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research highlights

ENERGY FINANCE

Capital drives transition

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Climate scientists and policymakers often assume that energy markets and regulatory provisions are efficient tools where the right level of capital to sustain the transition to low-carbon-generation technologies will automatically materialize if only the right level of risk and allowed return on investment is offered to the investors. However, widespread evidence demonstrates that, despite the improved financial performance of most renewable energy sources, fossil fuel technologies are still attracting large investment, in particular in emerging economies. The economic literature is generally silent on the role that financial markets play in fostering the low-carbon transition. Rohan Best, from the Australian National University, fills this gap by studying the impact that financial capital stock plays in achieving energy transition.

Best explores the impact of domestic financial capital on the consumption of different types of energy and on electricity output on a global sample of 137 countries between 1998 and 2013. Using bank credit to the private sector and outstanding private debt as explanatory variables, the study demonstrates that financial capital plays a different role depending on the country's development level and on the type of energy technology. In low-income countries financial capital positively contributes to the transition from biomass to fossil fuel energy sources and to coal in particular. In high-income countries, instead, financial capital facilitates the transition away from fossil fuels, mostly toward wind generation. These results confirm the complexity of the transition process, underlining that financial policies need to accompany energy policies to stimulate investment in low-carbon technologies, in particular in emerging economies.

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