Can Financial Innovation Drive the Net-Zero Transition?

By Lucie Tepla , INSEAD

Promising new financing solutions are paving the way to net zero but organisational, governmental and socio-political roadblocks remain.

In recent years, financial markets have seen many initiatives aimed at mobilising capital for the net-zero transition. These range from **climate-related disclosure requirements** that help investors and lenders better integrate climate into capital allocation decisions, to financial sector net-zero alliances such as the **Glasgow Financial Alliance for Net Zero.** These initiatives serve to develop common tools and best practices for accelerating the climate transition.

The financial sector has also been devising a wide range of new financial products and structures aimed at supporting the transition. These include benchmarks for equity investing aligned with the Paris Agreement, transition debt instruments and blended finance solutions for climate mitigation and adaptation, particularly in emerging economies.

As a result, there is much optimism around the role and impact of financial innovation in facilitating the net-zero transition. But can financial innovation alone mobilise capital at scale and incentivise a lasting and meaningful shift towards low-carbon technologies? What are the organisational, governmental and socio-political challenges complicating the picture?

Real-world examples of sustainable financial innovation

In June 2024, I moderated a panel about this topic at the second edition of the **Business Schools for Climate Leadership Forum**, held for the first time at INSEAD's Europe Campus in Fontainebleau, France. The session brought together experts from business, economics and academia to consider the impact of the financial solutions currently being deployed to fund the transition, and the challenges posed by underlying organisational and socio-political factors.

I was joined by **Vanina Farber**, a professor at IMD (the International Institute for Management Development), whose research and teaching explores how private and public sectors and philanthropic investors can collaborate effectively; **Prerna Wadikar**, a professor at the Indian Institute of Management Bangalore and a global advisory council member at Tech India Advocates, who advises companies on environmental, social and governance strategy; and **Laurent Babikian**, until recently the global director of data products at CDP (formerly the Carbon Disclosure Project), who now serves as a consultant to boards on sustainable finance and regenerative economics.

I began the session by asking the panellists to share their own experiences of climate-related financial innovation. Babikian discussed the **temperature-rating scoring system**, co-developed by CDP and the World Wildlife Fund, that measures the temperature alignment of individual companies based on their emissions reduction targets. Company scores can be aggregated to calculate the temperature alignment of entire portfolios, thereby allowing investors to design Paris-aligned financial products.

Emerging markets and economies account for more than half of global emissions but face climate-financing shortfalls. The Tropical Landscapes Finance Facility (TLFF) in Indonesia demonstrates the potential of blended finance facilities in these regions, said Farber.

Announced in 2018, TLFF is a **partnership** between French tyre manufacturer Michelin and a subsidiary of Indonesia’s Barito Pacific Group, securitised by BNP Paribas. It was Asia’s first green bond aimed at financing sustainability goals around rubber production, reforestation and biodiversity. The United States Agency for International Development provided a partial guarantee, while the United Nations Environment Programme oversaw the environmental outcomes.

Farber stressed the remarkable scale of the collaboration, as well as the participation of Michelin. This significantly de-risked the project, as Michelin pledged to purchase the sustainable rubber and provide training to farmers.

Wadikar discussed how the Indian government has seen great success in sustainable finance initiatives, despite having **seemingly turned down** a Just Energy Transition Partnership (JETP). The latter, which was first announced at **COP26** in Glasgow, is a multilateral finance mechanism aimed at transitioning coal-dependent emerging economies to renewable energy sources while respecting human rights and promoting sustainable development.

One recent initiative is India’s International Financial Security Centres Authority, created in 2020. The statutory authority’s roadmap includes instruments such as catastrophe bonds and weather derivatives, as well as traditional green bonds and securities. If all goes well, it has the potential to address the US$10 trillion required for India to meet its net-zero goals by 2070.

Addressing roadblocks on the way to innovative finance

Despite the energy and optimism surrounding such projects, the panellists identified significant challenges that could derail global efforts to realise the net-zero transition within the stipulated time frame.

Noting that the pace of change is extremely slow, Babikian said the financial sector cannot do the work alone. Governments and businesses need to act with boldness and urgency. He proposed a variable-pricing business model that would apply the principle of sustainability-linked pricing to loans and bonds. For example, companies would sell at lower prices to Paris-aligned clients and at higher prices to those that are not. He also urged governments to be resolute in corporate tax policies – offering lower tax rates to Paris-aligned companies – despite the invariable pushback and controversy.

Farber stressed the importance of organisational readiness on top of innovative partnerships. Returning to the TLFF example, she recounted how a **scandal** over alleged greenwashing by Michelin, as well as Barito Pacific Group’s reputation as a deforester, led to the project’s premature dissolution. She stressed that it’s not possible to only work with good actors; so-called bad actors will also need to be called into impactful partnerships. Corporates should be prepared to handle hiccups and scandals rather than rush into divestment.

Farber also elaborated on the importance of catalytic capital from the emergent field of venture philanthropy, which applies the ideas of venture capital towards long-term change without the same focus on monetary profit. Although much of the financing today revolves around proven, well-established and de-risked technologies, the most impactful green solutions of the future are still being developed in university and lab settings and require financial support to turn grey assets into green ones.

Finally, on the geopolitical front, Wadikar observed that many financial instruments perpetuate inequality between emerging economies and former colonialist nations. The **JETP deal** in South Africa, she said, allocated very little of the overall capital to green industrialisation and the localisation of green industries – areas where the majority of wealth creation takes place. This would keep South Africa dependent on donor countries for financing its green transition.

Referring to India’s apparent lack of interest in a JETP, Wadikar pointed to rich nations’ overemphasis on coal as a source of carbon emissions in emerging economies while downplaying donor countries’ continued reliance on oil and gas.

As Babikian noted, the journey to net zero must accelerate, and the financial sector cannot achieve it alone. Alongside current financial innovation, governments must enact tough policies, companies must take bolder action and donor countries must address the risk of inequities. For a journey this important, the world needs all systems go.

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