

Minutes of the November 19, 2021 Financial Advisory Roundtable (FAR) Meeting

Present:

FAR Members: Viral Acharya, Hayley Boesky, Bennett Golub, Robin Greenwood, Bradford Hu, Ralph Koijen, Maureen O'Hara, Srinivas Ramaswamy, Til Schuermann, Jeremy Stein, Toni Whited.

Others: Lars Hansen and Patrick Bolton

FRBNY Chair: John Williams, Gara Afonso, Ozge Akinci, Chris Armstrong, Pablo Azar, Gianluca Benigno, Jim Bergin, Kristian Blickle, Nina Boyarchenko, Jason Bram, Rajashri Chakrabarti, John Clark, Marco Del Negro, Keshav Dogra, Thomas Eisenbach, Leonardo Elias, Michelle Ezer, Michael Fleming, Linda Goldberg, Beverly Hirtle, Darau Johnson, Hyeyoon Jung, Anna Kovner, Frank Keane, Lorie Logan, Rachel Lu, David Lucca, Jim Mahoney, Jonathan McCarthy, Meg McConnell, Don Morgan, Helen Mucciolo, Wing Oon, Claire Nelson, Matthew Plosser, Paolo Pesenti, Jaap Ritzen, Joao Santos, Asani Sarkar, Argia Sbordone, Or Shachar, Lee Seltzer, Mike Schetzler, Kevin Stiroh, Zach Taylor, Katherine Tilghman Hill, Giorgio Topa

Summary:

The Financial Advisory Roundtable ("FAR") meeting discussed the potential impact of climate risks on financial stability and the role of central banks in mitigating financial risks. The meeting consisted of two short presentations. In the first, Patrick Bolton discussed the channels through which climate risk can affect financial stability, how financial institutions are preparing for the climate risk, and the challenges that the regulators are facing. In the second part, Lars Hansen discussed the importance of recognizing the inherent uncertainty around future climate evolution and the effect that future climate change has on economic outcomes. These presentations were followed by an open discussion of the topics listed on the meeting agenda.

Understanding consequences of climate change

In their discussions, FAR members distinguished between physical and transition risks of climate change. While physical risk is associated with the physical consequences of climate change, such as rising sea levels, transition risk captures the economic consequences of a transition away from fossil fuels. Examples of transition risks include the adoption of green technology and uncertainty in how policy actions will evolve in the future. Both physical and transition risks impose financial risks.

A common approach to evaluating the economic costs of climate change is through the Social Cost of Carbon (SCC), which can be thought of as an asset with a socially adverse cash flow, i.e., emissions today have social costs in current and future time periods. FAR members noted that an issue with this approach is that the calculation of the SCC involves a number of modules – emissions, climate, damages and discount rates – which are interdependent but the measurement of SCC doesn't account for these dependencies in a robust way.

A related discussion addressed the use of quantitative models to make educated predictions for climate outcomes in the face of scarce data about extreme climate events and, therefore, limited value of historical measurement. Several members noted that a key challenge for policy makers is determining the trade-off between preparing for likely outcomes or worst possible outcomes: focusing on the worst outcomes can lead to overly cautious policy, whereas targeting the likely outcomes can increase the probability of the worst-case? scenarios. FAR members also discussed the intertemporal nature of this tradeoff, with the potential benefits of waiting for further information being weighed against the need

to act quickly. This is especially true of climate change, as the timeframes are much longer than typical economic models, increasing uncertainty.

Climate change risk and financial institutions

In the discussion of financial institutions and climate risk, FAR members distinguished between banks, asset managers, insurance firms and pension funds.

FAR members noted some limits to current versions of scenario-based stress tests for banks while revisiting themes related to climate models. Current climate stress tests are static over a 30-year horizon with no uncertainty along the path. Depending on the underlying assumptions, the static approach might encourage firms to be overly cautious, which may be costly in the long run. Moreover, economic theory suggests that firms should optimally respond as more information about the environment – both economical and physical – they operate in arrives.

The banking sector began incorporating climate change risks into their risk management framework in recent years, especially U.S. GSIBs. Nevertheless, given that banks typically hold assets with a less than 5-year half-life, the impact of modeling climate change is limited. Hence, the risk in the banking sector is more likely to lie in the geographical concentration and localized events, e.g., small lenders with large concentration to local borrowers in areas that are prone to the effects of climate change.

Asset managers have been integrating ESG considerations into the investment process, and some might even restrict investments in firms with large carbon emission that do not have plans for transitioning their business models. Likewise, on the other end of the spectrum from banks in terms of asset maturity, some pension funds adopted a “net-zero” goal in their investment portfolios.

In the follow-up discussion it was mentioned that firms that are levered with short-term debt might be less likely to price in climate change and more reluctant to take upfront costs for long-term climate change transition (for green technology, for instance). This in turn might result in transition risk depending on whether levered firms will be willing to embrace climate change.

In terms of pricing of climate change in financial markets, FAR members agreed that equity markets have been pricing ESG factors and the carbon premium has been increasing over time. However, there is still no evidence that these factors are priced in credit markets. FAR members expect that the prices of investment grade corporate bonds issued by firms with high emissions are likely to be affected in the future. It was noted by FAR members that mispricing will initially be observed in the insurance markets before one would observe in other financial markets. FAR members agreed that it is unclear whether the private sector is over-pricing or underpricing related risks.

In light of these caveats, FAR members suggested several productive initial steps for regulators and regulated institutions: develop methods and models for quantifying climate change exposure over alternative horizons; embrace a broad notion of uncertainty using decision theory as a guide; improve data collection to measure climate change exposure.

The role of central banks

The increasing focus on the potential importance of climate risks to the financial system has raised the question of whether central bank policies should respond to such risks. One element of this broader discussion is whether central banks should try to avoid having a “brown” bias in future interventions involving asset purchases. Although, several FAR members noted that central banks may have limited

expertise in assessing green friendly projects and doing so runs the danger of politicizing central bank policies.

FAR members made a few remarks regarding potential actions that regulators could consider. First, FAR members suggested that a policy to reduce firms' incentives to take high leverage could be useful. This is because firms are more likely to be able to deal with uncertainties and be willing to take upfront costs for long-term transitions if they are financed with long-term capital. Second, FAR members noted that regulators should be cautious about having financial regulations targeting only the banking sector, because it could result in risks shifting from banks to less regulated non-banks. Third, FAR members pointed out that collecting accurate and granular data on carbon footprints and the distance from net-zero would be helpful in spurring change.