清华五道口 2019 年绿色金融学术研讨会

会议主要成果摘要

Abstract

• Corporate Political Connections and Favorable Environmental Regulation

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We examine whether the Environmental Protection Agency (EPA) uniformly enforces the Clean Air Act for politically connected and unconnected firms using a close election setting. We find no difference in regulated pollutant emissions or EPA investigations between the two groups, though connected firms experience less regulatory enforcement and lower penalties. These results are more pronounced for firms connected to politicians capable of influencing regulatory bureaucrats and for connected firms that are more important to their supported politicians. Taken together, our results show that campaign contributions can indirectly benefit firms by way of reduced environmental regulatory enforcement and penalties.

Key Words: political connections, elections, regulation

• ESG Preference and Market Efficiency: Evidence from Mispricing and Institutional Trading

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We explore how the trend towards socially responsible investing affects the informational efficiency of stock prices. The return predictability of mispricing signals is much stronger among firms held by more socially responsible institutions (SR_Is). The results are driven by the divergence of trading implications from ESG performance and mispricing signals. SR_Is are less likely to buy underpriced stocks with bad ESG performance or sell overpriced stocks with good ESG performance. We rule out alternatives, such as known limits to arbitrage. The inefficiency only emerges in recent years with the rise of ESG investing, and is not fully offset by ESG-neutral arbitrageurs due to funding liquidity constraints. We explore how the trend towards socially responsible investing affects the informational efficiency of stock prices. The return predictability of mispricing signals is much stronger among firms held by more socially responsible institutions (SR_Is). The results are driven by the divergence of trading implications from ESG performance and mispricing signals. SR_Is are less likely to buy underpriced stocks with bad ESG performance or sell overpriced stocks with good ESG performance. We rule out alternatives, such as known limits to arbitrage. The inefficiency only emerges in recent years with the rise of ESG investing, and is not fully offset by ESG-neutral arbitrageurs due to funding liquidity constraints.

Keywords: Socially responsible institutions; stock mispricing; ESG preference; market efficiency

• The Determinants of ESG Rating Changes

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Environmental, Social and Governance (ESG) ratings are becoming important assessment tools for corporations and are widely used by impact investors. However, little is known about their construction and objectiveness. We examine the determinates of ESG rating changes. We show that larger firms have better ESG ratings. Firms connected the rating agency are rated

higher. For example, when an institutional investor becomes a major shareholder of an ESG rating agency, this rating agency is likely to give higher rating to other portfolio companies hold by the same institutional investor. Further we find that negative ESG information of connected firms is often not incorporated into ratings.

Keywords: ESG, Rating agencies, Conflict of interest, Ownership structure

• Corporate Environmental Responsibility and Default Risk: Evidence from Chinese Listed Firms

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Yao Wang, *International Institute of Green Finance Central University of Finance and Economics*
Yi-Ming Ma, *Central University of Finance and Economics*
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This study investigates the influence of corporate environmental responsibility on the default risk of listed firms in China. We adopt a comprehensive dataset to measure a firm’s environmental performance. We find a significant and negative impact of environmental performance on the default risk of a firm. This finding is robust after controlling for potential endogeneity concerns using instrumental variables regressions and placebo tests. Further, we find that the negative relationship between environmental performance and default risk is more pronounced for firms with high systematic risk, weak fundamentals, severe pollution, and high energy consumption. Our findings cast light on the role of environmental factors on corporate credit risk profiles.

Keywords: Corporate Environmental Responsibility; Green Income; Corporate Default Risk

• Nature Disasters and Investor Sentiment: A Forward-looking and Cross-country Perspective

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Hui Li, *University of Birmingham*
Xiaohong Chen, *Central South University*

VIX index provides a valuable point to bring a forward-looking perspective into research on natural disasters and investor sentiment. Using a sample of 1164 natural disasters from ten countries and the ARMA-GARCH and GARCH-MIDAS models, this paper carry out a cross-country investigation on the relationship between natural disaster and investor sentiment (as proxy by VIX). The results show that the occurrence of natural disasters will generally lead to an increase in VIX, indicating investors' expectations of future volatility and panic of investor sentiment after natural disaster shocks. The effect is most significant for geophysical and meteorological disasters. The response of VIX to natural disasters differs across countries affected by geographical vulnerability of natural disasters and level of national financial market development. The results demonstrate that investor sentiment is more likely impacted by disasters shocks in countries with higher level of financial markets measured by private credit and insurance penetration and countries with lower exposure to natural disasters. Finally, the impact of natural disasters on VIX shows a short-term effect, but does not have long-term implications.

Keywords: Climate Risk; Natural disasters; investor sentiment; VIX index; volatility; GARCH

• Internationalization, Environmental Competitive Advantage, and Firm Performance

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Zhengyi Zhang, *Capital University of Economics and Business*

When do MNCs derive the most from internalizing the transfer of proprietary knowhow? We revisit this question that lies at the core of theories on multinationality and performance from the perspective of corporate strategy involving the mix of, on one hand, green versus non-green innovation effort, and on the other hand, a foreign operations focus in countries with high versus low environmental standards. We find that a high exposure to in foreign markets with more (less) stringent environmental regulations stimulates MNCs' green patent applications. We further show that a large percent of sales in foreign markets with more (less) stringent environmental regulations is associated with lower (higher) market valuation. MNCs' environmental competitive advantage obtained through green innovation activities increases firm value in the long run. Overall, our study highlights that green technology development is a main source of value creation for corporate internationalization.

Keywords: Multinationality, environmental regulations, green innovation, firm value

• Financial Constraints of Firms with Environmental Innovation

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Andreas Stephan, *Jönköping University*

Using the Mannheim Innovation Panel, we explore whether Environmental Innovator Firms (EIFs) have higher financial needs and are more financially constrained than Non-Environmental Innovator firms (OIFs). We find that EIFs are more likely to have higher latent financial need in comparison to OIFs. This implies that EIFs have latent projects that they have not yet realized, but would implement if they had the financial means to do so. EIFs adopting environmental technologies have higher financial needs

compared to firms that do not. One tentative conclusion from this finding is that public subsidies might mitigate the financial restrictions of environmental innovation.

Keywords: Environmental Innovation, Innovation Capability, Funding gaps, Financing Restrictions

• When does it Pay to Serve a Socially Responsible Customer?

Jing Li, *Tsinghua University*
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This paper revisits the relationship between a firm's social performance and firm value along the supply chain. Specifically, we document the reference role of a major customer's social performance in the financial market's assessment of a firm's social performance. Consistently with modern stakeholder theory, our analysis reveals that a firm enjoy valuation enhancement when it CSR practices consistent with its major customer. Moreover, the magnitude of this reference role is more pronounced when the major customer has more bargaining power. These novel findings add to the understanding of the conditions under which corporate social responsibility activities enhance firm value.

Keywords: corporate social responsibility, firm value, supply chain, stakeholder

• Estimating the Impact of Physical Climate Risks on the Probability of Default (PD) of Mortgage Loans in the Coastal Cities of China

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A growing consensus among the academic community and the financial sector is that risks brought by climate change are becoming new sources of financial risks. A primary measure of managing these risks and ensuring sound financial decision-making is quantifying these risks. However, around the world, the development of methodologies quantifying these risks effectively and accurately is in its infancy stage, while methodologies and capacities of quantification applicable to financial practices are largely missing. We present here a methodology framework that quantifies physical climate risk on the PD of bank loans. We apply this methodology in estimating the impact of typhoon on the PD of mortgage loans in 40 major coastal cities of China, for which the exacerbation effect of climate change on future intensity of typhoon is considered. As a result, the expected future annual value losses of real estate collateral are estimated and linked further to loan-to-value to estimate the delta PD values explicitly induced by future exacerbated scenarios of typhoon events. The findings from this analysis is that the impact on PD of bank loans by climate change exacerbated future typhoon events could be considerable.

Keywords: climate physical risk, PD of bank loans, typhoons, coastal cities of China, mortgage loans, loan-to-value