



## SYLVIE GOULARD

Second Deputy Governor,  
Banque de France

### Climate risks, new risks?

“Climate change is a source of risks that is fundamentally different from the financial risks investors and financial regulators are used to managing” (Bolton et al, 2020) Assessing them calls for new risk models based forward-looking analysis fed with original data. Assessment of physical risks requires very granular geographical analysis of potentially extreme climate events, as well as specific hypotheses regarding how impacts in one place could cascade to downstream activities and locations. Assessment of transition risks calls for developing scenarios of sectorial adjustments at granular level, foreseeing which technologies might prevail in a low-carbon economy, and which countries, regions or firms may win or lose from the diffusion of such technologies.

Accounting for ESG risks also calls for better identifying how specific events that were traditionally not or only poorly assessed by financial agents such as rating agencies could have material financial impact. For instance, firms that do not respect basic social or environmental standards will lose clients and could face costly lawsuits with adverse impacts on market valuation and credit rating.

In addition, accounting for climate-related and ESG risks might call for integrating them into macroeconomic and financial models. For instance, the low-carbon transition could have significant impacts not only on GDP, but also on other macroeconomic and financial variables such as the rate of interest or the price of assets. The transition's impacts will also exhibit significant sectorial differences and strong distributional effects. These require that assumptions in models, such as indicating the incidence of a carbon price or the use of proceeds of a carbon tax, be made explicit.

In order to size climate-related financial risks, the Banque de France and the French supervisory authority (ACPR) have run a pioneering stress-testing exercise involving banks and insurers. Launched in July 2020, the objectives are threefold: i) assessing over a long-term horizon the impact on financial stability of disorderly transition pathways as well as a 'hot house world' scenario, relying on NGFS reference scenarios; ii) understanding the strategic and mitigation reactions of financial institutions; iii) and finally, unveiling the main obstacles to a robust assessment of these risks in terms of modelling challenges and data gaps.

Significant challenges remain. First, financial institutions need adequate information to differentiate dynamically when assessing counter parties and geographies. They need, for instance, to be able to assess future vulnerability and not only existing vulnerability. Corporate disclosure such as the TCFD at the global level and the revision of non-financial reporting directive in the EU are critical steps.

Second, as climate change has barely started to materialize, climate change-related risks are not historical but modelled events meaning that using traditional methods reliant on historical data is impossible. Accordingly, the stress testing exercise is a starting point for building more appropriate models.

Third, any modelled projection over such long-term horizon needs to be considered carefully. This means questioning the traditional use of supervisory stress-test tools. Quantitative analyses need to be complemented with an assessment of the strategic resilience of supervised entities against climate change.

Finally, the climate challenge is collective and global. Being successful alone is an illusion. Cooperation should prevail, between actors and across borders. The political changes in the US as well as the coming COP 26 represent a great opportunity to make collective progress, improve risk assessment and mitigation, in particular through a better disclosure.