climate change as an important business concern, but the concern was markedly greater among large banks, and even here did not reach the levels seen in large conventional banks. The level of concern also varied markedly by region, though in ways which did not correlate in any obvious way with particular risk factors. Only a few banks, however, appeared to be addressing climate change through their core business activities.

5. Standards and other Regulatory Developments

From a regulatory and supervision perspective, central banks and financial regulators are increasingly moving toward taking concrete actions in assessing climate-related risks.

There are many initiatives, some of them overlapping. This section describes some of the most important.

The Central Banks and Supervisors Network for Greening the Financial System (NGFS), a growing group with 66[10] members, is working on the integration of climate change risks into existing regulation and financial stability monitoring. To this end, in June 2020, NGFS published the first set of climate scenarios for forward-looking climate risk assessment alongside a user guide for central banks and supervisors. At the same time, it published an initial analysis of the potential impact of climate change on monetary policy. The scenarios are already being used in practical supervision. For example, the Bank of England has committed to using them in its 2021 "biennial exploratory scenario" on the financial risks posed by climate change.

More generally, the Financial Stability Board (FSB) recently identified that out of 33 supervisory bodies surveyed, 24 already considered climate-related risks in their financial stability monitoring or were planning to do so[11].

The FSB also set up its Task Force on Climate-related Financial Disclosures (TCFD) in 2015 as an industry-led group of financial stakeholders to consider the issues of climate-related financial disclosures as a means to address information asymmetry challenges in financial markets. It outlines a framework to identify financial risks and opportunities resulting from climate change. The TCFD published its recommendations in 2017. They were structured around four themes:

- **Governance:** the company's governance around climate change risks and opportunities.
- **Strategy:** the actual and potential effects of climate change risks and opportunities on the company's businesses, strategy, and financial planning.
- **Risk management:** the procedures applied by the companies in identifying, assessing, and managing climate change risks.
- **Metrics and targets:** that are employed in assessing and managing climate change risks and opportunities.

The TCFD continues to publish regular monitoring reports on the adoption of these recommendations. One important adoption is in the European Union (EU), where the European Commission's "Guidelines on reporting climate-related information" under the Non-Financial Reporting Directive are based on the TCFD recommendations. The structure of the TCFD recommendations (though applied more broadly to other ESG matters) has also been incorporated into the Islamic Financial Services Board's standard on transparency and disclosure for takaful, while the International Association of Insurance Supervisors has published an Issues Paper on implementation of the TCFD recommendations.

To scale up the mobilization of private capital in favour of environmentally sustainable investment, the EU has launched together with relevant authorities of Argentina, Canada, Chile, China, India, Kenya and Morocco the International platform on sustainable finance (IPSF). This offers a multilateral forum of dialogue between policymakers that are in charge of developing sustainable finance regulatory measures to help investors identify and seize sustainable investment opportunities that truly contribute to climate and environmental objectives.

In short, it appears that regulators will increasingly expect financial institutions to assess and manage their risks from climate change, and to make appropriate disclosures.

6. The Challenge for Islamic Financial Institutions

Against this background, the minimum that Islamic financial institutions need to do is to prepare for the regulatory changes that are likely to impact them over the next few years. This means assessing how climate change is integrated into their risk management, and how it might be disclosed publicly. In this regard, CIBAFI signed a Memorandum of Understanding (MOU) with PCAF to collaborate in the development of a measurement methodology for Islamic financial institutions that will allow them to track and monitor the emission of carbon associated with their investment portfolios.

Islamic financial institutions should go beyond risk management and disclosure.

With its values that look beyond profit, the contribution from Islamic financial institutions could play a significant role in term of mitigating the climate-related risks and promoting investments in adaptation to make the economy more resilient. These investments mean both reducing negative impacts and also making positive ones.

For Islamic banks, this is likely to mean addressing the kinds of activities they finance, for example by choosing not to finance firms and products with adverse climate impacts, but also by choosing to finance those with positive impacts, for example, zero-carbon buildings or renewable energy.

In the capital markets, Islamic finance instruments can finance projects for climate-related risk mitigation. Green Sukuk, which have been discussed extensively in past CIBAFI briefings, are not restricted to climate-related projects, but such projects have in fact been important targets for green Sukuk such as those issued by the Government of Indonesia and the Islamic Development Bank.

Takaful products are good instruments aiming to counter the risks of extreme weather events. A project piloted in Bangladesh demonstrated that low-cost Islamic risk financing could open up opportunities to scale up insurance against extreme weather events among low-income individuals[12]. Takaful has high potential and can cover various climate-related risks at the micro and meso-level.

7. Conclusion and Recommendations

Climate change is a systemic risk to the financial sector that has the potential to destabilize the normal functioning of the system and lead to serious negative consequences for the real economy. Climate change risks on the financial sector are real and managing these risks must be a priority for all the players of the financial sector. The Islamic financial sector has huge potential in terms of addressing climate change issues and encouraging green investment. As with the conventional financial sector, integrating climate-related risks into prudential regulation and identifying and measuring these risks is not an easy task, but significant progress is being made.

It is therefore recommended that Islamic financial institutions should:

- Assess how climate change is integrated into their governance and risk management and what is needed to conduct scenario analysis to evaluate future climate-related financial risks, including those not directly linked with GHG intensive sectors.
- Consider whether they should make disclosures along the lines of those recommended by the TCFD, even in advance of a regulatory requirement to do so.

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- Work with CIBAFI and PCAF on the appropriate framework to disclose the carbon impacts of their financing and investments.
- Whether or not they are able to make and disclose detailed evaluations of carbon impacts, seek to reduce financing and investment in high-carbon sectors and to increase financing in low-carbon sectors.

Institutions should also seek opportunities to create products that will help to mitigate climate change or adapt to its effects. For example:

- Capital market institutions, and banks operating in the capital markets, should encourage the issuance of green Sukuk, and promote Sukuk to their clients as an appropriate way of funding climate change mitigation projects.
- Islamic fund managers should consider the opportunities to launch funds with a specific climate change focus including sectoral focus such as renewable energy, green buildings, climate-smart agriculture and green tourism.
- Takaful operators should develop products specifically addressed at increasing the resilience of those communities most at risk from climate change effects, for example, sea-level rise or extreme weather events.

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About CIBAFI

CIBAFI is an international non-profit organisation founded in 2001 by the Islamic Development Bank (IDB) and a number of leading Islamic financial institutions. CIBAFI is affiliated with the Organisation of Islamic Cooperation (OIC).

CIBAFI represents the Islamic financial services industry globally, defending and promoting its role, consolidating co-operation among its members, and with other institutions with similar interests and objectives.

With over 130 members from more than 34 jurisdictions from all around the world, CIBAFI is recognised as a key piece in the international architecture of Islamic finance.

Its mission is to support the Islamic financial services industry as the leading industry voice in advocating regulatory, financial and economic policies that are in the broad interest of its members and that foster the development of the Islamic financial services industry and sound industry practice.

CIBAFI is guided by its Strategic Objectives, which are 1) Advocacy of Islamic Finance Values and Related Policies & Regulations; 2) Research and Innovation; and 3) Training and Professional Empowerment.

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Acknowledgements

The Secretariat would like to offer its sincere thanks to the individuals who have contributed in making the publication a success. We would like to appreciate Maribel Lim, Dr. Muhammad Bilal, Rachid Ettaai, Zainab AlOwainaty from the CIBAFI Secretariat, Mr. Peter Casey, CIBAFI Consultant, Mr. Mehmet Fehmi Eken and his colleagues from the Climate Change Division, Islamic Development Bank, Mr. Blake Goud, CEO of RFI Foundation, and Mr. Mohammed Imam, Jordan Islamic Bank.

We trust that this publication will provide valuable insights to the Islamic Bankers around the globe in addressing climate change issue and contributing to a sustainable development.