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ESG Disclosures and the Decision to Go Public

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ESG Disclosures and the Decision to Go Public

Douglas Cumming

Introduction

An initial public offering (IPO) involves listing a firm's shares for sale on a stock exchange for the first time (known colloquially as "going public"). This essay analyzes of two questions critically. First, does mandatory environmental, sustainable, and governance (ESG) disclosure increase the net costs of going public, so that privately owned companies are less likely to do so? Second, if private companies are indeed less likely to go public, what are the associated economic costs of that choice?

Mandatory ESG *disclosures* are distinct from mandatory ESG *practices*. While both have costs and benefits, their magnitudes are likely to differ, and the conceptual arguments underlying their benefits and costs may also differ. In this paper, we focus on mandatory ESG reporting, not on ESG practices. Mandatory ESG disclosures are requirements that stock exchanges and securities regulators impose.

There is conflicting evidence on the impact of mandatory ESG reporting on stock market performance following an IPO. On one hand, some empirical evidence suggests that mandatory ESG disclosure improves IPO performance once the stock is listed. The rationale is that ESG disclosures lead to reduced information asymmetry, lower costs of capital, and higher share prices. This evidence could be used to imply that private companies filing for IPO approval should be mandated to issue ESG disclosures prior to their IPOs.[1] Further, this evidence could imply that all private companies that might someday list in public markets should be reporting ESG information even before going public. On the other hand, some empirical evidence shows that mandatory ESG disclosures harm the share prices of publicly traded companies, suggesting that the costs of such disclosures outweigh the benefits. This latter body of evidence is consistent with firms electing not to make ESG disclosures when they are not forced to do so; said differently, if ESG disclosure contributes to higher equity prices and, therefore, to lower costs of capital, why would firms not voluntarily disclose ESG information even if they were not required by regulators to do so?

Overall, the available evidence reviewed in this paper shows that we should expect some firms to delay or avoid taking their companies public due to issues related to mandatory ESG disclosure. The efficiency of capital markets and the performance of the Canadian economy could be significantly affected by whether and how ESG reporting mandates and related compliance costs influence the incentives of investors and firm managers to avoid or delay going public, and, consequently, the performance of IPOs. We discuss different possible costs and benefits in the latter part of this paper.

Mandatory ESG reporting and the costs of IPOs

The costs of going public include various direct and indirect costs. Direct costs include the cost of the underwriter commission, which is normally 7 percent of the IPO proceeds for large US IPOs (Chen and Ritter, 2000), and can be as large as 50 percent of proceeds on smaller junior stock exchanges such as the Toronto Venture Exchange (TSXV) (Cumming and Johan, 2013). Direct costs also include disclosure costs associated with developing a prospectus (including the relevant legal, accounting, and auditing costs) necessary for preparing, disseminating, and certifying the required information (Friedman, 1970). For smaller IPOs, prospectus costs in Canada are up to $1 million; over $1 million for larger IPOs (Cumming and Johan, 2013). Direct costs are significantly higher with mandatory ESG disclosure (Wang et al., 2022).[2] Apart from the direct costs there are also indirect costs associated with IPOs. Indirect costs of an IPO most notably include "underpricing," or the discount on the initial price charged for shares listed on the exchange. Between 2001 and 2021 in the United States, the average change in price from the start of trading on the first day to the end of trading on the first day of an IPO was over 18 percent according to one estimate (Ritter, 2023a). Underpricing is higher on stocks listed in junior markets, which makes the costs of going public particularly high for junior companies; on the TSXV, for example, IPO underpricing is normally around 48 percent (Johan, 2010). More recent data show Canadian underpricing is on average 19.32 percent for small firms and 13.87 percent for large firms (Switzer et al., 2022).

Not only are IPOs underpriced in the short run, they also on average significantly underperform the overall market in the long run. That is, prices of IPO shares often increase shortly after they begin public trading, meaning that initial buyers of the shares realize capital gains in the first days of trading. However, the share prices typically go down in value after the first day of trading, so that those who did not get in and sell immediately after the listing suffer capital losses over time. Ritter (1991) estimates that every dollar invested in IPOs over a 3-year period results in 26.9 percent loss compared to what it would have achieved if it was invested in a comparable established company. Underperformance is substantially worse for companies on junior stock exchanges such as the TSXV (Johan, 2010). IPOs only do as well as other matched publicly traded firms when they are backed by reputable venture capital funds due to their value-added, screening, and certification of the quality of the issuing company (Brav and Gompers, 1997).

In addition to underpricing costs, there are indirect costs associated with IPOs. First, mandatory disclosure involves a transfer of information to competitors and other parties external to the newly listed firm (Grewal et al., 2018). The company faces litigation and reputational risks after going public, including but not limited to risks of errors with public disclosures (Rogers et al., 2011). And when those mandated disclosures are expanded to include ESG or other matters which could be viewed as strategic or political, going public also involves political costs (Healy and Palepu, 2001).

The overall direct and indirect costs of mandatory ESG disclosure are difficult if not impossible to aggregate across different publicly traded firms. However, one way to infer these costs is to look at the response of share prices to the introduction of mandatory ESG disclosure. The most recent empirical evidence on mandatory ESG disclosure (Wang et al., 2022) shows that it causes a 1.1 percent drop in price across all affected firms. Firms in carbon-intensive industries have a larger negative price reaction. Firms with higher ESG scores have a less significant reaction.

Which types of firms bear the highest costs of mandatory reporting? Mandatory reporting costs are somewhat fixed regardless of the size of a firm. As such, they are more heavily borne by smaller compared to larger firms. Consistent with this idea, voluntary ESG reporting is more likely for firms with a higher market capitalization (Janicka and Sajnóg, 2022). Kotsantonis et al. (2016) explain that it is worth incurring these costs if larger firms can demonstrate for their particular sector that ESG disclosures are associated with operational improvements and reduced risks, and that the benefits will be maintained or increase over time. But not all firms are able to bear these costs; whether or not they can do so partly depends on their size and the industrial and firm-specific context.

In short, it is widely accepted that going public is quite costly and long-term investors face many risks in companies that have become newly public. The costs of going public are higher with mandatory ESG disclosure for IPOs. Many of the direct disclosure costs in IPOs are fixed and invariant to firm size, which makes the burden of the costs greater for smaller firms. To date, we are not aware of empirical evidence that shows exactly how long firms delay their decision to access capital markets and the proportion of firms that avoid going public altogether due

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at least in part to mandatory ESG disclosure requirements; further research is warranted. Nevertheless, the existing evidence indicates that direct and indirect costs from mandatory ESG reporting can be expected to discourage or delay firms from going public.

Economic consequences of the impact of mandatory ESG reporting on IPOs

Securities regulation seeks to balance investor protection with the costs that firms bear to access public capital markets. Mandatory ESG disclosure could be beneficial for investors, albeit at a higher cost for firms to access public equity markets. In this section we discuss some of the possible benefits and costs on the wider economy associated with mandatory ESG reporting.

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There is some evidence showing that ESG disclosure has benefits to the firms undertaking IPOs. Reber et al. (2022) find that voluntary ESG disclosure reduces IPO idiosyncratic volatility (firm-specific volatility that is uncorrelated with market movements) and downside tail risks (the risk that the firm's stock price crashes); the reasons Reber et al. offered are that more disclosures lead to less information asymmetry and the ESG disclosures provide greater brand credibility and social capital. Reber et al. (2022) also show that higher ESG ratings in IPOs are associated with lower firm-specific volatility and downside tail risk in the first year after the IPO. Economidou et al. (2023) show that in the US, IPOs with ESG ratings perform significantly better on the 1 to 3 year Tobin's Q (the market value of a company divided by its assets' replacement cost, which they find is 4 times higher for ESG-rated issuers than for ESG-unrated issuers) after the IPO date. Economidou et al. explain that companies' rationales for going public most likely drive the difference in behaviour between ESG-rated and ESG-unrated issuers: ESG-unrated issuers more often stockpile IPO proceeds as cash or working capital, and at the same time have 1.5 times higher financial slack. Fu et al. (2022) document that voluntary ESG disclosure reduces IPO failure risks, improves IPO long-run performance, and that these benefits are more pronounced the earlier the ESG disclosure. Fu et al. explain that ESG disclosures attract investor attention in IPOs, improve their social standing, and mitigate information asymmetries. It is possible that the IPO process makes ESG rankings more informative and valuable to shareholders than ESG rankings in other contexts, as other evidence shows less of a relation between ESG ratings and stock returns in the long run depending on the data examined (Berg et al., 2021). Consistent with the role of ESG disclosures in IPO performance, Amini et al. (2022) and Boulton et al. (2022) show that greater climate risks in the US and around the world do affect IPO performance.

There are at least three possible reasons why IPO disclosure could improve IPO performance (that is, performance measured in the ways discussed in the literature reviewed immediately above). The first explanation is that ESG disclosures are associated with a "greenium." That is, investors are willing to pay more for something that is associated with ESG, regardless of

expected performance. For example, Roberts (2022) shows that investors are happy to pay significantly more in mutual fund fees as a result of positive ESG branding. Similarly, Raimo et al. (2021) show that the cost of debt is lower for firms with better ESG disclosures. As such, ESG disclosure could help IPO performance by having a positive effect on investors' sentiment. That is, mandatory ESG disclosures do not necessarily improve firm quality and mitigate information asymmetry between firms and their investors, but do give investors a comfortable feeling that their investment decisions are doing something for society. (It is possible that voluntary ESG disclosures produce the same result under this reasoning.[3])

Unlike the first explanation, the second and third explanations provide a more positive view of mandatory disclosure and its effect on IPO performance. The second explanation is that mandatory ESG disclosure may improve the information environment of publicly traded securities, thereby reducing information asymmetry, agency conflicts, and adverse selection problems (Easley and O'Hara, 2004; Verrecchia, 2001), which in turn enables better monitoring by external stakeholders and operating efficiency improvements (Bushman and Smith, 2001). There is evidence from Krueger et al. (2021) that mandatory ESG disclosure around the world increases the availability and quality of ESG reporting and improves analysts' earnings forecasts. An improved information environment for IPOs is important as one of the primary reasons for IPO underperformance is the lack of information associated with a newly listed company. Future research could consider whether ESG information is financially material, and if so why IPOs would not need to report such information under current securities regulations. If the information proves to be not financially material, future research could consider why its disclosure improves analysts' earnings forecasts.

The third explanation is that mandatory ESG reporting can bring about real improvements to a firm's operations. For example, Krueger et al. (2021) show that mandatory ESG reporting reduces ESG violations and lowers the risk of stock price crashes. Furthermore, mandatory ESG disclosure could generate positive externalities by encouraging other firms to engage in more ESG activity (for a review, see Johan, 2023). As such, mandatory ESG reporting appears to have real benefits to society by improving the operations of companies.

It is hard to be certain which of these ideas best explains the available evidence of the impact of ESG disclosures on IPO performance. Certainly, more evidence on market sentiment towards ESG over a longer time could shed light on the strengths of the competing explanations. One issue with all these studies is that they are subject to a selection bias; specifically, which firms actually choose to go public in an environment that favours ESG disclosure and where some firms can easily afford the costs of ESG disclosure while others can't. Said differently, it is hard to assess the economic impact of mandatory ESG disclosure on IPO performance because the types of firms that go public are not random and the evidence is likely to be positively biased by firms that derive relatively greater expected benefits or lower expected costs from mandatory ESG disclosure.

Are the benefits of ESG reporting as clear as they seem to be? In an important recent paper, Berg et al. (2021) analyze the main data provider of ESG ratings around the world: Refinitiv. Using the Refinitiv ESG data from different years, Berg et al. compared the relation between ESG ratings and firm performance for the same firms, only changing the data based on the time at which it was downloaded. The authors observed no correlation between ESG ratings and firm performance for their earlier downloads of the data, and then showed a weakly positive correlation between ESG ratings and firm performance from a subsequent download. They then further showed that for the most recent Refinitiv download of the data, the correlation was strongly positive. There could be different explanations for these findings. One is that Refinitiv appears to be backdating its data to make ESG ratings correlate more positively with firm performance, but this explanation is merely speculative. This type of problem is somewhat similar to "greenwashing" (companies making claims about their ESG activities that are either exaggerated or untrue). But this situation involves backdating data not merely for one publicly traded firm, but could be being done by a key data provider from which all investors, policymakers, and academics alike obtain their information on ESG ratings and other financial information. Importantly, though, Berg et al. do not have evidence that this is the explanation for what they found with the Refinitiv data. There could be other explanations for these differences that are unrelated to backdating or greenwashing, and it is entirely possible that the data were not intentionally changed to make the ESG ratings more correlated with returns.[4]

Greenwashing in the financial industry is commonplace.[5] And it is costly. Mandatory ESG disclosure involves costs, and firms have an incentive to recoup those costs by making their ESG performance look as good as possible. Greenwashing calls into question the aforementioned benefits of ESG in IPOs documented above.

Greenwashed ESG disclosures can exacerbate other agency problems. For example, executive compensation is an agency problem insofar as there are missing links between disclosure and the firm's performance. ESG reporting can exacerbate these agency conflicts (Bebchuk and Tallarita, 2022). ESG mandates enable management to excuse pay that is insensitive to performance. ESG metrics could be used to serve executive interests at the expense of stakeholder and shareholder welfare. That is, the simpler the firm's objective function (e.g., pure profit maximization), the easier it is for shareholders to monitor the performance of managers. Greenwashing could be significantly more pronounced under a mandatory ESG disclosure regime than a voluntary ESG disclosure regime because more listed firms would be forced to disclose data and spending where they perceive the costs for doing so exceed the benefits.

In sum, the efficiency of capital markets and the performance of the economy could be significantly affected by mandatory ESG reporting through (1) delaying or discouraging firms from seeking access to capital markets,[6] (2) changing IPO performance, and (3) misreporting information in the spirit of greenwashing, among other issues. To date, some empirical studies show benefits associated with ESG reporting on IPO share price performance; however, such evidence is based on firms that choose to go public and report their ESG activities. ESG reporting mandates and related compliance costs likely cause some firms to avoid or delay going public. Industrial organization economists have identified firms of below-efficient size as a significant contributor to Canada's relatively poor productivity performance. As such, regulatory and related policies that discourage firms from accessing capital in public markets is an especially salient issue. The evidence to date also shows that certain industries, such as carbon-intensive industries, would be relatively more damaged by mandatory ESG reporting. Mandatory ESG reporting would therefore cost certain provinces more than others depending on the comparative importance of different industries across the provinces. For example, the mining and oil and gas industries in western Canadian provinces would face higher costs if ESG reporting was mandatory. The broader economic costs of mandatory ESG reporting are exacerbated by other costs that include but are not limited to greenwashing.

"The evidence to date also shows that certain industries, such as carbon-intensive industries, would be relatively more damaged by mandatory ESG reporting, … [and] would therefore cost certain provinces more than others…"

Summary and conclusion

Going public is costly for issuing firms, and there are many risks for long-term investors in newly public companies. In view of regulatory goals that include mitigating the costs of accessing capital markets while maintaining investor protection, it is worth examining recent regulatory pushes around the world towards mandatory disclosure of an IPO firm's environmental, sustainable, and governance (ESG) record. This paper provided a brief overview of what we know to date.

There are some possible benefits of ESG disclosures. They can improve the information environment and mitigate information asymmetries in financial markets between firms, their investors, and analysts. ESG disclosures may even improve the operational efficiency of firms and mitigate harm caused by ESG violations. But the available evidence on ESG reporting and IPOs is hard to interpret in view of the non-random decision of firms to enter capital markets in an ESG reporting environment. When firms are already public, mandatory disclosure of ESG causes share prices to drop by over 1 percent, on average.

Whether or not the benefits of ESG disclosures in IPOs are real is unclear at this stage. ESG misreporting or "greenwashing" is commonplace. Prior data on ESG ratings have been revised over time to become more correlated with returns (Berg et al., 2021). There are significant reasons to be concerned that mandatory ESG reporting can exacerbate agency problems between firms and their management, such as providing excuses as to why pay is insensitive to performance (Bebchuk and Tallarita, 2022). The reporting and enforcement costs for ESG disclosures are high.[7]

Mandatory ESG disclosures could discourage firms from entering public markets, thereby limiting entrepreneurial opportunities by making one of the main channels for accessing capital more expensive. These costs would be disproportionately greater for smaller firms and for firms in carbon-intensive industries; as such, in Canada, mandatory ESG reporting could lead to higher costs for firms in western provinces.

Endnotes

1 Countries with mandatory ESG reporting are listed in Krueger, Sautner, Tang, and Zhong, 2021: Table 1.

2 Additional research is needed to estimate the percentage of the costs to small- and medium-sized enterprises of going public that are directly attributable to mandatory ESG disclosures.

3 Voluntary ESG disclosures could have an even more pronounced impact when they are in response to events such as natural disasters; see Fiordelisi et al. (2023).

4 I contacted one of the Berg et al. authors in April 2023 to ask for other possible explanations. The author mentioned that they are currently searching for those explanations but as yet have not found any.

5 One European study found that in “42% of cases, green claims were exaggerated, false, or deceptive” (Courtnell, 2023).

6 The decline in the number of IPOs in Canada in recent years has been reported in Pandes and Tingle, 2022, October 17. Similarly, the decline in the number of IPOs in the US is reported in Ritter (2023b).

7 A recent US estimate put the expected 2023 costs at $8.4 billion (see Uyeda, 2022).

References

Amini, Shima, Sofia A. Johan, Eilnaz Kashefi-Pour, and Abdul Mohamed (2022). *Does Climate Risk Influence the Performance of Newly Listed Firms?* Working Paper. University of Birmingham.

Bebchuk, Lucian A., and Roberta Tallarita (2022). The Perils and Questionable Promise of ESG-Based Compensation. *Journal of Corporation Law* 48: 37-75. <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4048003>, as of May 24, 2023.

Berg, Florian, Kornelia Fabisik, and Zacharias Sautner (2021). Is History Repeating Itself? The (Un) Predictable Past of ESG Ratings. European Corporate Governance Institute. Finance Working Paper 708/2020 (August). European Corporate Governance Institute. <https://ssrn.com/abstract=3722087>, as of May 24, 2023.

Boulton, Thomas J., Douglas J. Cumming, and Chad J. Zutter (2022). *Climate Change Vulnerability and IPO Underpricing.* Working Paper. Miami University. <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4112282>, as of May 24, 2023.

Brav, Alon, and Paul A. Gompers (1997). Myth or Reality? The Long-Run Underperformance of Initial Public Offerings: Evidence from Venture and Nonventure Capital-Backed Companies. *Journal of Finance* 52, 5: 1791-1821. <https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1540-6261.1997.tb02742.x>, as of May 24, 2023 [paywall].

Chen, Hsuan-Chi, and Jay R. Ritter (2000). The Seven Percent Solution. *Journal of Finance* 55, 3: 1105-1131. <https://doi.org/10.1111/0022-1082.00242>, as of May 24, 2023 [paywall].

Courtnell, Jane (2023, February 13). What Is Greenwashing? 5 Signs to Spot & Stop Greenwashing. Green Business Bureau. <https://greenbusinessbureau.com/green-practices/what-is-greenwashing-and-how-to-spot-it/>, as of May 23, 2023.

Cumming, Douglas J., and Sofia A. Johan (2013). *Venture Capital and Private Equity Contracting: An International Perspective.* Elsevier Science Academic Press.

Delmas, Magali A., and Vanessa Cuerel Burbano (2011). The Drivers of Greenwashing. *California Management Review* 54, 1: 64-87. <https://www0.gsb.columbia.edu/mygsb/faculty/research/pubfiles/14016/cmr5401_04_printversion_delmasburbano.pdf>, as of May 24, 2023.

Easley, David, and Maureen O'Hara (2004). Information and the Cost of Capital. *Journal of Finance* 59, 4 (August): 1553-1583.

Economidou, Claire, Dimitrios Gounopoulos, Dimitrios Konstantios, and Emmanuel Tsiritakis (2023). Is Sustainability Rating Material to the Market? *Financial Management* 52, 1 (Spring): 127-179. <https://onlinelibrary.wiley.com/doi/10.1111/fima.12406>, as of May 24, 2023.

Fiordelisi, Franco, Guiseppe Galloppo, and Viktoriia Paimanova (2023, forthcoming). Climate Change Fears: Natural Disasters and Investor Behaviour. *Review of Corporate Finance.*

Friedman, Milton (1970, September 13). A Friedman doctrine—The Social Responsibility of Business Is to Increase Its Profits. *New York Times*. <https://www.nytimes.com/1970/09/13/archives/a-friedman-doctrine-the-social-responsibility-of-business-is-to.html>, as of May 24, 2023.

Fu, Mengchuan, Dantong Yu, and Dan Zhou (2022). Secret Recipe of IPO Survival: ESG Disclosure and Performance. *Financial Markets, Institutions and Instruments* 32, 1: 3-19. <https://onlinelibrary.wiley.com/doi/abs/10.1111/fmii.12169>, as of May 24, 2023 [paywall].

Grewal, Jody, Edward J. Riedl, and George Serafeim (2018). Market Reaction to Mandatory Nonfinancial Disclosure. *Management Science* 65, 7: 3061-3084. <https://pubsonline.informs.org/doi/10.1287/mnsc.2018.3099>, as of May 24, 2023 [paywall].

Healy, Paul M., and Krishna G. Palepu (2001). Information Asymmetry, Corporate Disclosure, and the Capital Markets: A Review of the Empirical Disclosure Literature. *Journal of Accounting and Economics*, 31, 1–3 (September): 405-440. <https://www.sciencedirect.com/science/article/abs/pii/S0165410101000180>, as of May 24, 2023 [paywall].

Janicka, Malgorzata, and Artur Sajnóg (2022). The ESG Reporting of EU Public Companies—Does the Company's Capitalisation Matter? *Sustainability* 14, 7: 4279. <https://doi.org/10.3390/su14074279>, as of May 24, 2023.

Johan, Sofia A. (2023, forthcoming). *ESG Mandates and Managerial Efficiency.* Working Paper. The Fraser Institute.

Johan, Sofia A. (2010). Listing Standards as a Signal of IPO Preparedness and Quality. *International Review of Law and Economics* 30, 2: 128-144.

Kotsantonis, Sakis, Christopher Pinney, and George Serafeim (2016). ESG Integration in Investment Management: Myths and Realities. *Journal of Applied Corporate Finance* 28, 2 (Spring): 10-16. <https://www.hbs.edu/faculty/Pages/item.aspx?num=51511>, as of May 24, 2023 [paywall].

Krueger, Philipp, Zacharias Sautner, Dragon Yongjun Tang, and Rui Zhong (2021). *The Effects of Mandatory ESG Disclosure Around the World*. Finance Working Paper No. 754/2021 and Swiss Finance Institute Research Paper No. 21-44. European Corporate Governance Institute. <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3832745>, as of May 24, 2023.

Pandes, J. Ari, and Bryce C. Tingle (2022, October 17). There's Been Only One Company IPO This Year on the TSX, and That's a Problem. *Globe and Mail*. <https://www.theglobeandmail.com/business/commentary/article-stock-market-ipo-decline-tsx/>, as of May 23, 2023.

Raimo, Nicola, Alessandra Caragnano, Marianna Zito, Filippo Vitolla, and Massimo Mariani (2021). Extending the Benefits of ESG Disclosure: The Effect on the Cost of Debt Financing. *Corporate*

Social Responsibility and Environmental Management 28, 4 (July): 1412-1421. <https://ideas.repec.org/a/wly/corsem/v28y2021i4p1412-1421.html>, as of May 24, 2023 [paywall].

Reber, Beat, Agnes Gold, and Stefan Gold (2022). ESG Disclosure and Idiosyncratic Risk in Initial Public Offerings. *Journal of Business Ethics* 179: 867–886. <https://link.springer.com/article/10.1007/s10551-021-04847-8>, as of May 24, 2023.

Ritter, Jay R. (1991). The Long-Run Performance of Initial Public Offerings. *Journal of Finance* 46, 1: 3-27. <https://onlinelibrary.wiley.com/doi/full/10.1111/j.1540-6261.1991.tb03743.x>, as of May 24, 2023.

Ritter, Jay R. (2023a). *Initial Public Offerings: Underpricing*. University of Florida. <https://site.warrington.ufl.edu/ritter/files/IPOs-Underpricing.pdf>, as of May 23, 2023.

Ritter, Jay R. (2023b). *Initial Public Offerings: Updated Statistics.* University of Florida. <https://site.warrington.ufl.edu/ritter/files/IPO-Statistics.pdf>, as of May 23, 2023.

Roberts, Lance (2022, July 19). ESG Underperformance Will Be Its Undoing. *Real Investment Advice* [RIA]. <https://realinvestmentadvice.com/esg-underperformance-will-be-its-undoing/>, as of May 24, 2023.

Rogers, Jonathan L., Andrew Van Buskirk, and Sarah L.C. Zechman (2011). Disclosure Tone and Shareholder Litigation. *The Accounting Review* 86, 6: 2155-2183. <https://www.jstor.org/stable/41408050>, as of May 24, 2023 [paywall].

Switzer, Lorne N., Nabil El Meslmani, and Xinkai Zhai (2022). IPO Performance and the Size Effect: Evidence for the US and Canada. *North American Journal of Economics and Finance* 62 (November): 101744. < http://www.sciencedirect.com/science/article/pii/S1062940822000924>, as of May 24, 2023 [paywall].

Uyeda, Mark (2022, November 30). SEC Commissioner Says ESG Reporting to Cost $8.4B in 2023, Up from $2B. *The Crude Life*. <https://www.thecrudelife.com/2022/11/30/sec-commissioner-says-esg-reporting-to-cost-8-4b-in-2023-up-from-2b/>, as of May 23, 2023.

Verrecchia, Robert E. (2001). Essays on Disclosure. *Journal of Accounting and Economics* 32, 1–3: 97-180. <https://www.sciencedirect.com/science/article/abs/pii/S0165410101000258>, as of May 24, 2023 [paywall].

Wang, Jiazhen, Xiaolu Hu, and Angel Zhong (2022). Stock Market Reaction to Mandatory ESG Disclosure. *Finance Research Letters*: 103402. <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4156258>, as of May 24, 2023.

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