

## Award-winning research demonstrates that environmental regulation is good for capital markets

MARGAUX GATTY

THE STOCK MARKET FAVOURABLY values large firms, and especially those in carbon-intensive industries that are transparent in their environmental reporting, demonstrating that environmental regulation is desirable for the capital markets, according to new award-winning research. Philipp Krüger, assistant professor of responsible finance at the University of Geneva and junior chair of the Swiss Finance Institute, won the 2015 Moskowitz Prize for SRI for his paper, *Climate Change and Firm Valuation: Evidence from a Quasi-Natural Experiment*.

The Moskowitz Prize, which is awarded by The Berkeley-Haas Center for Responsible Business, is the only global award that recognises outstanding quantitative research in socially responsible investing. Krüger's paper examines the impact of the mandatory Greenhouse Gas (GHG) Emissions Disclosure Act that passed into law in the UK in 2013. The law applied to firms listed on the main market of the London Stock Exchange, and now requires that every UK company report comprehensive data on its GHG emissions in its annual report. In the paper, Krüger explores the causality between environmental disclosure and firm value, based on the resulting data via a two-stage research process.

He first analysed company valuations increase pre and post the 2013 regulation of UK quoted firms in relation to similar firms listed on other European exchanges that are not covered by the Emissions Disclosure Act. The results showed that UK quoted firms experienced a higher valuation post regulation than their European peers.

to ensure the economy moves on to a low-carbon pathway. Asset owners and fund managers can play a leadership role in this respect and, in doing so, secure the interests of their savers and wider beneficiaries. Many have started managing the carbon intensity of their portfolios and others actively invest in technologies offering strong financial returns while enabling the transition to a low-carbon pathway.

In the aftermath of the 2008 financial crisis, the concept of stress testing gained

The second stage compared UK quoted companies that did not publicly report their emissions ('non-compliant') to those that did ('quasi-compliant'), before the regulation was introduced. This second test ensured the previous result was not falsified by unobservable factors as both reference groups are affected the same way by exogenous shocks. The results show that UK non-compliant firms showed a higher increase in valuation. The research implies that investors value the transparency of GHG emissions reporting.

The author backs his research and the desirability of environmental regulation with two theories. Krüger says the 'Porter hypothesis' argues that environmental regulation does not have to be costly to firms as it highlights weaknesses such as resource inefficiencies that are then addressed through innovation, thus increasing value. The second theory goes that environmental regulation is beneficial to firms as it reduces information asymmetries for investors that will then be more likely to trade.

To consolidate his research further, the author examined which company sizes and industry sectors were the most influenced by the regulation. The paper showed that the regulation had a stronger impact on larger firms, as it is commonly understood that climate change will have a bigger impact on those. It also had a stronger impact on carbon-intensive sectors, as investors believe the negative impacts on climate are stronger.

Finally, according to the author, it is as important to understand 'how' the environmental regulation impacted valuation. Krüger studies the origin of the increased company value post regulation. The results indicate that it comes via capital market activity in the form of increased stock liquidity and lower information asymmetries, rather than effects such as capital expenditure.

strength in the banking sector and this study shows that the same is also possible, and valuable, for the investment industry. Stress testing investment portfolios against a broad range of sustainability risks can provide insights into potential short-term losses and gains. Further research of an interdisciplinary nature is necessary to formulate the scenarios and their effects on the financial system with greater precision, but these early results are already clear.

Investors can act to reduce their exposure to short-term climate sentiment risks, but not eliminate them. System-wide action is required to protect savers' long-term financial interests against the systematic