Via E-mail: rule-comments@sec.gov
Securities and Exchange Commission,
100 F Street, N.E., Washington, DC 20549-1090.
Attention: Vanessa Countryman, Secretary

June 16, 2022

Re: Proposal on The Enhancement and Standardization of Climate-Related Disclosures for Investors - File No. S7-10-22

Ladies and Gentlemen:

The Securities and Exchange Commission's (the "Commission") proposal The Enhancement and Standardization of Climate-Related Disclosures for Investors ("Proposal") is a watershed moment for the Commission. It expands considerably the scope of corporate disclosure and raises challenging questions of interest to academics and practitioners. I appreciate the opportunity to comment.

I have read the Proposal, the associated comment file for the Proposal (as of May 5), and attended many academic and practitioner seminars on various aspects of the Proposal. While there is an important debate about the rationales for the Proposal—including to facilitate policy objectives (e.g., achieve a "net zero economy") and compel companies to internalize externalities (e.g., externalities of pollution)—I will not discuss these. Instead, my comments seek to emphasize important issues that have either gone underappreciated or are lacking from the discussion.

My area of expertise is in corporate disclosure and enforcement-related matters. I have published extensively on these topics in leading academic journals; led seminars at dozens of top business schools across the globe; won numerous academic and industry awards; and regularly consult with practitioners on concerns about materiality (my vita appears at the end of this letter). As part of my expertise, I routinely conduct statistical analysis of price and trading data to assess the materiality of disclosures. Given my background, my comments will tend to focus on issues regarding materiality and enforcement/investor protection.

Part I of this letter introduces what it means for a risk to be "material" and provides comments and discussion on the broad concept of the risks posed by climate change ("climate-related risks"). It discusses how climate-related risks can be material, and when they are, they already fit within the scope of existing disclosure rules. Current rules require all material risks to be disclosed regardless of whether they are climate-related or non-climate-related. Thus, unless companies are withholding information on material risks, it seems unlikely that the additional climate disclosures required by the Proposal would reveal new material risks.

Part II of this letter discusses the academic evidence referenced in the Proposal, with a specific focus on the evidence surrounding the disclosure of greenhouse gas emissions (GHG disclosure). Most of the academic papers referenced by the Proposal do <u>not</u> study the implications of a company's GHG disclosures for that company's share price or other capital market outcomes. Indeed, the Proposal does not provide (or reference) any evidence on the materiality of GHG

disclosures using standard "event study" tests for materiality commonly employed and accepted by academics, legal practitioners, and US courts. Instead, the cited papers tend to focus on the relation between share prices and thirty-party Environmental, Social, and Governance (ESG) ratings (e.g., MSCI, Sustainalytics). I caution against extrapolating evidence from third-party ESG ratings to disclosure of GHG emissions.

Part III of this letter provides initial evidence on the materiality of GHG disclosures using standard event study tests commonly employed by academics and practitioners to assess materiality of a given disclosure. For the average company in the sample, I find no evidence of a statistically significant change in stock price or trading volume in response to GHG disclosures. The evidence suggests that—on average—the market behaves as if GHG disclosures are not material to the valuation of the company. Part III also discusses explanations for why this is the case, discusses related academic literature, and corroborates the evidence by discussing company's disclosure practices—many of which are at odds with the notion that GHG disclosures are material.

Part IV of this letter discusses the effect of the Proposal on investor protection. Unfortunately, the Commission's budget is inadequate to keep pace with changes in US capital markets. As a result, the substantial resources needed to implement and police the Proposal will necessarily come at the cost of other (non-climate) priorities. The Commissions' cost-benefit analysis should account for the effect of diminished resources in other (non-climate-related) areas on investors and markets. Depending on the source of resources used to fund the Proposal, individual investors could be harmed. Every dollar the Commission spends on the Proposal is a dollar that could be spent protecting individual investors from accounting fraud, rogue investment advisors, crypto scams, greenwashing, market manipulation, and other illicit activities that directly affect the day-to-day lives of individual investors.

Please feel free to contact me ([redacted]) if you have any questions about this letter or associated analysis.

Sincerely,

Daniel Taylor
Arthur Andersen Professor
Director, Wharton Forensic Analytics Lab
The Wharton School

*A consulting client compensated me for the time it took to write this letter, but did not have input into its findings or conclusions.

Part I. Climate-Related Risks in the Context of Traditional Notions of Materiality

In financial economics, a piece of information is traditionally considered material if knowledge of that information would alter a reasonable investors' valuation of the company or their proxy voting decision.[1] Material risks (and changes to these risks) must be disclosed as "risk factors" in a company's quarterly and annual filings with the SEC (i.e., 10-Qs and 10-Ks).

The Proposal states (p. 63): "*The proposed rules would require a registrant to disclose whether any climate-related risk is reasonably likely to have a material impact on a registrant, including its business or consolidated financial statements, which may manifest over the short, medium, and long term*."

Climate-related risks can be material; if and when they are, existing rules require these risks to be disclosed. Depending on the circumstances, the following hypothetical examples could theoretically be material:

(1) Despite more extreme weather in a particular region, a power company chooses to cut costs and not weatherize its equipment. In the event of extreme weather, this choice might cost the company significant damages either because the equipment freezes or contributes to forest fires. In this example, the choice not to weatherize could be material.

(2) A company operates offshore drilling equipment in an area that faces extreme weather events, and such events make work stoppages more frequent and increase the risk of catastrophic damage to the company's equipment. If climate change significantly increases the likelihood of extreme weather events, climate change could pose a material risk.

(3) A company anticipates very significant regulatory costs in the future because of its high levels of greenhouse gas emissions. If the expected value of these costs are sufficiently large, the company's emissions could pose a material risk.

(4) A company sells a single consumer product that runs on fossil fuels, and observes that significant trends in consumer purchasing of that product now prioritize products that use "green energy." Its competitors offer such products, but the company does not. These changes in consumer spending and competitive advantages could pose a material risk.

These examples illustrate several different scenarios that could give rise to material climate-related risks. When these risks are material (i.e., would alter a reasonable investor's valuation of the company), these risks are required to be disclosed under *existing* disclosure rules. In this regard, current SEC rules speak to material risks, and do not treat climate-related and non-climate-related risks differently.

Indeed, the Commission acknowledges that the determination of material climate-risk is similar to that for required risk factor disclosure (p. 65):

[1] Proposal, footnote 29.

"The materiality determination that a registrant would be required to make regarding climate-related risks under the proposed rules is similar to what is required when preparing the MD&A section in a registration statement or annual report. The Commission's rules require a registrant to disclose material events and uncertainties known to management that are reasonably likely to cause reported financial information not to be necessarily indicative of future operating results or of future financial condition. As the Commission has stated, MD&A should include descriptions and amounts of matters that have had a material impact on reported operations as well as matters that are reasonably likely to have a material impact on future operations."

This makes me wonder whether the Commission believes some firms are not disclosing climate-related risks that are in fact material. If the Commission feels material climate-related risks are not being disclosed—such an omission violates existing rules—this suggests the need for additional guidance. Indeed, the Division of Corporation Finance's sample letter dated September 2021, demonstrates that climate-related risks fit into the existing disclosure rules and how additional guidance can sharpen disclosures under existing rules.[2] Tellingly, Bloomberg reports that 25 of 26 companies that received inquiries from the SEC reported that "climate risk wasn't a material issue...".[3] Thus, unless companies are withholding information on material risks, it seems unlikely that the additional climate disclosures required by the Proposal would reveal new material risks.

Part II. Academic Evidence on Materiality of GHG Disclosures

A core aspect of the Proposal is that it would require companies to report Scope 1, 2, and/or 3 GHG emissions, provide auditor attestation of the emissions, and disclose disaggregated emissions by constituent gas (e.g., methane, carbon dioxide, etc.). While the Proposal cites many academic studies, few (if any) papers provide an analysis of the relation between GHG disclosures and share price—the sort of analysis that is commonly used to assess materiality. Indeed, the section of the Commission's economic analysis that discusses the benefits to disclosing GHG emissions metrics (Section IV.C.1.e) does not reference any academic papers studying corporate disclosures of such metrics.[4] Nor does the Proposal provide or cite any evidence that investors use disaggregated emissions data in their valuation or voting decisions.

In many places the Proposal cites evidence from studies that examine the relation between third-party ESG ratings (e.g., MSCI, Bloomberg, etc.) and share prices or mutual fund flows to support the notion that disclosures of climate-related risks are material.[5] Third party ESG ratings—and by extension, the academic papers studying them—do not speak to GHG emissions. ESG ratings are a hodgepodge of various environmental, social, and governance factors. As a result, the Commission should exercise extreme caution in extrapolating inferences using research relying on

[2] "Sample Letter to Companies Regarding Climate Change Disclosures," *U.S. Securities and Exchange Commission*, September 22, 2021, available at https://www.sec.gov/corpfin/sample-letter-climate-change-disclosures.
[3] Nicola M. White, "SEC Drops Hints About ESG Rule in Retorts to Vague Disclosures," *Bloomberg*, March 18, 2022, available at https://news.bloomberglaw.com/financial-accounting/sec-scrutiny-of-big-companies-sheds-light-on-climate-priorities.
[4] For example, footnote 877 of the Proposal references a paper studying mine safety disclosures; footnotes 886 and 887 reference academic papers studying where multinationals emit: onshore or offshore; and footnote 888 references two papers that suggest long-run risks generally affect asset prices.
[5] See papers referenced in Proposal footnotes 802, 804, 839, and 987.

third-party ESG ratings to justify the materiality of GHG disclosures. Indeed, the Proposal does not provide (or reference) any evidence on the materiality of GHG disclosures using standard "event study" tests for materiality commonly employed and accepted by academics, legal practitioners, and US courts. This is an important oversight, as the market reaction to a given disclosure—specifically whether and how prices and trading volume change in response to the disclosure—is critical to inferring the materiality of the disclosure.

Part III. Market Reaction to GHG Disclosures

In this section, I provide initial evidence of the market reaction to GHG disclosures. In particular, I use standard event study tests commonly employed in the academic literature to examine whether there was a statistically significant change in the level of trading volume and/or stock prices in response to a disclosure.[6] If so, it suggests the disclosure was material (i.e., altered a reasonable investor's valuation of the company).

I begin by collecting the set of GHG disclosures posted on the SEC's EDGAR system. I focus on GHG disclosures posted on EDGAR because EDGAR provides machine-readable information on the precise date the disclosure was made public. This date is necessary to estimate the event study tests. By focusing only on GHG disclosures posted on EDGAR, the sample is weighted toward highly visible disclosures of GHG emissions. If anything, I expect disclosure of GHG emissions on EDGAR to have a greater economic impact on markets than GHG emissions disclosed via other less visible channels. By focusing on GHG disclosures on EDGAR, the sample is arguably biased *in favor* of finding such disclosures are material.

In conducting this analysis, I found two alternative disclosure strategies that are not considered in my analysis but are nonetheless worth discussing.

(1) Some companies provide GHG emissions in an "ESG report" provided on their corporate website, but do not file the ESG report as an exhibit to an EDGAR filing.[7] Only ESG reports explicitly included as an exhibit in an EDGAR filing are included in my analysis.

(2) Many companies appear to be privately disclosing detailed information on GHG emissions, mitigation strategies, and risks to the Carbon Disclosure Project (CDP) but *not* disclosing this information to shareholders. The CDP then makes this information accessible to accountholders and paid subscribers. For example, NetApp discusses data on GHG emissions in a single sentence in their 2020 ESG Report (p. 20): *"We continue to measure, monitor, and report our GHG emissions (Scopes 1, 2, and 3) and we voluntarily report*

[6] The tests used in this section are standard and have been repurposed from prior academic studies I have previously conducted. I refer interested readers to Taylor, Daniel, et al. (2022), "Audit Process, Private Information, and Insider Trading," available at SSRN: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3264424; Taylor, Daniel et al. (2020), "Undisclosed SEC Investigations," *Management Science*, 67(6), available at SSRN: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3507083; and Lynch, Bradford and Taylor, Daniel (2021), "The Information Content of Corporate Websites," available at SSRN: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3791474.

[7] See for example IBM's 2021 ESG report, located on IBM's investor relation website but never filed as an exhibit to an EDGAR filing. See, "Reports & Policies," *IBM*, available at https://www.ibm.com/impact/reports-and-policies.

> *annually to CDP."*[8] However, neither their 2020 ESG report, nor any document filed on EDGAR, discusses their 2020 Scope 1, 2, or 3 emissions, how they compare to 2011 base levels the company recorded, or provide disaggregated emissions data by facility. Nevertheless, NetApp disclosed all of this information in their 2020 report filed with the CDP.[9] This disclosure practice to CDP is commonplace. For example, one academic study estimated that 12.75% of the S&P 500 responded to the CDP's survey on climate-risks and GHG emissions but did not authorize CDP to make their responses publicly available.[10]

These two disclosure practices are not consistent with a view that GHG disclosures are material. For example, if information on GHG emissions is material—useful for valuation and voting decisions—then it would seem the widespread practice of selectively disclosing this information to a third-party (e.g., CDP) would violate Reg FD (which is supposed to prevent the selective disclosure of material non-public information). Thus, I infer from the prevalence of this disclosure strategy that companies and their counsel do not believe data on GHG emissions is material, otherwise they would not be selectively disclosing it. Regardless, I do not include GHG disclosures to the CDP in my analysis because (i) these disclosures are available only to CDP accountholders and paid subscribers; and (ii) the CDP does not have precise information on the date at which the company publicly disclosed their emissions data.

To compile the sample used in my analysis, I use the SEC's website to search EDGAR for all Form 8-Ks filed between January 2021 and March 2022 that include the keywords: "Scope 1," "Scope 2," or "Scope 3."[11] The search includes all Form 8-K exhibits and hyperlinked materials. I focus on keywords related to the various emission levels because I seek to identify disclosure related to emissions levels, not disclosures related to climate risk more broadly. I focus on Form 8-Ks, because alternative forms such as 10-Qs and 10-Ks include a wealth of financial statement information that would confound attributing changes in volume and price to the GHG disclosure itself.

This results in a sample of 371 Form 8-Ks. I then read each 8-K to determine whether the disclosure relates to emissions. I eliminate 46 that are parsing errors (e.g., a table of contents to a contract where the "Scope" is discussed on page 2), 115 that reference emissions but do not provide information about emissions levels (e.g., covenants on "green bonds"), and 94 that are duplicate disclosures of the same information (e.g., three different investor day presentations that all provide the same emissions levels). This suggests many companies either: (1) provide GHG emission data on their website as an ESG report without a corresponding 8-K, (2) disclose the information only to CDP, or (3) do not disclose GHG emission data. I interpret these findings as *prima facie* evidence that companies do not view the information as material for investors' valuation decisions.

I merge the sample of the remaining 116 8-Ks to price data from the Center for Research in Security Prices (CRSP), and focus on common stocks listed on the three major exchanges (e.g.,

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[8] "NetApp 2020 ESG Report," *NetApp*, available at https://www netapp.com/pdf html?item=/media/11875-netapp-2020-esg-report.pdf.
[9] "NetApp Inc. - Climate Change 2020," *CDP*. See https://www.dropbox.com/s/iq4wopk7yms4uz2/CDP.pdf.
[10] Matsumura, Ella M., et al. (2015), "Firm-Value Effects of Carbon Emissions and Carbon Disclosures," The Accounting Review, (89)2, available at SSRN: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1921809.
[11] "EDGAR Advanced Search," *U.S. Securities and Exchange Commission*, available at https://www.sec.gov/edgar/search/#.

excluding Real-Estate Investment Trusts and Limited Partnerships).[12] This leaves a sample of 87 GHG disclosures. Of these, 52 are bundled with an earnings announcement (or merger announcement). Trading volume and shares prices respond to earnings announcements even in the absence of any GHG disclosures. Thus, without a more rigorous and deeper investigation, one cannot disentangle whether the change in trading volume and prices are attributable to the GHG disclosure or the quarterly financials. I remove these observations from the sample.

For each of the remaining 8-Ks, I calculate the first date at which the market could have traded on the information in the 8-K.[13] I refer to this as "day 0." I then collect data on stock returns and trading volume over the thirty calendar days before and after this date, i.e., the [-30, +30] window around day 0, and test for statistically abnormal changes in trading volume and stock price on day 0. The final sample consists of 1,493 daily observations.

I compute trading volume as a percentage of shares outstanding (*Volume*), and price change as the absolute value of stock return in excess of the respective industry benchmark (|*Return*|).[14] I use absolute value of returns, because these tests seek to estimate whether the price changed once the 8-K was disclosed—which could be a positive price change (i.e., good news), or a negative price change (i.e., bad news).[15]

Table 1 presents mean and median absolute price change and trading volume on the day the disclosure is made public (i.e., "Day 0") and on all other days in the [-30, +30] window excluding Day 0 (i.e., "[-30, +30] ex Day 0"). Table 1 shows that the average (median) return is slightly elevated (or depressed) on day 0, and both average and median trading volumes are elevated.

Table 1. Difference in Mean and Median Price Change and Trading Volume

	Day 0		[-30, +30] ex Day 0		Diff in	Diff in
	Mean	Median	Mean	Median	Means	Medians
|*Return*|	2.43	1.00	1.83	1.20	0.60	-0.20
Volume	1.63	0.92	1.42	0.79	0.21	0.13

Table 2 presents statistical tests for whether the change in price and trading volume on day 0 is statistically abnormal (i.e., statistically different from all other days in the [-30, +30] window).

[12] I restrict the sample to CRSP share code 10 or 11.
[13] For 8-Ks filed during market hours, this is the date of the filing. For 8-Ks filed after hours, this is the next trading date.
[14] I use the 48 industry portfolios available from Ken French as the industry benchmark. Kenneth R. French, "Detail for 48 Industry Portfolios," 2022, available at https://mba.tuck.dartmouth.edu/pages/faculty/ken french/Data_Library/det_48_ind_port.html.
[15] Focusing on whether price changed, not the direction of the change, is common in the literature that seeks to examine whether a disclosure provides the market with information. See e.g., Lynch, Bradford and Taylor, Daniel (2021), "The Information Content of Corporate Websites," available at SSRN: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3791474.

Table 2. Statistical Tests for Changes in Price and Trading Volume

	Dependent Variable: *|Return|*		Dependent Variable: *Volume*	
	(1)	(2)	(3)	(4)
	Coeff.	Coeff.	Coeff.	Coeff.
Day 0	0.60	0.46	0.21	0.05
p-value	(0.20)	(0.33)	(0.47)	(0.77)
Date FE	No	Yes	No	Yes
Company-Year-Qtr FE	No	Yes	No	Yes
S.E. Cluster	Date	Date	Date	Date
N	1,493	1,493	1,493	1,493

Column 1 presents results from a regression of the price change on an indicator variable for whether a given observation is day 0. Column 2 includes date and company-year-quarter fixed effects which adjust for the average price change on the respective date and during the respective company-fiscal quarter (e.g., average price change in Intel's Q1-2021). Columns 3 and 4 present analogous results using trading volume. The *p*-values (two-tailed) that indicate whether a given regression coefficient is statistically different from zero appear in parentheses. In the academic literature, *p*-values of 0.05 and below are traditionally considered "statistically significant." Across all tests, *p*-values are routinely above 0.05. Thus, there is no statistical evidence of a price or trading volume response to the GHG disclosures. In the academic literature, this would be interpreted as evidence that the average GHG disclosure did not contain material information.

Taken at face value, the evidence from this analysis suggests that—on average—investors do not update their beliefs about value (upward or downward) in light of the GHG emissions data. These findings are consistent with two other academic studies that use a similar event study design, and find no evidence of a price or volume response to the disclosure of corporate sustainability reports and no evidence of a price response to corporate press releases related to ESG.[16] The Proposal does not reference these studies, nor does it provide (or reference) any evidence on the materiality of GHG disclosures using standard "event study" tests for materiality.

I caution that this evidence does ***not*** suggest climate risk is immaterial, but rather it suggests that GHG emissions are not material. To highlight this distinction, consider the following. Suppose GHG emissions are relevant to investors because it helps them assess the risk the company will incur substantial regulatory costs in the future. If this risk is already adequately disclosed as a material risk factor in the company's 10-K, then GHG emissions data will not cause shareholders to update their beliefs about that risk. To trigger a market reaction, GHG emissions have to contain new information that is not already reflected elsewhere in the company's many disclosures (e.g., the risk factors in annual filings). If GHG emissions measure climate risks, and a company is

[16] For evidence on lack of price or volume response to corporate sustainability reports, see Burzillo, Suzanne, et al. (2022), "Who Uses Corporate Sustainability Reports?" available at SSRN: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3976550. For evidence on lack of price response to corporate press releases related to ESG, see Moss, Austin, et al. (2020), "The Irrelevance of ESG Disclosure to Retail Investors: Evidence from Robinhood," available at SSRN: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3604847.

already (appropriately) disclosing these climate risks elsewhere in their annual filings, then I would not expect GHG disclosures to be material.

One potential explanation for the above findings is that GHG emissions are highly correlated with other observable aspects of a company's operations that are already reflected in stock prices. For example, one academic study estimates that GHG emissions are extremely highly correlated over time (e.g., autocorrelation coefficient of 0.977).[17] This means that, on average, next year's GHG emissions will be almost the same as this year. This study also finds that 90% of GHG emissions are explained by observable aspects of a company's operations including industry membership; company size; sales growth; earnings growth; the value of plant, property, and equipment; capital expenditures; and profitability. Thus, 90% of the variation in GHG emissions can be inferred from information that is already publicly available. This information will already be reflected in stock prices, such that the level of GHG emissions itself (and potentially other climate-related information) may provide little *new* information beyond what can be inferred from observable aspects of the company's operations. This could explain why GHG disclosures examined above are not material to a company's valuation. It could also explain why two academic studies find no evidence of a price or volume response to the disclosure of corporate sustainability reports and no evidence of a price response to corporate press releases related to ESG.[18] Another academic study compares the market's valuation of actual GHG emissions and GHG emissions inferred from information on the company's balance sheet and income statement. This study finds no evidence of a difference in valuation between GHG emissions voluntarily disclosed by the company (to the CDP) and the valuation of GHG emissions inferred from publicly-observable information.[19]

The preceding analysis and discussion is subject to the caveat that the event study analysis is based on traditional notions of materiality embraced by academics and legal scholars. These tests are shareholder-centric and consider whether prices or trading volume in the company's stock changed as a result of the company's disclosure. The tests do not consider other stakeholders or other non-valuation uses of the information.

Part IV. Investor Protections

The Commission has recently made tremendous strides on investor protections. I commend the Commission for this progress and the Commission's renewed focus on robust enforcement. The Commission's budget has grown on average at 4% over the past five years (2017-2021).[20] This growth has not kept pace with the explosive growth in trading volume and recent capital markets developments (e.g., special purpose acquisition companies, high frequency trading, crypto, and non-fungible tokens). As a result, the Commission is being asked to regulate and police increasingly large portions of the economy with relatively less resources.

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[17] Bolton, Patrick and Kacperczyk, Marcin T. (2019), "Do Investors Care about Carbon Risk?" *Journal of Financial Economics*, 142(2), available at SSRN: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3398441.

[18] See footnote 17 for references.

[19] Griffin, Paul A., et al. (2015), "The Relevance to Investors of Greenhouse Gas Emission Disclosures," *Contemporary Accounting Research*, 34(2), available at SSRN: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1735555.

[20] "Budget History – BA vs. Actual Obligations ($ in 000s)," *U.S. Securities and Exchange Commission*, November 13, 2019, available at https://www.sec.gov/foia/docs/budgetact htm.

Given its resource constraints, the Commission is already incapable of policing every violation of federal securities laws that it learns about. It routinely disregards enforcement of some violations of securities laws in favor of enforcing others. Against this backdrop, the Proposal dramatically expands the amount of resources the Commission would need to invest in implementing and policing disclosures of GHG emissions. The Commission's scarce resources dictate that this investment would necessarily come at the cost of other priorities. I am particularly concerned about the consequences for enforcement, and investor protections. Stretched resources imply less effectively policing of markets. Less effective policing implies reduced compliance with securities laws. Reduced compliance with laws erodes Americans' trust in markets and institutions.[21]

Mandatory GHG disclosures will undoubtedly benefit Blackrock, Ceres, and those niche funds that invest based on GHG levels. Rather than spend considerable effort and money researching what a company's GHG emissions are, they will be able to get such data directly from the company's mandatory SEC disclosures. Indeed, the Proposal will transfer the burden of calculating GHG emissions from the funds to the companies themselves. To the extent that such calculations are costly, even investors in the company who do not use such information will effectively be paying for the information to be produced. Indeed, research suggests most individual investors generally ignore such factors in their investment decisions.[22] It is this latter group that may suffer from the reallocation of Commission resources. In this regard, the Proposal nicely illustrates the distinction between the interests of the average dollar (e.g., those of certain high-profile institutional investors) and the interests of the average investor (e.g., those of the individual investors). In prioritizing the interests of the average dollar, the Commission may be acting against the interest of the average investor. Every dollar the Commission spends on the Proposal is a dollar that could be spent protecting individual investors from accounting fraud, rogue investment advisors, crypto scams, greenwashing, market manipulation, and other illicit activities that directly affect the day-to-day lives of individual investors.

Currently the Proposal's cost-benefit analysis does not speak to where the resources to implement the Proposal will come from, and what priorities might face fewer resources as a result of implementing the Proposal. The Commission's cost-benefit analysis should articulate what specific functions will be diminished as a result of the resources needed to implement the Proposal, and should account for the effect of diminished resources in other (non-climate-related) areas on investors and markets. This is a potential hidden cost of the Proposal that does not feature in the economic analysis.

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[21] Gurbir S. Grewal, "PLI Broker/Dealer Regulation and Enforcement 2021," *U.S. Securities and Exchange Commission*, October 6, 2021, available at https://www.sec.gov/news/speech/grewal-pli-broker-dealer-regulation-and-enforcement-100621.

[22] For academic evidence see Moss, Austin, et al. (2020), "The Irrelevance of ESG Disclosure to Retail Investors: Evidence from Robinhood," available at SSRN: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3604847; and for survey evidence see Gary Mottola et al., "Consumer Insights: Money & Investing," FINRA Investor Education and NORC at the University of Chicago, March 2022, available at https://www.finrafoundation.org/sites/finrafoundation/files/Consumer-Insights-Money-and-Investing.pdf.

Professional Profile for Dr. Daniel Taylor:

Daniel Taylor is the Arthur Andersen Chaired Professor at The Wharton School, and is director of the Wharton Forensic Analytics Lab. He is an award-winning researcher and teacher with extensive expertise on corporate disclosures, insider trading, fraud prediction, and corporate governance. He has published extensively on these topics in leading academic journals; led seminars at dozens of top business schools across the globe; and won numerous academic and industry awards.

Professor Taylor's research targets practitioners and regulators, and aims to have direct relevance to current issues facing boards, shareholders, and enforcement agencies. His research frequently appears in the business media and has been cited in rules and regulations promulgated by the SEC. Most recently, his research on insider trading was the impetus behind proposed rule changes to 10B5-1 trading plans; Form 144 filings; the Holding Foreign Insiders Accountable Act; and multiple investigations by the SEC, FBI, Treasury, and DoJ.

Professor Taylor enjoys putting his research into practice and has provided expert and consulting services related to best practices in corporate disclosure, 10B5-1 trading plans, statistical analysis of trading activity, and fraud prediction, and has co-developed and licensed intellectual property related to parsing SEC filings. His consulting clients include the DoJ, hedge funds, plaintiff and defense firms, and a Big 4 auditor.

Professor Taylor teaches a cutting-edge undergraduate course—Forensic Analytics—that applies state-of-the-art analytics to corporate disclosures, and teaches a doctoral seminar on data analysis. His doctoral students have gone on to become faculty at a variety of leading business schools, including Stanford, MIT, and Chicago. Professor Taylor received his bachelor's degree from University of Delaware, his master's from Duke University, and his PhD from Stanford University.

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EDUCATION

Stanford University
Ph.D. Business, 2010

Duke University
M.A. Economics, 2005

University of Delaware
B.S. Economics, 2003
Minor: Information Systems; Cum Laude

ACADEMIC POSITIONS

The Wharton School of the University of Pennsylvania

Professor 2022 – present
Arthur Andersen Chair, 2020 – present
Founder & Director, Wharton Forensic Analytics Lab, 2021 – present
Wharton Teaching Excellence Award, 2019, 2020, 2021
Analytics @Wharton Teaching Grant, 2020, 2021
Analytics @Wharton Fellow, 2020 – present
Wharton Faculty Fellow, 2019
Dean's Research Grant, 2011-2013, 2019-2021
Harold C. Stott Chair, 2013-2017

Associate Professor 2017 – 2022
Assistant Professor 2011 – 2017
Lecturer 2010 – 2011

RESEARCH INTERESTS

insider trading, financial misreporting, corporate disclosure, corporate governance

ACADEMIC PUBLICATIONS

Causality Redux: The Evolution of Empirical Methods in Accounting Research
(with C. Armstrong, J. Kepler, and D. Samuels) Journal of Accounting and Economics, forthcoming [invited, not peer reviewed]

Disclosure Substitution
(with M. Heinle and D. Samuels) Management Science, forthcoming

Audit Process, Private Information, and Insider Trading
(with S. Arif, J. Kepler, and J. Schroeder) Review of Accounting Studies, September 2022

- Winner, *Best Academic Paper Award,* Weinberg Corporate Governance Symposium (Mar 2019)
- Featured in *Harvard Law School Forum on Corporate Governance and Financial Regulation* (Nov 2018); *Marketwatch* (Mar 2019); *Council of Institutional Investors, The Voice of Corporate Governance* (May, 2019); *Marketwatch* (Jun 2019);

Voluntary Disclosure when Private Information and Disclosure Costs are Jointly Determined
(with J.M. Kim and R. Verrecchia) Review of Accounting Studies, June 2021

Undisclosed SEC Investigations
(with T. Blackburne, J. Kepler, and P. Quinn) Management Science, June 2021

- Winner, *Outstanding Research Paper Award*, Jacobs Levy Center for Quantitative Financial Research (2020)
- Cited in the SEC's final ruling on exemptions to 404(b) of SOX "Amendments to the Accelerated Filer and Large Accelerated Filer Definitions" *SEC Release No. 34–88365*
- Featured in Columbia Law School Blue Sky Blog (Feb 2020); *Bloomberg Money Stuff* (Feb 2020), *Securities Regulation Daily* (Feb 2020); *Corporate Counsel* (Mar 2020); *Wall Street Journal* (Sept 2021)

The Economics of Misreporting and the Role of Public Scrutiny
(with D. Samuels and R. Verrecchia) Journal of Accounting and Economics, February 2021

- Featured in *CFO* (May 2018); *Barron's* (Jun 2018)

Political Connections and the Informativeness of Insider Trades
(with A. Jagolinzer, D. Larcker, and G. Ormazabal) Journal of Finance, August 2020

- Winner, *Outstanding Research Paper Award*, Jacobs Levy Center for Quantitative Financial Research (2019)
- Synopsis printed in *CATO Institute Research Briefs in Economic Policy* (Jan 2018)
- Featured in *Harvard Law School Forum on Corporate Governance and Financial Regulation* (Sept 2016); *The Economist* (Feb 2018); *CNBC* (Feb 2018); *Apple News* (Mar 2020); *Bloomberg Law* (Mar 2020); *Bloomberg Money Stuff* (Mar 2020), *DailyMail* (Mar 2020); *Fox Business* (Mar 2020); *Law.com* (Mar 2020); *Reuters* (Mar 2020); *Securities Docket* (Mar 2020); *Yahoo Finance* (Mar 2020); *Yahoo News* (Mar 2020); *The Week* (Mar 2020); *US News and World Report* (Mar 2020), *Reuters* (Apr 2020), *New York Times* (Apr 2020); *US News and World Report* (Apr 2020); lead story on news aggregator *Drudgereport* (Mar 26-27, 2020)
- Almetrics media influence score in the top 5% of all academic research, ranked in top 0.5% within Journal of Finance.

Economics of Managerial Taxes and Corporate Risk-Taking

(with C. Armstrong, S. Glaeser, and S. Huang) The Accounting Review, January 2019

- Featured in *Columbia Law School Blue Sky Blog* (Dec 2017)

Linguistic Complexity in Firm Disclosures: Obfuscation or Information

(with B. Bushee and I. Gow) Journal of Accounting Research, March 2018

- Top five most highly-cited papers published in the journal since 2018
- A widely-used Perl command to calculate Fog Index, *Lingua:EN:Fathom*, was revised as a direct result of the computational errors identified in this paper (see v1.22 of this command)
- Synopsis printed in *CFA Digest* (December 2018)

JOBS Act and Information Uncertainty in IPO Firms

(with M. Barth and W. Landsman) The Accounting Review, Nov 2017

- Winner, *AICPA Notable Contribution to Accounting Literature Award* (2020)
- Cited in the SEC's final ruling on amendments to Regulation A of the Securities Act, "Amendments for Small and Additional Issues Exemptions Under the Securities Act" *SEC Release No. 33–9741, 34–74578, 39–2501*
- Featured in *Harvard Law School Forum on Corporate Governance and Financial Regulation* (Aug 2014); speech by SEC Commissioner Kara Stein (Dec 2016); *CFO* (Oct 2017); *CPA Practice Advisor* (Oct 2017); *MarketWatch* (Oct 2017); *The Intercept* (Feb 2018); speech by SEC Commissioner Kara Stein (Jun 2018); *Xconomy* (Apr 2019); *Accounting Today* (Aug 2020) *CPA Practice Advisor* (2020)

- Almetrics media influence score in the top 25% of all academic research, ranked in top 10% within The Accounting Review.

Guiding Through the Fog: Financial Statement Complexity and Voluntary Disclosure
(with W. Guay and D. Samuels) Journal of Accounting and Economics, Nov 2016

- Top five most highly-cited papers published in the journal since 2016
- Featured in *Columbia Law School Blue Sky Blog* (Mar 2015)

Thoughts on the Divide Between Theoretical and Empirical Research in Accounting
(with Q. Chen, J. Gerakos, and V. Glode) Journal of Financial Reporting, Fall 2016 [invited, not peer reviewed]

From Casual to Causal Inference in Accounting Research: The Need for Theoretical Foundations
(with J. Bertomeu and A. Beyer) Foundations and Trends in Accounting, Fall 2016

Abnormal Accruals in Newly Public Companies: Misreporting or Economic Activity?
(with C. Armstrong and G. Foster) Management Science, May 2016

Asymmetric Reporting
(with C. Armstrong and R. Verrecchia) Journal of Financial Reporting, Spring 2016

Delegated Trade and the Pricing of Public and Private Information
(with R. Verrecchia) Journal of Accounting and Economics, Dec 2015

The Relation Between Equity Incentives and Misreporting: The Role of Risk-Taking Incentives
(with C. Armstrong, D. Larcker, and G. Ormazabal) Journal of Financial Economics, Aug 2013

- Featured in Keynote Address by PCAOB Chair James Doty at *AICPA National Conference on Current SEC and PCAOB Developments* (Dec 2012); *Wall Street Journal* (May 2013); *Harvard Law School Forum on Corporate Governance and Financial Regulation* (May 2013)

Why Do Pro Forma and Street Earnings Not Reflect Changes in GAAP?
(with M. Barth and I. Gow) Review of Accounting Studies, Sep 2012

- Featured in *Harvard Law School Forum on Corporate Governance and Financial Regulation* (Nov 2010); *Wall Street Journal* (May 2015)

Asset Securitizations and Credit Risk
(with M. Barth and G. Ormazabal) The Accounting Review, Mar 2012

Frictions in the CEO Labor Market: The Role of Talent Agents in CEO Compensation
(with S. Rajgopal and M. Venkatachalam) Contemporary Accounting Research, Spring 2012

Corporate Governance and the Information Content of Insider Trades
(with A. Jagolinzer and D. Larcker) Journal of Accounting Research, Dec 2011

- Featured in *Harvard Law School Forum on Corporate Governance and Financial Regulation* (Oct 2011); *Marketwatch* (Mar 2019);

The Market Reaction to Corporate Governance Regulation
(with D. Larcker and G. Ormazabal) Journal of Financial Economics, Aug 2011

- Cited in the SEC's final ruling on proxy access (SEC Rules 14a-8 and 14a-11), "Facilitating Shareholder Director Nominations" *SEC Release No. 33-9136*
- Synopses printed in *CFA Digest* (Aug 2011)
- Featured in *Wall Street Journal* (Jul 2010); *New York Times* (Nov 2010); *Harvard Law School Forum on Corporate Governance and Financial Regulation* (Sep 2010); *CFA Institute* (Aug 2014)

When Does Information Asymmetry Affect the Cost of Capital?
(with C. Armstrong, J. Core, and R. Verrecchia) Journal of Accounting Research, Mar 2011

- Cited in the SEC's proposed rule regarding mandatory clawbacks "Listing Standards for Recovery of Erroneously Awarded Compensation" *SEC Release No. 33-9861, 34-75342*
- Cited in the SEC's proposed exemptions to Section 404(b) of SOX "Amendments to the Accelerated Filer and Large Accelerated Filer Definitions" *SEC Release No. 34–85814*

Correcting for Cross-Sectional and Time-Series Dependence in Accounting Research
(with I. Gow and G. Ormazabal) The Accounting Review, Mar 2010

- Top 5 most highly-cited paper published in the journal since 2010

In Defense of Fair Value: Weighing the Evidence on Earnings Management and Asset Securitizations
(with M. Barth) Journal of Accounting and Economics, Feb 2010 [invited, not peer reviewed]

The Stock Market's Pricing of Customer Satisfaction
(with C. Ittner and D. Larcker) Marketing Science, Oct 2009 [invited, not peer reviewed]

CURRENT ACADEMIC WORKING PAPERS

Dark Side of Investor Conferences: Evidence of Managerial Opportunism
(with B. Bushee and C. Zhu)

- Featured in Columbia Law School Blue Sky Blog (Jan 2021); *Bloomberg Money Stuff* (Jan 2021)

Long-Term Information in the Decision to Provide a Short-Term Forecast
(with M. Heinle, C. Kim, and F. Zhou)

Measurement Error, Fixed Effects, and False Positives in Accounting Research
(with J. Jennings, J.M. Kim, and J. Lee)

The Information Content of Corporate Websites
(with B. Lynch)

- Featured in 2021 NBER Big Data and Securities Markets Conference

Holding Foreign Insiders Accountable
(with R. Jackson and B. Lynch)

- Featured in *Wall Street Journal* (April 2022); *Bloomberg Money Stuff* (April 2022); congressional testimony before the Senate Banking Committee (April 2022); *Council of Institutional Investors, The Voice of Corporate Governance* (June 2022); Harvard Law School Forum on Corporate Governance and Financial Regulation (June 2022)
- Based on this paper, Sen. Kennedy introduced the "Holding Foreign Insiders Accountable Act" into the US Senate in May 2022

PRACTITIONER PUBLICATIONS AND REGULATORY COMMENT LETTERS

Amicus Curiae in Support of Claims that Engineered Short Squeezes are a Form of Market Manipulation (co-authored with six other academics authoring in support) US Court of Appeals, Tenth Circuit, Case 21-4126, Feb 2022.

Amicus Curiae in Support of Claims that SPACs are Not Valued as Operating Companies (lead author; 30 academics authoring in support) US District Court for the Southern District of New York, Case 1:21-cv-07072-JPO, Nov 2021.

Amicus Curiae in Support of Claims that 10B5-1 Trading Plans Can Be Probative of Scienter (lead coauthor with Joshua Mitts, 7 academics authoring in support) US Court of Appeals for the 10th Circuit, Case 21-4058, Sept 2021.

OpEd: Insider Trading Loopholes Need to be Closed (with SEC Commissioner Caroline Crenshaw) Bloomberg, Mar 2021.

Comment Letter on the SEC's Proposed Rule 144 Holding Period and Form 144 Filings (with David Larcker and Bradford Lynch), Mar 2021

- Featured in Harvard Law School Forum on Corporate Governance and Financial Regulation (Mar 2021); Council of Institutional Investor's Comment Letter to the SEC (Mar 2021)
- Cited in the SEC's Proposed Rule Changes on Rule 10B5-1 "Rule 10B5-1 and Insider Trading" *SEC Release No. 34-93782*, Dec 2021
- Cited in the SEC's Final Rule "EDGAR Filing Requirements and Form 144 Filings" *SEC Release No. 33-11070*, June 2022

Gaming the System: Three Red Flags of Potential 10B5-1 Abuse (with D. Larcker, B. Lynch, P. Quinn, and B. Tayan) Stanford Closer Look Series, Jan 2021: 1-17. Stanford University Press.

- Presented to the *SEC's Investor Advisory Committee* (June 2021); presentation covered in *Law360* (June 2021)
- Featured in Harvard Law School Forum on Corporate Governance and Financial Regulation (Jan 2021); *Cooley PubCo* (Feb 2021); Council of Institutional Investor's Comment Letter to the SEC (Mar 2021); speech by Chairman Gensler at WSJ-CFO Summit (June 2021); speech by SEC Commissioner Allison Herren Lee (Dec 2021); *Reuters* (June 2021, Dec 2021); *Bloomberg* (June 2021, Dec 2021); *Bloomberg Money Stuff* (June 2021, Sept 2021); *Financial Times* (June 2021, July 2021, Dec 2021); *Law360* (June 2021 x4; July 2021); *Wall Street Journal* (June 2021, Aug 2021, Dec 2021 x2); *Forbes* (Aug 2021); and letters to the SEC by the AFL-CIO (April 2022),

Council of Institutional Investor's (April 2022), and New York City Employee Retirement System (April 2022);

- Cited extensively in the SEC's Proposed Rule Changes on Rule 10B5-1 "Rule 10B5-1 and Insider Trading" *SEC Release No. 34-93782*, Dec 2021
- Cited in New York City Comptroller's proxy challenge to Abbott Labs on 10b5-1 plans, supported by ISS and GlassLewis with 49% of the vote

OpEd: How the SEC Can and Should Fix Insider Trading Rules

(with A. Jagolinzer and D. Larcker) The Hill, Dec 2020.

- Our policy recommendations were adopted by Senators Brown, Van Hollen, and Warren in their Feb 10, 2021 letter to the SEC urging changes in insider trading rules
- Cited in the SEC's Proposed Rule Changes on Rule 10B5-1 "Rule 10B5-1 and Insider Trading" *SEC Release No. 34-93782*, Dec 2021

Comment Letter on the SEC's Proposed Reporting Threshold for Institutional Investment Managers

(with M. Barth, T. Dyer, and W. Landsman), Sept 2020

- Featured in *IR Magazine* (Sept 2020); *Harvard Law School Forum on Corporate Governance and Financial Regulation* (Oct 2020); *Council of Institutional Investor's Comment Letter to the SEC* (Oct 2020)

OpEd: The Covid-19 Economic War: Congress Must Open a Second Front

(with Y. Gopalan and T. Lys) The Hill, July 2020.

The Spread of Covid-19 Disclosures

(with D. Larcker, B. Lynch, and B. Tayan) in Stanford Closer Look Series, June 2020: 1-5. Stanford University Press.

- Featured in *Bloomberg Money Stuff* (June 2020); *Cooley PubCo* (June 2020); *Harvard Law School Forum on Corporate Governance and Financial Regulation* (July 2020); included in NIRI's Covid-19 Crisis Response Library (July 2020)
- Private staff briefing to *House Financial Services Committee* (July 2020)
- Presented to the *SEC's Investor Advisory Committee* (Dec 2020); presentation covered in *Law360* (Dec 2020)

OpEd: Are You Angry with the Fed? You Should Be

(with T. Lys) The Hill, June 22, 2020.

- Fed President Mary Daly responded to our arguments regarding Fed-fueled income inequality in "The Fed Isn't Fueling US Inequality," (*Reuters* June 23, 2020).

Governance of Corporate Insiders' Equity Trades
(with D. Larcker, J.Kepler, and B. Tayan) in Stanford Closer Look Series, Jan 2020: 1-5. Stanford University Press.

- Featured in *Harvard Law School Forum on Corporate Governance and Financial Regulation* (Jan 2020)

Comment Letter on the SEC's Proposed Exemption to Internal Control Audits under SOX 404(b)
(with M. Barth, W. Landsman, and J. Schroeder), Jul 2019

- Featured in *Wall Street Journal* (Jul 2019); *Harvard Law School Forum on Corporate Governance and Financial Regulation* (Jul 2019); *Council of Institutional Investor's Comment Letter to the SEC* (Jul 2019); *Better Market's Comment Letter to the SEC*; *Wall Street Journal* (Aug 2019); *CFA Institute's Comment Letter to the SEC*; *Corporate Secretary* (Aug 2019); *Internal Audit 360* (Aug 2019); *Wall Street Journal* (Mar 2020)
- Cited in the SEC's final ruling on exemptions to 404(b) of SOX "Amendments to the Accelerated Filer and Large Accelerated Filer Definitions" *SEC Release No. 34–88365*
- Cited in SEC Commissioner Allison Herren Lee's "Statement on the Rollback of Auditor Attestation Requirements"

Follow the Money: Compensation, Risk, and the Financial Crisis
(with D. Larcker, G. Ormazabal, and B. Tayan) in Stanford Closer Look Series, Sept 2014: 1-5. Stanford University Press.

Post-Earnings Announcement Drift and Related Anomalies
in Handbook of Equity Market Anomalies (2011): 91-115. Wiley Publishing. Ed. Len Zacks.

CONFERENCE DISCUSSIONS AND PANELS

"Research on Forensic Finance and Accounting" *2021 UT Symposium on Financial Market Policy Development & Research*

"How policy-makers use academic research on disclosure and governance," *2020 UT Symposium on Financial Market Policy Development & Research*

"Theory and Inference in Accounting Research," *2019 Stanford Theory & Inference Conference*

"Surviving and Thriving in the Profession," *2019, 2020, 2021 AAA Doctoral Consortium*

"Change in Capitol: How a 60 Minutes Expose and the STOCK Act Affected the Investment Activity of U.S. Senators," *2017 FEA Conference*

"When and Why do IPO Firms Manage Earnings," *2017 Review of Accounting Studies Conference*

- Winner, Morgan-Stanley Best Discussant Prize *2017 Review of Accounting Studies Conference*

"Pre-IPO Communication and Analyst Research: Evidence Surrounding the JOBS Act," *2017 NYU/SEC Changing Role of Stock Markets in Capital Formation*

"Increased Creditor Rights, Institutional Investors, and Corporate Myopia," *2016 Harvard IMO Conference*

"Payoffs to Aggressiveness," *2015 AAA Annual Meeting*

"The Unification of Theory and Empirical Research and the Path toward Knowledge," *2015 Junior Accounting Theory Conference*

"Corporate Governance and Securitization Quality: The Impact of Shareholder Rights in the Banking Industry," *2014 AAA Annual Meeting*

"Earnings Co-Movement and Earnings Manipulation in Different Economic States," *2014 FARS Mid-year Conference*

"Managerial Incentives to Increase Firm Volatility Provided by Debt, Stock, and Options," *2013 Washington University St. Louis Nick Dopuch Conference*

"The Association Between Audit Committee Characteristics and Information Asymmetry," *2013 AAA Annual Meeting*

"Accounting Experts, Information Cost, and Implied Cost of Equity Capital," *2013 AAA Annual Meeting*

"Management Team Incentive Alignment and Firm Value," *2013 FARS Mid-year Conference*

INVITED PRESENTATIONS

2022: UT-Austin Law; Yale; Stanford

2021: SEC Investor Advisory Committee; UT Symposium on Financial Market Policy Development & Research; Michigan State; Chinese Univ of Hong Kong; University of Maryland; SEC Enforcement; DoJ Fraud Unit; Northwestern; Minnesota; Baruch; Tilburg; UT-Dallas; SEC Division of Economic and Risk Analysis; Journal of Accounting and Economics Conference; Florida State; SEC Chair's Office

2020: SEC Commission-wide seminar; Accounting Theory Group; Univ of Miami; staff of House Financial Services Committee; UT Symposium on Financial Market Policy Development & Research; NYU; Georgia; SEC Investor Advisory Committee; Iowa; Review of Accounting Studies Conference

2019: Stanford; Michigan; PCAOB; SEC Commissioner's Office (x2); Washington Univ; Weinberg Corporate Governance Symposium; Florida; Carnegie-Mellon; Miami; Stanford Theory and Inference; Notre Dame Conference; Columbia; Indiana; Hawaii

2018: MIT; Toronto

2017: UC-Davis; Minnesota Spring Conference; NYU/SEC Changing Role of Stock Markets in Capital Formation; Review of Accounting Studies conference; FEA conference

2016: Temple; Utah; Chicago; Cornell; Harvard IMO Conference; Securities & Exchange Commission; Texas A&M; Treasury; Southern District of New York; FBI

2015: Rochester; AAA Mid-Atlantic Doctoral Consortium; Delaware; Penn State Accounting Research Conference; Colorado Summer Camp; Junior Accounting Theory Conference; AAA Annual Meeting

2014: FARS Mid-year Meeting; University of Texas Corporate Governance conference; Junior Accounting Theory Conference; AAA Annual Meeting; Stanford Summer Camp; USC; SUNY-Binghamton; Northwestern

2013: FARS Mid-year Meeting; Duke; AAA Annual Meeting; Duke/UNC Fall Camp; LBS; Washington University St. Louis Nick Dopuch Conference

INVITED CONFERENCES

2021: UT Symposium on Financial Market Policy Development & Research (panelist); JAE conference (presenter); RAST conference (invited participant)

2020: UT Symposium on Financial Market Policy Development & Research (panelist); Stanford Virtual Summer Camp (invited participant); JAR conference (invited participant); NYU Institute for Corporate Governance (invited participant); JAE conference (invited participant); RAST conference (presenter)

2019: Weinberg Corporate Governance Symposium (presenter); Theory and Inference in Accounting Research (moderator); Notre Dame Accounting Conference (presenter); Miami Winter Warm-Up Conference (invited participant)

2018: JAR conference (invited participant); NYU Summer Camp (invited participant); Harvard IMO conference (invited participant); Wharton Spring Conference (invited participant); Harvard IMO conference (invited participant); NYU Summer Camp (invited participant); Stanford Summer Camp (invited participant); Junior Accounting Theory Conference (invited participant); Toronto Summer Camp (presenter); JAR/PCAOB conference (invited participant); JAE conference (invited participant)

2017: Minnesota Empirical Conference (presenter); NYU/SEC Changing Role of Stock Markets in Capital Formation (discussant); JAR conference (invited participant); Wharton Spring Conference (invited participant); Review of Accounting Studies conference (discussant); JAR/PCAOB conference (invited participant); JAE conference (invited participant); FEA conference (discussant);

2016: JAR conference (invited participant); Harvard IMO conference (discussant); Wharton Spring Conference (invited participant); Colorado Summer Camp (invited participant); Stanford Summer Camp (invited participant); RAST conference (invited participant); JAR/PCAOB conference (invited participant); JAE conference (invited participant);

2015: AAA Mid-Atlantic Doctoral Consortium (presenter); Penn State Accounting Research Conference (presenter); JAR conference (invited participant); Colorado Summer Camp (presenter); Junior Accounting Theory Conference (moderator); AAA Annual Meeting (discussant); JAE conference (presenter); JAR/PCAOB conference (invited participant); Washington University Nick Dopuch Conference (invited participant);

2014: FARS Mid-year Meeting (presenter, discussant); University of Texas Corporate Governance conference (presenter); JAR conference (invited participant); Junior Accounting Theory Conference (presenter); AAA Annual Meeting (discussant); Stanford Summer Camp (presenter); JAE conference (presenter); Causality Conference (invited participant)

2013: FARS Mid-year Meeting (discussant); JAE/HBS Social Responsibility conference (invited participant); Colorado Summer Camp (invited participant); Stanford Summer Camp (invited participant); UNC Global Issues in Accounting conference (invited participant); NYU-Stern Summer Camp (invited participant); AAA Annual Meeting (discussant); Duke/UNC Fall Camp (presenter); Washington University Nick Dopuch Conference (discussant); JAE conference (invited participant)

INTERNAL AND EXTERNAL SERVICE

Editorial Positions

Management Science	*Associate Editor*	2018 – present
The Accounting Review	*Editor*	2018 – present
The Accounting Review	*Editorial Board*	2017 – 2018
Review of Accounting Studies	*Editorial Board*	2018 – present

SSRN Accounting Theory eJournal	*Editorial Board*	2018 – present
Journal of Financial Reporting	*Editorial Board*	2016 – present
Journal of Accounting and Economics	*Editorial Board*	2015 – present
Journal of Accounting Research	*Editorial Board*	2016 – 2021
	Reviewer of the Year	2019

DISSERTATION COMMITTEES & PLACEMENTS

Bradford Lynch	(on the market, 2022-2023)	2023
Jung Min Kim	(Northwestern)	2022
John Kepler	(Stanford)	2019
Delphine Samuels	(MIT)	2017
Michael Carniol	(Rutgers)	2017
Jason Xiao	(University of Rochester)	2016
David Tsui	(USC)	2015
Terrence Blackburne	(University of Washington)	2013

PROFESSIONAL SERVICE

Member, WRDS Advisory Board,	2020 – present
Member, Wharton IT Steering Committee	2017 – present
Member, Wharton Rookie Recruiting Committee	2015 – present
Member, Wharton PhD Qualifying Exam Committee	2012 – present
Member, Wharton Curriculum Innovation & Review Committee	2020 – 2021
Leader, AAA/Deloitte Doctoral Consortium	2019 – 2021
Organizer & Founder, Wharton Theory Boot Camp for Empiricists	2018 – 2020
Leader, AAA New Faculty Consortium	2019
Member, FARS Meeting Editorial Committee	2017
Member, FARS Best Dissertation Award Committee	2016
Member, Wharton PhD Curriculum Committee	2016
Organizer, Wharton Seminar Series	2013 – 2015
Member, AAA Meeting Editorial Committee	2013

COURSE DEVELOPMENT

FORENSIC ANALYTICS (Spring 2019 – present)

Created this experiential course for undergraduates interested in learning how to manipulate Big Data and mine SEC filings to predict earnings, detect fraud, and flag suspicious trading behavior. The course draws on cutting-edge academic research in each topic; features industry guest speakers; introduces basic SQL coding skills; and leverages the computing power of AWS and the datasets at Wharton Research Data Services.

EMPIRICAL DESIGN IN ACCOUNTING RESEARCH (Spring 2014 – present)

Created this course for Ph.D. students looking for an advanced course on empirical methodology and research design with application to the accounting literature. The course emphasizes applied econometrics and research design rather than topical coverage of the literature [mini-versions taught at Northwestern, Stanford, and Washington University].

INTRODUCTION TO FINANCIAL ACCOUNTING (Fall 2010 – Fall 2017)

Designed a custom course pack for ~800 students.

ADDITIONAL INFORMATION

Citizenship: United States
Hobbies/Other: hiking, home renovations, landscaping, Eagle Scout