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Beyond Mechanics: The Intersection of Securities Lending and ESG Investing

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Introduction

In early December 2019 one of the world's largest pension funds announced that it "decided to suspend stock lending until further notice[1]."

This is one example of a growing number of asset owners evaluating their securities lending practices due to environmental, social and, governance (ESG) concerns as long-term investors[2].

Concerns have been raised that short sellers (borrowers) could potentially undermine long-term stewardship efforts by mispricing or not considering ESG characteristics[3].

The immediate impact of these events on the world's lending supply was limited. For context, in June 2019, global on-loan balances were around $2.45 trillion USD, representing a small proportion of the $18.47 trillion available within lending programs[4]. However, as the number of asset owners with these ESG related concerns grows, the lending supply may further decline. And, between 2018 and 2019 the UN's Principles for Responsible Investment (UNPRI) reported a 16% increase in the number of asset owner signatories committed to ESG investing, bringing the total to over 2,300 signatories with more than $86.3 trillion in assets under management[5 6].

In this editorial, we attempt to form a perspective on the intersection of ESG investing and securities lending based on academic findings. After an extensive literature review, there are four main findings we cover:

- Empirical evidence supports foundational assumptions in financial theory, which suggests that short selling, facilitated by securities lending, improves market efficiency and allows for the proper allocation of capital.
- Increasing number of regulations and investor demands are driving the adoption of sustainable investment strategies.
- Lenders have attempted to integrate ESG but, with fewer examples of borrowers with ESG investment philosophies, some lenders are concerned about the potential negative impacts on their long-term ESG stewardship efforts due to borrowers mispricing these characteristics.
- While research indicates that short selling does not destroy a company's long-term value, the relationship between short selling and material ESG performance is unclear.

[1] Leo Lewis and Billy Nauman (2019). Short sellers under fire from investment boss of world's largest pension fund, Financial Times
[2] Leo Lewis and Billy Nauman (2019). Short sellers under fire from investment boss of world's largest pension fund, Financial Times
[3] Henderson, R., Serafeim, G., Lerner, J. and, Jinjo, N. Should a Pension Fund Try to Change the World? Inside GPIF's Embrace of ESG. (2019)
[4] International Securities Lending Association (ISLA) Annual Report. (2019)
[5] UNPRI.org. (accessed February 10, 2020).
[6] We define "ESG investing" as the practice of systematically integrating ESG and climate finance concerns into an investment process, which is in line with the UNPRI and the leading research cited in this paper.

What are the ESG concerns of long-term investors?

A growing number of asset owners and managers are voicing concerns that securities lending limits their ability to exercise proper stewardship on underlying investments, highlighting three key concerns:

i. The transfer of stock ownership rights. When stocks are on loan, the voting rights for those shares are also transferred. This is inconsistent with wishes of asset owners who mandate that their asset managers need to conscientiously exercise voting rights on all their shares.

ii. There is a transparency concern because owners do not have clarity on who borrows shares nor the reasoning behind those decisions[7].

iii. Underlying these points is the perception that short sellers (borrowers) destroy long-term value due to a misalignment in the longer-term investment time-horizon of lenders (beneficial owners). This raises issues of "short-termism," which can be defined as the "excessive focus on short-term results at the expense of long-term interests[8]."

Asset owners are not the first institutions to direct concerns at short sellers. Financial regulators have historically viewed short selling with a level of skepticism, especially during times of financial turmoil. For example, in the 2008 financial crisis the SEC pointed to short sellers as a reason behind the sharp decline in prices and banned short selling on 799 financial stocks[9]. The continued debate has attracted interest from academics, which we can turn to for a better understanding of the role of short sellers in capital markets.

[7]Suspension of Stock Lending Activities. December 3, 2019. GPIF
[8]CFA Institute
[9]Baja, V. and Bowley, G. (2008). "S.E.C. Temporarily Blocks Short Sales of Financial Stocks". New York Times.

What is short selling's role in capital markets?

Before tackling whether short selling harms long-term value, we need to understand its role in capital markets. Empirical studies that explore short selling's role in markets tend to fall into three main categories: (1) cross-country variation, (2) natural studies and, (3) time-series and cross-sectional analyses. Each research methodology provides a different perspective on the securities lending market.

Cross-county variation studies uses variations in regulations and market practices across countries to study the impact short selling has on market efficiency. Natural studies analyze the impact of short-selling constraints and regulations on various events (e.g., bans during the 2008 financial crisis). Lastly, time-series and cross-sectional analysis uses daily or intra-day stock-loan data to examine the impact of shorting flow at securities level.

The two primary considerations when examining short selling's impact on capital markets are liquidity and price discovery. Liquidity is the ease with which an asset can be sold or bought and is commonly proxied for by the bid-ask spread. In illiquid markets bid-ask spreads are wider resulting in costlier trades.

Price discovery is a critical process in financial markets in which the proper price of an asset is determined based on the incorporation of all available public information.

Liquidity: In theory, the impact of short-selling constraints on liquidity is ambiguous. Numerous studies have shown that short sellers are informed market participants – increases in borrowing rates or shorting demand are correlated with abnormal negative returns[10 11].

[10]Boehmer, E., Jones, C.M. and Zhang, X. (2008), Which Shorts Are Informed? The Journal of Finance
[11]Cohen, L., Diether, K. B., & Malloy, C. J. (2007). Supply and demand shifts in the shorting market. The Journal of Finance

Bridget Realmuto LaPerla

Bridget Realmuto LaPerla is a vice president and head of ESG research at State Street Associates. In this role, Bridget creates and promotes industry leading research on environmental, social and, governance themes (ESG). She applies quantitative methods to understand ESG signals in the market, leverages insights from State Street's academic partnerships and data and, drives increased engagement with clients on these topics.

As a sustainable finance specialist with over a decade of research experience, Bridget advises the Columbia University Trustees as a voting member of the Advisory Committee on Socially Responsible Investing. She also serves as a policy expert on the ESG Integration Group at the Emerging Markets Investors Alliance.

Prior to State Street, Bridget managed a global team of researchers at S&P Global Trucost, evaluating the environmental performance of equity and fixed income securities across industries and asset classes. While conducting buy-side ESG research at Domini Impact Investments, she frequently spoke at industry events as an expert and a NYC Chapter Leader for Women Investing for a Sustainable Economy (WISE). Earlier in her career, she quantified the social impact of government funded prevention programs at the NYC Department of Homeless Services. Bridget holds a M.B.A. from Columbia Business School and a B.A. from The George Washington University. She completed a Certificate in Sustainability Analytics from Columbia University, where she was awarded a Peter DeSimone Scholarship by the Forum for Sustainable and Responsible Investment (US SIF).

Concerns have been raised that short sellers could potentially undermine long-term stewardship efforts by mispricing or not considering ESG characteristics

Removing informed sellers reduces the asymmetry of information and narrows bid-ask spreads.

At the same time, the market mechanism is disrupted, and revelation of information is slower, which could widen spreads.

Empirical findings from all three types of academic studies tend to agree that short selling constraints reduce liquidity at the single-stock and broader market level:

i. Cross-county variation: A study of 111 countries found that in countries where short selling is more feasible, turnover, a proxy for liquidity, was 15% higher. That is, there is increased liquidity of market indices when short selling is possible[12].

ii. Natural studies: Financial stocks subject to shorting bans during the 2008 financial crisis resulted in spreads that were 2-3x wider while controlling for previous behavior[13 14 15].

iii. Time-series: Suggest that short sellers can be liquidity suppliers when spreads are especially wide, providing a stabilizing force in the stock market[16].

Price discovery: The theoretical impact of short selling on the speed of price discovery is clearer than it is for liquidity.

Short-selling constraints restrict traders with negative information from expressing their sentiment, slowing the speed with which bad news is incorporated into market prices.

Empirical evidence from the three categories tends to agree with this theory:

i. Cross-county variation: An analysis of forty-six equity markets reveals that countries that permit short selling, incorporate information into prices quicker. Additionally, short sales restrictions don't reduce negative skewness of returns at the stock level[17].

ii. Natural Studies: Price discovery was slower for stocks impacted by the short-selling bans during the 2008 financial crisis, especially where negative news was concerned[15].

iii. Time-series: Prices of stocks with short-selling constraints (such as low lending supply) are less informative. Evidence also suggests increased "shorting flow reduces post-earnings-announcement drift for negative earnings surprises[18 19 20]."

Is short selling detrimental to long-term value?

The studies cited above provide empirical evidence that short selling is important for efficient capital markets and when viewed holistically, suggest that short selling is not detrimental to long-term value.

Additionally, there are several specific studies that found no statistical difference in excess returns of stocks for which short sales were banned and those stocks in which short selling was permitted[21 22 15].

[12]Daouk and Charoenrook (2009). A Study of Market-Wide Short-Selling Restrictions. Working paper, Cornell University.
[13]Boehmer, E., Jones, C. M. and Zhang, X. (2013). Shackling Short Sellers: The 2008 Shorting Ban. The Review of Financial Studies.
[14]Marsh, I. and Payne, R. (2012). Banning Short Sales and Market Quality: The UK's Experience. Journal of Banking & Finance.
[15]Beber, A., Pagano, M. (2013). Short-Selling Bans Around the World: Evidence from the 2007–09 Crisis. Journal of Finance.
[16]Comerton-Forde, C., Jones, C. M. and Putniņš, T. J. (2016). Shorting at Close Range: A Tale of Two Types. Journal of Financial Economics.
[17]Bris, A., Goetzmann, W. N. and Zhu, N. (2007). Efficiency and the Bear: Short Sales and Markets Around the World. The Journal of Finance.
[18]Saffi, P. A. and Sigurdsson, K. (2010). Price Efficiency and Short Selling.
[19]The Review of Financial Studies.
[20]Reed, A. (2007). Costly Short-selling and Stock Price Adjustment to Earnings Announcements, Working paper, University of North Carolina.
[21]Battalio, R., Mehran, H., and Schultz, P. (2011). "Market Declines: Is Banning Short Selling the Solution?". Federal Reserve Bank of New York Staff Reports
[22]Beber, A., Fabbri, D., Pagano, M., Simonelli, S. (2018). "Short-selling bans and bank stability". Working paper: European Systemic Risk Board.

To summarize, a body of academic evidence indicates that short sellers are informed in that they anticipate price declines, however, they are not responsible for driving asset prices down.

What does this mean for investors?

While it is often claimed that the short-term horizon of borrowers is at odds with long-term objectives, existing literature suggests this is not the case and instead, reveals short selling to be an important market mechanism. Moreover, evidence indicates that short sellers' presence in a market increases liquidity. Increased liquidity means reduced transaction costs on average, while price discovery helps investors get more accurate prices and potentially prevents disruptive price bubbles. Basic financial theory suggests, and empirical evidence supports the idea that short selling, facilitated by securities lending, improves market efficiency and allows for the proper allocation of capital[23].

With that said, this view only looks at short selling from a purely economic perspective but does not necessarily speak to the interplay between short selling and ESG characteristics of securities.

The growing presence of ESG in investing

To understand the intersection of ESG and securities lending, we pull insights from empirical studies on investor behavior in climate finance and ESG investment management of listed equities.

In our 2019 paper, Decarbonization Factors, a collaboration with Harvard Business School professor, George Serafeim, we shed light on how active institutional flows move around environmental characteristics, specifically operational carbon intensity, and the long-term implications of such patterns of flow[24]. This seminal work on decarbonization factors and investor behavior revealed that active institutional investor flows contain information about anticipated climate related fundamentals and returns. To put it simply, for those seeking alpha opportunities, tilting towards low carbon strategies experiencing positive contemporaneous flows improves returns. In addition, we observed a low correlation between strategies in the US and Europe. This is was particularly salient after 2016, when almost all US decarbonization factors experienced outflows after the change in presidential administration, an effect not seen in Europe.

There is regional specificity seen in investor behavior as well as regulation. For environmental metrics, such as carbon emissions, companies are increasingly paying the price through the 58 sovereign and sub-sovereign pricing schemes globally[25].

Additionally, the EU Commission has set legislation around the Task Force for Climate Related Financial Disclosure (TCFD), Japan's stewardship code recommends company engagement to promote sustainable growth and, France's Energy Transition Law (Article 173) requires institutional investors to disclose information on their ESG integration and how strategies align with an energy and ecological transition[26].

Companies are disclosing more ESG metrics to be listed on any of the 94 sustainable stock exchanges requiring some level of ESG disclosure, a number that significantly increased over the last ten years[27].

[23]The CAPM theory underpins modern portfolio theory and provides a basis for allocating portfolios between risky and risk-free assets. Two CAPM assumptions are: that short positions are allowed and there are no transaction costs. The foundation of CAPM was published in the following papers: William Sharpe. (1964). Capital Asset Prices: A Theory of Market Equilibrium. Journal of Finance.
[24]Cheema-Fox, A., LaPerla, B.R., Serafeim, G., Turkington, D. and Wang, H. (2019). Decarbonization Factors. Working Paper on SSRN.
[25]World Bank Carbon Pricing Dashboard. (accessed February 10, 2020). UNPRI.org.
[26]Responsible Investment Regulation Map (as of September 9, 2019). UNPRI.org
[27]Sustainable Stock Exchanges Initiative website (February 10, 2020). SSEInitiative.org. SSEI partners with the UNPRI.

ESG characteristics are being considered throughout the investment landscape. For example, recently Goldman Sachs announced that they will not "take a company public unless there is at least one diverse board candidate[28]."

These efforts are extensions of empirical research revealing that investors are focusing on material "E," "S" and "G" metrics. Leading frameworks, most notably the Sustainability Accounting Standards Board identifies material ESG metrics as meaningful to the financial or operational performance of a company[29].

In Serafeim's foundational paper, 'Corporate Sustainability: First Evidence on Materiality', he and his co-authors, Mozaffar Khan and Aaron Yoon studied novel materiality sustainability characteristics to discover value implications of ESG investments[30]. To understand how public sentiment has changed over the years, in 2018 Serafeim found that the valuation premium of strong material ESG performance has increased over time, as a function of "positive public sentiment momentum[31]."

Alpha was recognized through the creation of a "low sentiment ESG factor," designed to identify firms improving ESG performance with low public sentiment. This research found that public sentiment on ESG has indeed changed and that this perception influences investor views on the value of ESG performance. This ESG investing literature and our climate finance research suggest that investors are increasingly incorporating material ESG characteristics into their investment decisions and diving deeper into these characteristics with company fundamentals.

[28] "The CEO of Goldman Sachs Says the Bank Won't Take Companies Public Unless There is at Least One 'Diverse' Board Member." (January 23, 2020). Forbes.com

[29] erafeim, G. (2018). Public Sentiment and the Price of Corporate Sustainability. Harvard Business School. Working Paper.

[30] Serafeim, G. (2015). Corporate Sustainability: First Evidence on Materiality. The Accounting Review.

[31] Serafeim, G. (2018). Public Sentiment and the Price of Corporate Sustainability. Harvard Business School. Working Paper.

Can ESG Investing and Securities Lending Co-Exist?

To some extent, investors are already integrating ESG metrics into their lending (borrowing) strategies. We know this through Harvard case studies and public reporting to UNPRI. Asset owners currently exercise their shareholder rights by recalling securities on loan or by setting a threshold on how many shares can be on loan at a given time. For example: some Swedish asset owners have instituted a policy of recalling all securities on loan prior to annual general meetings, some Australian asset owners recall domestic securities on loan to vote prior to key votes, and some French asset owners limit the percentage of a holding on loan to 90% when a vote is considered to be "high impact[32]." Shareholders looking to communicate their views on a company's performance and governance regarding material metrics vote on key themes and engage with companies on those themes. The demand for transparency from some long-term investors (lenders) stems from thinking about "fiduciary duty across generations," which raises concerns that lenders are undermining their own long-term ESG stewardship efforts by loaning stocks to borrowers who potentially disagree with (or ignore) the value of those ESG characteristics[33]. These lenders hold companies responsible for key ESG characteristics in an effort to improve performance over time.

Currently, lender to borrower transparency is limited due to privacy agreements between brokers and borrowers. ESG investors lending stocks may appreciate information about the borrower or request ESG collateral of those borrowing their stocks. These requests and the solutions could take many forms and may change the pricing of the stock being lent. While limited literature exists on borrowers integrating ESG, a recent paper published by AQR, illustrates a borrower's perspective on ESG short-selling opportunities[34]. This borrower looked to improve performance by shorting poorly ESG ranked stocks (as a proxy for ESG performance), relative to an ESG-screened long-only strategy (or long/short ESG-screened strategy). Mirroring the ESG concerns and views on stewardship of long-term ESG beneficial owners (lenders), these short positions exert pressure on the corporate boards of companies with poor ESG rankings, as boards are aware of the percentage of their stock being shorted. While not a prevalent approach for borrowers, this sheds light on how long-term ESG investors can take part in the securities lending market.

[32] UNPRI Practical Guide to Active Ownership. (2018). UNPRI.org.

[33] Henderson, R., Serafeim, G., Lerner, J. and, Jinjo, N. Should a Pension Fund Try to Change the World? Inside GPIF's Embrace of ESG. (2019)

Conclusion

Empirical evidence indicates that short selling, facilitated by securities lending, improves market efficiency and market liquidity. A holistic view of academic studies suggests that constraints on short selling can lead to overpricing. This alleviates concerns of short-termism stemming from time horizon misalignment of short sellers with long-term ESG investors. Leveraging empirical ESG and climate finance research, we know that investors are using material ESG metrics in their investment decisions to improve their risk/return profiles. An increasing number of lenders, and some borrowers apply these characteristics when considering what they loan (borrow) and to whom.

We do not yet know the impact that short selling has on a company's material ESG performance in the long-term. New insights will come from studying the changing dynamics between lenders and borrowers and the potential impact on a company's material ESG performance. Through systematic empirical research, we may find ways and opportunities for the securities lending market to evolve and potentially grow. We look forward to approaching these questions and continuing to apply a rigorous data-driven approach to understanding this space.

[34] Palazzolo, C., Pomorski, L. and Fitzgibbons, S. (2018). Hit 'Em Where It Hurts: ESG Investing 2.0. Investments & Pensions Europe.

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Prior to SSA, Travis worked in State Street Global Markets as part of their rotational leadership program, wwhere he developed collateral optimization models for the Funding and Collateral Transformation trading desks and also built out an award winning application to help mitigate fraudulent behavior.

Travis interned with Morgan Stanley and several technology startups before he graduated from the University of Vermont with a Bachelor of Science in Computer Science and Finance.