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Environmental Policy and Audit Pricing

Monika K. Rabarison
The University of Texas Rio Grande Valley

Ibrajim Siraj
Long Island University

Bin Wang
Marquette University

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Monika K. Rabarison*, Ibrahim Siraj†** and Bin Wang***

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Abstract.

This paper examines the effect of environmental policy stringency on audit pricing. Exploiting the exogenous variation in environmental policies across 26 countries, we find that firms in countries with more stringent environmental policies incur lower audit fees. The inverse association is more pronounced in common law countries, in countries with a higher level of public enforcement of regulations, and in countries with more protection of investors. The lower audit fees are also more prominent for firms followed by more analysts and firms with larger institutional ownership. Furthermore, we find that firms in countries with strong regulations are better and more innovative at managing environmental risk, which implies that better environmental performance of the firms following stronger regulations could lower the business risks and thus, decrease audit fees. Overall, our findings suggest that compliant firms benefit from environmental policy stringency.

JEL classification: K32; Q56; G38; M42
Keywords: Environmental Policy Stringency; Government Policy and Regulation; Environment Risk; Audit Pricing

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† Corresponding author

*Robert C. Vackar College of Business & Entrepreneurship, Department of Economics and Finance, The University of Texas Rio Grande Valley, Edinburg, TX 78539, 956-665-3338, monika.rabarison@utrgv.edu
**School of Management, Long Island University Post, 720 Northern Blvd, Greenvale, NY 11548, 516-299-2366, ibrahim.siraj@liu.edu
***College of Business Administration, Marquette University, Milwaukee, WI, 53217, (414) 288-7188, bin.wang@marquette.edu

1. Introduction

The concern about environmental protection and safety is now on the center stage of debate of economic policy for sustainable development. On January 1, 1970, the National Environmental Policy Act (NEPA) was enacted in the United States to promote the enhancement of the environment safety. Moreover, since the United Nations published the Brundtland Report in 1987 (Brundtland, 1987), which was followed by the adoption of the United Nations Framework Convention on Climate Change (UNFCCC) in 1992 and Paris agreement in 2015, the question of how and why corporations should consider environmental challenges in their strategies has drawn considerable attention around the world.[1] In addition, repeated occurrences of corporate environmental disasters and scandals in the recent decades around the world, such as the Deepwater Horizon oil spill in 2010, Volkswagen emission scandal in 2015, etc., have made the concern of environmental safety a top priority in regulating the corporations.[2] In doing so effectively, countries are increasingly opting in for the adoption of a more stringent environmental policy.

While, in general, a strong legal system proves its efficacy in ensuring the rights of both shareholder and non-shareholder stakeholders (e.g., Porta, Lopez-de-Silanes, Shleifer, and Vishny, 1998; Nenova, 2003), how environmental regulations might affect the firms is an inconclusive issue. For example, strict environmental regulations create incentives for the firms to avoid myopic behaviors that hurt the firms in the long terms (e.g., Bénabou and Tirole, 2010), and to invest in greener and newer technologies (e.g., Ambec and Lanoie, 2008), which make firms more

[1] The recent UN report, published just ahead of the Climate Action Summit 2019 in New York, puts emphasis on the immediate requirement of "unprecedented" actions by both government and business to fight the environmental crisis (NDC Global Outlook Report, 2019).

[2] Some other notable environmental disasters and scandals are: Bhopal disaster in 1984, Great Barrier Reef oil spill in 2010, and Duke Energy coal ash spill in 2014. Due to its long lasting and widespread effects on the environment and people, each environmental misconduct usually induces several negative reactions from both financial and non-financial stakeholders and results in significant financial penalties.

competitive and efficient in the use of resources (e.g., Simpson and Bradford, 1996; Greaker, 2003; Clemens and Douglas, 2006). On the other hand, the evidence against strict environmental policy suggests that tougher environmental regulations rather make the firms less competitive (e.g., Dechezleprêtre and Sato, 2017) and encourage the firms to relocate to less regulated regions (e.g., Levinson and Taylor, 2008).

Even though existing literature does not provide any conclusive evidence on how environmental regulations create net benefits for firms, there is no doubt appreciating the fact that the environmental policy of a country can profoundly change the operational procedures and risk structures of the businesses. Given the material impacts that regulations can exert on the businesses, surprisingly, there is scarce evidence on how auditors, who are responsible for assessing any material risks associated with clients' compliance with environmental regulations (International Standard on Auditing (ISA) 240, ISA 250), respond to the changes in the environmental policy of a country. Therefore, to fill in the gap in the literature, in this paper, we examine the relationship between the stringency of environmental regulations and pricing of the audit services of the affected clients.

We argue that clients in countries with stricter environmental regulations would experience, on average, lower audit fees than clients in countries with relatively lax environmental regulations. This is due to several strong positive factors associated with a stringent environmental policy that should considerably reduce both business risks of the clients and audit risk. First and foremost, strict regulations create incentives for firms to perform better in environmental risk

management.[3] Empirical evidence of prior literature suggests that better environmental management significantly help reduce the business risks of the firms. For example, better environmental risk management could lower stock price crash risk (Kim, Li, and Li, 2014), idiosyncratic risk (Lee and Faff, 2009), and total risk (Jo and Na, 2012), which helps decrease the cost of capital (Sharfman and Fernando, 2008; Chava, 2014; El Ghoul, Guedhami, Kim, and Park, 2018). Such risk mitigating effects of strong environmental management are mainly driven by its positive impact on the efficiency in the use of resources (e.g., Hart, 1997), the profitability (e.g. Nehrt, 1996; Russo and Fouts, 1997), the value of intangible assets (Konar and Cohen, 2001), and both accounting and market performance (Clarkson, Li, Richardson, and Vasvari, 2011; Guenster, Bauer, Derwell, and Koedijk, 2011). In addition, better environmental risk management could also reduce the existing risks from the known hazards and potential risks from the currently unknown hazards, both of which affect a firm's business risk exposure.[4]

Further, importantly, prior studies that examined environmental factors as one of the dimensions of CSR, find that socially responsible firms are less likely to be involved in earnings management (Kim, Park, and Bension, 2012), more likely to produce better quality financial reports reporting (Dhaliwal, Li, Tsang, & Yang, 2011; Dhaliwal, Radhakrishnan, Tsang, & Yang, 2012), which lead to a reduction in audit fees and a lower likelihood of modified audit opinion (Du, Jian, Zeng, and Chang, 2018).

[3] The Volkswagen is one the many cases of corporate environmental disasters that show how damaging could be the consequence of the absence of strict regulations. European nations adopted a less stringent policy on NOx (Nitrogen Oxide) emissions than the U.S., which was perceived to create competitive advantages for the European automakers (Miravete et al., 2018). Such lax regulations in the home country was one of the key reasons that motivate Volkswagen to cheat on more restrictive U.S. emission policy, violating the U.S. clean air act. Such once profitable strategy resulted in dire consequences, with a hefty payment of $33 billion for product fixes and other fines and legal costs (Wilmot, 2019).

[4] Moreover, as a firm makes strategic investments to reduce emissions and pollution, it mitigates the litigation risk either from governmental regulators or from nongovernmental stakeholders (e.g., King and Shaver, 2001).

Second, since managers usually lack enough motivation to channeling resources towards environmental policies, government regulations work as an effective mechanism in creating incentives for allocating resources to better environmental management. A key reason corporate investment in environmental concerns face managerial inertia is that such investment, which serves both shareholder and non-shareholder stakeholders, often does not fit with the managerial objective of shareholder value maximization. Additionally, it creates a concern of potential loss of competitive advantages if peer firms do not adopt such a policy. Moreover, implementing a successful green policy in a firm involves rigorous process of redesigning and reorganizing production process (e.g., Klassen and Whybark, 1999; King and Lenox, 2002; Marcus and Fremeth, 2009), which is also largely subjective and unverifiable (Berrone and Gomez-Mejia, 2009), and thus, results in a managerial effort that remains unfairly compensated. Therefore, a strong regulation imposed by government could effectively incentivize the firms to be better at environmental risk management (Henriques and Sadorsky, 1999; Kassinis and Vafeas, 2006), and remove the concern of loss of competitive advantages since it usually applies to all firms in the similar businesses within an economy.

Thus, we hypothesize that auditors, being concerned about the clients' profitability and survivability to minimize their engagement risk (e.g., DeFond, Lim, and Zhang, 2016), would charge lower fees for the audit services provided to the clients operating in the countries with strict environmental regulations. Essentially, we predict a negative relationship between the stringency of environmental regulations of a country and the audit pricing of the firms in that country.

Using firm- and country-level data from 26 countries over the period 2000-2012, we exploit inter-temporal changes in environmental regulations at the country-level to investigate the impact of environmental policy stringency on audit pricing. The environmental policy stringency

index from the Organization for Economic Co-operation and Development (OECD) is based on both market and non-market based policies adopted by countries in each year. The index varies across countries and years and is exogenous to the corporate decision making process.

More specifically, we employ a difference-in-differences (DID) method to investigate whether the stringency of environmental policies affects audit pricing. The DID method effectively controls for covariates and allows us to compare audit pricing between treatment and control groups after a change in a country's stringency of environmental regulation: firms from countries that experience a change in environmental regulation (treatment group) versus firms from countries that do not experience a change in environmental regulation (control group). The key assumption of DID is that, conditional on controls, treated and control firms are only randomly different. Our empirical specification controls for relevant firm and country characteristics as in prior studies. To mitigate the omitted-variable problem, we also control for firm fixed effects to account for the time-invariant firm characteristics and for industry-year fixed effects to absorb the time-varying shocks in specific industries that may affect audit pricing at the industry level. In our baseline results, we find that the stringency of environmental regulations is negatively related to audit fees. We also employ a dynamic analysis as in Bertrand and Mullainathan (2003) to address the potential concern of reverse causality and find that the current year's audit fees do not have any significant relationship with future change in policy stringency.

In further analyses, we examine potential public and private channels through which the firms could be incentivized to follow stringent environmental regulations, thereby, strongly influence the negative impact of environmental policy stringency on the audit fees. Prior research documents a significant impact of legal systems of the countries on audit risks (e.g., Choi, Kim, Liu, and Simunic, 2008, 2009; Francis and Wang, 2008; Hope and Langli, 2010). While the

presence of strong legal environment might increase audit risk through increasing the risk of litigation, it also can lower the audit risk through creating right incentives for the firms to protect the interests of the stakeholders. We find that the negative relationship between the stringency of environmental policy and audit fees are more prominent for the firms in countries with better legal environment, public enforcement of laws, and/or investor protections. It implies that a strong legal environment is conducive for achieving the positive impact of environmental policy on various corporate outcomes.

Additionally, we investigate how certain firm characteristics could play role in influencing the negative impact of policy stringency on audit fees. More specifically, we focus on the presence of outside monitors, such as analysts and institutional investors, who can closely monitor and analyze the financial statements and day-to-day activities of the firms. For example, prior research identifies the analysts as the effective monitors of the firms (e.g., Healy and Palepu, 2001; Knyazeva, 2007; Yu, 2008; Dyck, Morse, and Zingales, 2010). Also, institutional investors can have a very strong incentive in monitoring the firms and even to intervene and participate in the corporate decision-making process (e.g., Shleifer and Vishney, 1997; Brickley, Lease, and Smith, 1988; Jensen, 1993). In our empirical tests, we find that firms with higher analyst coverage and firms with larger institutional ownership tend to experience a stronger negative impact of policy stringency on audit fees.

Since the purpose of a strong environmental regulation is to create incentives for the firms to invest in environment-friendly projects (e.g., Ambec and Lanoie, 2008; Bénabou and Tirole, 2010), the benefits of a regulation largely depend on how the firms comply with it. In other words, how actively and innovatively the firms respond to environmental policies could be the key direct channel through which better environmental risk management and lower business risk and audit

fees could be realized. Using the environmental pillar score form Thomson Reuters ASSET4 that captures three areas of environmental performances of the firms: emission reduction, resource efficiency, and product innovation, we find that following the passage of stringent environmental policies, firms tend to significantly improve their environmental performance. Our further evidence also shows that the strict regulations in environment create incentives for the firms to be more productive in green innovation. These findings suggest a potential channel through which firms can reduce their environment-related business risks and thereby lower the audit fees.

Our study contributes to the existing literature in multiple ways. First, we show that environmental regulations do matter in the pricing of audit services. Prior evidence shows that a country's legal regime could influence audit pricing (e.g., Choi, Ki, Liu, and Simunic, 2008). To the best of our knowledge to date, our paper is, however, the first to show how the stringency of environmental policy could affect audit prices at the international level. We provide evidence that increased environmental protection in the form of more stringent environmental policies is associated with an improvement in firms' environmental pillar scores and green innovation, implying firms' positive responses to the policies, thereby decreasing auditors' expected liability and audit effort, and thus are associated with lower audit fees.[5]

Second, our paper contributes the literature on how changes in environmental policy affect the perception of risks. There is a long list of papers that show the far-reaching effects of environmental regulations on the operational decisions and risk structures of the businesses (e.g., Simpson and Bradford, 1996; Levinson and Taylor, 2008; Dechezleprêtre and Sato, 2017). Our

[5]Our paper is different from a related paper, Li, Simunic, and Ye (2014). They examine how the exposure to environmental risk, captured by toxics releases, affects the audit pricing for U.S. public companies, whereas the focus of our paper is on how a macro-basis change of environmental policy affects a firm's audit pricing in an international setting.

evidence shows that environmental regulation influences the auditors' assessment of their audit risk as well as their clients' business risk, as revealed in the change of audit fees.

Third, the results of our paper contribute to the understanding of the public policy issue: how environmental regulation might create net benefits for the businesses.[6] While there are viewpoints both for and against environmental regulations (e.g., McGuire, 1982; Greaker, 2003; Dechezleprêtre and Sato, 2017), our finding of the negative association between stringent environmental policy and audit fees provides additional evidence favoring the policy viewpoint that strong environmental regulations can create certain benefits for the corporations.

The remainder of the paper is organized as follows. Section 2 presents our hypotheses development. Section 3 describes our study sample and methodology. Section 4 reports the empirical results. Section 5 discusses the results from channel tests. Section 6 concludes the paper.

2. Hypotheses development

2.1. Environment policy stringency and business risk

According to Simunic's (1980) classic framework of audit fee determination, audit service is an economic good that derives its value from providing assurance to financial information disclosed by the client firms. In providing the audit service, the key objective of the auditors is to minimize the engagement risk, which is exposure to "loss or injury from litigation, adverse publicity, or other events arising in connection with the audited financial statements" (SAS 106). Three sources of engagement risk are: (1) business risk of the client - the risk arising from the client's ability of surviving and generating profits; (2) audit risk – the risk of failing to detect

[6]A good example of how strong regulation can create net benefit for a society is a congressionally mandated report published by the Environmental Protection Agency in 2011 on cost-benefit analysis of the Clean Air Act Amendments of 1990 (USEPA Office of Air and Radiation, 2011). The report shows that the economic costs of the act were valued at $53 billion, whereas the benefits attained $1.3 trillion. Further, the report argues that regulations can have other economic benefits that cannot be directly measured, such as betterment of the health of workers and children, which can improve productivity of the workers as well as lower the health care cost.

material misstatements; and (3) business risk of the auditor – the risk of incurring litigation costs and losing reputation due to alleged failure of audit (DeFond, Lim, and Zhang, 2016).

Theoretically, both the magnitude and likelihood of expected future losses from engaging with a client firm affects audit fees (Simunic, 1980). In other words, auditors mitigate their engagement risk by putting efforts, as reflected in audit fees, in correctly and timely identifying the business risks of the clients. This relationship between the clients' business risks and audit fees is well established in the literature (e.g., O' Keefe, Simunic, and Stein, 1994; Pratt and Stice, 1994; Bell, Landsman, and Shackleford, 2001; Lyon and Maher, 2005). In the context of our analysis, how environmental policy stringency could affect the clients' business risks should be the main concern of the auditors.

On the negative side, the absence of proper management of environmental risk due to negligence and the concern of cost reduction might lead to long lasting and financially draining disasters. Matsumara, Prakash, and Vera-Muñoz (2014) find that on average, a firm experiences a loss of $212,000 of its value for every additional thousand metric tons of carbon emissions. On the other hand, better environmental performance helps the firm to have better control over energy consumption, input costs, and efficient use and reuse of the resources (Taylor, 1992; Hart, 1997; Bansal and Roth, 2000; Buysse and Verbeke, 2003). Moreover, evidence suggests that firms performing better in the different areas of stakeholder management, including environment, have lower stock price crash risk (Kim, Li, and Li, 2014), idiosyncratic risk (Lee and Faff, 2009), and total risk (Jo and Na, 2012). Eventually, these firms tend to incur a low cost of capital (Sharfman and Fernando, 2008; Chava, 2014).[7]

[7] In a recent study within an international setting, El Ghoul, Guedhami, Kim, and Park (2018) investigate manufacturing firms in 30 countries for the period of 2002-2011 and find that the firms with better practices of environmental risk management tend to have a lower cost of equity. The evidence suggests that the investors perceive the environment-friendly firms as less risky and thus, require less risk premium.

Further, prior studies of CSR, where environmental performance is examined as one of the dimensions, find that socially responsible firms, compared to the firms that are less socially responsible, are associated with lower involvement in earnings manipulation (Kim, Park, and Bension, 2012), more transparent practices of financial reporting (Dhaliwal, Li, Tsang, & Yang, 2011; Dhaliwal, Radhakrishnan, Tsang, & Yang, 2012), and lower audit fees and lower likelihood of modified audit opinion (Du, Jian, Zeng, and Chang, 2018).

Overall, findings of prior studies unequivocally confirm that better environmental management is associated with a significant reduction in systematic risk and improvement in reporting quality, which should profoundly influence the auditors' assessment of the business risk of the clients.[8] Next, we move to discuss and hypothesize how stringent environmental regulation is supposed to influence the client firms' practices of environmental practices and thereby, influence the audit fees.

2.2. Potential impact of stringent environment policy on audit fees

Even though better environmental risk management lowers the systematic risk of the firms, managers are often reluctant to allocate resources in green policies for several reasons. First, investment in environmental policies does rarely align with the objective of shareholder profit maximization. Thus, managers tend to overlook such costly investment strategies at the expense of the welfare loss of non-shareholder stakeholders and loss of long-term benefits of the companies. Second, implementing a successful green policy inside a company is very costly but

[8] Other positive effects of better environmental performance that might not directly reduce the business risks but could indirectly affect the volatility of firm performances are: increase in the profitability of the firms (Hart and Ahuja, 1996; Nehrt, 1996; Russo and Fouts, 1997), decrease in cost and increase income (Ambec and Lanoie, 2008), increase in the value of a firm's intangible assets (Konar and Cohen, 2001), increase in market value (Klassen and McLaughlin, 1996), and improvement in financial performance (Clarkson, Li, Richardson, and Vasvari, 2011). Similarly, Dowell, Hart, and Yueng (2000) find that U.S. multinational firms that adopt a stringent global environment standard (rather than countries' local less stringent standards) have higher market values. In a comprehensive study, Guenster, Bauer, Derwell, and Koedijk (2011) find that better environmental performance tends to improve a firm's both accounting and market based measures of performance.

non-remunerative. It requires rigorous managerial efforts of redesigning and reorganizing the operations procedures, which are operationally complicated and challenging (e.g., Klassen and Whybark, 1999; King and Lenox, 2002; Marcus and Fremeth, 2009). Moreover, since such efforts are subjective and unverifiable (Berrone and Gomez-Mejia, 2009), managers run a high risk of not being fairly compensated. Third, another managerial concern of channeling resources towards environmental strategy is the potential loss of competitive advantage, since peer firms that invest capital in more immediate profit-oriented strategies could acquire a better market position.

We argue that stringent environmental regulations effectively address managerial concerns raised from the adoption of green policies. There are at least three benefits of government intervention in CSR practices (Williams and Aguilera, 2008): first and foremost, at the very top, it sets the social expectations about corporate responsibilities for the society, which applies to firms across all industries. Second, at a more granular level, it generates institutional actions taken by groups of stakeholders more closely related to the firms, such as local communities, institutional investors, which strongly incentivize the firms to comply with the regulations. Third, overall, government interventions in CSR policies sets the tone of national importance of socially responsible activities, which gets echoed and bolstered through initiatives undertaken by institutions from different spheres of a country.

Therefore, creating strong incentives for green policies through regulatory platforms, firms in countries with a stringent environmental policy are more likely to be better at environmental risk management. In addition to this, the managerial concern of potential loss of competitive advantages in an economy becomes invalid in the presence of regulations imposed by governments, since such rules are enforced by regulatory agencies that apply to all firms in similar

businesses within an economy and thereby, firms undertake green policies in a fair play environment.

Therefore, our hypothesis is –

H1: There would be a negative relationship between the stringency in environmental regulation and audit fees

However, strong regulations do not necessarily lead to the presupposed positive outcomes unless the rules are effectively practiced by the companies. Companies are highly likely to comply with regulations if there are both effective legal enforcement and public and private monitoring. We identify two channels, the legal regime as the public channel, and effective external monitoring as the private channel, which can make the firms highly incentivized to follow the government regulations. From the context of the legal regime, we can argue for a legal environment in which the non-shareholder stakeholders can exercise their rights would be more effective in implementing environmental regulations. Therefore, since common law is more oriented towards protecting the rights of a private citizen (La Porta et al., 1998), we further hypothesize that –

H1.1A. The negative relationship between the stringency of environment regulations and audit fees would be predominantly high in countries with common law tradition

H1.1B. The negative relationship between the stringency of environment regulations and audit fees would be predominantly high in countries with strong public enforcement agencies

H1.1C. The negative relationship between the stringency of environment regulations and audit fees would be predominantly high in countries with strong shareholder protection

Next, besides the effectiveness of legal regimes and public monitoring agencies, we argue that external monitoring of private institutions can also play as an effective mechanism in strongly

incentivizing the companies to comply with regulations. From this context, first, we recognize the role played by analysts following a company and hypothesize that –

H1.2A. Companies extensively followed by analysts would show a stronger negative relationship between stringent environmental regulations and audit fees

Another important group of external monitors we consider is the institutional shareholders, who have the incentive to scrutinize the activities of the firms (e.g., Grossman and Hart, 1980), and exert considerable influence on the decision making process of the firms in ensuring good governance (e.g., Brickley, Lease, and Smith, 1988; Jensen, 1993). So, our next hypothesis is –

H1.2B. Companies with high institutional ownership would show a stronger negative relationship between stringent environmental regulations and audit fees

Finally, we examine the direct channel through which stringent regulations are supposed to reduce systematic risk, which is better environmental risk management and green innovation. Thus, we hypothesize that –

H1.3. Companies with better environmental risk management and more green innovation would show a stronger negative relationship between stringent environmental regulations and audit fees

Note that our hypotheses are exposed to the alternative plausible view that strict environmental standards would rather create more potential liabilities both for the clients and the auditors. Usually the implementation of an environmental regulation comes with the plausible threat of financial penalties, liabilities, and legal actions against the violators (Stewart, 1993). Prior evidence suggests that environmental regulations are likely to reduce productivity through committing the firms to allocate resources for non-productive uses such as waste management,

environmental inspection and auditing, and litigation expenses and liabilities (Haveman and Christiansen, 1981; Gray and Shadbegian, 1995; Choi, Kim, Liu, and Simunic, 2008).[9]

3. Data and methodology

3.1 Data

Our final sample is derived from the intersection of several databases. We obtain environmental policy stringency index from the Organization for Economic Co-operation and Development (OECD) database and draw firms' accounting data and audit fees information from the Worldscope database. We obtain analyst coverage information from the Institutional Brokers Estimate System (I/B/E/S) database, institutional ownership information from Factset, and environmental scores from Thomson Reuters ASSET4. Country-specific characteristics are from La Porta et al. (1998, 2006) and the World Bank. Our final sample includes 123,322 firm-year observations from 26 countries over the period 2000-2012.

3.2. Measure of environmental policy stringency

The measure of environmental policy stringency index published by the OECD provides information on policy strength of each OECD country. Essentially, it uses aggregate information of environmental policies and comes up with a composite indicator that can capture relative stringency over time and across economies. More specifically, the database employs 15 different instruments of environmental policy, which are broadly categorized as Market Based (MB) and Non-Market Based (NMB), as can be observed in the figure of Appendix A. MB policies include

[9] Specific to environmental regulation, auditors are responsible for identifying risks associated with significant accrual of environmental remediation liabilities (ISA 240). In addition to that, auditors hold the responsibilities of ensuring the clients' compliance with environmental factors that could be fundamental to survival, to an operating procedure, and to the avoidance of incurring material liabilities due to a violation (ISA 250). Nonetheless, complexities associated with the tasks of ensuring that the client firms comply with the environmental regulation could require nontrivial amount of auditing effort.

taxes (CO2, SOx, NOx and Diesel), feed in tariffs (solar and wind), certificates (CO2, renewables energy, energy efficiency), and the application of deposit and refund scheme. NMB policies include government expenditure on R&D related to renewable energy and government restrictions on pollutants (NOx, SOx, particular matters and Sulphur content of diesel). In aggregates, the instruments capture both "Stick" type policies that make the pollution activities more costly, and "Carrot" type policies that incentivize the companies to be more environmentally friendly.

The final EPS score is the equally weighted average of MB and NMB policy instruments.[10] On a 0 to 6 scale, 6 indicates the highest level of stringency. Since the scoring process of EPS is based on sample distribution of each policy instruments across countries and over time, the final standardized score does not only show the policy strength of a country, it also captures a country's level stringency at a specific time related to other economies and other periods. In other words, the construction of EPS facilitates the comparison of the strength of country's policy both to its previous historical record and to the positions of other countries. Nonetheless, EPS is solely based on actual policies which makes it an appropriate measure in examining the impact of environmental policy.

For our empirical analysis, we construct two variables capturing the magnitude of environmental policy stringency utilizing the OECD-provided EPS score. First, we use the variable *Envdex_raw*, which represents the raw EPS score for each country-year observation. Second, we use *Envdex* as an alternative measure of EPS, which captures the long-run trends of policy stringency. Following Simintzi, Vig, and Volpin (2015), this alternative measure is calculated using a recursive method. Essentially, starting from $Envdex_{j,2000} = 0$, the EPS score for a country j in period t is:

[10] For a detail discussion on the methodology, please see Botta and Koźluk (2014).

$$Envdex_{j,t} = Envdex_{j,t-1} + R_{j,t} \quad (1)$$

where $R_{j,t}$=+1 if EPS increases in country j in year t, $R_{j,t}$=-1 if EPS decreases in country j in year t, and $R_{j,t}$=0 for no change. The objective of this alternative measure is to capture long run effects of policy stringency.

3.3. Control variables

To test our hypothesis, we consider *Ln(AuditFee)*, the natural logarithm of the value of audit fees, as the dependent variable. Following the extant audit literature, we consider a series of client firm, auditor, and country characteristics that are known to affect audit fees. We use the natural logarithm of the book value of total assets in US dollars (*Lnat*) to control for firm size; larger firms tend to be charged with higher audit fees (e.g., Simunic, 1980). As proxies for audit risk, we use the return on assets (*ROA*); the sum of inventories and receivables scaled by total assets (*Invrec*) and the market-to-book ratio (*MB*), which are also proxies for audit complexity; *Loss*, an indicator that equals 1 if the firm reports a net loss, and 0 otherwise; *Leverage*, the ratio of total liabilities to total assets; quick ratio (*Quick*), the ratio of current assets less inventories to current liabilities; current assets (*Current*), the ratio of current assets to total assets; and *Qualified*, an indicator variable that equals 1 if the firm receives qualified audit opinions, and 0 otherwise. Higher audit risk and higher audit complexity are associated with higher audit fees (e.g., Simunic, 1980; Seetharaman, Gul, and Lynn, 2002; Gosh and Pawlewicz, 2009; Kim, Liu, and Zheng, 2012; Lyon and Maher, 2015). We also use the percentage of total assets in foreign countries (*Foreign*) to quantify audit complexity (e.g., Simunic, 1980). We include the annual market share of the auditor (*Auditor_ms*) in an industry in the firm's home country. As a proxy for disclosure quality, we use *Analysts*, the natural logarithm of one plus the number of analysts following the firm.

Kim, Liu, and Zheng (2012) show that the adoption of the International Financial Reporting Standards (IFRS) impacts audit fees; we use an indicator variable (*IFRS)* that equals 1 for IFRS adopters, and 0 otherwise. We include an indicator variable (*Cross*) that equals to 1 if the firm is cross-listed in a foreign country, and 0 otherwise (Seetharaman, Gul, and Lynn, 2002; Choi, Kim, Liu, and Simunic, 2009; Kim, Liu, Zheng, 2012). We consider the Herfindahl-Hirschman Index (*HHI*) within each two-digit standard industry classification (SIC) code to control for concentration in the audit industry (Gosh and Pawlewicz, 2009). Following Choi et al. (2008, 2009), we use the natural logarithm of gross domestic product per capita in thousands of U.S. dollars (*GDP*) to control for standards of living across countries and for compensation differences that could impact audit fees. The definitions and data sources of all the variables are provided in Appendix B.

3.4. Research design

We exploit the passage of environment policy, captured by relative stringency index of EPS that varies across countries and over time, as a source of exogenous variation in the mechanism of environmental policy through which we can identify the causal effect of government policy on audit fees. Our baseline DID regression model is as follows:

$$y_{ijt} = \mu_i + \alpha_{ind*t} + \beta\, Envdex_{jt} + \gamma X_{ijt} + \epsilon_{ijt} \quad (2)$$

where *i* indexes firms, j indexes country where the firm *i* is headquartered, *ind* indexes industry, *t* indexes year, y_{ijt} is the audit fees, μ_i is firm fixed effects, α_{ind*t} is industry-year fixed effects, $Envdex_{jt}$ is the index of environmental policy stringency for country j in time t, X_{ijt} are control variables and ϵ_{ijt} is the error term.

An ideal way to examine the differential impact of policy changes on audit fees for firms in a country, such as Australia, is to compare the audit fees before and after policy changes. But

the problem with this approach is that other factors, such as a change in global trade environment, might drive the government incentive to changing policy. To remove the concern of confounding outcome created from the change in macro-environment, we select a country that did not experience any change in environmental policy stringency but absorbed the impact of change in trade factors, such as USA. For the firms in the USA, the audit fees differences before and after 2005 should capture the recessionary impacts on audit fees. Therefore, the difference in differential audit fees of firms in Australia before and after 2005 and differential audit fess of firms in USA should remove the common impact of recession and only capture the impact of changes in environmental policy.

Our treatment sample consists of firms in countries that experience a change in their environmental policy compared to the previous period, as revealed by the index of policy stringency. On the other hand, countries that do not go through any change in environmental policy from the previous period to current period would constitute the sample of control firms. To check the differential outcome in audit fees before and after one unit increase in environmental stringency in a treatment country, such as Australia -

$$E\left[y_{ij,t}|j = AU, t = 2005\right] - E\left[y_{ij,t-1}|j = AU, t-1 = 2004\right] = \alpha_{ind*t} - \alpha_{ind*t-1} + \beta \quad (3)$$

Next, for the same time-window, the following equation shows differential outcomes of dependent variable for firms in a country, such as US, which did not change its environmental policy from the previous period to current period –

$$E\left[y_{ij,t}|j = US, t = 2005\right] - E\left[y_{ij,t-1}|j = US, t-1 = 2004\right] = \alpha_{ind*t} - \alpha_{ind*t-1} \quad (4)$$

Now, after taking the difference of above two equations

$$\{E[y_{ij,t}|j = AU, t = 2005] - E[y_{ij,t-1}|j = AU, t - 1 = 2004]\} - \{E[y_{ij,t}|j = US, t = 2005] - E[y_{ij,t-1}|j = US, t - 1 = 2004]\} = \beta \quad (5)$$

In Equation (5), the first difference shows differential audit fees after one unit increase of environmental policy stringency, and the second equation shows the change in audit fees following no change in environmental policy. Therefore, the coefficient, β, captures the effect of policy changes on audit fees for the firms in countries that implement more stringent policy compared to the firms in countries that did not change in the level of policy stringency from year *t-1* to *t*.[11]

4. Empirical Results

4.1. Summary Statistics

Table 1 reports descriptive statistics for the variables used in our study. Throughout our analyses, all values are converted into the U.S. currency. On average, a typical firm is charged about U.S. $1.67 million for audit services. A typical firm has an average of about U.S. $2, 367 million in total assets. Foreign assets represent about 14% of total assets on average. An auditor's market share in a given country for a given year is on average more than 21%, illustrating that international audit markets are more diversified, unlike the U.S. audit market. On average, 19.5% of the sample firms adopted the IFRS accounting standards and 6.8% of them are cross-listed in a foreign country.

[Table 1 About Here]

Table 2 presents the distribution of the sample firms across countries. Among the 26 countries in this study, Australia, India, Japan, the United Kingdom, and the United States

[11] Note that an important identifying assumption in this empirical approach is that the trends of audits fees of firms in countries with changing environmental policy stringency should be similar to firms in countries without any change of policy stringency. Given this assumption, we can use the trend of outcome of interest in the no-change-of-policy countries as the counterfactual outcome in examining the causal effect of policy changes.

dominate the sample since each of these countries has more than 1,000 firms and more than 5,000 observations in the sample. According to the raw (modified) environmental policy stringency index, Brazil (Australia) has the least and South Korea (Ireland) has the most stringent environmental policy. Firms in Poland pay the lowest audit fees (U.S. $21,000 on average) and those in Sweden pay the highest audit fees (more than U.S. $23.5 million on average).

[Table 2 About Here]

Table 3 reports the Pearson correlations between the variables considered in this study. We present in bold the correlation coefficients that are statistically significant at least at the 10% level. The indicators of environmental policy stringency (*Envdex_raw* and *Envdex*) and the key control variables are measured in the year prior observing the audit fees. Both *Envdex_raw* and *Envdex* are positively correlated with *Ln(AuditFee)*, but the correlations are economically weak at 0.278 and 0.263, respectively. The positive correlation of 0.751 between *Ln(AuditFee)* and *Lnat* concurs with the finding in Simunic (1980) that auditors charge higher fees to larger firms. Audit fees are positively correlated with the number of analysts. Moreover, the positive coefficient of 0.706 between *Lnat* and *Analysts* indicates that larger firms are more likely to be followed by more analysts. The correlation coefficients between each of the two indicators of environmental policy stringency and the control variables are relatively small, suggesting no concern about multicollinearity.

[Table 3 About Here]

4.2 Baseline results

We consider the following baseline model and use OLS regressions to test our hypothesis:

$$Ln(AuditFee)_t = \alpha_0 + \beta_1 Envdex\_raw(\text{or } Envdex)_{t-1} + \sum \beta_n(X) + \sum (FE) + \varepsilon \quad (6)$$

In Equation (6), $Ln(AuditFee)_t$ is the log-transformed value of audit fees in year t. Our main explanatory variable is $Envdex\_raw_{t-1}$ or $Envdex_{t-1}$ to quantify the previous year environmental policy stringency. *Envdex_raw* is the raw environment policy stringency index from the OECD database. We closely imitate Simintzi, Vig, and Volpin (2015) to construct the modified index, *Envdex*, as described in Section 3. *X* represents the previous year firm- and country-level controls defined in Section 3. (FE) represents firm fixed effects and year-industry fixed effects to absorb the effects of unobservable time-invariant firm characteristics and unobservable time and industry characteristics, respectively. We cluster the standard errors at country level for all specifications since firms' audit fees might be jointly determined within the firms' respective countries.

[Table 4 About Here]

The DID regression results reported in Table 4 indicate that audit pricing is inversely related to environmental policy stringency. In Columns 2 and 4, with the firm- and country-level controls, the coefficients on *Envdex_raw* and *Envdex* are -0.122 and -0.039, and are statistically significant at the 1% and 5% level, respectively. That is, one unit increase in the prior year raw (modified) environment policy stringency index corresponds to approximately a 12% (3.9%) decrease in audit fees on average. These findings imply that firms tend to comply with/ the new policies, making the auditors' expected liability and audit effort lower, and thereby decreasing audit fees.

Turning to characteristics of client firm, auditor firm, and country, most of our findings are consistent with those of other audit pricing studies (e.g., Simunic, 1980; Lyon and Maher, 2005; Choi, Kim, Liu, and Simunic, 2009; Li, Simunic, and Ye, 2014). The positive coefficients of *lnat* indicate that larger client firms are charged higher audit fees. Auditors appear to consider firm performance and financial risk since they tend to charge lower fees to firms with higher *ROA* and

firms with higher liquidity ratio, and charge higher fees to firms reporting loss. Financial risk and the complexity of operations tend to lead to higher audit fees, as confirmed with the positive coefficients of *Invrec*, *Leverage*, and *Forat*. Firms followed by more analysts and served by more renowned auditors encountered higher audit fees. Firms in countries with higher GDP are charged with higher audit fees.

Further, the results show that the coefficients of IFRS are negative and statistically significant at the 5% level. This is consistent with the argument that IFRS as principle-based standards could be timelier in projecting economics events into financial statements (e.g., Dumontier and Raffournier, 1998; Alexander and Archer, 2001), provide effective guidelines to limit the managerial scope of choosing opportunistic accounting amounts and thus, lower the risk of misstatements (Barth, Landsman, and Lang, 2008), and the resulting improvement in financial reporting quality decreases audit fees (Kim, Liu, and Zheng, 2012).

4.3. Additional endogeneity tests

As we discussed above, although the staggered adoption of environmental policy stringency that takes place across countries at different magnitudes works as an exogenous shock to audit pricing, a concern could arise from the plausible relationship between country-level factors and the timing and magnitudes of stringent policy. Considering the fact that country characteristics could significantly influence audit fees (e.g., Choi et al., 2009; Jaggi and Low, 2009), such relationship could raise the issue of reverse causality if differential audit fees across countries directly or indirectly trigger the adoption of stringent policies.

Thus, to address the concern of reverse causality, we investigate the dynamic effects of environmental policy stringency on audit fees. Following Bertrand and Mullainathan (2003), we run dynamic regressions by replacing the single variables $Envdex\_raw_{t-1}$ and $Envdex_{t-1}$ in Equation

(2) with a series of five variables $Envdex\_raw_{t+n}$ and $Envdex_{t+n}$ (n = -2, -1, 0, 1, 2), respectively. For example, $Envdex\_raw_{t+1}$ represents the level policy stringency one year after the current year, whereas $Envdex\_raw_{t-2}$ shows the level policy stringency 2 years before the current year. From the context of reverse causality, the coefficients of $Envdex\_raw_{t+1}$ and $Envdex\_raw_{t+2}$ are important since they could show whether there is any relationship of audit fees with future changes in environmental policy. The results in Column (1) of Table 5 show the coefficients of $Envdex\_raw_{t+1}$, and $Envdex\_raw_{t+2}$ are economically small and not statistically significant. In contrast, those of $Envdex\_raw_{t-2}$ and $Envdex\_raw_{t}$, are negative and statistically significant, though the coefficient of $Envdex\_raw_{t-2}$ is higher in magnitude. We obtain similar results for Envdex in Column (2). The results mitigate the concerns of reverse causality.

[Table 5 About Here]

5. Channel tests

5.1. Country legal regimes

Since auditors minimize legal costs associated with audit failures, we cannot ignore the impact of a country's legal environment on the audit fees. Prior research documents a significant variation of legal risks borne by the auditors across the countries with different legal systems (e.g., Choi, Kim, Liu, and Simunic, 2008, 2009; Francis and Wang, 2008; Hope and Langli, 2010; Khurana and Raman, 2004; Seetharaman, Gul, and Lynn, 2002; Wingate, 1997). While we can readily appreciate the importance of legal rights in effective enforcement of a new policy, we cannot precisely infer the direction of its impact on the relationship between environmental policy stringency and audit fees. On the one hand, a strong legal environment should motivate the auditors to put more effort in avoiding of incurring higher legal costs and thus, charge higher audit fees. On the other hand, a strong legal foundation of a country can create incentive for the firms to

protect the interests of the stakeholders and thereby, minimize the auditors' concern of clients' motivation of not complying with new policy.

To examine how legal framework of a country could influence the impact of environmental policy stringency on audit fees, we include different measures of legal rights in our original empirical model and show the results in Table 6. In Columns (1) and (2), following La Porta et al. (1998), we include a dummy variable, *Law,* for the firms in countries with common law legal origin. La Porta et al. (2006) argue that the legal tradition of a country sets up the foundation of its legal rights and of its process through which the securities and corporates laws would be constructed.

According to the legal scholars, there are two broad classes of legal traditions, common law and civil or code law (David and Brierly, 1985). Prior research argues that compared to civil law, common law provides stronger investor protection since it is better at facilitating the private contracts and protecting the rights of private property (La Porta et al., 1998). Furthermore, Wingate (1997) argues that auditors are more legally exposed to their potential failure of identifying misreporting by clients in common law countries than in civil law countries. The results in Columns (1) and (2) show that the coefficient of the interaction terms between environmental policy stringency and *Law* is negative and statistically significant. It recognizes the important role a country's legal framework can play in implementing environmental policy. However, the legal tradition as a historical measure might fail to incorporate the recent changes in the legal rights. Therefore, we further examine our results using a recent measure introduced by La Porta et al. (2006), *Enforce*, an index which captures the aggregate measure of public enforcement. The results in Columns (3) and (4) of Table 6 imply that strong public enforcement of laws could intensify the environmental regulation effects on audit fees.

[Table 6 About Here]

5.2. External monitors

While legal institutions could potentially monitor and control excessive risk-taking activities of the firms, there are other key outside parties who can closely monitor day-to-day firm operations and can effectively curb corporate risky endeavors. Two such parties we think should be relevant to this study are the analysts and the institutional investors. Considering the non-trivial role the analysts and the institutional investors can play in influencing corporate policies, auditors should consider their potential involvement in facilitating the risk reduction activities of the firms following the strict environmental policies.

There is an extensive body of research recognizing the role of analysts as effective monitors (e.g., Jensen and Meckling, 1976; Schipper, 1991; Healy and Palepu, 2001; Knyazeva, 2007; Yu, 2008; Dyck, Morse, and Zingales, 2010).[12] Essentially, analysts are the key players in evaluating and disseminating public and private information and any potential threats underlying operational activities of the firms, and thereby, enforce managerial discipline on risky activities. Therefore, on the context of our analysis, we can predict that firms that are extensively monitored by the analysts should be more cautious and diligent in following the regulation imposed by the government, and thus, would experience a low pricing of audit. We examine this prediction by incorporating an interaction term between the environmental policy stringency and number of analysts following variables. In Columns (1) and (2) of Table 7, we interact the analysts following variable with the index of environmental policy stringency variable. The results show that the negative relationship

[12] As Healy and Palepu (2001) depicts, analysts gather information from both public and private sources, analyze financial statements, evaluate current performance, and assess future direction of the companies. Analysts' activities of uncovering and disseminating deep insights from public and private information make them very effective in monitoring. To their effectiveness, analysts' role are the key catalysts in discovering corporate fraudulent activities (Dyck et al., 2010).

between the strength of environmental regulations and audits fees become more pronounced when the firms are followed by a large number of analysts.

Furthermore, prior research shows that institutional investors have incentives for monitoring the governance of the firms since they tend to a have significantly high monitoring benefits with having a large ownership position of the firms (e.g., Grossman and Hart, 1980; Shleifer and Vishny, 1997). Nonetheless, institutional investors hold the power and mechanisms to intervene and participate in the corporate decision-making process in ensuring good governance (e.g., Brickley, Lease, and Smith, 1988; Jensen, 1993). Therefore, we further predict that firms under large institutional ownership should have strong incentive to comply with environmental policy and thus, would enjoy a low audit fee. The results in Columns (3) and (4) of Table 7 confirm that the decrease in audit fees is more pronounced for firms with larger institutional investor ownership.

[Table 7 About Here]

5.3. Environment-friendly corporate policy

We can argue that the environmental policy stringency, because of its anticipated various positive impacts on the business practices of the regulated entities, might reduce the auditors' perceived risks in dealing with their client firms. In fact, the purpose of a stringent environmental regulation is to incentivize the firms to adopt and invest in environment-friendly corporate policies (e.g.,Rosen, 2001; Ambec and Lanoie, 2008; Bénabou and Tirole, 2010). Therefore, how actively and innovatively the firms take initiatives in environment-friendly activities following the passage of strict environmental regulations could be the potential channel that reduces business risk of the client firms.

In other words, we can predict that the potential key channel through which environmental regulations should reduce the auditors' perceived risks is how the client-firms implement environmental-friendly policies. In the absence of firm-initiatives in response to the strong policies, we cannot convincingly argue that our results are driven by risk reduction initiatives by the client firms through implementing more eco-friendly solutions that lead to the lower audit fees. Therefore, as reported in Table 8, using different measures of econ-friendly initiatives of the firms, we examine whether there is any significant impact of environmental policy stringency on firm-level environmental performance. We posit that firms that comply with environmental standards would receive higher environmental pillar scores (*Environ_score*) and generate more green innovations measured with the number of environment-related patents (*LnGreenPatent*) and the number of environment-related citations (*LnGreenCitation*).

In Panel A of Table 8, we use environmental pillar scores from Thomson Reuters ASSET4, which capture performances in three eco-friendly initiatives of the firms: emission reduction, increase of resource efficiency, and product innovation.[13] The positive and statistically significant coefficients of Envdex_raw_{t-1} and Envdex_{t-1} of 0.045 and 0.009, respectively, indicate that more stringent policies tend to increase environmental pillar scores. In Panel B of Table 8, the coefficients of Envdex_raw_{t-1} are both positive but not statistically significant in Columns (3) and (5). The positive and statistically significant coefficients of Envdex_{t-1}, 0.005 and 0.009 in Columns (4) and (6) indicate that when firms comply with recent more stringent environmental policies, they generate more green patents and more green citations, respectively.

[13] More specifically, emission reduction score captures the extent of a firm's initiatives in decreasing emission in production and operational activities, resource efficiency measures a firm's capacity of reducing the use of resources and improving supply chain management through implementing more environment-friendly solutions, and product innovation measures how a firm's ability of creating new environmental technologies and solutions that can help customers improve their management of environmental costs and responsibilities.

[Table 8 About Here]

6. Conclusion

In this paper, we examine how stringent environmental policy affects the audit pricing. We argue that strong environmental regulations would create incentives for the firms to perform better in environmental risk management, and thereby, mitigate the business risks associated with environmental performance and influence audit fees. We find a significant negative association between a strictness in the environmental policy of a country and audit fees. Such relationship is more pronounced in the immediate period following the adoption of the stringent policy. Furthermore, the negative association stronger in common law countries, in countries with a higher level of public enforcement of regulations, and in countries with more protection of investors. Additionally, the audit fees following stringent environmental policy become predominantly lower for the firms followed by more analysts and firms with larger institutional ownership.

The results of our study have important implications for the policy makers. While prior evidence suggests that there are both advantages and disadvantages associated with the adoption of strong environmental regulations, our findings provide support for the argument that regulations create incentives for the firms to manage environmental risks more effectively.

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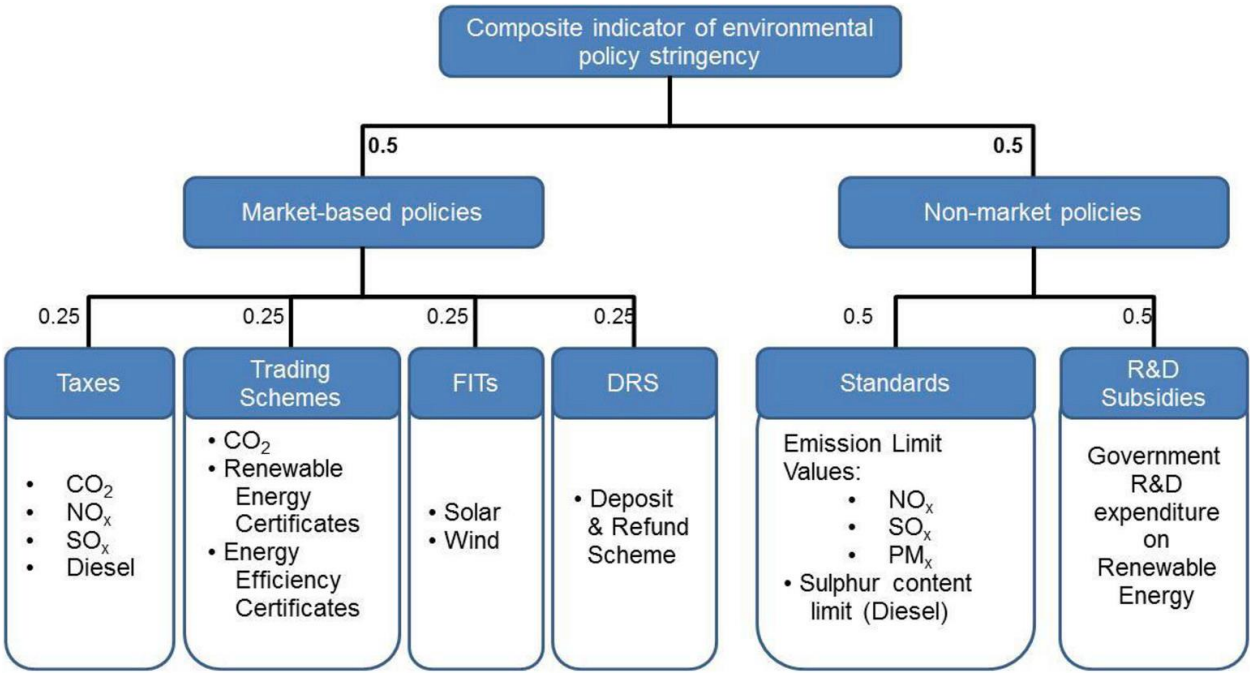
Appendix A: Components of environmental policy stringency index



Source: https://www.oecd.org/economy/greeneco/how-stringent-are-environmental-policies.htm

Appendix B Definitions of Variables and Data Sources

Variable	Definition	Data Source
Ln(AuditFee)	Natural log of audit fees in U.S. dollars;	Worldscope
Envdex_raw	Environmental policy stringency index. Environmental policy stringency is defined as policy-induced cost of polluting by firms across different sectors and policy instruments. A higher values represents a more stringent policy;	OECD
Envdex	Environmental policy stringency indicator computed following Simintzi, Vig and Volpin's (2015) construction of their Employment Protection Legislation (EPL) indicator.	OECD
Lnat	Natural log of year-end total assets in U.S. dollars;	Worldscope
ROA	Ratio of net income to total assets;	Worldscope
Invrec	Sum of inventories and receivables divided by total assets;	Worldscope
MB	Year-end market-to-book ratio, defined as firm market value divided by the common shareholder equity;	Worldscope
Loss	An indicator that equals 1 when a firm reports a net loss, and 0 otherwise;	Worldscope
Leverage	Ratio of year-end total liabilities to total assets;	Worldscope
Quick	Quick ratio, defined as the ratio of current assets less inventories to current liabilities;	Worldscope
Current	Current ratio, defined as the ratio of current assets to total assets;	Worldscope
Qualified	An indicator that equals 1 if the firm receives qualified opinions, and 0 otherwise;	Worldscope
Forat	The percentage of total assets in foreign countries;	Worldscope
Auditor_ms	Annual market share of an auditor in an industry in the home country;	Worldscope
Analyst	Natural log of (1+number of analyst following in a year);	I/B/E/S
IFRS	An indicator that equals 1 for IFRS adopters and 0 otherwise;	Worldscope
Cross	An indicator that equals 1 when a firm is cross-listed in a foreign country, and 0 otherwise;	Worldscope
HHI	Herfindahl Index within each two-digit standard industry classification (SIC) code;	Worldscope
GDP	Natural log of gross domestic product per capita in thousands of U.S. dollars;	The World Bank
Law	An indicator that equals 1 for countries with a common law legal tradition and 0 for countries with a civil law tradition;	La Porta et al. (1998)
Enforce	Aggregate measure of public enforcement, equal to the arithmetic mean of (1) the supervisor characteristics index, (2) the rule-making power index, (3) the investigative powers index, (4) the orders index, and (5) the criminal index;	La Porta et al. (2006)
Share_protect	Principal component of disclosure, liability standards, and Anti-director rights;	La Porta et al. (2006)
IO	Annual ownership by institutional investors;	Factset
Environment Score	Environmental pillar scores	Thomson Reuters ASSET4
Ln(Green Patent)	Natural log of (1+count of a firm's number of green patents);	Patent Network Dataverse
Ln(Green Citation)	Natural log of (1+count a firm's number of green patent cites);	Patent Network Dataverse

Table 1 Descriptive Statistics

This table presents descriptive statistics of the sample of 123,322 firm-year observations for 13 years (2000 to 2012) across the 26 countries listed in Table 2. Detailed definitions of the variables are in Appendix A.

Variables	Mean	Median	Std.	p25	P75	Min.	Max.
AuditFee (Million US $)	1.661	0.343	4.106	0.087	1.219	0.002	29.156
Envdex_raw	1.661	1.692	0.801	0.963	2.229	0.479	3.650
Envdex	3.660	4.000	2.548	2.000	6.000	-2.000	11.000
Assets (Million US $)	2366.750	193.227	7311.480	33.694	1040.250	0.116	51763.460
ROA	-0.169	0.060	1.172	-0.026	0.114	-10.510	0.440
Invrec	0.291	0.269	0.211	0.111	0.434	0.000	0.870
MB	2.439	1.624	6.047	0.837	3.040	-24.188	36.081
Loss	0.290	0.000	0.454	0.000	1.000	0.000	1.000
Leverage	0.293	0.195	0.535	0.036	0.361	0.000	4.735
Quick	1.998	1.000	3.738	0.621	1.752	0.003	30.663
Current	2.597	1.545	3.986	1.057	2.508	0.007	32.841
Qualified	0.082	0.000	0.274	0.000	0.000	0.000	1.000
Forat	0.136	0.000	0.235	0.000	0.179	0.000	0.997
Auditor_ms	0.211	0.100	0.271	0.007	0.304	0.000	1.000
Analyst	1.806	1.792	1.618	0.000	3.258	0.000	5.595
IFRS	0.195	0.000	0.396	0.000	0.000	0.000	1.000
Cross	0.068	0.000	0.251	0.000	0.000	0.000	1.000
HHI	0.167	0.085	0.196	0.038	0.217	0.015	1.000
GDP	8.100	7.908	1.301	7.179	9.415	3.817	13.148

Table 2 Sample Distribution by Country

This table presents the distribution of the sample firms, environmental policy stringency measures, and audit pricing in US dollars across 26 countries. For each country, *Envdex_raw* and *Envdex* represent the averages of the two measures of environmental policy stringency, respectively, and *AuditFee* is the average audit fees. Detailed definitions of the variables are in Appendix A.

Country Name	*# Obs.*	*# Firms*	*Envdex_raw*	*Envdex*	*AuditFee (Million US $)*
Australia	6,242	1,223	1.171	-1	4.400
Austria	110	44	3.329	5	1.761
Belgium	188	52	2.138	4	3.712
Brazil	30	16	0.479	0	4.843
Canada	2,991	847	1.917	1	0.033
China	2,625	660	0.521	3	9.680
Denmark	388	76	3.650	5	0.083
Finland	397	88	3.213	5	3.494
France	852	275	2.896	9	0.453
Germany	1,426	360	3.017	3	12.579
Greece	29	14	2.083	4	1.165
India	10,157	1,958	0.604	2	0.182
Ireland	625	103	2.433	11	6.894
Italy	471	148	2.842	9	8.350
Japan	5,171	1,337	2.025	7	0.301
Netherlands	364	103	3.229	2	0.365
Norway	446	123	1.879	2	6.701
Poland	138	62	3.375	9	0.021
Portugal	79	21	2.263	3	3.463
South Africa	1,126	203	1.817	1	0.759
South Korea	83	79	3.438	10	0.122
Spain	439	107	2.963	10	10.636
Sweden	900	179	3.233	4	23.503
Switzerland	780	165	2.604	2	2.400
United Kingdom	12,663	2,171	0.813	0	1.321
United States	27,613	5,968	2.279	7	2.845
Total	76,333	16,382			

Table 3 Correlation Matrix

This table presents Pearson correlation coefficients. Coefficients in bold are statistically significant at least at the 10% level. Detailed definitions of the variables are in Appendix A.

	(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*	*(7)*	*(8)*	*(9)*	*(10)*	*(11)*	*(12)*	*(13)*	*(14)*	*(15)*	*(16)*	*(17)*	*(18)*	*(19)*
(1)Ln(AuditFee)$_t$	1.000																		
(2)Envdex_raw$_{t-1}$	**0.278**	1.000																	
(3)Envdex$_{t-1}$	**0.263**	**0.619**	1.000																
(4)Lnat	**0.751**	**0.120**	**0.112**	1.000															
(5)ROA	**0.181**	**-0.045**	**-0.088**	**0.477**	1.000														
(6)Invrec	**-0.105**	**-0.111**	**-0.074**	**-0.029**	**0.140**	1.000													
(7)MB	**0.055**	**-0.032**	**-0.045**	**0.048**	**0.151**	**-0.030**	1.000												
(8)Loss	**-0.199**	**0.085**	**0.062**	**-0.439**	**-0.370**	**-0.232**	**-0.017**	1.000											
(9)Leverage	**-0.115**	-0.005	**0.067**	**-0.266**	**-0.576**	**-0.051**	**-0.182**	**0.160**	1.000										
(10)Quick	**-0.127**	**0.045**	**-0.015**	**-0.157**	**0.024**	**-0.225**	**0.071**	**0.208**	**-0.170**	1.000									
(11)Current	**-0.133**	**0.034**	**-0.014**	**-0.147**	**0.045**	**-0.154**	**0.064**	**0.178**	**-0.186**	**0.976**	1.000								
(12)Qualified	**-0.211**	0.002	**0.050**	**-0.393**	**-0.427**	**-0.101**	**-0.080**	**0.293**	**0.353**	**-0.018**	**-0.036**	1.000							
(13)Forat	**0.309**	**0.247**	-0.003	**0.245**	**0.079**	**-0.041**	**0.013**	**-0.034**	**-0.071**	**-0.014**	**-0.022**	**-0.063**	1.000						
(14)Auditor_ms	**0.448**	**0.169**	-0.005	**0.439**	**0.138**	**-0.030**	**0.021**	**-0.181**	**-0.077**	**-0.076**	**-0.080**	**-0.152**	**0.234**	1.000					
(15)Analyst	**0.682**	**0.202**	**0.144**	**0.706**	**0.207**	**-0.093**	**0.069**	**-0.280**	**-0.134**	**-0.105**	**-0.103**	**-0.245**	**0.224**	**0.370**	1.000				
(16)IFRS	**0.128**	**0.500**	**0.097**	**0.110**	**0.059**	**-0.033**	**0.010**	**-0.012**	**-0.077**	**0.031**	**0.016**	**-0.045**	**0.335**	**0.210**	**0.121**	1.000			
(17)Cross	**0.225**	**0.018**	**-0.068**	**0.261**	**0.047**	**-0.063**	**0.017**	**-0.062**	**-0.010**	**-0.021**	**-0.025**	**-0.041**	**0.174**	**0.185**	**0.179**	**0.060**	1.000		
(18)HHI	**0.041**	**0.198**	**-0.135**	**0.082**	**0.071**	**-0.029**	**0.009**	**-0.044**	**-0.063**	0.004	-0.003	**-0.049**	**0.239**	**0.370**	**0.103**	**0.405**	**0.067**	1.000	
(19)GDP	**0.227**	**0.079**	**0.584**	**-0.009**	**-0.144**	**-0.121**	**-0.019**	**0.130**	**0.099**	**0.031**	**0.038**	**0.111**	**-0.197**	**-0.217**	**0.045**	**-0.333**	**-0.125**	**-0.453**	1.000

Table 4 Environmental Policy Stringency and Audit Pricing

This table presents the results from OLS regressions of $Ln(AuditFee)_t$, the natural logarithm of *AuditFee*, on two measures of previous year environmental policy stringency, $Envdex\_raw_{t-1}$ and $Envdex_{t-1}$, respectively. We control for previous year firm and country variables that may affect audit fees. Detailed definitions of the variables are in Appendix A. We include firm and year-industry fixed effects in the regressions. The numbers in parentheses are *t*-statistics calculated using standards errors clustered at the country level. The symbols ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

	(1)	(2)	(3)	(4)
	Dependent variable: $Ln(AuditFee)_t$			
$Envdex\_raw_{t-1}$	-0.210***	-0.122***		
	(-3.86)	(-4.76)		
$Envdex_{t-1}$			-0.068**	-0.039**
			(-2.75)	(-2.28)
Lnat		0.318***		0.318***
		(6.44)		(6.41)
ROA		-0.082***		-0.082***
		(-4.98)		(-4.93)
Invrec		0.238**		0.239**
		(2.57)		(2.59)
MB		0.001		0.001
		(1.35)		(1.38)
Loss		-0.008		-0.007
		(-1.25)		(-1.00)
Leverage		0.040***		0.040***
		(4.94)		(4.88)
Quick		-0.005**		-0.006**
		(-2.19)		(-2.25)
Current		-0.005		-0.005
		(-1.58)		(-1.52)
Qualified		-0.017*		-0.019**
		(-1.98)		(-2.20)
Forat		0.088**		0.085**
		(2.68)		(2.68)
Auditor_ms		0.221***		0.222***
		(3.38)		(3.36)
Analyst		0.033***		0.033***
		(5.20)		(5.07)
IFRS		-0.124**		-0.129**
		(-2.61)		(-2.42)
Cross		0.072		0.067
		(0.80)		(0.74)
HHI		-0.105		-0.112
		(-1.03)		(-1.07)
GDP		0.300***		0.289***
		(4.15)		(3.79)
Firm FE	YES	YES	YES	YES
Year × Industry FE	YES	YES	YES	YES
Country Clustering	YES	YES	YES	YES
Observations	123,322	73,710	123,322	73,710
Adj. R-squared	0.913	0.943	0.913	0.943

Table 5
Dynamic Analyses of the Relation between Environmental Policy Stringency and Audit Pricing

This table presents the results from dynamic regressions of $Ln(AuditFee)_t$, the natural logarithm of *AuditFee*, on two measures of environmental policy stringency, *Envdex_raw* and *Envdex*, respectively. We include the past two years and following two years environmental policy stringency levels with the contemporaneous environmental policy stringency level in the regressions. We control for previous year firm and country variables that may affect audit fees. Detailed definitions of the variables are in Appendix A. We include firm and year-industry fixed effects in the regressions. The numbers in parentheses are *t*-statistics calculated using standards errors clustered at the country level. The symbols ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

	(1)	(2)
	Dependent variable: $Ln(AuditFee)_t$	
$Envdex\_raw_{t+2}$	0.033	
	(0.58)	
$Envdex\_raw_{t+1}$	-0.023	
	(-0.71)	
$Envdex\_raw_t$	-0.093**	
	(-2.62)	
$Envdex\_raw_{t-1}$	0.013	
	(0.39)	
$Envdex\_raw_{t-2}$	-0.119**	
	(-2.20)	
$Envdex_{t+2}$		0.012
		(0.72)
$Envdex_{t+1}$		0.006
		(0.66)
$Envdex_t$		-0.032**
		(-2.54)
$Envdex_{t-1}$		0.000
		(0.01)
$Envdex_{t-2}$		-0.048**
		(-2.29)
Lnat	0.360***	0.360***
	(5.82)	(5.82)
ROA	-0.092***	-0.092***
	(-3.93)	(-3.91)
Invrec	0.171*	0.161*
	(2.02)	(1.99)
MB	-0.001***	-0.001***
	(-3.29)	(-3.16)
Loss	0.058***	0.057***
	(3.60)	(3.46)
Leverage	0.060***	0.059***
	(3.42)	(3.48)
Quick	-0.004	-0.003
	(-0.77)	(-0.67)
Current	-0.011**	-0.011**
	(-2.64)	(-2.62)
Qualified	0.013	0.010
	(0.96)	(0.58)
Forat	0.170***	0.173***
	(4.53)	(4.97)
Auditor_ms	0.766***	0.767***

	(3.95)	(3.95)
Analyst	0.034***	0.034***
	(3.03)	(3.00)
IFRS	-0.100**	-0.091*
	(-2.11)	(-1.97)
Cross	-0.010	-0.009
	(-0.20)	(-0.19)
HHI	-0.201*	-0.211
	(-1.87)	(-1.67)
GDP	0.443***	0.487***
	(5.06)	(5.45)
Firm FE	YES	YES
Year*Industry FE	YES	YES
Country Clustering	YES	YES
Observations	59,692	59,692
Adj. R-squared	0.925	0.925

Table 6 Country legal regimes

This table presents the results from OLS regressions of $Ln(AuditFee)_t$, the natural logarithm of *AuditFee*, on two measures of previous year environmental policy stringency, $Envdex\_raw_{t-1}$ and $Envdex_{t-1}$, respectively, by country's legal origins (*Law* = 1 if the country is with common law legal origin and 0 if with civil law legal origin), level of public enforcement of regulations (*Enforce* is an aggregate measure of public enforcement), and investor protection (*Share_protect* ranges from 0 to 10, with 10 representing the highest protection). We control for previous year firm and country variables that may affect audit fees. Detailed definitions of the variables are in Appendix A. We include firm and year-industry fixed effects in the regressions. The numbers in parentheses are *t*-statistics calculated using standards errors clustered at the country level. The symbols ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)
	Dependent variable: $Ln(AuditFee)_t$					
$Envdex\_raw_{t-1}$× *Law*	-0.188**					
	(-2.61)					
$Envdex_{t-1}$× *Law*		-0.117***				
		(-3.41)				
$Envdex\_raw_{t-1}$× *Enforce*			-0.263**			
			(-2.11)			
$Envdex_{t-1}$× *Enforce*				-0.149***		
				(-2.96)		
$Envdex\_raw_{t-1}$× *Share_protect*					-0.251*	
					(-1.79)	
$Envdex_{t-1}$× *Share_protect*						-0.144**
						(-2.39)
$Envdex\_raw_{t-1}$	-0.153***		0.048		0.068	
	(-5.90)		(0.58)		(0.60)	
$Envdex_{t-1}$		-0.068***		0.053		0.067
		(-7.37)		(1.51)		(1.25)
Lnat	0.317***	0.316***	0.319***	0.318***	0.319***	0.318***
	(6.44)	(6.41)	(6.27)	(6.22)	(6.27)	(6.23)
ROA	-0.082***	-0.082***	-0.081***	-0.082***	-0.081***	-0.082***
	(-4.96)	(-4.93)	(-4.98)	(-4.93)	(-4.98)	(-4.93)
Invrec	0.245**	0.250**	0.269**	0.271**	0.266**	0.268**
	(2.67)	(2.74)	(2.66)	(2.66)	(2.64)	(2.64)
MB	0.001	0.001	0.001	0.001	0.001	0.001
	(1.34)	(1.37)	(1.36)	(1.44)	(1.36)	(1.43)
Loss	-0.009	-0.009	-0.009	-0.009	-0.009	-0.008
	(-1.38)	(-1.54)	(-1.37)	(-1.48)	(-1.42)	(-1.34)
Leverage	0.040***	0.040***	0.041***	0.041***	0.041***	0.042***
	(4.92)	(4.91)	(4.72)	(4.66)	(4.72)	(4.63)
Quick	-0.005**	-0.005**	-0.005**	-0.005**	-0.005**	-0.005**
	(-2.22)	(-2.35)	(-2.11)	(-2.27)	(-2.13)	(-2.25)
Current	-0.005	-0.005	-0.006*	-0.006**	-0.006*	-0.005*
	(-1.60)	(-1.63)	(-1.98)	(-2.10)	(-1.85)	(-1.86)
Qualified	-0.016*	-0.017*	-0.012	-0.014*	-0.012	-0.014*
	(-1.87)	(-2.04)	(-1.62)	(-2.03)	(-1.64)	(-1.93)
Forat	0.099***	0.096***	0.089**	0.081**	0.090**	0.081**

	(2.90)	(2.87)	(2.73)	(2.55)	(2.78)	(2.61)
Auditor_ms	0.227***	0.230***	0.222***	0.223***	0.222***	0.223***
	(3.45)	(3.44)	(3.30)	(3.26)	(3.28)	(3.23)
Analyst	0.034***	0.034***	0.037***	0.036***	0.037***	0.036***
	(5.62)	(5.78)	(7.15)	(6.61)	(7.15)	(6.68)
IFRS	-0.129***	-0.134**	-0.172***	-0.186***	-0.179***	-0.199***
	(-2.96)	(-2.66)	(-3.64)	(-3.09)	(-4.02)	(-3.61)
Cross	0.071	0.063	0.060	0.052	0.062	0.055
	(0.80)	(0.72)	(0.70)	(0.60)	(0.72)	(0.63)
HHI	-0.101	-0.093	-0.087	-0.087	-0.096	-0.101
	(-1.08)	(-1.02)	(-1.01)	(-1.08)	(-1.12)	(-1.22)
GDP	0.285***	0.211***	0.352***	0.286***	0.341***	0.278***
	(4.30)	(3.81)	(7.14)	(5.20)	(6.86)	(5.63)
Firm FE	YES	YES	YES	YES	YES	YES
Year × Industry FE	YES	YES	YES	YES	YES	YES
Country Clustering	YES	YES	YES	YES	YES	YES
Observations	73,710	73,710	71,089	71,089	71,089	71,089
Adj. R-squared	0.943	0.943	0.944	0.944	0.944	0.944

Table 7 External monitors

This table presents the results from OLS regressions of $Ln(AuditFee)_t$, the natural logarithm of *AuditFee*, on two measures of previous year environmental policy stringency, $Envdex\_raw_{t-1}$ and $Envdex_{t-1}$, respectively, by firm's number of analysts ($Analyst_{t-1}$ is the natural logarithm of 1 plus the number of analysts following the firm in the previous year) and annual institutional investors' ownership (IO_{t-1} is the previous year institutional investors' ownership). We control for previous year firm and country variables that may affect audit fees. Detailed definitions of the variables are in Appendix A. We include firm and year-industry fixed effects in the regressions. The numbers in parentheses are *t*-statistics calculated using standards errors clustered at the country level. The symbols ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

	(1)	(2)	(3)	(4)
	Dependent variable: $Ln(AuditFee)_t$			
$Envdex\_raw_{t-1} \times Analyst_{t-1}$	-0.015**			
	(-2.44)			
$Envdex_{t-1} \times Analyst_{t-1}$		-0.006***		
		(-2.80)		
$Envdex\_raw_{t-1} \times IO_{t-1}$			-0.102**	
			(-2.51)	
$Envdex_{t-1} \times IO_{t-1}$				-0.039*
				(-1.96)
$Envdex\_raw_{t-1}$	-0.091***		-0.097***	
	(-2.98)		(-3.17)	
$Envdex_{t-1}$		-0.026		-0.030
		(-1.37)		(-1.43)
IO			0.186***	0.182*
			(2.91)	(1.92)
Lnat	0.319***	0.318***	0.319***	0.318***
	(6.47)	(6.44)	(6.39)	(6.36)
ROA	-0.082***	-0.082***	-0.082***	-0.082***
	(-4.99)	(-4.94)	(-4.96)	(-4.90)
Invrec	0.237**	0.236**	0.238**	0.239**
	(2.56)	(2.56)	(2.60)	(2.60)
MB	0.001	0.001	0.001	0.001
	(1.37)	(1.35)	(1.42)	(1.44)
Loss	-0.007	-0.005	-0.007	-0.006
	(-1.08)	(-0.77)	(-1.12)	(-0.82)
Leverage	0.039***	0.039***	0.039***	0.039***
	(4.84)	(4.74)	(4.65)	(4.60)
Quick	-0.005**	-0.005**	-0.005*	-0.005**
	(-2.11)	(-2.09)	(-2.04)	(-2.17)
Current	-0.005	-0.005	-0.005	-0.005
	(-1.57)	(-1.54)	(-1.60)	(-1.54)
Qualified	-0.017*	-0.019**	-0.017*	-0.019**
	(-1.97)	(-2.20)	(-1.94)	(-2.19)
Forat	0.089**	0.088**	0.089**	0.086**
	(2.71)	(2.76)	(2.70)	(2.68)
Auditor_ms	0.221***	0.222***	0.222***	0.222***

	(3.37)	(3.36)	(3.42)	(3.39)
Analyst	0.056***	0.053***	0.032***	0.032***
	(3.73)	(3.60)	(5.34)	(5.26)
IFRS	-0.120**	-0.129**	-0.140***	-0.150***
	(-2.52)	(-2.51)	(-3.12)	(-2.96)
Cross	0.072	0.068	0.068	0.063
	(0.81)	(0.76)	(0.77)	(0.71)
HHI	-0.105	-0.112	-0.109	-0.120
	(-1.04)	(-1.10)	(-1.11)	(-1.20)
GDP	0.285***	0.280***	0.279***	0.271***
	(4.01)	(3.67)	(3.87)	(3.69)
Firm FE	YES	YES	YES	YES
Year × Industry FE	YES	YES	YES	YES
Country Clustering	YES	YES	YES	YES
Observations	73,710	73,710	73,710	73,710
Adj. R-squared	0.943	0.943	0.943	0.943

Table 8 Environment-friendly corporate policy

This table presents the results from OLS regressions of different measures of firm-specific environmental performance on two measures of previous year environmental policy stringency, Envdex_rawt-1 and Envdext-1, respectively. The dependent variable in Panel A is "Environmental Pillar Scores," which captures performances in three eco-friendly initiatives of the firms: emission reduction, increase of resource efficiency, and product innovation. In Panel B, the dependent variable for Columns (3) and (4) is natural logarithm of the number of environment-related patents, and the dependent variable for Columns (5) and (6) is natural logarithm of the number of environment-related citations. We control for previous year firm and country variables that may affect environmental performances. Detailed definitions of the variables are in Appendix A. We include firm and year-industry fixed effects in the regressions. The numbers in parentheses are t-statistics calculated using standards errors clustered at the country level. The symbols ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

	Panel A Environmental Pillar Scores		Panel B Green Innovation			
	(1)	(2)	(3)	(4)	(5)	(6)
	Environment Score$_t$		*Ln(Green Patent)*$_t$		*Ln(Green Citation)*$_t$	
Envdex_raw$_{t+2}$	0.010		-0.005		-0.022***	
	(1.03)		(-1.05)		(-3.85)	
Envdex_raw$_{t+1}$	0.007		-0.002		-0.008**	
	(1.30)		(-0.89)		(-2.25)	
Envdex_raw$_t$	0.004		-0.003		-0.005	
	(0.54)		(-1.15)		(-0.89)	
Envdex_raw$_{t-1}$	0.045***		0.001		0.010	
	(5.08)		(0.29)		(1.15)	
Envdex_raw$_{t-2}$	0.000		0.006*		0.025***	
	(0.02)		(1.84)		(3.12)	
Envdex$_{t+2}$		-0.002		-0.004**		-0.017***
		(-0.27)		(-2.11)		(-5.76)
Envdex$_{t+1}$		-0.003		0.001		0.002
		(-0.59)		(0.54)		(0.98)
Envdex$_t$		0.007		-0.002*		-0.001
		(1.51)		(-1.95)		(-0.96)
Envdex$_{t-1}$		0.009**		0.005*		0.009**
		(2.17)		(1.95)		(2.74)
Envdex$_{t-2}$		-0.003		0.000		0.005**
		(-0.54)		(0.30)		(2.28)
Lnat	0.064***	0.064***	0.006	0.006	0.004	0.004
	(3.56)	(3.64)	(1.36)	(1.37)	(0.80)	(0.81)
ROA	0.037	0.037	-0.003**	-0.003**	-0.002	-0.002
	(1.28)	(1.27)	(-2.47)	(-2.51)	(-1.66)	(-1.50)
Invrec	-0.063	-0.060	-0.019**	-0.018**	-0.024***	-0.022***
	(-0.82)	(-0.81)	(-2.33)	(-2.27)	(-3.94)	(-4.11)
MB	0.001***	0.001***	0.000	0.000	-0.000	-0.000
	(3.07)	(3.18)	(1.13)	(1.13)	(-0.96)	(-0.97)
Loss	0.005	0.005	-0.001	-0.001	0.002	0.002
	(0.37)	(0.39)	(-0.92)	(-0.85)	(0.90)	(0.95)
Leverage	0.035	0.034	-0.000	-0.000	0.006	0.006

	(0.85)	(0.81)	(-0.13)	(-0.16)	(1.64)	(1.61)
Quick	0.018**	0.017**	-0.001	-0.001	0.002	0.002
	(2.70)	(2.41)	(-0.63)	(-0.65)	(1.21)	(1.17)
Current	-0.017**	-0.017**	0.001	0.001	-0.001	-0.001
	(-2.75)	(-2.47)	(1.11)	(1.16)	(-0.55)	(-0.49)
Qualified	-0.001	-0.001	-0.005	-0.005	-0.014**	-0.013**
	(-0.07)	(-0.05)	(-1.45)	(-1.39)	(-2.40)	(-2.22)
Forat	0.009	0.010	-0.019	-0.020	-0.018	-0.021
	(0.58)	(0.61)	(-1.03)	(-1.11)	(-0.75)	(-0.84)
Auditor_ms	-0.003	-0.004	0.002	0.002	0.009	0.008
	(-0.31)	(-0.34)	(0.53)	(0.47)	(1.17)	(1.06)
Analyst	0.012	0.011	0.003**	0.002**	0.010*	0.009*
	(1.26)	(1.19)	(2.78)	(2.53)	(2.04)	(1.93)
IFRS	-0.022	-0.023	0.001	0.002	0.015**	0.021**
	(-1.22)	(-1.22)	(0.28)	(0.28)	(2.21)	(2.24)
Cross	-0.073	-0.076	0.021*	0.020	0.017	0.015
	(-1.46)	(-1.53)	(1.77)	(1.63)	(1.33)	(1.14)
HHI	-0.087	-0.097*	-0.018	-0.016	-0.050***	-0.045**
	(-1.62)	(-1.76)	(-1.60)	(-1.32)	(-3.16)	(-2.26)
GDP	-0.033	-0.046	0.049***	0.044***	0.177***	0.162***
	(-0.52)	(-0.71)	(3.01)	(3.20)	(5.85)	(7.91)
Firm FE	YES	YES	YES	YES	YES	YES
Year × Industry FE	YES	YES	YES	YES	YES	YES
Country Clustering	YES	YES	YES	YES	YES	YES
Observations	5,436	5,436	37,632	37,632	37,632	37,632
Adj. R-squared	0.797	0.796	0.835	0.835	0.512	0.512