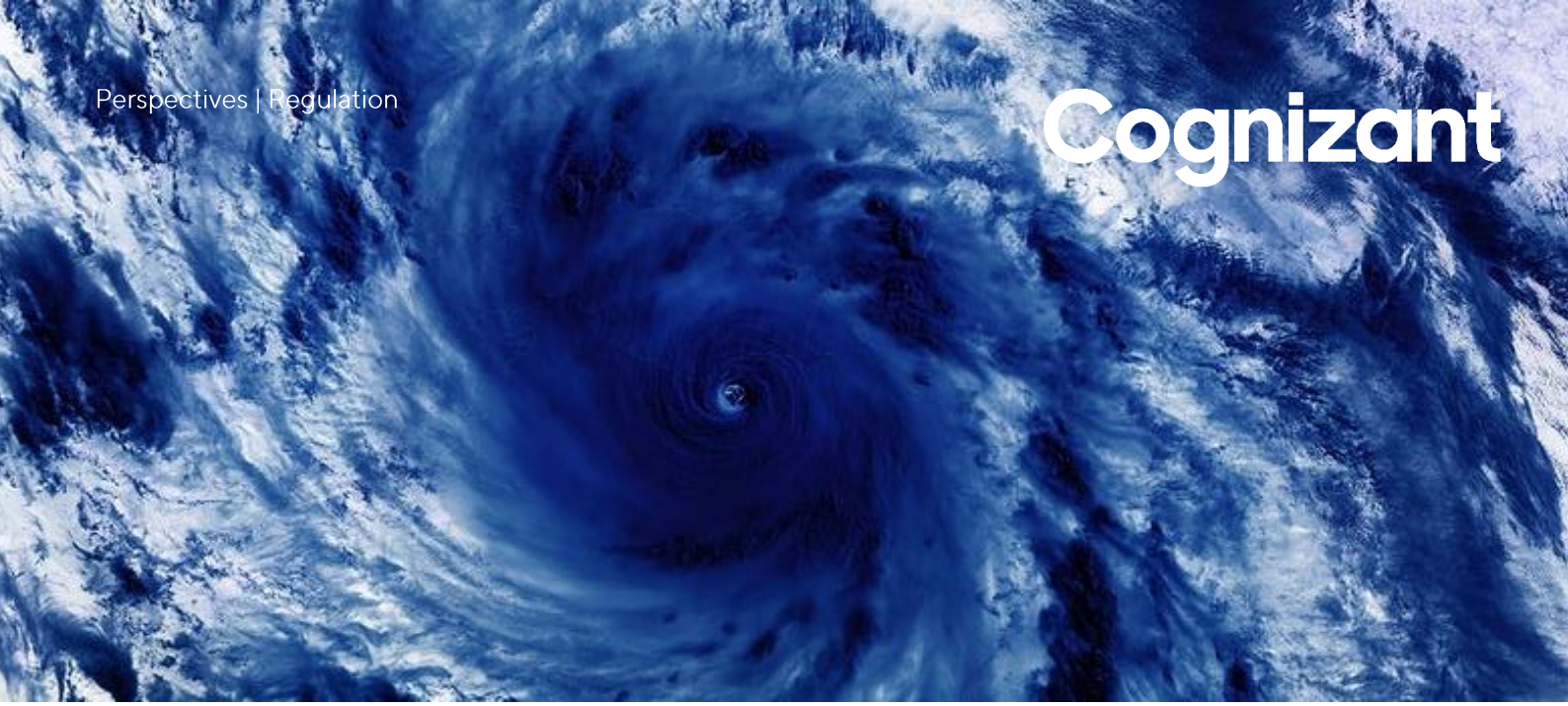

Cognizant Consulting | Finance, Risks & Compliance

Financial Institutions Face Climate Risks Transformational Storm

Industrialising beyond the reputational risks

Last January, the Pacific Gas & Electric Corp (PG&E), a Californian energy provider, filed for Bankruptcy protection under the Chapter 11 of the United States Code. As hundreds of complainants sued this utility firm for its mismanagement of California's 2017 and 2018 wildfires, it faces up to $30 billion. This is for repair of the damages caused by its ill-adapted electricity transportation network. The Wall Street Journal and many of its peers therefore coined the story as the "First Climate Change Bankruptcy".

Climate change has created a sense of emergency throughout the world and businesses are now more than ever liable on how they address this threat. Over the last decade, Environmental, Social and Governance (ESG) criteria have become major indicators within Financial Services firms to help embrace this new reality. We focus here on climate risk management for the Financial Services Industry. How can it affect financial obligations fulfilment? How to adjust risk management? This goes far beyond reputation and we hereby wish to give an overview of what firms need to consider in order to embrace this challenge.

July 2020

Categorizing climate change

The Bank of England[1] has been the first to define in 2015 the now largely adopted categories of risks related to climate change: **physical risk, transition risk and liability risk**.

Physical risk covers all tangible damages or losses due to climate and climate-related hazards that impact economic players. These type of events are increasing in frequency and severity. One can qualify them as:

- **a chronic hazard** that could quickly deteriorate entire industries' productivity – such as increase in oceans level and temperature, reduced water availability, biodiversity loss,
- **an extreme occurrence** that could lead to physical assets destruction – such as storms, floods, fires or heatwaves.

Transition risk is about the potential consequences of establishing a low-carbon economical model with regulatory, production and consumption models changes as well as technological ones which would result in risks increase. It takes account of any variation in corporate valuations due to these changes.

Liability risk is regarding fees/compensations at stake for a legal entity judged responsible for climate change consequences. It may incur from physical or transition risks. For this last, it is the risk of litigation for failing to avoid or minimise adverse impacts on the climate, or failing to adapt to climate change; or Market risks, if the choices of consumers and business customers shift towards products and services that are less damaging to the climate.

Below are drawn the associated heat graphs, showing European financial institutions' exposure to those risks, as well as their maturity, horizon of appearance and criticality.

[1] Mark Carney speech - The tragedy of the horizon, September 2015

Liability risk: Low exposure - Rules & penalties are not exhaustive yet. Moreover, they must be detailed and clarified.

Physical risk: Medium exposure - Most of the European banks exposures are not located in areas subjects to physical risk.

Transition risk: High exposure - The transition to a carbon sober economy will profoundly shake the economy, necessitating a significant review of financial institutions' exposures.

Physical and transition risk: different industries, different stakes and different progresses

The Financial Services Industry relies on its ability to undertake/manage the risks associated to the credits it provides. The aforementioned liability, physical and transition risks must be integrated in this historical paradigm.

As not all industries (i.e. client segments) are equal regarding these threats, financial players face complexity to realistically apprehend these risks: financial players have to understand, collect, analyse, model and integrate these climates risks data…and this is, as history shows, challenging.

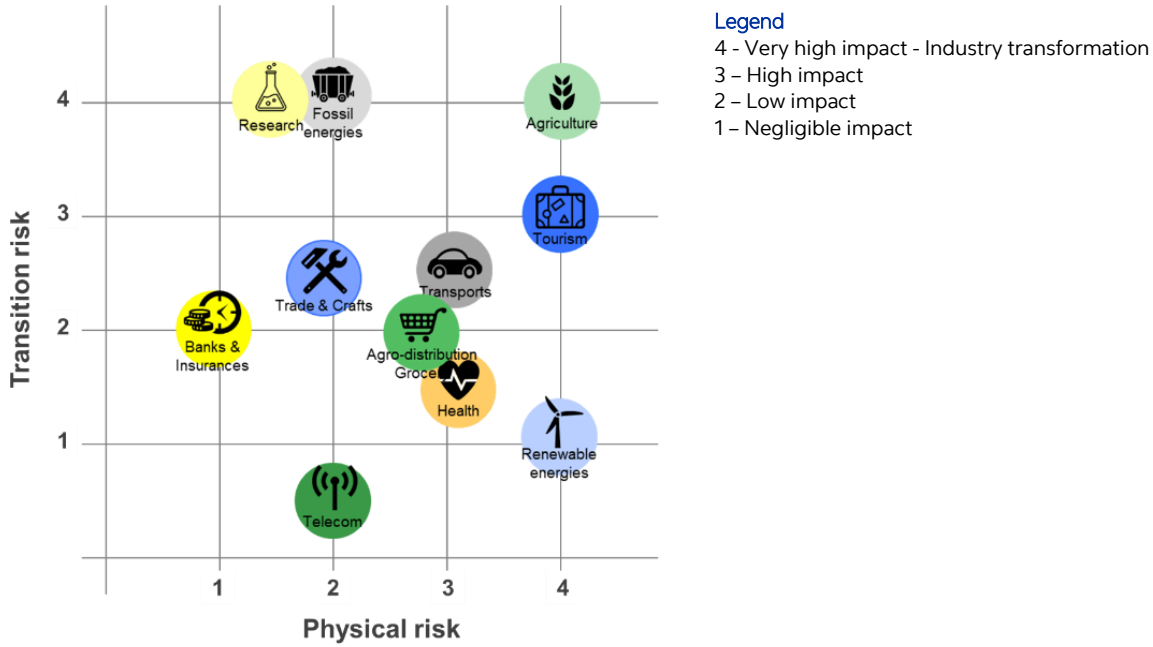

Illustration: As seen on the chart, agriculture, agribusiness and transportation industries are and will be the main sectors impacted by physical and transition risks.

All financial players are starting to leverage their expertise to develop industry-specific risk exposure indicators that take into account investments' climate impact. A part of them are taking the analysis one step further, integrating multi-dimensions analysis

adding weights to geographical or product angle. And a minority, as of now, is driving business quantitatively to climate risks e.g. optimize capital allocation in function of green/brown factors impacting the RWAs.

Managing climate risk: Why? How? Why now?

One direction is clear now: banks must manage climate related risks and 'traditional' risks alike. They have comparable impact on the balance sheet and on the operations. To do so, they have to:

- Understand the immediate threats that could jeopardize business' immediate operations and hedge accordingly.
- Anticipate different climate change scenarios and their effect on health, demographics and physical environments, affecting directly or indirectly its wellbeing.
- Efficiently communicate on its climate risk management from business and risk perspectives.

By integrating climate risk, financial institutions are at the forefront of sustainable development with four advantages that would benefit them, as risk managers can thus:

- Efficiently manage existing risks, as aforementioned,
- Reassure their investor base – wherever they are or not change-driven ESG will is becoming a differentiation factor – and a new standard for the Industry,
- Seize new business opportunities from the trillion-dollars carbon market,
- Anticipate the next regulatory wave – it is best being among those setting the standards of next regulatory frameworks.

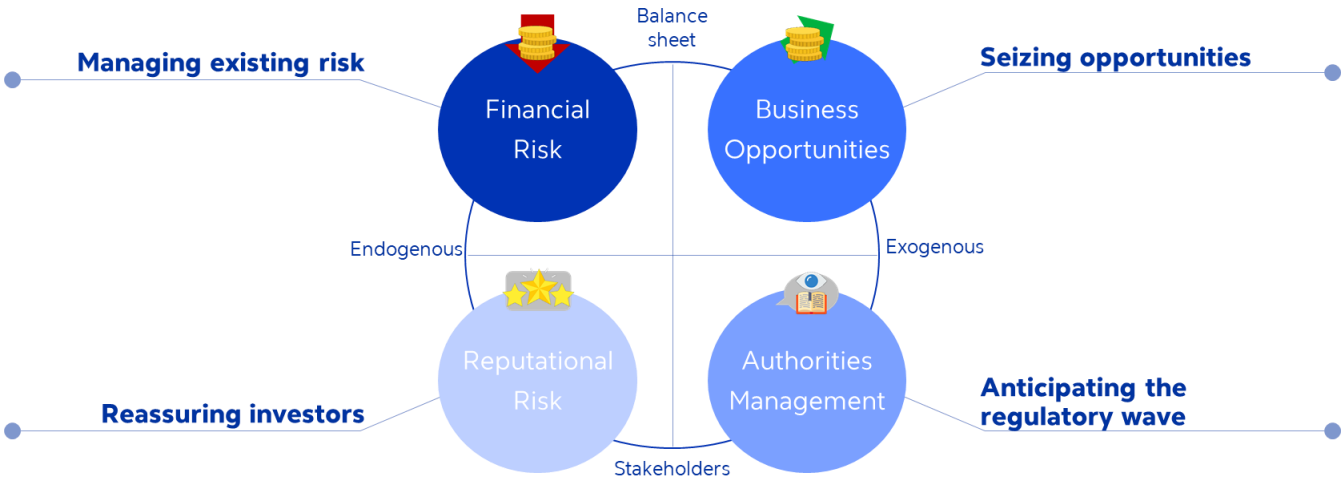

Illustration: the fourth fold advantage of climate risk management for financial institutions.

In order to fully integrate climate risk, the entire organization must transform – adapt processes and guidelines, while managing change for their teams' adoption.

Implementing a new ESG risk culture to enrich the existing framework

Climate risk creates new uncertainties which needs to be taken into consideration by financial institutions in all aspects from Governance to management tools.

Climate risk culture, assessment and mitigation methodologies need integration at scale within organizations to be efficient and resilient.

Integration across banks and financial services organization is a critical success factor to Climate risks management effectiveness and resilience

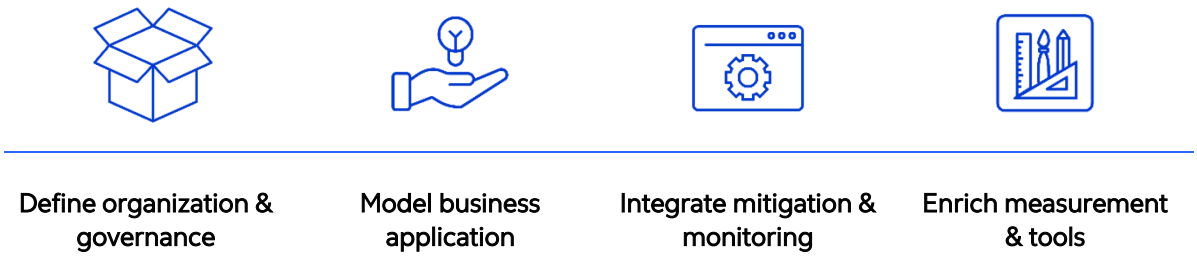

Illustration: The four dimensions of climate risk integration for financial institutions

Starting with an integrated and strong governance:

Strong monitoring and ownership lead to the development of sound risk management practices. Executive committee oversight, as advised by the Task Force on Climate-related Financial Disclosure (TCFD), must ensure a long-term, strategic and comprehensive approach to climate risk. Financial institutions already took into account the importance of a strong 'climate organization & governance', with the reinforcement of ESG teams, thanks to dedicated people specialized on ESG topic within some services. This starts with a dedicated 'ESG committee', in which, risk directors are part of the decisions. Nowadays ESG teams drive the oversight of climatic factors, and they generally focus on reputation-related risks. Integrating this role to historical risk teams will ensure equivalent oversight.

Modeling risks according to business application:

For climate risk management adoption, banks and financial services can apply a scenario-based approach. Variables for each scenario include for instance: level of global warming or level of transition to low-carbon economy. Each time, one should consider the risk/return-on-investment ratio. This enables to do better pricing or set efficient fees policies. These scenarios will depend on each organization's purpose, vision and business goals.

Integrating mitigation & monitoring frameworks:

Many banks are integrating climate considerations into credit risk limits, although this largely involves reputational risk management rather than credit risk. These limits often take the form of a ban or restrictions on specific sectors. More advanced systems, for example based on the portfolio's carbon footprint or potential climate-related losses, remain to be built.

Enriching measurement & tools:

Based on medium and long-term temperature levels, on sea levels rise..., climate scenarios help study the impacts on the economy of transition levels (or lack of transition). Corporations and banks are increasingly developing climate scenarios, in order to get a good picture of their portfolio exposure on this new risks. Meanwhile, as for example, ACPR, EBA and ECB are close to publish a dedicated methodology that financial institutions will have to follow to conduct climate stress tests planned for Q1 2021.

In order to conduct those stress tests Banks need reliable data. This is still a challenge yet to overcome before they can meet ambitious expectations. Access to qualitative data is increasingly strategic for all Industries who need to prioritize what type of data they need to access to. In the case of sustainable finance or climate risk management, data can be ESG ratings, company disclosure data, social media data, weather forecasts, etc. The more Banks and Financial Services players will access this data the more they'll know how to adapt their models. This is a continuous improvement process. New data modernization strategies' promise is to deliver high granularity for climate risk measurement – and higher anticipation with predictive analytics embarking machine learning. Now is the time to put this into practice.

If the past decade was a phase of evangelization and experimentation, we are now entering the industrialization on ESG with climate risks as primary central focus on banking and regulatory sides. Banks are looking into it right now and will need to anticipate an evolutive model to integrate the other ESG dimensions beyond climate. On top of these consideration as for the whole ESG transformation, data and analytics are incredible levers to provide proper insights and foresights to make the right decisions for a positive impact. We will cover this in a specific ESG data 'perspectives'.

References Sources

https://ec.europa.eu/finance/docs/policy/190618-climate-related-information-reporting-guidelines_en.pdf

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