The bottom line

Once investors truly understand the climate risk to their portfolios, investment should start to support climate action, not just on the basis of ethics but out of self preservation

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ne of the striking features of the leadup to the Paris Agreement was the active push by some leading actors from financial institutions and businesses for stronger signals on climate policy. Globally, we need to strengthen policies to avoid the most dangerous impacts of climate change. But we also need financial actors to play their role to solve the climate challenge.

Today's vast capital markets need to be redirected to low-carbon and climate-

resilient infrastructure. Every dollar invested needs to be aligned with climate goals – or at least not obstruct progress towards climate goals.

In parallel to the call to action signalled by Paris, the Financial Stability Board (FSB) – spearheaded by Bank of England Governor Mark Carney as FSB Chair – began sending a clear message to the financial sector that climate risk is financial risk. This integration of climate change into considerations of financial risk essentially turned the framing of climate change for investment decisions on its head. Previously, the argument had been

around ethics and responsibility, calling on investors to contribute to a solution and consider the impacts of their investments on the climate.

The reframing by the FSB considers the potential impact of the climate – and related policy and technology changes – on financial bottom lines. This brought climate risk onto the radar of financial actors as it touched upon their primary mandate: to generate financial returns.

Defining climate risk for investorsClimate risk can be simplified into two categories:

Figure 1: Climate risk and potential financial impacts







Physical risk manifests in abrupt and chronic hazards, such as extreme weather events like hurricanes, flooding and heatwaves. Physical impacts can be felt both directly (via infrastructure damage) or indirectly (via supply chain and transportation disruptions). Physical risk can affect all sectors.

Transition risk refers to the possible changes in carbon pricing schemes or technologies. Transition risk can impact markets, resource pricing and consumer behaviour in all sectors. In the short-to-medium term, industries that supply or use fossil fuels are most likely to be at risk.

To explore transition risk, investors and corporations can use 'climate scenario stress testing' to assess how their financial assets will be affected under a range of possible future scenarios. But there are many questions as financial actors begin to implement these recommendations. What scenarios should they use? What do the scenarios mean? How can actors manage risk under different scenarios?

A risk framing of climate scenarios explores both the potential lower and upper ranges of emissions trajectories. We need to plan for a 2°C warmer world, but at the same time recognise that it is not the most likely outcome given today's policy ambition. However, key political and technological events can influence temperature increase, pushing it up above 4°C or limiting it to 2°C. Thus we should plan for a 2°C temperature rise, but also for 3°C and 4°C, as we explain in our 2018 report, Climate Scenarios Demystified.

To assess near-term physical risk, scenario stress testing is not helpful. Over the next 10 to 20 years, physical risks like flooding or immediate extreme events will be exacerbated regardless of the scenario due to unavoidable emissions and their effects in the atmosphere (see our 2017 report, *Shades of Climate Risk*).

For near-term physical risk, investors and companies must instead consider the probabilities of physical events occurring today and their resilience to cope with such events. By limiting current and future emissions, we can limit more and worse impacts in the second half of the century.

Risk disclosure with regional flavours

To help identify the information the financial sector needs to assess the potential climate risk faced by companies, the FSB established the Task Force on Climaterelated Financial Disclosures (TCFD), led by the investor and philanthropist Michael Bloomberg, who is also UN Special Envoy on Cities and Climate Change. The TCFD recommendations, published in 2017, provide voluntary guidance to all financial institutions and companies to disclose their strategies and targets to manage their material climate risk. The recommendations include stress-testing across a range of scenarios, including 2°C.

Meanwhile there is a push to move beyond voluntary guidance into mandatory requirements on climate risk. France became the first country to pass a law (in

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2015) requiring reporting on climate risk. Article 173 of the French law on Energy Transition and Green Growth requires French institutional investors to explain how they integrate environmental, social and governance (ESG) criteria into their risk management and report on physical and transitional climate risk.

This year, the European Commission launched the Action Plan on Sustainable Finance and supported measures for its implementation. The EU's vision of sustainable finance incorporates aims for low-carbon investments and considerations for climate risk on the sustainability of the financial system. The package of implementing measures includes proposals for regulations on framing definitions for sustainable and green finance, for mandatory disclosure on integration of ESG factors in risk management (similar to France's regulation) and for creating new benchmarks for low-carbon impact.

The path forward on climate risk disclosure and definitions will likely have a regional flavour. Agreement within the EU on sustainable finance definitions will not come easily, given the different energy resources across the member states. Outside of the EU, different regions and countries will consider their own priorities.

We see regional nuances already to some extent in the green bond market, one of the most recognisable financial products for climate-friendly investments. The voluntary Green Bond Principles (GBP) are a starting point for most green bond issuers in the market today. But as the market has grown, different regulatory practices and 'green' definitions have evolved.

For example, both India and Indonesia have designed local regulations that are compatible with the GBP, but with some additional, locally oriented clarifications. Countries within the Association of Southeast Asian Nations (ASEAN) developed a Green Bond Standard that explicitly excludes fossil-fuel energy generation. China requires issuers to verify projects against a catalogue of eligible green assets, which allows for clean coal projects. And the European Commission's Sustainable Finance implementation package includes specific direction to develop a green bond taxonomy of eligible projects in the EU.

Investors are also increasingly referencing the Sustainable Development Goals (SDGs), as they incorporate development, climate and environment angles. In the green bond market, we see several bonds indicating which SDGs they are targeting for impact reporting. A separate sustainability bond market is also emerging, governed by voluntary Sustainability Bond Guidelines.

A common language on green and sustainable finance can be helpful for supporting the necessary capital shift towards low-carbon and climate-resilient infrastructure. But in the push for standards and common definitions we should motivate a race to the top that allows for some inevitable regional differences in approach. Common definitions can support climate risk transparency. They should take a holistic approach to climate risk. •