

SFL's Energy Transition Programme

The transition to a low carbon economy is a necessary and an inevitable path for the years to come if we want to save our planet. This unprecedented structural change will have major effects on every aspect of the way we have been running our economies. Moreover, the uncertainty inherited in the transition process makes it a challenging task for different economic agents to plan and anticipate the direct impacts on their businesses, income, assets value, ...etc. If not managed properly, the decarbonization process might result in decreasing economic prosperity, financial instability and unemployment.

So far, there is no sufficient accountability by financial institutions for these climate related risks in their portfolios which means that they are exposed to unexpected and potentially large financial losses. Such losses, if large and simultaneous, can become systemic and trigger financial instability.

The Intergovernmental Panel for Climate Change (IPCC), along with other international bodies like The Network for Greening the Financial Sector (NGFS) and the Task Force on Climate-related Financial Disclosures (TCFD), recommends and encourages the use of scenario analysis and stress-testing to consider dynamically the potential impact of the risks and opportunities on strategy or financial planning during the transition to a low carbon economy. The NGFS also emphasizes the need to conduct a quantitative climate risk analysis to measure the risks to the financial system and take into consideration the different impacts of climate change in macroeconomic forecasting and financial stability monitoring.

The transition will have far more global effects than just protecting the global environment. For example, it will diminish the competitive advantage some countries have in certain sectors as economies switch to other substitutable products which relies on new resources or new technologies, along with the geopolitical effects that accompany such switch.

The speed of the transition is an important aspect as well, as this would have a direct impact on assets value and give the time required by different stakeholders to adjust their position in a way that minimizes their loss. However, an important aspect, that is not emphasized enough in the transition literature, is the speed of transition across sectors. This is very important channel that can hinder or accelerate the transition in the economy. For example, if one sector, like transportation, reduces its dependency on fossil fuel by switching to electricity, would influence the relative prices of these inputs (electricity become relatively more expensive than fossil fuel), which in turn might hinder the transition in other sectors as moving away from fossil fuel become less attractive. This example calls for a coordination of the speed of the transition process across different sectors in the economy. This could be managed by the government or by a transition committee.

Many research questions evolve from the discussion above. SFL's Energy Transition programme has both a research and a practical focus as the programme aims at employing academic knowledge to solve practical problems faced by different stakeholders during the transition process. Within this framework, the programme aims at:

- Using economic modelling to better understand the effect of the transition on the economy, along with understanding the effect of proposed and possible intervention
- Building a stress testing tool that can be used by relevant stakeholders to create transition scenarios based on their own believes about sectoral developments
- Tracking the value of assets in different sectors under different scenarios and determining the sector-specific climate related riskiness of assets

- Investigating the role of the speed of the transition, firm heterogeneity and international relations on the competitiveness and efficiency of policies
- The programme is open to collaborations with other parties that work around climate related transition risks to the financial sector and financial stability, as it aims also to build a network from relevant stakeholders to enhance and support mutual collaboration and unlock the available knowledge around energy transition.