



Towards 21st century-worth financial standards

„Green Finance“, „Sustainable Finance“ or even „Climate Finance“ are becoming ever more prominent in current discussions in the financial sector globally. Still, only few unified taxonomies exist that allow us to grasp the idea comprehensively and to provide a shared and accepted basis for further exploration. Climate risk management methodologies are emerging, but not yet mainstream.

But the climate finance landscape is changing at unprecedented speed and thus holds the promise to unfold its transformative potential. Not only the current Covid-19 crisis made the fact obvious, that we need a paradigm shift towards triple bottom-line accounting and reporting to understand humanity's impact on ecosystems and climate in order to protect it while enhancing our living standards. Modern information, communication and data technologies allow a deep dive into a world of complex climate and ecosystem interrelations and constant learning on how to build resilient and low-carbon economies. This journey has just begun.

What is climate finance?

[UNFCCC](#) defines climate finance as “local, national or transnational financing—drawn from public, private and alternative sources of financing—that seeks to support mitigation and adaptation actions that will address climate change.” Climate change mitigation seeks to diminish the concentration of greenhouse gases (GHG) in the atmosphere, either by lowering emissions or increasing capturing GHG. Climate change adaptation are strategies and investments that target to increase the resilience of a system (productive system, infrastructure, ecosystems, etc.), in other words, the system's ability to absorb climate-related adverse effects.

What is the current state of climate finance?

As of today, climate finance is primarily focused on mitigation finance, large projects on wind or solar energy, among others, drive the investments and their financing. According to the [Global Commission on Adaptation and UNEP](#), funding for climate adaptation, which averaged US\$ 30 billion a year in 2017-18, remains far short of what is needed. Global funding would need to increase ten-fold, to US\$ 300 billion a year, to meet the UN Environment Program's estimates of what is needed to respond to escalating climate risks.

The distribution between adaptation and mitigation finance is 1:20 (or 5% vs. 95%), while the Paris Agreement, the global governing contractual framework ratified in 2015, established a 50% - 50% as goal.

Especially in the last stages of the current Covid-19 crisis, climate finance regulation and initiatives have become the key focus of the public debate in order to enable a more sustainable and Paris Agreement-aligned economic recovery: The EU has published and is ratifying its [EU Taxonomy on Sustainable Finance](#), the [Taskforce on Climate-related Financial](#)



[Disclosure](#) is aiming at promoting “more informed investment, credit and insurance” and the White House just issued an [executive order](#) on Climate-related financial risk announcing a comprehensive climate change risk oversight framework.

At the same time, capital markets are sometimes even leading the way, as the 2021 letter to CEOs from Blackrock’s Larry Fink illustrates. Finally, climate-related financial risks are going mainstream, and responsive investments will be more and more at the top of mind for financial analysts. Eventually they will become an equal risk category in integrated risk management.

Hence, it is fair to say that global financial markets are in the process of profound transformational change, much longed for, as private climate financial flows will be needed to tackle the climate crisis.

What are key concepts?

To regulate and guide the financial sector, metrics and rules will be defined that enable financial institutions to integrate climate finance definitions at operational level. In 2017 the [Financial Stability Board \(FSB\)’s Taskforce on Climate-related Financial Disclosure](#) emitted a series of recommendations for the financial sector.

On one hand, financial flows need to be categorized according to their mitigation and adaptation potential. On the other hand, climate related financial risks need to be measured and disclosed in order to value assets correctly and early on identify variations in risk premiums of assets.

- **Climate finance flow taxonomies**

These taxonomies, with the EU Taxonomy expected to emerge as global golden standard, help investors and financial professional to measure the climate impact a specific investment or project has. In terms of mitigation-labeled investments, it measures the GHG and/or environmental footprint, while for adaptation related investments, the effect of a specific investment on the climate resilience of the respective system is to be measured. Clearly, adaptation investments are more difficult to assess as data on interrelations between investments and their effect on e.g. productive systems are less available. Further, adaptation is highly local context sensitive, i.e. solutions must fit a very specific on-site reality which also needs to be assessed. Still, various taxonomies have emerged over the last

- **Climate-related financial risk disclosures**

Climate-related financial risks are being divided into two main areas: transition and physical risks. Transition risks refer to increasing risks of companies due to regulatory, legal or market demand negatively affecting their revenue generating capacity. Physical risks are related to adverse climate impacts, such as meteorological or hydrological events, that negatively impact companies by threatening production and assets directly.



Together, the disclosure of climate finance flows as well as physical and transition risks provide a comprehensive panorama of climate finance – the former addressing the latter: the investment into climate solutions directly addresses potential increases in climate-related risk premiums. In that line – additionally factoring in social risks – the world’s financial sector has all tools at hand to implement triple bottom-line accounting and reporting.

The paradigm shift: Data enabling the deep dive

Only with recent digital communication and information technologies it is really possible to apprehend and proactively manage the complexities of nowadays climate finance: many pioneering financial institutions are running their operations exclusively on digital platforms, that allow for the combination of several data sources (e.g. administrative records on loans disbursed combined with climate risk maps, e.g. here: [YAPU Solutions](#)). The requirements stemming from modern climate finance can hence be translated into simplified operational processes.

Summary

The world economy and the global financial sector are undergoing profound changes, the latter being ever more poised to take on its role as a driver of change towards a more resilient and low- or even zero-carbon economy. Methodologies and operational solutions, mostly digital, are increasingly available and enable financial sector regulatory authorities to introduce solid frameworks. The change is profound and will shape all segments of financial sectors worldwide. But it was never easier to address this challenge, with increasing digital offers available in the markets to tackle it. In that sense, a sustainable future is possible.

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