Döttling, Robin; Kim, Sehoon

Article

ESG Investments and Investors' Preferences

CESifo Forum

Provided in Cooperation with:
Ifo Institute – Leibniz Institute for Economic Research at the University of Munich

Suggested Citation: Döttling, Robin; Kim, Sehoon (2021) : ESG Investments and Investors' Preferences, CESifo Forum, ISSN 2190-717X, ifo Institut - Leibniz-Institut für Wirtschaftsforschung an der Universität München, München, Vol. 22, Iss. 03, pp. 12-16

This Version is available at:
https://hdl.handle.net/10419/250916

Robin Döttling and *Sehoon Kim*

ESG Investments and Investors' Preferences

Over the past decade, environmental, social and governance (ESG) considerations have been among the most important factors responsible for shifting the axes of the financial industry. What began as a passive form of 'exclusion' based investing (Heinkel, Kraus, and Zechner 2001; Hong and Kacperczyk 2009), has morphed into an array of investment strategies, including proactive shareholder ESG engagement (Dyck, Lins, Roth, and Wagner 2019; Hoepner, Oikonomou, Sautner, Starks, and Zhou 2020; Barko, Cremers, and Renneboog 2018). According to the US SIF Foundation, the aggregate amount of assets under management incorporating ESG in one form or another has grown over fivefold since 2010, standing at USD 15 trillion in the US alone as of 2020. Hartzmark and Sussman (2019) and Ceccarelli, Ramelli, and Wagner (2020) show that investors are indeed attracted to ESG investments.

A natural and important question to ask is: What has driven this growth? More importantly, what explains such investor behavior? Are investors attracted to ESG factors because they are superior in terms of their risk-return tradeoffs or their usefulness as a hedging device, in other words for financial considerations? Or is there a distinct 'taste' for ESG that has developed recently, giving investors non-pecuniary utility such as the moral satisfaction of having made an environmental and social impact? Do these different types of demand for ESG investing have distinct implications for its future? This is one of the biggest financial questions among practitioners, and academics have begun to provide answers. In this article we review the recent burgeoning academic literature in financial economics in an attempt to understand ESG investments and the investor preferences driving such investments.

Robin Döttling

is Assistant Professor in the Department of Finance at Erasmus University Rotterdam. His research focuses on financial intermediation, corporate finance and macroeconomics.

Sehoon Kim

is Assistant Professor in the Department of Finance, Insurance and Real Estate at University of Florida. His research interests include corporate finance, sustainability, and financial markets among others.

ESG INVESTMENTS AND HEDGING DOWNSIDE RISK

What are the potential financial incentives of ESG investing? Undoubtedly, one of the greatest motivations is to hedge climate change related long-term risk, which has indeed been widely documented as a significant risk factor, as perceived particularly by large and sophisticated institutional investors (Krueger, Sautner, and Starks 2020). As such, institutional investors have pushed for increased disclosure of such risk exposures by the companies they invest in (Ilhan, Krueger, Sautner, and Starks 2020).

An important strand of academic research has focused on how to theoretically conceptualize climate risk and the implications of climate risk on asset prices (Barnett 2020; Barnett, Brock, and Hansen 2020). A large amount of work has explored whether this risk is priced in asset markets, such as equities, options, or real estate, on the basis of actual time-series and cross-sectional data, across multiple asset classes, and under various climate risk related circumstances, such as extreme weather events or sea level rise (Bolton and Kacperczyk 2020; Baldauf, Garlappi, and Yannelis 2020; Bernstein, Gustafson, and Lewis 2019; Kruttli, Roth Tran, and Watugala 2021). The general consensus is that climate is indeed a significant source of risk, reflected in the return premia on assets with high climate risk exposure. It is for this reason that investors are interested in strategies to hedge against this risk (Engle, Giglio, Kelly, Lee, and Stroebel 2020; Giglio, Kelly, and Stroebel 2020).

The concern of ESG investors regarding downside risk goes beyond climate risk. In fact, the literature on corporate social responsibility (CSR) argues and demonstrates that corporate investment in CSR is a useful hedge against downside risk in general (Lins, Servaes, and Tamayo 2017; Albuquerque, Koskinen, and Zhang 2019). For example, when a company suffers a reputational or economic shock, prior investments in CSR may ensure customer and employee loyalty or signal differentiation against competitors, protecting the firm against such shocks.

The Covid-19 economic crisis that has impacted businesses worldwide is a perfect example of such a shock. Several recent studies show that the stock prices of firms that had high ESG performance suffered much less during the market crash that followed the onset of Covid-19 (Albuquerque, Koskinen, Yang, and Zhang 2020; Ding, Levine, Lin, and Xie 2020; Pastor and Vorsatz 2020).

Consistent with such hedging benefits of ESG, Hoepner et al. (2020) show that shareholder engagement by institutional investors on ESG-related issues indeed substantially reduces the target firm's downside risk exposure as measured by value-at-risk.

NON-PECUNIARY MOTIVATIONS FOR ESG INVESTING

Another driver behind the exponential growth in ESG investments may be that investors obtain non-pecuniary utility from aligning their investments with their social preferences ('warm glow' in the words of Andreoni 1989). While it is costly for companies to internalize environmental and social externalities in their investments, Hart and Zingales (2017) argue that if shareholders have pro-social preferences, firms should pursue policies that maximize a shareholder 'welfare' that incorporates these pro-social preferences, rather than purely focusing on market value as propagated by Friedman (1970).

An example of such an approach to explicitly incorporating a non-pecuniary utility for pro-social investments in the investor's utility function is Fama and French (2007), in which the authors model assets as consumption goods for which investors have tastes. They show that investors with tastes for assets that resemble tastes for socially responsible investing earn negative alphas in equilibrium. Baker, Bergstresser, Serafeim, and Wurgler (2018) present a similar CAPM framework, in which investors obtain non-pecuniary utility from holding green bonds and use this framework to rationalize empirical evidence that green bonds are priced at a premium relative to regular bonds.

A large body of research has emerged, providing various types of empirical evidence that is consistent with such non-pecuniary motives for ESG investing. For example, ESG fund flows are less volatile and also less sensitive to negative returns, in marked contrast to the conventional wisdom that fund flows tend to be highly sensitive to performance (Bollen 2007; Renneboog, Ter Horst, and Zhang 2011). Riedl and Smeets (2017) combine mutual fund holdings data with experimental and survey evidence, showing that investors who behave more socially in a trust game experiment and donate more to charity also hold more socially responsible equity funds, which is consistent with pro-social preferences driving ESG investments. Moreover, their survey evidence indicates that these investors invest in ESG funds even though they expect those funds to underperform, indicating that investors are willing to give up return to align their investments with social preferences. Experimental evidence in Humphrey, Kogan, Sagi, and Starks (2020) shows that individuals adjust their investment strategy if investments have negative externalities on charities they care about. Interestingly, their experimental design allows the effect of social preferences to be identified, because payoffs are set to be identical regardless of the social setting, effectively controlling for risk and return considerations. Further evidence of social preferences driving investment behavior can be found in Bauer, Ruof and Smeets (2019), who find that Dutch pension plan participants prefer their pension fund to focus on sustainable development goals, as well as in survey evidence by Brodback, Guenster and Mezger (2019).

COMBINATION OF BOTH ESG DEMAND FACTORS

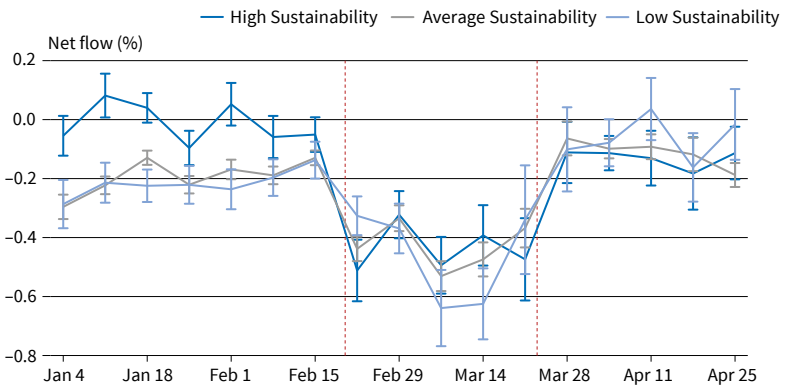
The existing evidence indicates that the hedging-demand explanation and pro-social motives both play a role in the recent popularity of ESG investing. Investors who care about climate risk and other downside risk and investors who have non-pecuniary motives can coexist in the market. Indeed, such investor heterogeneities, or shifts in investor 'taste' for ESG, are at the center of recent theoretical frameworks of ESG investing.

For example, Pastor, Stambaugh and Taylor (2020) incorporate tastes for 'green' investments in investor's preferences and deliver additional insights relative to the previous literature. First, their model shows that even absent non-pecuniary benefits ESG investments may be priced at a premium because they provide a hedge against climate risks. Intuitively, 'brown' assets perform poorly when climate risks materialize and environmental regulation tightens. Green assets hedge against such risks, warranting a lower expected return. Second, the model shows that while green assets should have a lower expected return in the long-run, they may outperform brown assets in the short run if there are positive shocks to investor sustainability preferences. Alternatively, Pedersen, Fitzgibbons, and Pomorski (2020) show that assets with higher ESG scores may have higher expected returns if many investors are unaware of ESG scores and fail to bid up the price of high ESG assets but may have lower expected returns if many investors have non-pecuniary utility for ESG. Oehmke and Opp (2020) show how socially responsible investors can increase corporate green investment by alleviating financing frictions. Socially responsible investors are intuitively willing to accept a lower return on their financing terms if it induces firms to shift from polluting to non-polluting investments, lowering financing costs and alleviating financial constraints.

COVID-19 AND RETAIL MUTUAL FUND INVESTOR ESG PREFERENCES

An open question in the literature is how ESG investment flows of different investor classes respond to an adverse economic shock. In our recent study (Döttling and Kim 2021), we answer this question by

Figure 1
Weekly Retail Fund Flows by Sustainability Rating



Source: Authors' calculations.

investigating the fragility (or 'sustainability') of ESG demand by retail mutual fund investors in the face of the great economic shock brought about by Covid-19. Our evidence shows that retail demand for ESG investment dropped significantly in response to the Covid-19 shock, consistent with the demand driven by pro-social preferences that become less affordable to pursue under economic distress. In stark contrast, we document resilient ESG demand by institutional investors, who often invest in ESG as a hedge against downside risk.

The economic crisis that has followed the outbreak of the novel coronavirus provides an ideal setting for studying the impact of a significant and unexpected economic shock on ESG investment preferences. First, it has triggered the first major crisis originating in the real economy seen during this period of growth in sustainable investing. Second, the root cause of the economic shock was unrelated to economic preconditions and heterogeneous across regions, helping to establish a causal link between economic distress and ESG demand. Third, the continuous deterioration in economic conditions contrasts starkly with the initial stock market crash and subsequent post-stimulus rebound, helping distinguish shifts in ESG demand from simple valuation effects.

Using this shock, we can study the response of investments by retail investors in mutual funds with high Morningstar sustainability ratings as a measure of revealed preference for ESG. Retail sustainable fund flows are a suitable measure, given that retail investors are known to actively reallocate capital across funds in response to sentiment and preference shifts. Retail investors are also economically important, representing over 60 percent of total net mutual fund assets.

Based on Morningstar data covering US domiciled open-end equity mutual funds and their weekly retail fund flows as well as sustainability ratings, we find that retail investor demand for ESG investments weakens substantially under the economic stress imposed by Covid-19. Funds with the highest (five-globe) Morningstar sustainability ratings that received higher than average flows prior to the crisis experience a sharper decline in flows after the onset of the pandemic-induced economic downturn, dropping to the level of funds with low sustainability ratings.

This key result is illustrated in Figure 1, where we plot weekly average retail fund flows over the sample period from January 4 to April 25, with different sustainability ratings. Our estimates imply that weekly net flows into highly rated funds as a fraction of beginning-of-week net assets dropped 0.2 percentage points further from pre-Covid levels during the crisis, compared to average funds.

Moreover, this shift not only manifests early during the market crash weeks between February 22 and March 21, but also persists between March 28 and April 25, when the stock market rebounded dramatically after the US stimulus package was announced, while the economy continued to deteriorate.

INSTITUTIONAL FLOWS CONTINUE INTO SUSTAINABLE FUNDS

Our interpretation is that investor demand for sustainable investments is sensitive to economic conditions, consistent with retail investor ESG demand driven by pro-social motives, the pursuit of which becomes less affordable during economic distress (akin to a 'luxury good'). To test this, we conduct a comparison of retail and institutional fund flows. Distinguishing between mutual fund investments by retail and institutional investors provides important clues to help explain the retail flow responses. For example, institutional investors are much less financially constrained and face higher minimum investment requirements (e.g., USD 200,000 or more). Moreover, institutional investors are likely to have strong explicit ESG mandates and perform ESG shareholder engagements as part of their core strategies to hedge against risks.

Given these differences, one would expect economically distressed retail investors to cut spending on ESG more sharply in bad times than deep-pocketed and committed institutions do, if indeed ESG investment is driven by pro-social preferences and viewed as a 'non-essential good'. Consistent with this idea, we find that institutional flows do not disproportionately decline for high sustainability funds in response to the Covid-19 crisis.

This is illustrated in Figure 2, where we plot weekly institutional fund flows. In fact, we find that institutional flows drop sharply – mainly for low sustainability funds – but only temporarily during the early market crash period. This further indicates that our main result on retail flows is consistent with non-pecuniary preferences for ESG, a perceived 'lux-

ury good' that retail investors can no longer afford under economic distress.

INTERNATIONAL EVIDENCE

To corroborate our interpretation that the drop in retail ESG demand is driven by economic distress, we extend our U.S.-based evidence to an international sample to allow us to exploit heterogeneity in the severity of the Covid-19 economic shock across regions. We find that the drop in retail investor ESG demand also occurred in Europe as well as in a broad sample that includes all funds in the Morningstar database globally. Interestingly, the drop in ESG demand is significantly larger in regions that experienced stricter lockdowns or less economic support as measured by the Oxford Covid-19 Government Response Tracker and regions that had lower GDP growth in the first two quarters of 2020. This heterogeneity suggests that the drop in ESG investment demand is driven by the economic distress brought about by the Covid-19 crisis and further corroborates our interpretation of such demand driven by non-pecuniary utility from ESG investments.

SHIFT IN INTERESTS FROM SUSTAINABILITY TO FINANCIAL AND ECONOMIC ISSUES

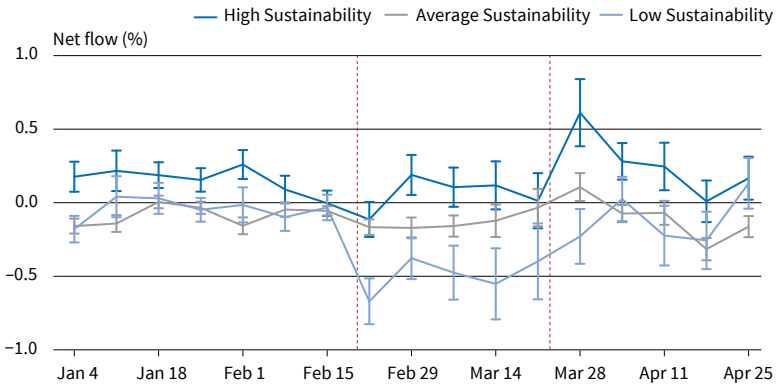
Our interpretation is also supported by evidence of Google search traffic shifting away from topics related to sustainability or ESG toward issues concerning the economy (see Figure 3). We further exclude potential alternative explanations based on conventional factors known to affect fund flows, such as fund style, age, size, expenses, past returns and flows, star ratings, time trends, buying-losers or selling-winners behavior, or changes in risk tolerance. Overall, we find our evidence consistent with non-financial incentives for sustainable investments by retail investors that are adversely impacted by a large-scale economic crisis.

IMPLICATIONS FOR ESG INVESTING

A long-term implication of our findings is a fragility and cyclicality in ESG demand stemming from retail investors. Under prolonged economic distress, this means that there could potentially be a broader shift in investor preferences – retail demand may also affect the institutional push for ESG and weaken the intensity and influence of institutional ESG engagement. Thus, to make sustainable investing 'sustainable', individual investors must clearly understand any tangible financial and economic value that may arise from ESG investing. Leaning on social signals and preferences to attract ESG demand will only sustain such investments for so long, mostly when times are good and the societal need for ESG investments is at its lowest.

Figure 2

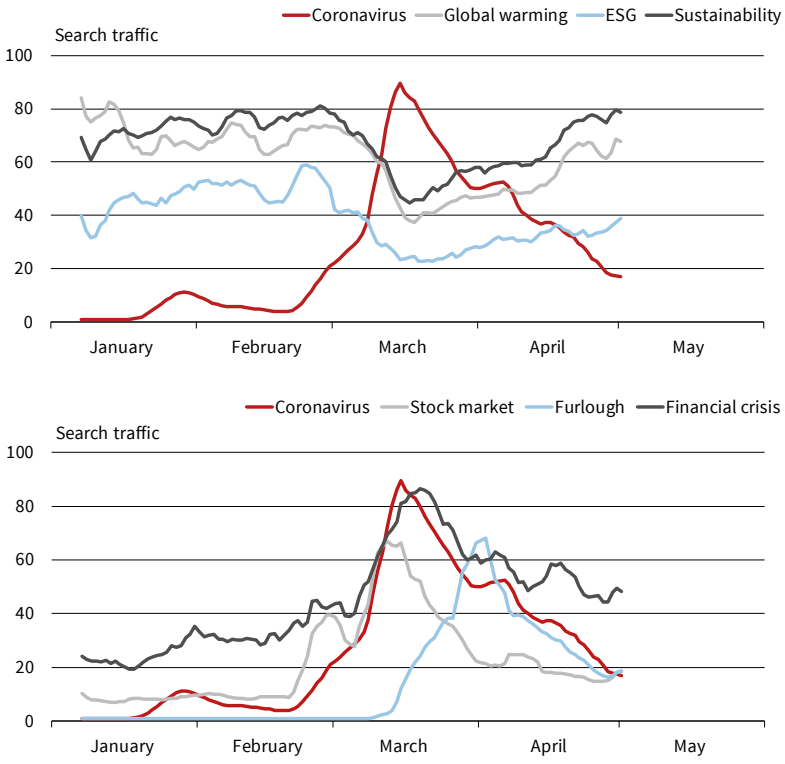
Weekly Institutional Fund Flows by Sustainability Rating



Source: Authors' calculations. © ifo Institute

Figure 3

Internet Search Traffic on Sustainability-Related and Other Issues 2020



Source: Authors' illustration based on Morningstar data. © ifo Institute

REFERENCES

Albuquerque, R., Y. Koskinen, S. Yang, C. Zhang (2020), "Resiliency of Environmental and Social Stocks: An Analysis of the Exogenous COVID-19 Market Crash," *Review of Corporate Finance Studies* 9(3), 593–621.

Albuquerque, R., Y. Koskinen, and C. Zhang (2019), "Corporate Social Responsibility and Firm Risk: Theory and Empirical Evidence," *Management Science* 65(10), 4451–4469.

Andreoni, J. (1989), "Giving With Impure Altruism: Applications to Charity and Ricardian Equivalence," *Journal of Political Economy* 97(6), 1447–1458.

Baker, M., D. Bergstresser, G. Serafeim, and J. Wurgler (2018), "Financing the Response to Climate Change: The Pricing and Ownership of US Green Bonds," *National Bureau of Economic Research,* Working Paper 25194.

Baldauf, M., G. Lorenzo, and Y. Constantine (2020), "Does Climate Change Affect Real Estate Prices? Only If You Believe In It," *The Review of Financial Studies* 33(3), 1256–1295.

Barnett, M., W. Brock, and L. P. Hansen (2020), "Pricing Uncertainty Induced by Climate Change," *Review of Financial Studies* 33(3), 1024–1066.

Barko, T., M. Cremers, and L. Renneboog (2018), "Shareholder Engagement on Environmental, Social, and Governance Performance," Working Paper.

Bauer, R., T. Ruof, and P. Smeets (2020), "Get Real! Individuals Prefer More Sustainable Investments," Working paper.

Bernstein, A., M. T. Gustafson, and R. Lewis (2019), "Disaster on the Horizon: The Price Effect of Sea Level Rise," *Journal of Financial Economics* 134(2), 253–272.

Bollen, N. PB (2007), "Mutual Fund Attributes and Investor Behavior," *Journal of Financial and Quantitative Analysis* 42(03), 683–708.

Bolton, P. and M. Kacperczyk (2020), "Do Investors Care About Carbon Risk?," *National Bureau of Economic Research*, Working Paper 26968.

Brodback, D., N. Guenster, and D. Mezger (2019), "Altruism and Egoism in Investment Decisions," *Review of Financial Economics*, 37(1), 118–148.

Ceccarelli, M., S. Ramelli, and A. F. Wagner (2021), "Low-carbon Mutual Funds," *Swiss Finance Institute Research Paper* 19–13.

Ding, W., R. Levine, C. Lin, and W. Xie (2021), "Corporate Immunity to the COVID-19 Pandemic," Journal of Financial Economics.

Döttling, R. and S. Kim (2020), "Sustainability Preferences Under Stress: Evidence from Mutual Fund Flows During COVID-19," Working Paper.

Dyck, A., K. V. Lins, L. Roth, and H. F. Wagner (2019), "Do Institutional Investors Drive Corporate Social Responsibility? International Evidence," *Journal of Financial Economics* 131(3), 693–714.

Engle, R. F., S. Giglio, B. Kelly, H. Lee, and J. Stroebel (2020), "Hedging Climate Change News," *Review of Financial Studies* 33(3), 1184–1216.

Fama, E. F. and K. R. French (2007), "Disagreement, Tastes, and Asset Prices," *Journal of Financial Economics* 83(3), 667–689.

Friedman, M (1970), A Friedman Doctrine: The Social Responsibility of Business is to Increase Its Profits, The New York Times Magazine, September 13.

Giglio, S., B. T. Kelly, and J. Stroebel (2020), "Climate Finance," *National Bureau of Economic Research,* Working Paper 28226.

Gregory, R. P (2021), "Climate Disasters, Carbon Dioxide, and Financial Fundamentals," *Quarterly Review of Economics and Finance* 79, 45–58.

Hart, O. and L. Zingales (2017), "Serving Shareholders Doesn't Mean Putting Profit Above All Else," *Harvard Business Review* 12, 2–6.

Hartzmark, S. M. and A. B. Sussman (2019), "Do Investors Value Sustainability? A Natural Experiment Examining Ranking and Fund Flows," *Journal of Finance* 74(6), 2789–2837.

Heinkel, R., A. Kraus, and J. Zechner (2001), "The Effect of Green Investment on Corporate Behavior," *Journal of Financial and Quantitative Analysis* 36(4), 431–449.

Hoepner, A. G., I. Oikonomou, Z. Sautner, L. T. Starks, and X. Zhou (2020), "ESG Shareholder Engagement and Downside Risk," Working Paper.

Hong, H. and M. Kacperczyk (2009), "The Price of Sin: The Effects of Social Norms on Markets," *Journal of Financial Economics* 93(1), 15–36.

Humphrey, J., S. Kogan, J. S. Sagi, and L. T. Starks (2020), "The Asymmetry in Responsible Investing Preferences," Working Paper.

Krueger, P., Z. Sautner, and L. T. Starks (2020), "The Importance of Climate Risks for Institutional Investors," *The Review of Financial Studies* 33(3), 1067–1111.

Ilhan, E., P. Krueger, Z. Sautner, L. T. Starks (2020), "Climate Risk Disclosure and Institutional Investors", *Swiss Finance Institute Research Paper*, 19–66.

Lins, K. V., H. Servaes, and A. Tamayo (2017), "Social Capital, Trust, and Firm Performance: The Value of Corporate Social Responsibility During the Financial Crisis," *Journal of Finance* 72(4), 1785–1824.

Oehmke, M. and M. M. Opp (2020), "A Theory of Socially Responsible Investment," Working Paper.

Pástor, Ľ., R. F. Stambaugh, and L. A. Taylor (2020), "Sustainable Investing in Equilibrium," *Journal of Financial Economics*.

Pástor, Ľ. and M. B. Vorsatz (2020), "Mutual Fund Performance and Flows During the COVID-19 Crisis," *Review of Asset Pricing Studies* 10(4), 791–833.

Pedersen, L. H., S. Fitzgibbons, and L. Pomorski (2020), "Responsible Investing: The ESG-efficient Frontier," *Journal of Financial Economics.*

Renneboog, L., J. Ter Horst, and C. Zhang (2011), "Is Ethical Money Financially Smart? Nonfinancial Attributes and Money Flows of Socially Responsible Investment Funds," *Journal of Financial Intermediation* 20(4), 562–588.

Riedl, A. and P. Smeets (2017), "Why Do Investors Hold Socially Responsible Mutual Funds?," *Journal of Finance* 72(6), 2505–2550.