The toxic triangle of state, stake, and institution:

Sovereign wealth fund ownership and firm ESG reputation risk

Hisham Farag
Department of Finance, Birmingham Business School, University of Birmingham, Edgbaston,
Birmingham, B15 2TT, UK
h.farag@bham.ac.uk

Andrew Marshall*

Department of Accounting and Finance, University of Strathclyde, Glasgow, UK, G4 0QU, UK a.marshall@strath.ac.uk

Biwesh Neupane
Department of Finance, Birmingham Business School, University of Birmingham, Edgbaston,
Birmingham, B15 2TT, UK
b.neupane@bham.ac.uk

Santosh Koirala
Department of Finance, Birmingham Business School, University of Birmingham, Edgbaston,
Birmingham, B15 2TT, UK
s.koirala@bham.ac.uk

* Corresponding author

We would like to thank Anna Grossman, Chandra Thapa, Patrick McColgan, and Tiago Loncan for their helpful comments. We also thank seminar participants at the IFABS Conference 2023, University of Strathclyde, and Durham University. We are also thankful to Donald Campbell for invaluable research assistance.

The toxic triangle of state, stake, and institution:

Sovereign wealth fund ownership and firm ESG reputation risk

Abstract

We track the ownership stake of 68 leading Sovereign Wealth Funds (SWF, henceforth) in the

sample of listed companies of 80 countries and document a strong positive association between

SWF ownership and ESG reputation risk. The results highlight that state expropriation risk and

political preoccupation associated with SWF may be detrimental to an investee firm reputation.

Our enquiry on the moderating role of institutions reveals the existence of toxic triangle of the state

(SWF), the stake (higher SWF ownership) and the institutional distance between SWF and investee

firms. We show that proximal formal and informal institutions mitigate the reputation risk

stemming from the toxic triangle associated with SWF ownership. The increase in reputation risk

is corroborated by deterioration of firm operating and market-based performance associated with

SWF ownership. We maintain firm reputation risk could be an important component of the "SWF

discounts" which are generally recognised in the investment literature.

JEL Classification: F64, G11, G15, G32, G38, Q01

Keywords: sovereign wealth fund; institutional ownership; reputation risk; environmental,

social, and governance; firm outcomes

2

1 INTRODUCTION

The role of institutional investors in corporate monitoring is well documented in the literature (Burns et al., 2010; Cornett et al., 2007). These studies argue that institutional investors find it optimal to exercise their ownership rights to influence managers to act in the best interest of the shareholders. Sovereign Wealth Funds (SWF, henceforth) are a specific type of institutional investors owned by a government or a sovereign entity, without explicit pension liabilities, that typically pursue long–term investment strategies (Aguilera et al., 2016; Kotter & Lel, 2011; Megginson & Fotak, 2015). The rise of SWF as a new form of geopolitical agent has emerged as an important funding class, blurring the lines between politics and finance (Drezner, 2008). With the increasing importance of SWF as a significant institutional investor class, there has been a bourgeoning strand of literature on institutional ownership examining the corporate consequences of this ownership. The results of the research on SWF are not all positive as they can have potentially conflicting political and fiduciary goals (Knill et al., 2012). SWF have been often accused of being notoriously assertive on corporate decisions to pursue their political goals even to the extent of promoting corruption in a number of high–profile cases.¹

Motivated by the possibility of conflicting goals pursued by SWF, this study examines the impact of SWF investments on firm reputation risk. Further, given the lack of transparency of

_

¹ For example, Barclays Bank of UK along with its four top executives was charged with fraud by the Serious Fraud Office (SFO) over the financial assistance it received from Qatar Holdings LLC (a whole subsidiary of Qatar Investment Authority, one of the largest SWFs) during the financial crisis of 2008. The charges relate to the failure to disclose the "advisory service agreement" fee of around £322 million to Qatar Holdings and unlawful financial assistance of £3.5 billion by Qatar Holdings, which was argued to be Barclays' own money (Ridley, 2019). Likewise, another most notable SWFs scandal relates to the Malaysian State Fund named 1Malaysian Development Berhad (1MDB). It was uncovered that around £3.5 billion was stolen from 1MDB funds and around £540 million was used personally by Malaysian Prime Minister Najib Razak. Goldman Sachs, which helped 1MDB raise around £5 billion pounds in series of bond issue in 2012 and 2013, agreed to pay multi–billion pounds charges to several governments including the US, Malaysia, and Singapore for their role in the scandal (Adam & Wo, 2022; BBC, 2020; Ramesh, 2016). Allegedly, 1MDB was also involved in financial transactions with other large SWF, UAE's International Petroleum Investment Company, whose head was dismissed after the 1MDB scandal surfaced (Stone & Truman, 2016).

portfolio holdings, sources of funds, and cross—sectional heterogeneity in the objectives of the SWF originating in different countries, it is empirically not clear if SWF investment results in any tangible benefit to the investee firms (Bahgat, 2010). To this end, our study explores the policy-relevant question of the impact of SWF investment on the reputation risk of portfolio firms, based on event—level information on environmental, social, and governance (ESG) issues.

SWF are now one of the most important institutional investors with assets under management totalling USD 10.54 trillion (Global SWF, 2022). Not surprisingly, the effect of these investors on corporate finance and corporate governance has attracted extensive scrutiny (Bortolotti et al., 2015; Knill et al., 2012).² The concern associated with the ownership of SWF stems from the issue of optimizing two contesting objectives related to politics and finance (Aguilera et al., 2016). In this paper, we extend the literature on the consequences of SWF investment on ESG reputation risk.

From a theoretical standpoint, there are two dominating and seemingly contesting views on the effect of SWF ownership on firm ESG reputation risk, specifically *the contracting view* versus *the predatory view* (North, 1981; Stulz, 2005). The contracting view posits that the state through its regulatory reforms lowers market frictions that facilitate corporate sectors to engage in mutually beneficial contracts and enforces these contracts (Stulz, 2005). With this facilitating role along with the mandate of the state actors to address societal, environmental and sustainability goals, state agents such as SWF can promote firms' ESG performance and lower ESG related reputation risk of investee firms.

On the contrary, the predatory view is based on the agency problem stemming from a state ruler discretion and its ownership (Djankov et al., 2003; Stulz, 2005). This view posits the

² See Megginson and Fotak (2015) for an extensive survey of SWF.

opportunism of state rulers to deploy their powers to expropriate corporates to extend their political preoccupation and/or rent—seeking rather than fulfil their fiduciary duty to seek value—maximizing actions. This could have a damaging impact on corporate reputation. A number of empirical studies support this view; for instance, Knill et al. (2012) show that SWF mostly fail to perform the monitoring roles performed by institutional investors. Chen et al. (2022) find that SWF investments is negatively related to investee firm's corporate governance. Godsell (2022) show that SWF are weak monitors as the financial reporting quality declines after SWF investment. Similarly, Bortolotti et al. (2015) show that firms with SWF member on board are associated with larger discounts in mean abnormal return, popularly termed as "SWF discounts", increasing investee firm's cost of equity capital. Taken together, these arguments suggest a investee firm with a higher SWF ownership stake could face a higher ESG reputation risk.

Given the two theoretical predictions related to possible mechanisms, this study investigates the effect of SWF ownership on firm ESG reputation risk. We track the ownership investments of 68 leading SWF for the sample of listed companies of 80 countries, see Appendix I for details. We measure firm reputation risk based on an extensive dataset maintained by RepRisk that tracks firms' affairs and media coverage on ESG incidents. Using this comprehensive dataset, we find firms with higher SWF ownership experience a higher ESG reputation risk. Economically, one standard deviation increase in SWF ownership is associated with the increase in ESG reputation risk index of the investee firm between 7 to 14 percentage points per quarter in the following two quarters. The results are important for policymakers as they highlight that the SWF as a state investment vehicle might face performance problem cascading to investee firms. The findings, therefore, extend the literature on SWF discounts and document reputation risk as one important channel for higher SWF discounts (Bortolotti et al., 2015).

To further verify the robustness of our results, we conduct two additional empirical tests. First, we test whether SWF political and reputation stake would cascade to SWF portfolio firms. To do so, e investigate the market reaction of SWF related scandals at portfolio firm level and whether the SWF scandals propagates negative market reaction to the firms in which SWF hold their ownership stake. We find a significant negative market reaction of the portfolio firms owned by SWF. Then, we find that SWF scandals result in more reputational damage to the portfolio firms. The two results, taken together imply that SWF ownership could be taken as a signal of reputation risk facing a firm.

Second, we employ a difference-in-differences estimation on a subsample of firms experiencing a large SWF ownership increase (the treated firms) with control firms that do not experience large SWF ownership change. Our results in this quasi-experimental sample corroborate with our baseline results. The treated firms experience a significant increase in ESG reputation risk after the large SWF ownership increase compared to both before the large increase and the control firms.

We further analyse the impact of SWF ownership on individual components of ESG reputation risk. Our analysis shows that the SWF ownership is significantly associated with an increase in environmental and social reputation risks of the portfolio firms – the impact is larger for environmental reputation risks.

To investigate the mechanism of why SWF ownership stake triggers an increase in firm ESG reputation risk, we examine the moderating role of transparency, accountability, and governance. Our empirical results show that although SWF ownership is consistently associated with an increase in ESG reputation risk of the investee firms, the effect is lessened when SWF are more transparent/accountable. The finding is in line with the bonding view of SWF to increase

credibly with the market (Coffee, 1999, 2002; Foerster & Karolyi, 1999; Lel & Miller, 2008) thereby lowering the reputational risk.

The bonding view also suggests that when investors face the frictions in their investment in foreign markets, institutional ties and proximity lower the dead weight cost of adverse selection (Coffee, 1999, 2002; Foerster & Karolyi, 1999; Lel & Miller, 2008). Therefore, we examine the existence of toxic triangle: state (SWF), stake (the ownership) and institutions (the greater institutional distance). We find that ESG reputational damage associated with higher SWF holding in a firm is mitigated when the SWF-firm pair share institutional proximity i.e., proximal national governance, same dominant religion, and same social connectedness. Put differently, the nearness of institutions could break, at least partially, the toxic triangle facing SWF investments.

Our research contributes to the existing literature in two unique ways. First, to the best of our knowledge, we are the first to examine the effect of SWF on a firm's ESG reputation risk. The ownership of SWF is associated with the possibility that SWF, as a state vehicle can have two contesting objectives related to politics and finance (Aguilera et al., 2016). As a primary stakeholder with a mandate to facilitate societal, environmental and sustainability outcomes, the SWF as a state agent could positively influence the investee firm's ESG initiative. However, the predatory argument suggests that in the presence of state expropriation and rent–seeking, SWF could expand its rent–seeking agenda to the extent to damaging the reputation of the investee investment firm increasing the firm's reputation risk. Our empirical results lend support to the latter view. Our study further shows that SWF ownership stake is associated with a decline in monitoring stake of other institutional investors, deterioration in firm value, operating performance, and investment efficiency. The results, taken together, are in keeping with the findings of previous studies on SWF discounts. Therefore, we maintain that ESG reputation risk is an important component that can contribute to this SWF discount.

We also contribute to the strand of literature on the moderating role of corporate governance to minimize unintended firm consequences and valuation (Harjoto et al., 2017; Koirala et al., 2022). In the presence of market friction, the corporate governance environment act as a moderating factor to lessen the unintended consequence of corporate short termism (Koirala et al., 2022). We extend this strand of literature by documenting the effect of SWF ownership stake to increase firm ESG reputation risk is lessened when the funds face a transparent and better corporate governance environment. Our finding is therefore policy—relevant to provide evidence for regulators on how the quality of institutions could limit the distortive effect of SWF on a firm ESG reputation.

The remainder of the paper proceeds as follow. In Section 2 and 3, we discuss SWF as an institutional investor, review literature, and present testable hypotheses. In Section 4, we describe the data we use, discuss our measurement choices, and present summary statistics. We examine the link between SWF ownership and firm ESG reputation risks in Section 5. Section 6 concludes.

2 SOVEREIGN WEALTH FUND AS AN INSTITUTIONAL INVESTOR

The rise of SWF is argued in the literature as a new form of state capitalism which gravitates on a newly defined role of the state as a principal/owner that aims to concurrently attain two seemingly opposing goals of financial efficiency in the form of short–term shareholder value maximization and political goals like industrial policy, national security etc (Drezner, 2008). Within this new state capitalism, SWF have emerged as an important fund–class, blurring the lines between politics and finance (Aguilera et al., 2016).

Megginson and Fotak (2015) note that state acquisitions of equity have been steered mostly as investors rather than owners, buying stakes in firms to tap a long-term financial return, rather than to own and run these enterprises. The phenomenon is popularly termed as a fiduciary state, and SWF are the single most prominent vehicle in this process. Although SWF have been around

since the 1950s, they have increased significantly in size and exposure to global investment during 2000s (Johnson, 2007). In 2012, the size of the investments owned by SWF was USD 6.07 trillion, which has grown to USD 10.54 trillion of funds by the end of 2021 (Global SWF, 2022).

The emergence of SWF as an important state vehicle of ownership could be argued from the possibility that this provides a good opportunity for countries with high fluctuations in public revenues to establish a steady income stream and offer resources to support sustainable long—term investments. These economies, in the absence of a fund to meet their investment needs, could otherwise fall into the trap of the *Dutch disease* in a way that weakens the country's long—run economic performance (Gilson & Milhaupt, 2010). On the other side of the argument is the lack of transparency and extension of political motives may bring unintended consequences not only to the fund but may also to the investee firm where these SWF have an ownership stake. Specifically, the investee firm could face not only an increased agency cost destroying value but also could import the high reputation risk that would compromise the firm's sustainable standing. Our study focuses on the ESG reputational risk consequences of SWF ownership of corporates.

3 THEORY AND HYPOTHESES

The role of SWF in influencing corporate outcomes could be seen from its ownership stake and state—linkages. In line with this, there are two dominating views on the effect of SWF ownership on firm ESG reputation risk namely the contracting view and the predatory view (North, 1981; Stulz, 2005). The first view is the contracting view which posits that the state through its regulatory reforms lowers market frictions thereby facilitating corporate sectors to engage in mutually beneficial and optimal contracts while also enforcing these contracts (Stulz, 2005). Further, a state may also have a mandate to address societal, environmental and sustainability goals. Therefore SWF, as state machinery, can pressurize firms to engage in ESG performance and lowers ESG—related reputation risk of investee firms. For instance, the Public Investments Funds Policy Survey

of 26 SWF by Mullen and Rose (2018) shows that 15 per cent of the funds are prohibited from making unethical investing and 8 per cent consider ESG in their investment policy. Similarly, the literature maintains that institutional investors, due to their fiduciary stake provide a necessary monitoring role to lower managerial opportunism (Brav et al., 2018). To the extent, SWF act like any other institutional investors, these funds could engage in activism to influence the firm's ESG initiatives. Dewenter et al. (2010) conclude that SWF are active monitors that are associated with a series of events such as related party investments and government regulatory actions. Similarly, Fernandes (2014) find that SWF are a politically connected long term investors that provide stable source of international financing that help increase performance and value of its portfolio firms. Taken together, the contracting view suggests the acquisition of ownership stake by SWF is associated with increase in ESG performance thereby lowering ESG reputation risk. In line with this prediction, we state our hypothesis in line with the contracting view.

Hypothesis (**H1a**): Increase in ownership by SWF in their investment firms results in a decline in ESG reputation risk.

Alternatively, the predatory view is based on the firm facing state—related agency problems (Djankov et al., 2003; Stulz, 2005). This view posits the opportunism of state rulers to deploy their powers to expropriate corporates to extend their political agendas and rent—seeking. The state expropriation actions could range from an outright confiscation of assets to distorting regulations to favour their constituencies. SWF as an extension of government entity may opt to pursue political or social goals that could exacerbate agency problems undermining the corporate decision—making depressing the financial performance of firm (Chen et al., 2022). The effect could also have a damaging effect on corporate ESG reputation risk. Knill et al. (2012) show that firm performance targeted by SWF bear a resemblance to state—owned enterprises (SEOs) and maintain that SWF mostly fail to perform the monitoring roles that literature maintains to be performed by other

institutional investors. Godsell (2022) finds a decline in financial reporting quality following SWF investment consistent with weak monitoring by SWF. Kotter and Lel (2011) and Boubaker et al. (2017) conclude that SWF are generally passive investors and has limited impact on their investee firms. In a related work, Bortolotti et al. (2015) show that SWF investment targets suffer from declining return on assets and sales growth over the following three years and that SWF on board are associated with larger discounts, known as "SWF discounts". This larger discount increases the cost of equity capital. With regards to the sustainability impact of SWF investments, Liang and Renneboog (2020) find that while SWF take into account the ESG performance of firms where they invest in, they do not steer their investee firms towards improvement in ESG. Taken together, the aforesaid argument suggests an investee firm with a higher ownership stake owned by SWF could face a higher reputation risk. We, therefore, state our alternative hypothesis as:

Hypothesis (**H1b**): Increase in ownership by SWF in their investment firms results in an increase in ESG reputation risk.

In the existence of these two alternative hypotheses on how SWF ownership affects firm ESG-related reputation risk, the net effect is unresolved. Our empirical study aims to provide insights into this question.

4 DATA AND MEASURES

4.1 Data sources

In this study, we use a unique, large–scale database developed by RepRisk that systematically identifies and assess material ESG risks at the firm–level by creating a reputation risk index (*RRI*) from 2007 onwards. RepRisk screens over 100,000 public sources and stakeholders in 23 languages daily and identifies risk incidents that are classified in 28 broad and mutually exclusive categories

– each further classified into Environment, Social, and Governance.³ RRI is based on two factors: news value and intensity. News value reflects the news influence of each negative event, depending on its reach, severity, and novelty, whereas news intensity measures the frequency and timing of the news. RRI is the multiplier of both factors. News value is the time-weighted average of reach, severity, and the novelty of risk incidents over the last two years, whereas news intensity depends on the number of risk incidents over the last two months. RRI is an index ranging from 0 to 100 (a larger value indicates high-firm risk exposure) that dynamically captures criticisms and quantifies a firm's exposure to ESG risks. RepRisk also provides the breakdown of each RRI by the number of associations a company has with the aggregate E, S, or G issues. We use this breakdown to segregate the RRI into the E, S, and G reputation risk. We merge the RepRisk data with other data sources using the ISIN of the firm. We remove firms for which we do not have information on ISIN in RepRisk. RepRisk data covers 19,985 firms around world beginning 2007 with around 1.12 million firm-year-quarter observations until 2020. This database has recently been used in business, strategy, and finance literature (see He et al., 2023; Houston & Shan, 2022; Li & Wu, 2020; Zhou & Wang, 2020).

As there is no consensus on the definition of "sovereign wealth funds", we employ the standard criteria used by Liang and Renneboog (2020) and Bortolotti et al. (2015). Consistent with Liang and Renneboog (2020), this definition yields a list of 140 SWF. We then collect quarterly public holdings data for each SWF from CapitalIQ from 2007 to 2020. This exercise reduces the

_

³ For instance, the Environment issues include six issues such as 'local pollution', 'climate change, GHG emissions, and global pollution', 'water issues', 'animal mistreatment', 'impact on landscapes, ecosystems, and biodiversity' and 'overuse and wasting of resources. The Social issues include four customer relations issues such as 'human rights abuse, corporate complicity', 'impact on communities', 'local participation issues', and 'social discrimination' and six employee relations issue such as 'forced labor', 'child labor', 'freedom of association and collective bargaining', 'discrimination in employment', 'occupational health and safety issues', and 'poor employment'. The Governance issues include seven issues such as 'anti-competitive practices', 'corruption, bribery, extortion, money laundering', 'compensation issues', 'fraud', 'misleading communication', 'tax evasion', and 'tax optimization'.

number of SWF to 100 SWFs from 97 countries investing in 21,471 firms. We merge the two datasets using ISIN and collect firm-level information. We drop all observations with SWF ownership equal to 0 and only keep firm-year-quarter observations for which we have complete information (including country, market and accounting information). Our final sample contains information on public holdings of 68 SWF from 2007 to 2020 (see Appendix I) originating from 32 countries investing in around 6,425 public firms. To the best of our knowledge, this is the most comprehensive dataset on SWF used in an empirical analysis.

We collect SWF transparency and accountability scores from SWF Scoreboard developed by Truman (2007). The components of the Truman (2007) scoreboard include structure, governance, transparency, and behaviour identified using 33 questions. It is available for the years 2015, 2012, 2009 and 2007. Truman (2007) reports a scoreboard of 60 SWF. After merging with our dataset, we use a scoreboard of 26 SWF.

We collection data on institutional proximity such as common religion and social connectedness using CEPII gravity dataset.

We collect annual firm-level characteristics such as market capitalization, firm age, return on assets, sales growth, and current ratio from CapitalIQ and formal institutional information such as inflation, GDP, governance index, and corruption index from World Bank. All the variables are defined in Appendix II.

4.2 Measures

Our main variable of interest is the firm's reputation risk which is available for each month for each firm from RepRisk. We use the quarterly (q) average current RRI (and its natural log) of firm i invested by SWF j in lead two quarters i.e., RRI_{jiq+1} and RRI_{jiq+2} respectively, as our main

dependent variable (Hasan et al., 2022; Maung et al., 2020; Zhou & Wang, 2020). We also multiply the percentage of associations to E, S, and G issues with *RRI* to identify Environmental Reputation Risk (*Env RRI*), Social Reputation Risk (*Social RRI*) and Governance Reputation Risk (*Gov RRI*). We also use two alternate definitions. First, we use peak *RRI* (denoted as *PRRI*), which is the highest level of *RRI* over the last two years – a proxy for the overall ESG reputation risk of a company (Cousins et al., 2020). Second, following He et al. (2023) and Li and Wu (2022), we count the quarterly number of ESG incidents (denoted as *Incident*) reported in the media and collected by RepRisk. Similar to current *RRI*, we examine *PRRI* and *Incident* in lead two quarters. We examine the lead *RRI*, *PRRI*, and *Incidents* to avoid any contemporaneous impact of change in SWF ownership on reputation risk. This also potentially eliminates the concern of endogeneity as the change in *RRI* in quarter *q* could have a contemporaneous impact on SWF ownership in the same quarter *q*, for example, SWF could be deterred to invest in firms that have higher reputation risk. We winsorize the indices at 5% to remove any effect of extreme outliers.

Our other variables of interest relate to the outcomes of the SWF investment. To examine the impact of change in SWF ownership on the firm, we investigate institutional investors (grey and independent) ownership, Tobin's Q, Operating Income, and Overinvestment. We calculate a lead change in institutional ownership, $\Delta IOwn_{jiy,jiy+1}$. Further, following Chen et al. (2007) and Ferreira and Matos (2008), we classify institutional investors into two groups: independent institutional investors and grey institutional investors.⁴ Using these classifications, we calculate

⁴ Grey institutional investors are those institutional investors who are less willing to challenge management decisions and whose monitoring abilities are compromised due to their potential or existing business interests with firms (Brickley et al., 1988; Chen et al., 2007). These investors face a high cost of monitoring and are known as "pressure–sensitive" (Brickley et al., 1988) and "passive investors" (Almazan et al., 2005). Grey institutional investors include banks, insurances, venture capital, private equity, family, educational institutions, charitable organizations, and unclassified. In contrast, independent institutional investors do not seek business relationships with the firms in which they invest (Chen et al., 2007). These investors face a low cost of monitoring and are also known as "pressure–resistant" (Brickley et al., 1988) and "active investors" (Almazan et al., 2005). These investors include hedge funds, investment managers, REITs, and pension funds (corporate, government, and union).

lead change in grey institutional ownership ($\Delta GIOwn_{jiy,jiy+1}$) and lead change in independent institutional ownership ($\Delta IIOwn_{jiy,jiy+1}$). Lead Tobin's Q is calculated as the sum of total debt and market value of equity scaled by the book value of assets ($TobinsQ_{y+1}$). We scale the lead operating income by sales revenue ($Operating\ Income/Sales_{y+1}$). Overinvestment is a dummy variable that takes a value of one for positive unexpected investment values, calculated in spirit of Balachandran et al. (2020), in the following year ($D(Overinvestment)_{y+1}$). All these variables are collected from CapitalIQ and defined in Appendix II.

The main independent variable is SWF $Ownership_{jiq}$, which is the percentage of ownership of SWF j in firm i in quarter q. We further examine the interaction of SWF $Ownership_{jiq}$ with $D(Transparency_j)$, $D(Non-Political\ Fund_j)$, $D(Structure_j)$, $D(Governance_j)$, $D(Behaviour_j)$, and $D(Overall\ Score_j)$ (collectively denoted as SWF $Scorecard\ dummies$). The six dummies are identified based on Truman (2007) SWF Scoreboard for 27 SWF in our sample. We calculate the average of scores (transparency/accountability, political orientation, governance, structure, behaviour, and overall) across year for each SWF based on 33 questions. Each question is graded from 0 to 1 (in quarter—point increments) and overall score is calculated as sum of the value of the criteria. We convert the score out of 100.

 $D(Transparency_j)$ takes a value of one for transparent/accountable SWF and zero for less transparent/accountable SWF. We identify SWF as transparent (less transparent) if their transparency score is higher (lower) than the median transparency scores. The transparency score of Truman (2007) is based on 14 criteria (question 16–29) categorised into investment strategy implementation, investment activities, reports, and audits. The mean (median) transparency score is 54.32 (53.57). The SWF such as The Government Pension Fund of Norway, Alaska Permanent

Fund, and New Zealand Superannuation Fund have high transparency score whereas Qatar Investment Authority, Abu Dhabi Investment Authority, and China Investment Corporation have lower transparency scores.

 $D(Non-Political Fund_j)$ takes value of one for non-political fund and zero for political fund. It measures the degree of political interference in the management of a SWF. We follow Bortolotti et al. (2015) to identify a political fund. Truman Truman (2007) offers score based on question 11 ("Are decisions on specific investments made by the managers?") on a scale of 0 to 1 where 1 reflects full independence of management from government interference. We identify a SWF as a "political fund" if the managerial interference score is less than 1 and all others as a "non-political fund" (Bortolotti et al., 2015). We classify 18 SWF as political fund and 9 SWF as non-political fund (see Table 1).

 $D(Structure_j)$ takes value of zero for SWF with poor structure and one for SWF with better structure. We identify SWF as better (poor) structure if their structure score is higher (lower) than the median score. The structure score of Truman (2007) is based on eight criteria (questions 1–8) such as clearly stated objectives, clear legal framework, a procedure for changing structure, clear investment strategy, clear source of funds, use of fund earnings, integration with policies, and separate from national reserves. The mean (median) structure score of 27 SWF in our sample is 69.27 (75.00).

 $D(Governance_j)$ takes value of zero SWF with poor governance and one for SWF with better governance. We identify SWF as better governed (poor governed) if their governance score is higher (lower) than the median score. The governance score of Truman (2007) is based on seven criteria (questions 9–15) such as the role of government, role of governing body, role of managers,

decisions made by managers, internal ethical standards, guidelines for corporate responsibility, and ethical investment guidelines. The mean (median) governance score in our sample is 58.15 (57.14).

 $D(Behavior_j)$ takes value of zero for SWF with poor behaviour and one for SWF with good behaviour, which is determined based on their median behavior scores. The behaviour score of Truman (2007) is based on four criteria (questions 30–33) such as risk management policies, policy on the use of leverage, policy on use of derivates, and portfolio adjustment. The mean (median) behavior score in our sample is 32.13 (25.00).

 $D(Overall\ Score_j)$ takes value of zero for SWF with a high overall score and one for SWF with a low overall score, which is determined based on the median overall score. The overall score is the combined score for structure, governance, transparency and accountability, and behavior (rescaled to 100). The mean (median) overall score is 56.07 (55.49).

We include several control variables that are likely to influence the ESG reputation risks of a firm. These control variables are consistent with the existing literature that examines the firm reputation risk (Li & Wu, 2020; Zhou & Wang, 2020). The control variables are natural log market capitalization, natural log of age, leverage, return on assets, sales growth, and current ratio. We also control SWF characteristics by including the natural log of number of firms that SWF hold in their portfolio in particular year-quarter and the portfolio weighted market value of their holdings. As our sample firms are based in several countries, we also control for several country—level characteristics. We include inflation, GDP, SWF country governance, corruption index, and foreign SWF dummy. All the control variables are lagged by one year and winsorized at 5%. Appendix II provides the definition and sources of data for all the variables included in our study.

4.3 Summary statistics

Table 1 reports the summary statistics of SWF ownership, reputation risk and its ESG share, incident counts, firm characteristics, and country characteristics. The mean (median) SWF ownership is 1.358% (0.519%) with standard deviation of 4.345%. The mean (median) *RRI* and *PRRI* is 9.187 (0.000) and 12.255 (0.000) respectively. On average, Governance related *RRI* is higher than Environment related *RRI* and Social related *RRI*. The average (median) number of incident counts is 12.134.

[Insert Table 1 about here]

Figure 1 shows the average SWF ownership during our sample period. The shaded area represents the 95% confidence interval. The average SWF ownership increases throughout the sample period, from 0.82% in 2007Q1 to 1.53% in 2020Q4. The lowest and the highest average SWF ownership during our sample period for our sample firms was 0.74% and 1.84% respectively. Figure 2 shows the heat map of the average SWF ownership in firms domiciled in countries around the world.

[Insert Figure 1 about here]

[Insert Figure 2 about here]

Likewise, Figure 3 shows the average *RRI* over the years and the shaded region represents the 95% confidence interval of *RRI*. The average *RRI* also increases throughout the sample period, from 3.538 in 2007Q1 to 13.072 in 2020Q4. The lowest and the highest average *RRI* during our sample period for our sample firms was 3.538 and 13.851 respectively.

5 EMPIRICAL ANALYSIS

5.1 Main results

To investigate whether SWF ownership impacts reputation risk of firms, we use following regression models for firms i=1, ..., I, held by SWF j=1, ..., J, observed in quarter q=1, ..., Q:

$$Y_{jiq+k} = \alpha + \beta_1 SWF Ownership_{jiq} + \gamma X_{iy-1} + \delta_k + \vartheta_i + \theta_y + \mu_q + \varepsilon_{ijq}$$
 (1)

 Y_{jiq+k} is the dependent variable i.e. RRI and its natural log. k takes value of 1 and 2. X_{iy-1} is the matrix of time–varying controls of firm and country characteristics at annual level. All the variables are defined in Appendix II. θ_i and θ_y are firm and year fixed effects. To account for any seasonality in SWF ownership, we also include quarter fixed effects (μ_q) . Identification based on fixed effects is central to control for potential endogeneity related to omitted industry characteristics or to systematic shocks that lead to variations in all firms during a certain year. ε_{jiq} is the error term clustered at the firm level to control for heteroskedasticity and serial correlation. As the impact of the change in SWF ownership on reputation risks of a firm may not materialize immediately, we examine the reputation risk in lead quarters.

Table 2 presents the estimation results of the regression model based on equation (1). In Models (1) – (4), we examine the impact of change in all SWF ownership on RRI and natural log of RRI. The results show that the SWF ownership is significantly and positively related to lead RRI with $\beta = 0.151$ (p < 0.01) in Model (1) and $\beta = 0.152$ (p < 0.01) in Model (2). Economically, a one standard-deviation increase in SWF ownership is associated with an increase in RRI by 0.656 points (= 0.151×4.345) in the next quarter (around 7.14 percentage points of the mean RRI). In Models (3) – (4), the dependent variable is $\ln(RRI_{jiq+1})$. The results are consistent with Models (1) and (2) as it shows that the SWF ownership is significantly positively related to lead change in RRI ($\beta = 0.031$ and 0.030, p < 0.01). A one standard-deviation increase in SWF ownership results

in 13.68 percentage points (= $(e^{0.031} - 1) \times 4.345$) increase in the firm's reputation risk in next quarter.

[Insert Table 2 about here]

In Models (5) – (6), we examine all SWF ownership except Norwegian Pension Fund (NPF) and Ireland Strategic Investment Fund (ISF), as there might be concern that the effect might be muted due to their relatively smaller stakes that other SWFs and due to large proportion of portfolio firms of these SWFs in our sample. The results are consistent and stronger for SWF excluding NPF and ISF. We can see that the number of firms (and firm-year observations) are almost half of the main sample. For this sub-sample, the mean, median, and standard deviation of the SWF ownership is 1.850%, 0.370%, 3.900%, and of the *RRI* is 12.436, 8.333, and 14.470 respectively. Based on Model (5), economically, a one standard-deviation increase in SWF ownership (except NPF and ISF) increases the *RRI* by 0.885 (= 0.227×3.900) in the next quarter (around 7.12% of the mean *RRI*). Likewise, based on Model (7), economically, a one standard-deviation increase in SWF ownership (except NPF and ISF) increases the *RRI* by 13.49 percentage points (= $(e^{0.038} - 1) \times 3.900$) in the next quarter.

Overall, the results provide consistent evidence to support the predatory view of Hypothesis 1b and suggest that the SWF ownership leads to an increase in firm's reputation risk.

5.2 Identification using two experiments

Although we find that the SWF as an institutional investor is associated with increased reputational concerns of portfolio firms, our study could still suffer from endogeneity issues, particularly that of omitted variable bias. Specifically, firm's reputation risks and SWF decision to invest in a firm may be simultaneously affected by some unobserved factors that may bias our beta coefficient.

Hence, to test the empirically test the findings that the SWF political and reputation stake would cascade to the portfolio firms that SWF own, we perform two quasi-natural experiments discussed below.

5.2.1 Experiment 1: Firm reputation risk surrounding SWF scandals

To support a causal interpretation, we exploit scandals surrounding SWF as an exogenous shock. We argue that the scandals of SWFs signal the loss of credibility that may result in loss of firm value, and also exacerbate the portfolio firm reputational concerns.

We conduct the analysis by identifying scandals reported in news outlet around the world. We use following search strategy for each SWF in our sample in the Nexis database. In order to identify keywords that relates to the "scandals", we conduct an initial search using names of few SWF and "scandals" as keyword. These new articles were then examined to determine the keywords that are suitable to narrow down our search to relevant articles. After examining the initial search results, similar to keywords used by Newmark et al. (2019) to identify political scandals, we determine our main keywords as "scandal", "fraud", "corrupt", "controversies", "bribe", "embezzlement", "financial misconduct", "court trial", "prison", "crime", and "criminal". Based on these keywords, we conduct following search in Nexis for each SWF: "(scandal! OR fraud! OR corrupt! OR controversy! OR bribe! OR embezzlement! OR (financial AND misconduct!) OR (court AND trial!) OR (prison! AND (crime! or criminal!))) AND "SWF name"". Next, we include exclusion keywords as the "trial" keyword will show results for pharmaceutical trials. We exclude phrases such as "clinical trial", "trial run", and "free trial". We further limit our search to "Newspaper" articles only that were published between 01 January 2007 to 31st December 2020 and finally narrow it down focusing only on "Negative News" tagged by the Nexis database. The news search output several news articles, which was then individually examined by a research assistant and verified by one of the authors. We narrow down the news

event and identify 717 news articles for 54 SWFs. We drop any overlapping events in the past 180 days and collapse all the events at year-quarter. This exercise results in 109 non-overlapping year-quarter scandal events for 54 SWFs. For these scandal events of each SWF, we use the year-quarter as the event date for their portfolio firm. We only consider those firms where SWF had ownership greater than 0 before or at the time of scandal year-quarter. We identify around 2,464 firm-year-quarter events for which we have complete information.

Before we examine the ESG reputation impact of SWF scandals, we investigate response of shareholder of portfolio firms to the scandals and gauge the value loss. We conduct an event study using market model to determine the stock price impact. We calculate abnormal stock returns as daily stock returns minus an estimate of normal stock returns and then averaged across all sample observations. Stock returns data are obtained from Datastream. Market return for 39 countries is collected from WRDS market index database. S&P 500 Index is used as proxy for market return in US and for rest of the countries, we use MSCI All country index as proxy for market return. The normal stock returns are calculated through market model regressions over the estimation period ranging from trading days -180 to -20 relative to the announcement date.

The results are presented in Panel A of Table 3. In Panel A.1., where we report the cumulative abnormal return (CAR) surrounding five days to 11 days around the scandal event date. We report a statistically significant CAR of -0.294% within five days surrounding the scandal events of SWF. The market reaction is consistently negative (and statistically significant) in relatively longer window periods, which considers any information leakage or delayed market response to the SWF scandals. In Panel A.2., we report the CARs of only those portfolio firms in which the SWF ownership is larger than the median SWF ownership in our sample. We find a statistically significant CAR of -0.704% within five days surrounding the scandal, which is nearly twice as large as market reaction of portfolio firms of all SWF. The CARs are statistically

significant and negative for longer window period as well. Overall, our findings are in line with our expectation that the credibility concern of SWF can have negative value impact on the portfolio firms.

[Insert Table 3 about here]

Next, we examine the impact of SWF scandal on firm ESG reputation risks using the following difference-in-differences (DID) setup:

$$Y_{iiq+k} = \alpha + \beta_1 D(Scandals) + \gamma X_{iv-1} + \delta_k + \theta_i + \theta_v + \mu_q + \varepsilon_{ijq}$$
 (2)

where, D(Scandals) takes value of one four quarters after the scandal for firms owned by SWF at the time of scandals (treated firms) and zero otherwise. It also takes value of zero for all the portfolio firms owned by SWF that have not been involved in any scandals (control firms). All other variables are same as defined earlier. The results of regression equation (2) are presented in Models (1) – (4) of Panel B of Table 3. The estimated β coefficient of D(Scandals) is 1.934 (p < 0.01), indicating that the firms owned by SWF that had scandals suffer from increase in reputation risk (almost 21% of the average RRI) following the scandals than before the scandal or compared to firms owned by SWF that have not been involved in any scandals. Results are similar in Models (2) using $In(RRI_{fiq})$ as dependent variable. In Models (3) and (4), we examine major scandals when investor reaction to scandal is severe. Thus, we define major scandals as those scandals where CAR (-2, +2) of a firm is lower than the median value of CAR (-2, +2) of all scandal events. The coefficient of D(Scandals) in both models are higher than the coefficient reported in Models (1) and (2), suggesting that the treated firms experience higher increase in reputation risk following SWF major scandal.

In Models (5) - (8), we redefine D(Scandals) where it takes value of 1 in the year-quarter of portfolio firms of SWF that has a scandal event. Models (5) and (6) examine all scandals and

Models (7) and (8) examines the major scandals. The results are similar to the DID model and show an immediate and significant increment in *RRI* by 1.568 (around 17% of the mean *RRI*) in all scandals and 1.758 (around 19% of the mean *RRI*) in major scandals. Overall, the findings provide support to hypothesis 1a and it suggest that firm's reputation risks increase with scandals surrounding the investor SWF.

5.2.2 Experiment 2: Firm reputation risk surrounding large SWF ownership change

In this section, we provide additional causal evidence. We conduct an additional DID analysis using large SWF ownership change as an exogenous event. We use following regression set up:

$$Y_{jiq+t} = \alpha + \beta_1 D(SWF\ Ownership_{it}) + \gamma X_{iy-1} + \delta_k + \theta_j + \vartheta_i + \mu_q + \varepsilon_{iq}$$
 (3)

where, all the variables are as previously defined. We classify a firm as treated firm as those that have significant SWF ownership (greater or equal to 2 per cent), experience a large quarterly increase in SWF ownership (top fifth quantile) and do not experience other large increase or decrease in the next four quarters. We identify 598 unique quarterly events for 536 firms. The control group includes the treatment firms before the large quarterly increase (four quarters) and all the remaining firms. $D(SWF\ Ownership_{it})$ takes value of one for the treated and zero for the control firms. The results are presented in Table 4.

[Insert Table 4 about here]

The coefficient estimates of our main DID variable $D(SWF\ Ownership_{iq})$ is positive and significant at p<0.01 in both models. In terms of economic magnitude, Model (1) shows that the RRI of treatment firms increases by 0.657 (around 7% of the mean RRI) in the next four quarters after a significant increase in SWF ownership than before the increase or compared to the control

firms. Likewise, Model (2) reveals around 8% points increase in *RRI* of treatment firms after a large rise in SWF holding than before the rise and compared to the control firms.

5.3 Additional analysis

In this section, we investigate possible mechanism through which SWF ownership affects firm ESG reputation risk. First, we examine differential impact of SWF ownership on components of *RRI*, second, we examine the transparency and accountability characteristics of SWF, third, we investigate the toxic triangle between the SWF, its ownership and institutional proximity, and finally, we study the role of multiple SWF in the portfolio firm.

5.3.1 SWF ownership and firm E, S, G risks

Our results indicate that SWF ownership increases subsequent ESG reputation risks of their portfolio firms. SWF ownership could also relate to the nature of the subsequent ESG reputation risks as well. To examine this conjecture, we separate the ESG reputation risks into E, S, and G components of reputation risks as reported by RepRisk. Table 5 show the results of regression equation (1) similar to Table 2, with the exception that the dependent variable equals to the environmental reputation risk (*Env RRI*) in Models (1) and (2), social reputation risks (*Soc RRI*) in Models (3) and (4), and governance reputation risks (*Gov RRI*) in Models (5) and (6).

[Insert Table 5 about here]

The results in Table 5 provide strong evidence that the SWF ownership are associated with increase in E, S, and G reputation risks of their portfolio firms. The results show that the SWF ownership is significantly and positively related to lead Env RRI with $\beta = 0.070$ (p < 0.01) in Model (1) and $\beta = 0.067$ (p < 0.01) in Model (2). Economically, a one standard-deviation increase in SWF ownership is associated with 0.305 increase in Env RRI in the next quarter, which is equivalent to 17.50% of the mean Env RRI. Likewise, we find that the SWF ownership is

significantly and positively related to lead $Soc\ RRI$ with $\beta=0.031\ (p<0.01)$ in Model (3) and $\beta=0.040\ (p<0.01)$ in Model (4). Economically, a one standard-deviation increase in SWF ownership increases $Soc\ RRI$ in the next quarter by 0.135, which is equivalent to 4.05% of the mean $Soc\ RRI$. Finally, the results reveal that the SWF ownership is not related to lead $Gov\ RRI$ as the β is insignificant in the next quarter. Overall, our results provide evidence that SWF ownership has higher economic impact on the environmental aspect of ESG reputation risks.

5.3.2 Moderation of transparency and accountability of SWF

Next, we examine whether the impact of SWF ownership on the reputation risk of their portfolio firms is driven by the transparency, political orientation, structure, governance, and behaviour of the SWF. A firm that is being targeted by SWF investors may face higher adverse selection costs that could result from the state opportunism and political motives that a SWF may undertake through its corporate holdings (Knill et al., 2012). This could increase the cost of capital through higher SWF discounts (Bortolotti et al., 2015). The bonding view suggests that an SWF which is aware of this higher adverse selection cost could engage ex–ante by bonding with the market (Coffee Jr, 1999, 2002; Foerster & Karolyi, 1999; Lel & Miller, 2008) to lower this cost. A SWF may bond with the market through the improvement in its transparency, governance, and disclosures. In this section, we extend the empirical analysis to examine if SWF could strategize their transparency and governance to minimize the ESG reputation risk facing the investee firms.

Table 6 presents the results. Models (1) and (2) examine the transparency scores, Models (3) and (4) examine the political score, Models (5) and (6) examine the structure scores, Models

26

⁵ The bonding can be achieved through various market–based mechanisms and legal reforms. See Coffee Jr (1999), Coffee Jr (2002), Foerster and Karolyi (1999), and Karolyi (2012) for a comprehensive understanding of the bonding hypothesis.

(7) and (8) investigate the governance score, Models (9) and (10) investigate the behaviour score, and Models (11) and (12) examines the overall score of SWF. These scores are based on Truman (2007) SWF scorecard.

[Insert Table 6 about here]

The results show that the coefficient of $SWF\ Ownership_{jiq}$ in all models are consistent with our main results in Table 2, albeit with differing magnitude. Models (1) and (2) show that the increase in transparent SWF ownership lowers the firm's RRI in the next quarter ($\beta=-0.284, p<0.05$) and the following quarter ($\beta=-0.271, p<0.10$) compared to non-transparent SWF. However, we do not observe a similar significant effect for the non-political SWF and SWF with better governance scores. The results further reveal that the increase in ownership of SWF that has better structure score, and better behaviour score reduces the firm ESG reputation risks in the following quarters. The results in Models (11) and (12) show that the increase in ownership by SWF with a high overall score significantly reduces the RRI in the next quarter ($\beta=-0.166, p<0.01$) and the following quarter ($\beta=-0.163, p<0.05$) compared to SWF with a low overall score.

Taken together, we find that while SWF ownership is consistently associated with an increase in ESG reputation risk of target firms, the effect is lessened when SWF are more transparent, has better structure and better behaviour. These transparent and better–quality institutions protect stakeholders' interests in the wake of higher expropriation risk.

5.3.3 The toxic triangle and the moderation by primal institutions.

Literature presents national institution as enabler for economic growth (Barro. National institutions and ties between SWF and portfolio firm domicile could lower, in parts, the expropriation and state

opportunism risk facing a firm (Koirala et al., 2022; Schneper & Guillén, 2004) thereby lowering the reputation risk. In this section, we examine both formal and informal institutional proximity and the possibility of existence of the toxic triangle: state (SWF), stake (the ownership) and institutions (the greater institutional distance) in exacerbating the reputation risk. To gauge formal institutional proximity, we construct the governance proximity, which is the inverse of governance distance termed as governance closeness (Gov closeness), between SWF-firm pair domicile where governance is measured as the first principal component of six governance metrics defined in Appendix II. To gauge the informal institutions proximity, we use same major religion dummy (D (Religion)) and social connectedness dummy (D (Social Connect)) also defined in Appendix II. The results are presented in Table 7. The result shows the existence of toxic triangle in that the reputation risk is severe when the SWF owns higher ownership in the firm which is institutionally farther from SWF domicile. The reputational damage associated with higher SWF holding to a firm is mitigated when the SWF-firm pair share institutional proximity i.e., proximal national governance, same dominant religion, and higher social connectedness. Therefore, proximal institutions could offer SWF a strategic tool to eliminate toxic triangle facing SWF investments.

[Insert Table 7 about here]

5.3.4 Multiple SWFs and firm reputation risks

Our previous sections show that SWF ownership increases firm ESG reputational concerns in line with predatory motive of SWF. However, the characteristics of SWF moderate this relationship SWF as high transparency, structure, and accountability scores reduce their portfolio firm ESG reputation concerns in line with the contracting mechanism of SWF. This raises a natural question of what would be impact when multiple SWFs have stakes in a firm. To address this, we conduct several analyses. First, we rerun our main model using *SWF fixed effect* as well as *Firm* × *SWF*

fixed effects. The results are qualitatively similar to our main results (not reported for brevity). Second, we conduct two sub-sample analyses. We rerun our main model for sub-sample of firms where there is only one SWF. The results are presented in Models (1) and (2) of Table 7. The results are consistent, although the magnitude is lower, with our main model. In Models (3) and (4), we rerun our main model for sub-sample of firms with multiple SWF ownership and include SWF fixed effect. The results are again qualitatively similar to our main result. In Model (5) and (6), we rerun our main model for sub-sample of firms with multiple SWF and also include interaction term SWF $Ownership_{jiq} \times D$ $(All\ SWF\ Overall\ Score_j)$, where $D\ (All\ SWF\ Overall\ Score_j)$ takes value of one if all SWF have overall score at greater than median i.e. if $D\ (Overall\ Score_j)$ is one for all SWF. The results are again similar to our main result in Table 2 and Table 6.

[Insert Table 7 about here]

5.4 Robustness tests

We conduct a series of additional analyses to ensure that our results are robust. First, we examine whether shift in SWF ownership affects the firm ESG reputation risks. We rerun our baseline model of Table 2 using quarterly change in SWF ownership (ΔSWF Ownership $_{jiq,jiq-1}$) as main independent variable. The results are presented in Table 9. Consistent with our main model and hypothesis 1b, we find that the increase in SWF ownership increases the ESG reputation risks of the portfolio firms.

[Insert Table 9 about here]

Second, we use alternative definitions of *RRI* index. We use *Peak RRI* (Cousins et al, 2020). RepRisk provide information on peak *RRI* for each firm which captures firm's maximum *RRI* over

the two years. The results are presented in Models (1) - (4) in Table 9. Next, following Li and Wu (2020), instead of using the proprietary *RRI*, we use the quarterly ESG incident counts and define firm reputation risk as the quantifications of ESG incidents. As the alternative variable is a discrete count variable, we use Poisson regression model with firm, year, and quarter fixed effects and error clustered at firm level. The results are presented in Models (5) and (6). All the results are consistent and similar to our main result.

[Insert Table 9 about here]

Third, we examine the impact of large SWF ownership. As our results consistently show that SWF ownership is associated with increase in ESG reputation risks of its portfolio firms, we would expect the differential effect to be stronger in firms where SWF ownership is large compared to firms where SWF ownership is small. We present this analysis in Internet Appendix IA1 and it shows that the *RRI* increases by 0.14 to 0.143 in next two quarters in firms with large SWF ownership compared to firms with small SWF ownership (we used median SWF ownership as cut-off point). Finally, we conduct robustness tests of our result presented in Panel B of Table 3 for major scandals. We define major scandal as the one which is covered by more than 2.6 news article (mean value). The results are presented in Internet Appendix IA2 and it similar to the one reported in Panel B of Table 3.

5.5 Impact of SWF ownership on firm outcomes

In this sub-section, we consider what is the potential impact of change in SWF ownership on four firm outcomes: other institutional investors ownership, Tobin's Q, operating income, and overinvestment. Bortolotti et al. (2015) find empirical evidence in support of two hypotheses,

⁶ Results are qualitatively similar when we use OLS regression with natural log of incidents counts as dependent variable.

political agenda hypothesis and the passive investor hypothesis, that predict the negative impact of SWF's ownership on long term performance of the company (Chen et al., 2022). The political agenda hypothesis argues that SWF may exert political influence on its portfolio firms by imposing their political agenda and diverting the portfolio firm resources to the benefit of SWF–sponsor government or their rent–seeking politicians. The passive investor hypothesis argues that SWF are passive investors who are not engaged in active monitoring of their portfolio firms, thus creating less value to the portfolio firms through their ownership. In line with these findings, we expect an increase in SWF ownership to have negative impact on these proxies of firm outcomes. As such, we estimate following regression equation (Bortolotti et al., 2015):

Firm outcome_{$$jiy+1$$} = α + SWF Ownership _{$jiy,jiy-1$} + γX_{iy-1} + δ_k + θ_j + ϑ_i + μ_y + ε_{jiy} (4)

where $Firm\ outcome_{jiy+1}$ is measured using institutional investors ownership, Tobin's Q, operating income/sales, and D (Overinvestment). All the variables are defined in Appendix II. We include firm and year fixed effects. Errors are clustered at firm level.

[Insert Table 11 about here]

Table 11 shows the results based on the regression equation (4). The results in Model (1) shows a significant negative impact ($\beta = -0.216, p < 0.01$) of increase in SWF's ownership on institutional investors ownership. In Models (2) and (3), we classify institutional investors ownership into independent and grey institutional ownership respectively (Chen et al., 2007; Ferreira & Matos, 2008). The regression coefficient in Model (2) confirms that the change in SWF ownership negatively and significantly ($\beta = -0.215, p < 0.01$) affects the lead change in independent institutional investors. The impact on grey institutional investors, however, is non-existent. The regression coefficients in Models (3) for grey institutional investors is insignificant ($\beta = -0.003, p > 0.10$). The results are consistent with the argument that independent

institutional investors tend to actively monitor and vote with their feet to voice their mechanism whereas grey institutional investors are more loyal to corporate managers and are more likely to hold shares without reacting to other external events (Alvarez et al., 2018; Ferreira & Matos, 2008).

The results in Model (4) for Tobin's Q show a significant negative impact of change in SWF's ownership ($\beta = -0.120, p < 0.01$). The results in Model (5) suggest that an annual increase in SWF's ownership has a significant negative on operating income in y+1 ($\beta = -0.408, p < 0.01$). Likewise, the results in Model (6) show a significant increase in overinvestment in y+1 ($\beta = 0.195, p < 0.05$). following an increase in SWF ownership.

Overall, these results highlight a significant negative impact of SWF's ownership on firm performance metrics. These results support the findings of Bortolotti et al. (2015) and Chen et al. (2022) who also find a decline in operating performance measures such as profitability, sales growth, and valuations in firms invested by SWF consistent with the political agenda and the passive investor hypothesis.

We find that the acquisition of an SWF ownership stake results in a significant decrease in the holdings of other institutional ownership in the following year that traditionally perform an important corporate monitoring role. In line with the "voting with their feet argument", when facing the threat of a potential coercive influence of SWF ownership, other institutional investors could find it optimal to sell their stake and leave than confronting and challenging the powerful SWF in corporate decision—making and deployment of resources. Similarly, we show a deterioration in market value, operating performance, and investment efficiency of investee firms after the increase in ownership by SWF. The findings are in line with the political agenda hypothesis and passive investor hypothesis presented by Bortolotti et al. (2015) and the empirical results in Chen et al. (2022).

6 CONCLUSION

The rise of SWF as a new form of state capitalism has emerged as an important funding class, blurring the lines between politics and finance. Therefore, the ownership stake of this unique institutional investor class could have important corporate consequences. In this paper, we examine the effect of the impact of an ownership stake by SWF on corporate ESG reputation risk. We find a robust positive as well as economically large association between SWF ownership and ESG reputation risk. The findings remain strong and stable when using two quasi-natural experiments based on both SWF scandals and large increase in SWF ownership. We also report a significant impact on environmental reputation risks compared to social or governance reputation risks. The results suggest that SWF as a state investment vehicle do not deliver the government mandate of being responsive to ESG performance. Rather, in line with the predatory view, these funds import their bad reputation to target firms and expose them to greater ESG reputation risk.

We further examine the moderating role of transparency and governance in explaining the effect of SWF ownership on firm ESG reputation risk and explore the toxic triangle relationship between the SWF, its ownership, and institutional proximity. We find that while SWF ownership is consistently associated with an increase in ESG reputation risk of target firms, the effect is lessened when SWF are more transparent and accountable. These transparent and better–quality institutions protect stakeholders' interest in the wake of higher expropriation risk. Likewise, our result highlights that the reputational damage associated with higher SWF holding to a firm is mitigated when the SWF-firm pair share institutional proximity i.e., proximal national governance, same dominant religion, and higher social connectedness.

Finally, we show that SWF investment results in shares being sold by other institutional investors, a decline in firm value coupled with the deterioration in operating performance of the target firms. We maintain that ESG reputation risk is an important component that contributes to

SWF discount. Our finding is policy relevant as it provides evidence on how quality of institutions and transparency could limit the distortive effect of SWF on firm ESG reputation.

References

- Adam, S., & Wo, Y. (2022). How Malaysia's 1MDB ccandal shook the financial world. Retrieved 01/06/2022, from https://www.washingtonpost.com/business/how-malaysias-1mdb-scandal-shook-the-financial-world/2022/03/14/9a2831c2-a3d5-11ec-8628-3da4fa8f8714_story.html
- Aguilera, R. V., Capapé, J., & Santiso, J. (2016). Sovereign wealth funds: A strategic governance view. *Academy of Management Perspectives*, 30(1), 5-23.
- Almazan, A., Hartzell, J. C., & Starks, L. T. (2005). Active institutional shareholders and costs of monitoring: Evidence from executive compensation. *Financial Management*, *34*(4), 5-34.
- Alvarez, R., Jara, M., & Pombo, C. (2018). Do institutional blockholders influence corporate investment? Evidence from emerging markets. *Journal of Corporate Finance*, *53*, 38-64.
- Avendaño, R., & Santiso, J. (2009). Are sovereign wealth funds' investments politically biased? A comparison with mutual funds. *A Comparison with Mutual Funds (December 18, 2009)*.
- Bahgat, G. (2010). Sovereign wealth funds: An assessment. Global Policy, 1(2), 162-171.
- Balachandran, B., Duong, H. N., Luong, H., & Nguyen, L. (2020). Does takeover activity affect stock price crash risk? Evidence from international M&A laws. *Journal of Corporate Finance*, 64, 101697.
- BBC. (2020). Goldman Sachs to pay \$3bn over 1MDB corruption scandal. BBC. https://www.bbc.co.uk/news/business-54597256
- Bortolotti, B., Fotak, V., & Megginson, W. L. (2015). The Sovereign Wealth Fund Discount: Evidence from Public Equity Investments. *The Review of Financial Studies*, 28(11), 2993-3035.
- Boubaker, S., Boubakri, N., Grira, J., & Guizani, A. (2018). Sovereign wealth funds and equity pricing: Evidence from implied cost of equity of publicly traded targets. *Journal of Corporate Finance*, 53, 202-224.
- Brav, A., Jiang, W., Ma, S., & Tian, X. (2018). How does hedge fund activism reshape corporate innovation? *Journal of Financial Economics*, 130(2), 237-264.
- Brickley, J. A., Lease, R. C., & Smith Jr, C. W. (1988). Ownership structure and voting on antitakeover amendments. *Journal of Financial Economics*, 20(C), 267-291.
- Burns, N., Kedia, S., & Lipson, M. (2010). Institutional ownership and monitoring: Evidence from financial misreporting. *Journal of Corporate Finance*, *16*(4), 443-455.
- Chen, X., Harford, J., & Li, K. (2007). Monitoring: Which institutions matter? *Journal of Financial Economics*, 86(2), 279-305.
- Chen, R., El Ghoul, S., Guedhami, O., & Liu, F. (2022). The corporate governance consequences of small shareholdings: Evidence from sovereign wealth fund cross-border investments. *Corporate Governance: An International Review, 30*(6), 656-685.
- Coffee Jr, J. C. (1999). The future as history: the prospects for global convergence in corporate governance and its implications. *Columbia Law Review*, *93*, 641-707.
- Coffee Jr, J. C. (2002). Racing towards the top: The impact of cross-listing and stock market competition on international corporate governance. *Columbia Law Review*, 102, 1757.
- Cornett, M. M., Marcus, A. J., Saunders, A., & Tehranian, H. (2007). The impact of institutional ownership on corporate operating performance. *Journal of Banking & Finance*, 31(6), 1771-1794.
- Cousins, P., Dutordoir, M., Lawson, B., & Frato Neto, J. Q. (2020). Shareholder wealth effects of modern slavery. *Management Science*, 66(11), 5265-5289.

- Dewenter, K. L., Han, X., & Malatesta, P. H. (2010). Firm values and sovereign wealth fund investments. *Journal of Financial Economics*, 98(2), 256-278.
- Djankov, S., Glaeser, E., La Porta, R., Lopez-de-Silanes, F., & Shleifer, A. (2003). The new comparative economics. *Journal of Comparative Economics*, *31*(4), 595-619.
- Drezner, D. W. (2008). Sovereign wealth funds and the (in) security of global finance. *Journal of International Affairs*, 115-130.
- Fernandes, N. (2014). The impact of sovereign wealth funds on corporate value and performance. *Journal of Applied Corporate Finance*, 26(1), 76-84.
- Ferreira, M., & Matos, P. (2008). The color of investors' money: the role of institutional investors around the world. *Journal of Financial Economics*, 88(3), 499-533.
- Foerster, S. R., & Karolyi, G. A. (1999). The Effects of Market Segmentation and Investor Recognition on Asset Prices: Evidence from Foreign Stocks Listing in the United States. *The Journal of Finance*, *54*(3), 981-1013.
- Gilson, R. J., & Milhaupt, C. J. (2010). Economically Benevolent Dictators: Lessons for Developing Countries. In: August.
- Glendening, M., Khurana, I. K., & Wang, W. (2016). The market for corporate control and dividend policies: Cross-country evidence from M&A laws. *Journal of International Business Studies*, 47(9), 1106-1134.
- Global SWF. (2022). Annual Report 2022.
- Godsell, D. (2022). Financial reporting consequences of sovereign wealth fund investment. *Contemporary Accounting Research, Forthcoming.*
- Harjoto, M., Jo, H., & Kim, Y. (2017). Is Institutional Ownership Related to Corporate Social Responsibility? The Nonlinear Relation and Its Implication for Stock Return Volatility. *Journal of Business Ethics*, 146(1), 77-109.
- Hasan, M. M., Habib, A., & Zhao, R. (2022). Corporate reputation risk and cash holdings. *Accounting & Finance*, 62(1), 667-707.
- He, Y., Kahraman, B., & Lowry, M. (2023). ES risks and shareholder voice. *The Review of Financial Studies*. Forthcoming.
- Houston, J. F., & Shan, H. (2022). Corporate ESG Profiles and Banking Relationships. *The Review of Financial Studies*, *35*(7), 3373-3417.
- Johnson, S. (2007). The rise of sovereign wealth funds. Finance and Development, 44(3), 56.
- Karolyi, G. A. (2012). Corporate governance, agency problems and international cross-listings: A defense of the bonding hypothesis. *Emerging Markets Review*, *13*(4), 516-547.
- Knill, A. M., Lee, B. S., & Mauck, N. (2012). Sovereign wealth fund investment and the return-to-risk performance of target firms. *Journal of Financial Intermediation*, *21*(2), 315-340.
- Koirala, S., Rao, S. K., Farag, H., & Marshall, A. (2022). The market for corporate control and risk-taking: evidence from global M&A laws. *British Journal of Management*, *Forthcoming*.
- Kotter, J., & Lel, U. (2011). Friends or foes? Target selection decisions of sovereign wealth funds and their consequences. *Journal of Financial Economics*, 101(2), 360-381.
- Kratsas, G., & Truby, J. (2015). Regulating sovereign wealth funds to avoid investment protectionism. *Journal of Financial Regulation*, *1*(1), 95-134.
- Lel, U., & Miller, D. P. (2008). International Cross-Listing, Firm Performance, and Top Management Turnover: A Test of the Bonding Hypothesis. *The Journal of Finance*, 63(4), 1897-1937.
- Li, J., & Wu, D. A. (2020). Do corporate social responsibility engagements lead to real environmental, social, and governance impact? *Management Science*, 66(6), 2564-2588.

- Liang, H., & Renneboog, L. (2020). The global sustainability footprint of sovereign wealth funds. *Oxford Review of Economic Policy*, *36*(2), 380-426.
- Maung, M., Wilson, C., & Yu, W. (2020). Does reputation risk matter? Evidence from cross-border mergers and acquisitions. *Journal of International Financial Markets, Institutions and Money*, 66, 101204.
- Megginson, W. L., & Fotak, V. (2015). Rise of the fiduciary state: A survey of sovereign wealth fund research. *Journal of Economic Surveys*, 29(4), 733-778.
- Mullen, K., & Rose, P. (2018). Public Funds Investment Policies: 2017 Survey. *Available at SSRN* 3130132.
- North, D. C. (1981). Structure and change in economic history. Norton
- Ramesh, R. (2016). 1MDB: The inside story of the world's biggest financial scandal. Retrieved 15/07/2021, from https://www.theguardian.com/world/2016/jul/28/1mdb-inside-story-worlds-biggest-financial-scandal-malaysia
- Ridley, K. (2019). Ex Barclays finance chief would have faced charges over Qatar rescue, trial hears. *Thomson Reuters*. Retrieved 15/07/2021, from https://www.reuters.com/article/us-britain-barclays-qatar-idUKKBN1WO2CX
- Schneper, W. D., & Guillén, M. F. (2004). Stakeholder rights and corporate governance: A cross-national study of hostile takeovers. *Administrative Science Quarterly*, 49(2), 263-295.
- Stone, S. E., & Truman, E. M. (2016). *Uneven progress on sovereign wealth fund transparency and accountability*.
- Stulz, R. M. (2005). The limits of financial globalization. *The Journal of Finance*, 60(4), 1595-1638.
- Truman, E. M. (2007). Sovereign wealth funds: the need for greater transparency and accountability. In. Washington DC: Peter Institute for International Economics.
- Zhou, N., & Wang, H. (2020). Foreign subsidiary CSR as a buffer against parent firm reputation risk. *Journal of International Business Studies*, 51, 1256-1282.

TABLE 1: Summary statistics

This table reports the summary statistics of the variables. Panel A reports as ownership of Sovereign Wealth Funds. Panel B reports the various proxies related to firm reputation risks. Panel C reports the firm characteristics and Panel D reports the country–level characteristics.

	Mean	Median	Min	Max	Std. Dev.
Ownership					
SWF Ownership _{jiq} (%)	1.358	0.519	0.000	55.833	4.345
ΔSWF Ownership $_{jiq,jiq-1}$	0.032	0.000	-1.400	1.745	0.282
Reputation Risk					
RRI_{jiq+1}	9.187	0.000	0.000	78.333	12.157
$\ln(RRI_{jiq+1})$	1.345	0.000	0.000	4.374	1.494
$PRRI_{jiq+1}$	10.595	0.000	0.000	88.000	13.797
$ln(PRRI_{jiq+1})$	1.418	0.000	0.000	4.489	1.557
Incident counts	10.165	4.000	1.000	336.000	18.144
$Env RRI_{iiq+1}$	1.742	0.000	0.000	52.333	4.305
$Soc \ RRI_{jiq+1}$	3.328	0.000	0.000	63.170	6.300
$Gov RRI_{jiq+1}$	3.566	0.000	0.000	68.533	7.263
$Incident_{jiq+1}$	12.134	5.000	1.000	336.000	21.740
Firm Characteristics					
Market Capitalization (bn\$)	10.224	2.758	0.057	184.576	23.464
Sales Revenue (bn\$)	7.671	2.141	0.023	119.233	16.588
Age (years)	59.394	46.000	0.000	159.000	44.195
Leverage (%)	16.164	13.106	0.000	93.496	15.364
Return on Assets (%)	4.425	3.842	-321.554	38.190	8.669
Sales Growth (%)	10.968	6.028	-187.387	928.340	44.456
Current Ratio (times)	1.974	1.386	0.011	71.787	3.329
SWF Characteristics					
# of Portfolio Firms	117.251	3.000	1.000	3,760.000	473.448
Portfolio Size (bn)	25.836	1.757	0.000	644.317	77.597
Country Characteristics					
Inflation (%)	3.129	2.344	-4.863	29.507	3.302
GDP (\$bn)	1,090.201	319.068	2.596	21,433.225	2,590.453
SWF Country Governance	3.343	3.985	-2.814	4.542	1.434
Corruption Index	73.941	80.878	16.000	92.000	16.265
D (Foreign SWF)	0.856	1.000	0.000	1.000	0.351

TABLE 2: SWF ownership and firm reputation risk

This table reports the impact of SWF $Ownership_{jiq}$ on reputation risk in next two quarters. Models (1) – (4) examines the average quarterly reputation risk index and Models (5) – (8) include peak quarterly reputation risk index. All the variables are defined in Appendix II. t–statistics are reported in parentheses. All models include Firm, Year, and Quarter fixed effects. Errors are clustered at Firm level. *, **, and *** denote significance at 10%, 5%, and 1% respectively.

		Fu	l Sample				and Ireland Strategic	Investment Fund
	RRI_{jiq+1}	RRI_{jiq+2}	$ln(RRI_{jiq+1})$	$ln(RRI_{jiq+2})$	RRI_{jiq+1}	RRI_{jiq+2}	$ln(RRI_{jiq+1})$	$ln(RRI_{jiq+2})$
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
SWF Ownership _{iiq}	0.151***	0.152***	0.031***	0.030***	0.227**	0.186*	0.038***	0.034**
- 7.4	(3.84)	(3.83)	(5.82)	(3.94)	(2.19)	(1.79)	(2.65)	(2.37)
Ln (Market Cap)	0.593***	0.751***	0.107***	0.125***	0.669***	0.757***	0.125***	0.132***
•	(7.68)	(9.79)	(9.91)	(8.62)	(3.44)	(3.96)	(4.65)	(4.92)
Ln (Age)	1.344***	2.223***	0.260***	0.347***	2.546***	3.697***	0.354***	0.463***
	(3.92)	(6.37)	(5.78)	(5.05)	(2.88)	(4.39)	(3.38)	(4.64)
Leverage	1.212**	0.979*	0.079	0.050	0.778	0.240	-0.082	-0.139
	(2.38)	(1.90)	(1.17)	(0.53)	(0.55)	(0.17)	(-0.48)	(-0.81)
Return on Assets	-1.687***	-1.485***	-0.310***	-0.303***	-2.656*	-1.796	-0.453**	-0.381**
	(-3.05)	(-2.65)	(-4.23)	(-3.36)	(-1.89)	(-1.29)	(-2.41)	(-2.04)
Sales Growth	-0.093	-0.132	-0.015	-0.019*	-0.259*	-0.315*	-0.029	-0.038*
	(-1.17)	(-1.63)	(-1.45)	(-1.74)	(-1.77)	(-1.95)	(-1.52)	(-1.95)
Current Ratio	-0.018	-0.019	-0.001	-0.001	-0.048*	-0.062***	-0.004	-0.005
	(-1.30)	(-1.36)	(-0.65)	(-0.35)	(-1.67)	(-2.61)	(-1.11)	(-1.35)
Ln (SWF Portfolio Firms)	-0.027	-0.045**	-0.003	-0.005	-0.246***	-0.296***	-0.020**	-0.023***
	(-1.35)	(-2.26)	(-1.36)	(-1.43)	(-3.55)	(-4.08)	(-2.41)	(-2.79)
Ln (SWF Portfolio Size)	0.005	0.010	-0.003	-0.003	0.023	0.096**	-0.009	-0.004
	(0.36)	(0.68)	(-1.33)	(-0.95)	(0.48)	(2.02)	(-1.53)	(-0.71)
Inflation	-0.131***	-0.094***	-0.013***	-0.009*	-0.115	-0.031	-0.013	-0.003
	(-3.85)	(-2.71)	(-2.92)	(-1.78)	(-1.55)	(-0.43)	(-1.47)	(-0.32)
Ln (GDP)	-2.040***	-1.790***	-0.122***	-0.106**	-2.404***	-1.526**	-0.029	0.051
	(-7.91)	(-6.87)	(-3.61)	(-2.12)	(-3.84)	(-2.48)	(-0.37)	(0.67)
SWF Country Governance	-0.026***	-0.018*	-0.003**	-0.002	-0.052**	-0.049**	-0.004	-0.004
	(-2.62)	(-1.84)	(-2.06)	(-1.22)	(-2.33)	(-2.25)	(-1.53)	(-1.48)
In (Corruption Index)	-0.244**	-0.284**	-0.001	-0.005	0.206	0.189	-0.007	-0.009
	(-1.99)	(-2.34)	(-0.04)	(-0.27)	(0.89)	(0.83)	(-0.29)	(-0.38)
D (Foreign SWF)	0.500***	0.644***	0.055***	0.070***	0.734***	1.042***	0.134***	0.172***
	(5.61)	(7.06)	(4.71)	(4.73)	(3.37)	(4.48)	(5.52)	(7.07)
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Quarter FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	317,622	317,622	317,622	317,622	104,460	104,460	104,460	104,460
Adjusted R^2	0.635	0.624	0.544	0.536	0.673	0.656	0.568	0.557
Number of Firms	6,296	6,296	6,296	6,296	3,088	3,088	3,088	3,088

TABLE 3: SWF scandals, market reaction and firm reputation risk

This table reports the market reaction and firm reputation risks surrounding SWF scandals. Panel A reports the results of an event study analysis of stock price impact of scandals of SWF (Panel A.1. reports the results for all scandals and Panel A.2. reports results for those firms with SWF ownership greater than the median SWF ownership). Abnormal stock returns are calculated as daily stock returns aminus an estimate of normal stock returns and then averaged across all sample observations. Stock returns data are obtained from Datastream. Market return for 39 countries is downloaded from WRDS market index database. S&P 500 Index is used as proxy for market return in US and for rest of the countries, we use MSCI All country index as proxy for market return. The normal stock returns are calculated through market model regressions over the estimation period ranging from trading days -180 to -20 relative to the announcement date. The Patell adjusted test is calculated as in Kolari and Pynnönen (2010). The standardised cross-sectional test is calculated as in Boehmer et al. (1991). The rank test is calculated as in Corrado (1989). *, **, and *** denote significance at 10%, 5%, and 1% respectively. Panel B reports the results of difference-in-differences analysis surrounding the scandals. In Models (5) – (8), $D(Scandal_{jq})$ takes value of 1 in the four quarters after the scandal surrounding SWF who owns the firm and 0 else. In Models (5) – (8), $D(Scandal_{jq})$ takes value of 2 in the year quarter when there was scandal surrounding SWF who owns the firm and 0 else. In Models (3), (4), (7), and (8), we examine major scandals which is defined as the scandal event where the CAR (-2, +2) is lower than the median value of CAR (-2, +2) of all scandal events. All the variables are defined in Appendix II. t-statistics are reported in parentheses. All models include Firm, Year, and Quarter fixed effects. Errors are clustered at Firm level. *, **, and *** denote significance at 10%, 5%, and 1% respectively.

Panel A: Market reaction to SWF scandals

			Market Model Cumulativ	ve Abnormal Returns	
Panel A.1. All	scandals				
	Number of observations	%CAR	Patell adjusted test	Boehmer test	Rank test
(-2, +2)	2464	-0.294%	-9.14***	-5.28***	-1.90*
(-3, +3)	2461	-0.135%	-6.93***	-3.80***	-1.79*
(-4, +4)	2174	-0.150%	-12.10***	-6.34***	-2.07**
(-5, +5)	2454	-0.183%	-11.77***	-5.65***	-2.47**
Panel A.2. Fire	ns with large SWF ownership				
(-2, +2)	854	-0.704%	-11.28***	-6.36***	-2.27**
(-3, +3)	860	-0.545%	-9.78***	-5.49***	-2.66***
(-4, +4)	888	-0.434%	-14.22***	-6.78***	-2.42**
(-5, +5)	885	-0.486%	-12.41***	-5.73***	-2.48**

Panel B: Firm reputation risks surrounding SWF scandals

		Difference-i	n-differences		Scandal quarter			
		candals	Major	scandals		scandals		r scandals
	RRI_{jiq}	$ln(RRI_{jiq})$	RRI_{jiq}	$ln(RRI_{jiq})$	RRI_{jiq+1}	$ln(RRI_{jiq+1})$	RRI_{jiq+1}	$ln(RRI_{jiq+1})$
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
D(Scandals)	1.934***	0.205***	2.365***	0.329***	1.568***	0.320***	1.758***	0.376***
,	(9.19)	(9.57)	(5.43)	(5.05)	(7.64)	(6.33)	(5.84)	(6.99)
Ln (Market Cap)	0.622***	0.112***	0.627***	0.113***	0.622***	0.112***	0.628***	0.113***
•	(5.41)	(7.50)	(5.41)	(7.51)	(5.39)	(7.50)	(5.43)	(7.52)
ln (Age)	1.422**	0.295***	1.351**	0.288***	1.380**	0.291***	1.380**	0.291***
	(2.47)	(4.09)	(2.34)	(3.98)	(2.40)	(4.05)	(2.39)	(4.02)
Leverage	1.326	0.062	1.404	0.070	1.344	0.062	1.371	0.067
	(1.50)	(0.65)	(1.58)	(0.73)	(1.52)	(0.65)	(1.55)	(0.70)
Return on Assets	-1.654**	-0.305***	-1.637**	-0.303***	-1.640**	-0.304***	-1.660**	-0.305***
	(-2.15)	(-3.30)	(-2.11)	(-3.26)	(-2.11)	(-3.29)	(-2.14)	(-3.29)
Sales Growth	-0.103	-0.016	-0.104	-0.016	-0.099	-0.016	-0.102	-0.016
	(-0.83)	(-1.34)	(-0.83)	(-1.33)	(-0.80)	(-1.30)	(-0.83)	(-1.33)
Current Ratio	-0.016	-0.001	-0.015	-0.001	-0.015	-0.001	-0.016	-0.001
	(-0.92)	(-0.38)	(-0.92)	(-0.38)	(-0.86)	(-0.34)	(-0.93)	(-0.39)
Ln (SWF Portfolio Firms)	-0.054**	-0.009***	-0.059**	-0.009***	-0.053*	-0.008***	-0.056**	-0.009***
,	(-1.97)	(-2.81)	(-2.14)	(-2.97)	(-1.94)	(-2.74)	(-2.04)	(-2.88)
Ln (SWF Portfolio Size)	0.048**	0.006***	0.050**	0.006***	0.050**	0.006***	0.050**	0.006***
,	(2.37)	(2.75)	(2.46)	(2.84)	(2.43)	(2.81)	(2.45)	(2.82)
Inflation	-0.113***	-0.011**	-0.117***	-0.011**	-0.110**	-0.010**	-0.116***	-0.011**
	(-2.60)	(-2.08)	(-2.66)	(-2.14)	(-2.52)	(-1.98)	(-2.67)	(-2.15)
ln (GDP)	-2.427***	-0.124**	-2.490***	-0.130**	-2.402***	-0.119**	-2.473***	-0.128**
` '	(-5.41)	(-2.30)	(-5.50)	(-2.40)	(-5.36)	(-2.22)	(-5.47)	(-2.37)
SWF Country Governance	-0.021*	-0.002	-0.024*	-0.002	-0.022*	-0.002	-0.024*	-0.002
•	(-1.69)	(-1.35)	(-1.87)	(-1.52)	(-1.74)	(-1.36)	(-1.86)	(-1.51)
In (Corruption Index)	-0.143	0.002	-0.132	0.003	-0.163	-0.001	-0.131	0.003
,	(-0.92)	(0.12)	(-0.85)	(0.20)	(-1.05)	(-0.07)	(-0.84)	(0.21)
D (Foreign SWF)	0.276*	0.028**	0.270*	0.027**	0.289**	0.030**	0.270*	0.027**
` ' '	(1.96)	(2.06)	(1.91)	(2.00)	(2.03)	(2.18)	(1.91)	(2.00)
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Quarter FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	317,622	317,622	317,622	317,622	317,622	317,622	317,622	317,622
Adjusted R^2	0.688	0.580	0.687	0.580	0.689	0.583	0.687	0.580
Number of Firms	6,296	6,296	6,296	6,296	6,296	6,296	6,296	6,296

TABLE 4: Difference-in-differences surrounding large SWF change

This table reports the difference-in-differences regression results. $D(SWF\ Ownership_{iq})$ is a dummy variable that takes value of one up to four quarters for treated group and zero for control group. Treated group include firms that have significant SWF ownership (greater or equal to 2 per cent), experience a large quarterly increase in SWF ownership (top fifth quantile) and do not experience other large increase or decrease in the next four quarters. The control group includes the treatment firms before the large quarterly increase (four quarters) and all the remaining firms. All the variables are defined in Appendix II. t-statistics are reported in parentheses. All models include Firm, Year, and Quarter fixed effects. Errors are clustered at Firm level. *, **, and *** denote significance at 10%, 5%, and 1% respectively.

	RRI_{jiq}	$ln(RRI_{jiq})$
	(1)	(2)
$D(SWF\ Ownership_{ig})$	0.657**	0.079**
1 147	(2.53)	(2.19)
Ln (Market Cap)	0.624***	0.112***
17	(7.57)	(10.34)
ln (Age)	1.358***	0.289***
	(3.64)	(6.41)
Leverage	1.430**	0.073
C	(2.42)	(1.09)
Return on Assets	-1.612**	-0.301***
	(-2.49)	(-4.10)
Sales Growth	-0.103	-0.016
	(-0.99)	(-1.47)
Current Ratio	-0.016	-0.001
	(-0.96)	(-0.45)
Ln (SWF Portfolio Firms)	-0.057***	-0.009***
	(-2.86)	(-3.99)
Ln (SWF Portfolio Size)	0.050***	0.006***
	(3.38)	(4.12)
Inflation	-0.120***	-0.012**
	(-3.12)	(-2.50)
ln (GDP)	-2.500***	-0.131***
	(-8.38)	(-3.78)
SWF Country Governance	-0.025**	-0.002*
	(-2.17)	(-1.92)
In (Corruption Index)	-0.123	0.004
	(-0.94)	(0.29)
D (Foreign SWF)	0.268***	0.027***
	(2.90)	(2.61)
Firm FE	Yes	Yes
Year FE	Yes	Yes
Quarter FE	Yes	Yes
Observations	317,622	317,622
Adjusted R^2	0.699	0.600
Number of Firms	6,296	6,296

TABLE 5: SWF ownership and components of ESG reputation scores

This table reports the impact of SWF ownership on components of reputation risk in next two quarters. All the variables are defined in Appendix II. *t*–statistics are reported in parentheses. All models include Firm, Year, and Quarter fixed effects. Errors are clustered at Firm level. *, ***, and *** denote significance at 10%, 5%, and 1% respectively.

	Environmental	Reputation Risk	Social Rep	outation Risk	Governance F	Reputation Risk
	$Env RRI_{jiq+1}$	Env RRI _{jiq+2}	$Soc RRI_{jiq+1}$	Soc RRI _{jiq+2}	Gov RRI _{jiq+1}	Gov RRI _{jiq+2}
	(1)	(2)	(3)	(4)	(5)	(6)
SWF Ownership _{iia}	0.070***	0.067***	0.031**	0.040***	0.026	0.035*
. ,,,,	(6.78)	(6.53)	(2.02)	(2.61)	(1.31)	(1.79)
Ln (Market Cap)	0.231***	0.265***	0.482***	0.535***	0.242***	0.168***
` ' '	(4.55)	(3.09)	(5.99)	(5.73)	(7.07)	(4.94)
Ln (Age)	0.699***	0.871***	1.198***	1.478***	0.610***	-0.191
\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	(6.85)	(4.56)	(4.82)	(4.91)	(4.04)	(-1.18)
Leverage	0.394***	0.283**	0.939***	0.756***	-0.195	-0.116
	(3.04)	(2.14)	(4.87)	(3.89)	(-0.83)	(-0.50)
Return on Assets	-0.970***	-1.001***	-0.811***	-0.855***	0.054	0.341
	(-5.30)	(-5.35)	(-3.78)	(-3.92)	(0.20)	(1.28)
Sales Growth	0.024	0.017	-0.049	-0.073**	-0.114***	-0.131***
	(1.37)	(0.94)	(-1.53)	(-2.36)	(-3.20)	(-3.53)
Ln (SWF Portfolio Firms)	-0.001	0.002	-0.017**	-0.015**	0.005	0.000
,	(-0.33)	(0.56)	(-2.55)	(-2.21)	(0.73)	(0.05)
Ln (SWF Portfolio Size)	0.007	0.002	0.004	-0.011	-0.036***	-0.035***
,	(1.35)	(0.45)	(0.56)	(-1.38)	(-3.60)	(-3.46)
Current Ratio	-0.005	-0.003	0.017***	0.022***	-0.004	-0.009
	(-1.35)	(-0.68)	(3.04)	(3.75)	(-0.52)	(-1.29)
Inflation	-0.038***	-0.030***	-0.007	-0.006	-0.102***	-0.073***
	(-4.61)	(-3.61)	(-0.57)	(-0.47)	(-6.75)	(-4.78)
Ln (GDP)	0.039	0.066	-0.783***	-0.694***	-1.255***	-1.082***
,	(0.54)	(0.90)	(-7.99)	(-7.07)	(-4.65)	(-4.10)
SWF Country Governance	-0.005*	-0.001	-0.028***	-0.027***	0.005	-0.009*
•	(-1.73)	(-0.33)	(-6.87)	(-6.42)	(1.03)	(-1.85)
Ln (Corruption Index)	-0.002	-0.024	0.034	0.024	-0.222***	-0.249***
•	(-0.07)	(-0.74)	(0.71)	(0.49)	(-4.25)	(-4.77)
D (Foreign SWF)	0.106***	0.148***	0.153***	0.258***	0.147***	0.167***
,	(4.24)	(5.84)	(4.03)	(6.75)	(3.36)	(3.80)
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Quarter FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	317,622	317,622	317,622	317,622	317,622	317,622
Adjusted R^2	0.575	0.567	0.516	0.509	0.505	0.502
Number of Firms	6,296	6,296	6,296	6,296	6,296	6,296

TABLE 6: SWF scoreboard and reputational scores

This table reports the impact of characteristics of SWF on firm's reputation risk in the next two quarters. All the variables are defined in Appendix II. t-statistics are reported in parentheses. All models include Country, SWF, Firm, and Quarter fixed effects. Errors are clustered at Firm level. *, **, and *** denote significance at 10%, 5%, and 1% respectively.

Quarter fixed effects. Effors are clustered at 1 fiff fe-		parency		itical Fund		cture	Gove	rnance	Beh	avior	Overal	Il Score
	RRI_{jiq+1}	RRI_{jiq+2}										
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
SWF Ownership _{jiq}	0.197**	0.192**	0.122**	0.147**	0.134**	0.124**	0.103**	0.108**	0.142**	0.186***	0.134***	0.174**
SWF Ownership _{jiq} \times D (Transparency _j)	(2.30) -0.284**	(2.11) -0.271**	(2.07)	(2.19)	(2.45)	(2.16)	(2.29)	(2.25)	(2.45)	(2.70)	(2.75)	(2.16)
$\textit{SWF Ownership}_{jiq} \times \textit{D (Non-Political Fund}_j)$	(-2.06)	(-1.99)	-0.060 (-0.88)	0.029 (0.42)								
$SWF\ Ownership_{jiq} \times D\ (Structure_j)$			(3133)	(*)	-0.166** (-2.36)	-0.163** (-2.18)						
$SWF\ Ownership_{jiq} \times D\ (Governance_j)$					(2.50)	(2.10)	-0.024 (-0.56)	-0.033 (-0.77)				
$SWF\ Ownership_{jiq} \times D\ (Behaviour_j)$							(0.0 0)	(3.77)	-0.180** (-2.15)	-0.131** (-2.26)		
$SWF\ Ownership_{jiq} \times D\ (Overall\ Score_j)$									(2.10)	(2.20)	-0.166** (-2.36)	-0.163*** (-2.81)
Ln (Market Cap)	0.565*** (5.31)	0.745*** (7.19)	0.563*** (5.99)	0.743*** (6.28)	0.563*** (4.99)	0.744*** (4.28)	0.563*** (4.98)	0.743*** (4.27)	0.564*** (5.00)	0.744*** (4.30)	0.563*** (4.99)	0.744*** (4.28)
Ln (Age)	1.105** (2.07)	1.945*** (3.79)	1.108*** (3.87)	1.948*** (3.13)	1.108*** (3.88)	1.949*** (3.13)	1.107*** (4.87)	1.947*** (3.12)	1.106*** (4.87)	1.946*** (3.12)	1.108*** (4.88)	1.949*** (3.13)
Leverage	1.369*** (2.92)	1.162**	1.369*** (4.12)	1.165*** (3.41)	1.370*** (4.12)	1.163*** (3.41)	1.369*** (4.12)	1.162*** (3.40)	1.371*** (4.12)	1.164*** (3.41)	1.370*** (4.12)	1.163*** (3.41)
Return on Assets	-1.598** (-2.38)	-1.469** (-2.21)	-1.603*** (-4.24)	-1.475*** (-3.91)	-1.602*** (-4.24)	-1.473*** (-3.90)	-1.603*** (-4.24)	-1.474*** (-3.91)	-1.602*** (-4.24)	-1.473*** (-3.90)	-1.602*** (-4.24)	-1.473*** (-3.90)
Sales Growth	-0.063 (-0.72)	-0.104 (-1.16)	-0.062 (-1.21)	-0.104* (-1.96)	-0.062 (-1.21)	-0.104** (-1.96)	-0.062 (-1.21)	-0.104** (-1.96)	-0.062 (-1.21)	-0.104** (-1.96)	-0.062 (-1.21)	-0.104** (-1.96)
Current Ratio	-0.019 (-1.11)	-0.018 (-1.10)	-0.019* (-1.93)	-0.018* (-1.83)	-0.019* (-1.93)	-0.018* (-1.82)	-0.019* (-1.94)	-0.018* (-1.83)	-0.019* (-1.93)	-0.018* (-1.82)	-0.019* (-1.93)	-0.018* (-1.82)
Ln (SWF Portfolio Firms)	-0.046 (-0.26)	-0.040 (-0.22)	-0.060 (-0.70)	-0.062 (-0.72)	-0.066 (-0.77)	-0.058 (-0.68)	-0.070 (-0.82)	-0.065 (-0.74)	-0.056 (-0.65)	-0.046 (-0.54)	-0.066 (-0.77)	-0.058 (-0.68)
Ln (SWF Portfolio Size)	-0.312*** (-4.51)	-0.362*** (-5.18)	-0.307*** (-3.18)	-0.358*** (-3.30)	-0.307*** (-3.20)	-0.357*** (-3.28)	-0.308*** (-3.22)	-0.358*** (-3.31)	-0.314*** (-3.41)	-0.365*** (-3.51)	-0.307*** (-3.20)	-0.357*** (-3.28)
Inflation	-0.129*** (-3.33)	-0.095** (-2.42)	-0.128*** (-5.98)	-0.094*** (-4.33)	-0.128*** (-5.99)	-0.094*** (-4.36)	-0.128*** (-5.97)	-0.094*** (-4.34)	-0.128*** (-6.00)	-0.094*** (-4.36)	-0.128*** (-5.99)	-0.094*** (-4.36)
Ln (GDP)	-2.276*** (-5.81)	-2.197*** (-5.72)	-2.258*** (-3.34)	-2.175*** (-4.54)	-2.257*** (-3.35)	-2.180*** (-3.59)	-2.255*** (-3.34)	-2.176*** (-3.58)	-2.263*** (-3.37)	-2.186*** (-3.61)	-2.257*** (-3.35)	-2.180*** (-3.59)
SWF Country Governance	0.289 (1.20)	0.631*** (2.62)	0.252** (2.08)	0.592*** (3.78)	0.249** (2.06)	0.593*** (3.78)	0.249** (2.06)	0.592*** (3.78)	0.267** (2.22)	0.614*** (3.96)	0.249** (2.06)	0.593*** (3.78)
Ln (Corruption Index)	-0.765*** (-4.77)	-0.854*** (-5.18)	-0.765*** (-4.00)	-0.857*** (-4.69)	-0.765*** (-4.00)	-0.853*** (-4.66)	-0.767*** (-4.02)	-0.856*** (-4.69)	-0.765*** (-4.00)	-0.853*** (-4.66)	-0.765*** (-4.00)	-0.853*** (-4.66)
D (Foreign SWF)	-0.532* (-1.89)	-0.642** (-2.23)	-0.548*** (-2.99)	-0.676*** (-3.55)	-0.554*** (-3.05)	-0.660*** (-3.49)	-0.571*** (-3.12)	-0.682*** (-3.59)	-0.547*** (-3.01)	-0.652*** (-3.45)	-0.554*** (-3.05)	-0.660*** (-3.49)
SWF FE	Yes											
Firm FE	Yes											
Year FE	Yes											
Quarter FE	Yes											
Observations	293,815	293,815	293,815	293,815	293,815	293,815	293,815	293,815	293,815	293,815	293,815	293,815
Adjusted R ²	0.629	0.615	0.629	0.615	0.629	0.615	0.629	0.615	0.629	0.615	0.629	0.564
Number of Firms	6,203	6,203	6,203	6,203	6,203	6,203	6,203	6,203	6,203	6,203	6,203	6,203

TABLE 7: Country affinity and reputation risks

This table reports the impact of affinity between firm country and SWF country on firm's reputation risk in the next two quarters. All the variables are defined in Appendix II. *t*–statistics are reported in parentheses. All models include Country, SWF, Firm, and Quarter fixed effects. Errors are clustered at Firm level. *, **, and *** denote significance at 10%, 5%, and 1% respectively.

	Governan	ce Closeness	Commo	n Religion	Social Co	nnectedness
	RRI_{jiq+1}	RRI_{jiq+2}	RRI_{jiq+1}	RRI_{jiq+2}	RRI_{jiq+1}	RRI_{jiq+2}
	(1)	(2)	(3)	(4)	, <u>, , , , , , , , , , , , , , , , , , </u>	, ,
SWF Ownership _{iiq}	0.118***	0.135***	0.132***	0.140***	0.149***	0.019***
SWF Ownership _{jiq} × Gov closeness	(2.88) -0.107***	(2.91) -0.080**	(4.26)	(3.39)	(3.25)	(3.23)
Gov closeness	(-2.65) -0.103**	(-2.00) -0.109**				
SWF Ownership _{iia} \times D (Religion)	(-2.12)	(-2.13)	-0.102***	-0.069**		
D (Religion)			(-4.14) -0.097* (-1.85)	(-2.24) -0.066 (-1.29)		
SWF $Ownership_{jiq} \times D$ ($Social$ $Connect$)			(1.03)	(1.27)	-0.044**	-0.005**
D (Social Connect)					(-2.34) -0.044** (-2.34)	(-2.09) -0.005** (-2.09)
Ln (Market Cap)	0.520***	0.669***	0.576***	0.739***	0.546***	0.102***
Ln (Age)	(5.55) 1.222*** (5.11)	(5.19) 2.089*** (8.25)	(5.36) 1.033*** (4.26)	(5.09) 1.914*** (7.41)	(5.53) 1.029*** (4.03)	(5.47) 0.223*** (6.95)
Leverage	1.462*** (4.24)	1.285*** (3.64)	1.439*** (4.08)	1.271*** (3.51)	1.202*** (3.35)	0.93) 0.068 (1.52)
Return on Assets	-0.727* (-1.91)	-0.724** (-2.10)	-1.407*** (-3.64)	-1.253*** (-3.24)	-1.252*** (-3.24)	-0.237*** (-4.81)
Sales Growth	-0.097* (-1.70)	-0.144** (-2.46)	-0.086 (-1.48)	-0.135** (-2.25)	-0.089 (-1.50)	-0.015** (-2.08)
Current Ratio	-0.007 (-0.71)	-0.007 (-0.67)	-0.011 (-1.11)	-0.011 (-1.10)	-0.013 (-1.27)	-0.000 (-0.29)
Ln (SWF Portfolio Firms)	0.296**	0.166	0.009	0.007	-0.016	-0.003

	(2.07)	(1.15)	(0.49)	(0.37)	(-0.93)	(-1.62)
Ln (SWF Portfolio Size)	-0.318***	-0.346***	0.047***	0.027**	0.040***	0.004***
	(-7.32)	(-7.78)	(3.96)	(2.19)	(3.05)	(2.72)
Inflation	-0.084***	-0.074***	-0.082***	-0.071***	-0.079***	-0.005
	(-3.65)	(-3.18)	(-3.51)	(-3.01)	(-3.12)	(-1.40)
Ln (GDP)	-1.710***	-1.700***	-1.613***	-1.603***	-2.019***	-0.124***
	(-7.58)	(-7.35)	(-2.99)	(-6.77)	(-6.89)	(-3.55)
SWF Country Governance			-0.002	0.005	0.012	0.001
			(-0.32)	(0.70)	(1.30)	(0.99)
Ln (Corruption Index)	-1.219***	-1.253***	-0.861***	-0.787***	-0.974***	-0.053***
	(-3.42)	(-3.58)	(-2.85)	(-3.03)	(-3.62)	(-4.26)
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Quarter FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	270,663	270,633	271,822	271,822	252,838	252,838
Adjusted R^2	0.655	0.646	0.647	0.637	0.649	0.555
Number of Firms	5,877	5,877	5,878	5,878	5,142	5,142

TABLE 8: Number of SWF and SWF characteristics and firm reputation risks

This table reports the impact of characteristics of SWF on firm's reputation risk in the next two quarters. Models (1) and (2) include only those firm-year observations when only one SWF has invested in the firm. Models (3) and (4) include only those firm-year observations where more than one SWFs has invested in the firm. Models (5) and (6) is same as Model (3) and (4), where D (All SWF Overall Score;) takes value of 1 if all SWFs have overall score greater than the median value and zero if any one of the SWFs has overall score less than the median value. All the variables are defined in Appendix II. *t*–statistics are reported in parentheses. All models include Country, SWF, Firm, and Quarter fixed effects. Errors are clustered at Firm level. *, **, and *** denote significance at 10%, 5%, and 1% respectively.

	Single	SWF		Multip	le SWFs	
	RII_{jiq+1}	RII_{jiq+2}	RII_{jiq+1}	RII_{jiq+2}	RII_{jiq+1}	RII_{jiq+2}
	(1)	(2)	(3)	(4)	(5)	(6)
SWF $Ownership_{jiq}$	0.260**	0.275***	0.108**	0.104**	0.188***	0.177***
	(2.55)	(2.73)	(2.35)	(2.22)	(5.95)	(7.06)
SWF $Ownership_{jiq}$					-0.106***	-0.185***
\times D (Overall Score _j)					(2 07)	(2 02)
	0 <01 deduction	0. 500 alatatata	0. <0.4 deletele	0.00 % destrute	(-2.87)	(-3.83)
Ln (Market Cap)	0.601***	0.730***	0.684***	0.885***	0.572***	0.715***
	(5.63)	(6.85)	(4.55)	(5.87)	(4.95)	(6.01)
Ln (Age)	-0.470	-0.635	2.013***	3.112***	-0.617	-0.084
_	(-0.85)	(-1.18)	(3.47)	(5.28)	(-1.17)	(-0.16)
Leverage	0.730	0.852	2.096**	1.606*	2.544***	2.174***
	(1.04)	(1.20)	(2.38)	(1.80)	(3.39)	(2.83)
Return on Assets	-2.053***	-1.589**	-1.393	-1.007	-0.825	-0.392
	(-3.02)	(-2.50)	(-1.15)	(-0.80)	(-0.89)	(-0.40)
Sales Growth	-0.047	-0.037	-0.125	-0.215	-0.029	-0.084
	(-0.60)	(-0.46)	(-0.92)	(-1.54)	(-0.30)	(-0.81)
Current Ratio	0.009	0.013	-0.037	-0.041	-0.018	-0.015
	(0.43)	(0.65)	(-1.37)	(-1.64)	(-0.97)	(-0.93)
Ln (SWF Portfolio Firms)	0.333*	0.448**	-0.013	0.067	-0.014	-0.024
	(1.81)	(2.46)	(-0.12)	(0.61)	(-0.66)	(-1.12)
Ln (SWF Portfolio Size)	0.164*	0.099	0.210***	0.313***	0.021*	0.039***
	(1.80)	(1.06)	(3.95)	(5.75)	(1.73)	(3.12)
Inflation	-0.005	0.021	-0.170***	-0.158**	-0.087***	-0.140***
	(-0.16)	(0.63)	(-2.64)	(-2.43)	(-2.62)	(-4.05)
Ln (GDP)	0.716**	0.807**	-2.466***	-2.168***	-1.281***	-1.032**
	(2.06)	(2.36)	(-5.07)	(-4.38)	(-3.23)	(-2.55)
SWF Country Governance	-0.152	-0.243	-0.445***	-0.874***	-0.077***	-0.093***
	(-0.94)	(-1.55)	(-2.80)	(-5.35)	(-4.06)	(-4.86)
Ln (Corruption Index)	-0.488***	-0.472***	-0.368**	-0.462***	-0.298***	-0.403***
	(-5.22)	(-6.91)	(-2.29)	(-2.93)	(-2.79)	(-3.69)
D (Foreign SWF)	-0.308	-0.122	0.250	0.365**	0.864***	1.178***
_	(-0.39)	(-0.15)	(1.46)	(2.05)	(3.75)	(3.80)
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes
SWF FE	No	No	Yes	Yes	No	No
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Quarter FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	123,741	123,741	193,790	193,790	175,570	175,570
Adjusted R^2	0.544	0.524	0.675	0.664	0.671	0.657
Number of Firms	5,636	5,636	3,989	3,989	3,968	3,968

TABLE 9: Change in SWF's ownership and firm reputation risks

This table reports the impact of $\triangle SWF$ Ownership_{ijq,ijq-1} on reputation risk in next two quarters. Models (1)–(4) examines the average quarterly reputation risk index and Models (5)–(8) include peak quarterly reputation risk index. All the variables are defined in Appendix II. t–statistics are reported in parentheses. All models include Firm, Year, and Quarter fixed effects. Errors are clustered at Firm level. *, **, and *** denote significance at 10%, 5%, and 1% respectively.

	RRI_{jiq+1}	RRI_{jiq+2}	$ln(RRI_{jiq+1})$	$ln(RRI_{jiq+2})$
	(1)	(2)	(3)	(4)
ΔSWF Ownership $_{jiq,jiq-1}$	0.835***	0.364**	0.124***	0.076***
1 /14,/14-1	(5.29)	(2.30)	(5.79)	(3.53)
Ln (Market Cap)	0.591***	0.748***	0.106***	0.125***
Zii (Marilet Sup)	(5.56)	(7.20)	(7.19)	(8.57)
Ln (Age)	1.355**	2.231***	0.262***	0.349***
(8-)	(2.54)	(4.33)	(3.69)	(5.06)
Leverage	1.193	0.963	0.075	0.047
_1.11081	(1.61)	(1.33)	(0.78)	(0.49)
Return on Assets	-1.685**	-1.470**	-0.309***	-0.301***
	(-2.52)	(-2.23)	(-3.40)	(-3.34)
Sales Growth	-0.093	-0.132	-0.015	-0.019*
	(-1.08)	(-1.44)	(-1.36)	(-1.74)
Current Ratio	-0.018	-0.019	-0.001	-0.001
	(-1.14)	(-1.22)	(-0.53)	(-0.34)
Ln (SWF Portfolio Firms)	-0.049*	-0.069**	-0.008**	-0.010***
,	(-1.83)	(-2.56)	(-2.36)	(-2.85)
Ln (SWF Portfolio Size)	0.036**	0.042**	0.004*	0.004*
,	(2.17)	(2.56)	(1.80)	(1.75)
Inflation	-0.132***	-0.094**	-0.014***	-0.009*
	(-3.44)	(-2.43)	(-2.62)	(-1.79)
Ln (GDP)	-2.074***	-1.817***	-0.129**	-0.112**
	(-5.37)	(-4.82)	(-2.51)	(-2.22)
SWF Country Governance	-0.021*	-0.012	-0.001	-0.001
	(-1.77)	(-1.07)	(-0.95)	(-0.46)
Ln (Corruption Index)	-0.265**	-0.306**	-0.005	-0.008
	(-1.96)	(-2.18)	(-0.28)	(-0.51)
D (Foreign SWF)	0.402***	0.544***	0.034**	0.050***
	(3.47)	(4.42)	(2.34)	(3.56)
Firm FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
Quarter FE	Yes	Yes	Yes	Yes
Observations	317,586	317,586	317,586	317,586
Adjusted R^2	0.635	0.624	0.544	0.536
Number of Firms	6,296	6,296	6,296	6,296

TABLE 10: Alternative definitions of reputation risk

This table reports the impact of SWF $Ownership_{jiq}$ on various alternative definitions of reputation risk in next two quarters. In Models (1) - (4), the dependent variable is PRRI (ln(PRRI)) which is peak quarterly reputation risk index (log). In Models (5) and (6), the dependent variable is Incident which is quarterly count of incidents for firm i in quarter q invested as reported by RepRisk. All the variables are defined in Appendix II. t-statistics are reported in parentheses. All models include Firm, Year, and Quarter fixed effects. Errors are clustered at Firm level. *, ***, and *** denote significance at 10%, 5%, and 1% respectively.

espectively.		P	eak RRI		Inciden	t Counts
	$PRRI_{jiq+1}$	$PRRI_{jiq+2}$	$ln(PRRI_{jiq+1})$	$ln(PRRI_{jiq+2})$	$Incident_{jiq+1}$	$Incident_{jiq+2}$
	(1)	(2)	(3)	(4)	(5)	(6)
SWF $Ownership_{jiq}$	0.159**	0.155**	0.033***	0.031***	0.025**	0.023**
	(2.52)	(2.51)	(4.10)	(3.92)	(2.30)	(2.03)
Ln (Market Cap)	0.746***	0.910***	0.115***	0.134***	0.080**	0.083**
•	(6.11)	(7.60)	(7.41)	(8.74)	(2.28)	(2.50)
Ln (Age)	1.798***	2.729***	0.281***	0.369***	0.305	0.256
	(2.96)	(4.67)	(3.75)	(5.10)	(0.91)	(0.77)
Leverage	1.261	1.052	0.079	0.053	0.595**	0.600**
	(1.53)	(1.30)	(0.79)	(0.54)	(2.24)	(2.30)
Return on Assets	-1.993***	-1.737**	-0.334***	-0.325***	0.584**	0.675***
	(-2.64)	(-2.31)	(-3.52)	(-3.45)	(2.45)	(2.75)
Sales Growth	-0.083	-0.121	-0.015	-0.019	-0.017	-0.016
	(-0.83)	(-1.14)	(-1.26)	(-1.61)	(-0.75)	(-0.79)
Current Ratio	-0.021	-0.018	-0.001	-0.001	-0.015**	-0.016**
	(-1.18)	(-1.02)	(-0.56)	(-0.29)	(-2.17)	(-2.08)
Ln (SWF Portfolio Firms)	-0.031	-0.047	-0.003	-0.005	-0.004	-0.006
	(-1.00)	(-1.50)	(-0.93)	(-1.35)	(-0.71)	(-1.01)
Ln (SWF Portfolio Size)	0.002	0.006	-0.003	-0.003	0.003	0.004
	(0.09)	(0.25)	(-1.08)	(-1.11)	(0.66)	(0.99)
Inflation	-0.141***	-0.091**	-0.013**	-0.009	0.007	0.010
	(-3.21)	(-2.02)	(-2.49)	(-1.59)	(0.36)	(0.56)
Ln (GDP)	-2.123***	-1.846***	-0.114**	-0.099*	-0.157	-0.136
	(-4.87)	(-4.31)	(-2.13)	(-1.87)	(-1.08)	(-0.92)
SWF Country Governance	-0.020	-0.011	-0.002	-0.001	-0.001	-0.000
	(-1.53)	(-0.85)	(-1.40)	(-0.93)	(-0.29)	(-0.11)
Ln (Corruption Index)	-0.264*	-0.316**	-0.001	-0.004	0.018	0.015
	(-1.75)	(-2.02)	(-0.03)	(-0.25)	(0.83)	(0.64)
D (Foreign SWF)	0.541***	0.682***	0.055***	0.070***	-0.027	-0.025
	(3.99)	(4.83)	(3.51)	(4.56)	(-1.31)	(-1.20)
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Quarter FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	317,586	317,586	317,586	317,586	81,283	80,726
Adjusted R^2 / Pseudo R^2	0.604	0.595	0.534	0.526	0.653	0.657
Number of Firms	6,296	6,296	6,296	6,296	3,744	3727

TABLE 11: Impact of SWF ownership on firm outcomes
This table reports the impact of SWF Ownership, in subsequent firm outcomes: institutional investors ownership, independent institutional investors, grey institutional investors ownership, tobins q, operating income and overinvestment. All the variables are defined in Appendix II. *t*–statistics are reported in parentheses. The coefficient of all variables in Model (5) and (6) is multiplied by 100 for ease of reporting. All models include Firm, Year, and Quarter fixed effects. Errors are clustered at Firm level. *, **, and *** denote significance at 10%, 5%, and 1% respectively.

	$\Delta IOwn_{jiy,jiy+1}$	$\Delta IIOwn_{jiy,jiy+1}$	$\Delta GIOwn_{jiy,jiy+1}$	$TobinsQ_{y+1}$	Operating Income/Sales $_{y+1}$	$D(Overinvestment)_{y+1}$
	(1)	(2)	(3)	(4)	(5)	(6)
SWF Ownership _{iiv}	-0.216***	-0.215***	-0.003	-0.120***	-0.408***	0.195**
- 3.3	(-6.99)	(-7.48)	(-0.29)	(-6.25)	(-3.89)	(2.05)
Ln (Market Cap)	-0.383***	-0.343***	-0.014	0.630***	2.673***	3.934***
	(-6.54)	(-6.23)	(-0.62)	(13.41)	(41.82)	(9.52)
Ln (Age)	-0.492	-0.474	-0.051	-0.996***	-1.130***	13.644***
	(-0.72)	(-0.77)	(-0.40)	(-4.31)	(-10.67)	(7.33)
Leverage	-0.707**	-0.306	-0.486***	3.896***	8.446***	-27.393***
	(-2.19)	(-1.00)	(-3.61)	(7.83)	(13.85)	(-10.44)
Return on Assets	1.222**	1.384**	-0.221	0.682	29.896***	15.978***
	(2.17)	(2.53)	(-1.39)	(1.33)	(17.86)	(5.43)
Sales Growth	-0.137*	-0.155**	-0.001	-0.007	-0.178	0.764*
	(-1.72)	(-2.09)	(-0.07)	(-0.18)	(-0.76)	(1.94)
Current Ratio	-0.006	-0.005	-0.001	-0.027***	0.119***	-0.006
	(-0.45)	(-0.42)	(-0.25)	(-3.45)	(3.20)	(-0.08)
Ln (SWF Portfolio Firms)	-0.011	-0.017	0.003	-0.020*	1.792***	-2.304***
	(-0.81)	(-1.24)	(0.57)	(-1.90)	(5.24)	(-4.13)
Ln (SWF Portfolio Size)	0.051***	0.048***	0.001	0.048***	0.343**	0.103
	(4.70)	(4.67)	(0.16)	(5.93)	(2.38)	(0.40)
Inflation	-0.083***	-0.084***	0.003	-0.006	0.627***	-0.142
	(-3.75)	(-4.02)	(0.37)	(-0.46)	(14.61)	(-0.87)
Ln (GDP)	0.021	0.132	-0.182**	-1.240***	-0.922***	-6.451***
	(0.08)	(0.57)	(-2.41)	(-9.46)	(-17.51)	(-4.78)
SWF Country Governance	0.019***	0.020***	0.001	0.011**	0.961**	1.077***
	(2.95)	(3.16)	(0.47)	(1.97)	(2.24)	(3.95)
Ln (Corruption Index)	-0.341***	-0.304***	-0.023	-0.246***	-0.685**	-0.246
	(-4.38)	(-4.16)	(-0.93)	(-4.45)	(-2.22)	(-0.35)
D (Foreign SWF)	-0.126*	-0.173***	0.045*	-0.068	-3.500***	-0.383
	(-1.80)	(-2.67)	(1.91)	(-1.31)	(-4.21)	(-0.33)
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	74,310	74,196	64,287	66,481	66,469	81,257
Adjusted R^2	0.060	0.068	0.064	0.517	0.139	0.592
Number of Firms	5,704	5,694	4,994	5,352	5,346	5,915

FIGURE 1: Average SWF Ownership
This figure plots the average SWF ownership. The shaded area represents the 95% confidence interval.

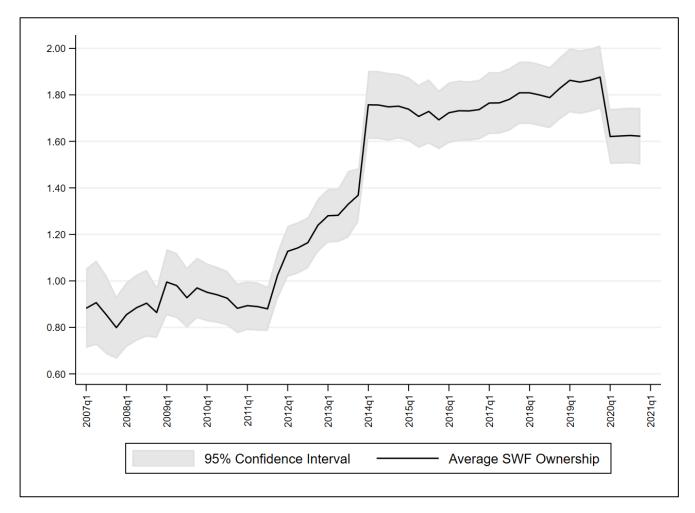


FIGURE 2: Average Firm Reputation Risk Index

This figure plots the average Reputation Risk Index (RRI). The shaded area represents the 95% confidence interval.

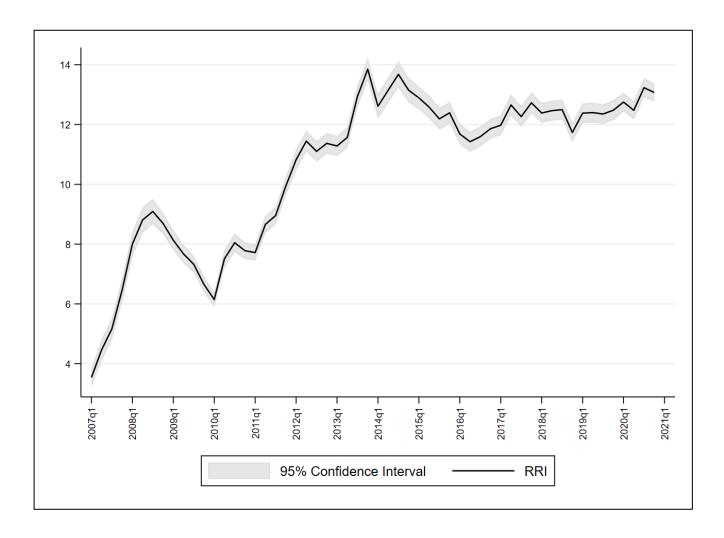
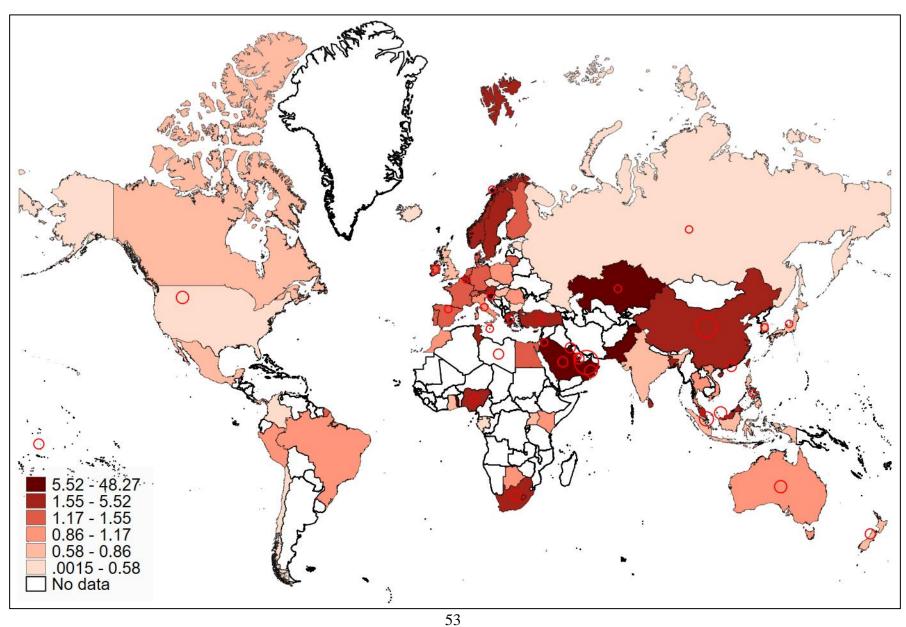


FIGURE 3: SWF ownership across world

This figure plots the average SWF ownership across the world. Red circle represents the location of SWF and its size is proportional to number of SWF in that country. The minimum is 1 and the maximum is 12 SWF.



APPENDIX I: List of SWF

This table reports the list of SWFs included in the analysis. Transparency Score is the average transparency score based on Truman (2007)'s "SWF Scoreboard" published in 2007, 2009, 2012, and 2016. D (Transparency) is a dummy variable equal to 1 if the transparency score is higher than median transparency score. Political Index and D (Political Index) is created following Bortolli et al. (2015). It measures the degree of political interference in the management of a SWF, based on questions 9, 10, and 11 in Truman (2007). Higher values indicate higher levels of political interference.

sn	SWF Name	Country	Portfolio Firms	Average Ownership (%)	Portfolio Firms (2020)	Mean Ownership (2020)	Trans– parency Score	D(Trans– parency)	Political Index
1	The Government Pension Fund – Norway	Norway	5815	0.94	3973	1.24	100.00	1	0
2	Ireland Strategic Investment Fund	Ireland	2948	0.05	2	42.57	78.57	1	0
3	National Council for Social Security Fund	China	927	2.00	397	2.00	53.57	0	1
4	Alaska Permanent Fund	US	921	0.04	909	0.01	100.00	1	0
5	Temasek Holdings (Private) Limited	Singapore	882	2.37	46	9.23	66.07	1	0.25
6	Korea Investment Corporation	South Korea	837	0.06	666	0.08	62.95	0	0
7	Central Huijin Asset Management Ltd.	China	525	1.40	409	1.39			
8	GIC Pte. Ltd.	Singapore	461	1.54	223	1.65	53.57	0	0
9	China Investment Corporation	China	397	1.39	82	0.37	43.31	0	0.25
10	Abu Dhabi Investment Authority	UAE	364	0.26	236	0.28	34.37	0	0.75
11	Kuwait Investment Authority	Kuwait	256	2.16	92	3.11	46.42	0	0
12	SAMA Foreign Holdings	Saudi Arabia	185	0.94	14	0.96			
13	New Mexico State Investment Council	US	128	0.05	95	0.04	91.07	1	0
14	SAFE Investment Company Limited	Hong Kong	120	0.81	78	0.48			
15	Abu Dhabi Investment Council	UAE	106	7.62	5	20.37	21.43	0	1
16	Public Investment Corporation Limited	South Africa	92	11.36	68	13.10			
17	Permodalan Nasional Berhad	Malaysia	87	9.31	53	12.25			
18	Kuwait Investment Office	Kuwait	60	0.80	14	1.75			
19	Temasek Fullerton Alpha Pte Ltd	Singapore	45	0.71	4	1.08			
20	The Public Investment Fund of The Kingdom of Saudi Arabia	Saudi Arabia	44	33.70	43	12.38			
21	Wyoming State Treasurer	US	34	0.02	8	0.01			
22	Central Huijin Investment Ltd.	China	28	49.80	11	48.29			
23	Khazanah Nasional Berhad	Malaysia	28	22.04	9	18.58	58.03	0	0.5
24	Qatar Investment Authority	Qatar	25	11.81	14	11.73	3.57	0	2.5
25	Australian Government Future Fund	Australia	12	1.68	4	1.60	84.38	1	0
26	Hong Kong Monetary Authority	Hong Kong	12	0.79	8	0.89			
27	Bpifrance Investissement SAS	France	10	5.77	5	5.56	67.86	1	2
28	Buttonwood Investment Platform Limited Liability Company	China	10	1.30	7	1.32			
29	GIC Asset Management	Singapore	10	3.08	7	2.57			
30	Victorian Funds Management Corporation	Australia	10	0.35	2	0.55			
31	Shanghai Jiushi (Group) Co.,Ltd	China	9	2.46	5	3.20			
32	Government Superannuation Fund Authority	New Zealand	7	0.02	1	0.00			
33	State General Reserve Fund	Oman	7	6.62	5	11.66	25.00	0	2.75

34 Guangdong Hengjian Investment Holdings Co.,Ltd. China 6 7.90 3 15.42 35 China–Africa Development Fund China 5 5.53 3 5.46 36 Federal Holding and Investment Company Belgium 5 12.47 3 13.06 37 Hellenic Republic Asset Development Fund S.A. Greece 5 33.93 3 13.73 38 Mamoura Diversified Global Holding PJSC UAE 5 24.35 2 17.84 39 The Libyan Investment Authority Libya 5 2.12 1 3.47 6.25 0 40 Aabar Investments PJS UAE 4 13.16 2 27.21	3 3 3.5
36 Federal Holding and Investment Company Belgium 5 12.47 3 13.06 37 Hellenic Republic Asset Development Fund S.A. Greece 5 33.93 3 13.73 38 Mamoura Diversified Global Holding PJSC UAE 5 24.35 2 17.84 39 The Libyan Investment Authority Libya 5 2.12 1 3.47 6.25 0 40 Aabar Investments PJS UAE 4 13.16 2 27.21	3
37 Hellenic Republic Asset Development Fund S.A. Greece 5 33.93 3 13.73 38 Mamoura Diversified Global Holding PJSC UAE 5 24.35 2 17.84 39 The Libyan Investment Authority Libya 5 2.12 1 3.47 6.25 0 40 Aabar Investments PJS UAE 4 13.16 2 27.21	3
38 Mamoura Diversified Global Holding PJSC UAE 5 24.35 2 17.84 39 The Libyan Investment Authority Libya 5 2.12 1 3.47 6.25 0 40 Aabar Investments PJS UAE 4 13.16 2 27.21	3
39 The Libyan Investment Authority Libya 5 2.12 1 3.47 6.25 0 40 Aabar Investments PJS UAE 4 13.16 2 27.21	3
40 Aabar Investments PJS UAE 4 13.16 2 27.21	3
41 International Petroleum Investment Company PJSC UAE 4 12.91 1 2.03 55.95 0	3.5
42 Investment Corporation of Dubai UAE 4 55.01 3 36.95 36.91 0	
43 Jordan Investment Corporation Jordan 4 17.97 2 13.62	
44 Oman Investment Fund Oman 4 32.70 1 0.00	
45 Royal Bafokeng Holdings (Pty) Limited South Africa 4 28.98 3 20.48	
46 Sovereign Wealth Fund Samruk–Kazyna JSC Kazakhstan 4 60.27 3 74.35 46.43 0	3
47 Dubai International Capital L.L.C. UAE 3 19.81 3 6.78 26.79 0	2
48 Istithmar World P.J.S.C. UAE 3 6.67 0 0.00	
49 Libyan Arab Foreign Investment Company Libya 3 4.00 2 2.04	
50 New Zealand Superannuation Fund New Zealand 3 1.87 3 2.94 100.00 1	0
51 Turkey Wealth Fund Management Company Turkey 3 36.18 3 42.75	
52 Bahrain Mumtalakat Holding Company B.S.C. Bahrain 2 48.45 2 53.11 59.52 0	2
53 CDP Equity	2
54 Mubadala Investment Company PJSC UAE 2 16.59 2 13.18 51.79 0	1.375
55 National Development and Social Fund Malta 2 31.27 2 25.94	
56 Oman Investment Authority Oman 2 29.65 2 29.65	
57 Slovenian Sovereign Holding, d.d. Slovenia 2 17.59 2 10.56	
58 Abu Dhabi Fund for Development, Asset Management Arm UAE 1 5.18 1 0.00	
59 Chengdong Investment Corporation China 1 22.47 1 22.00	
60 Emirates Investment Authority UAE 1 60.00 1 60.00	
61 Giovanni Family Fund Australia 1 0.52 1 0.46	
62 Ibile Holdings Limited Nigeria 1 5.51 1 5.50	
63 Japan Investment Corporation Japan 1 43.35 0 0.00	
64 National Development Co. Philippines 1 3.33 0 0.00	
65 Qatar Armed Forces Investment Fund Qatar 1 9.41 1 9.33	
66 Russian Direct Investment Fund Russia 1 12.82 1 13.70 32.14 0	2.5
67 Sharjah Asset Management UAE 1 17.85 1 18.56	2.5
68 Terengganu Incorporated Sdn. Bhd. Malaysia 1 55.20 1 60.66	

APPENDIX II: List of Variables

Symbol	Definition		
Main dependent variables	s and its alternate definitions		
RRI_{jiq+k}	Average ESG reputation risk index of each firm i in year-quarter q invested by SWF j . k takes value of 1 and 2.		
$\ln\left(RRI_{jiq+k}\right)$	One plus natural log of average ESG reputation risk index of each firm i in year-quarter q invested by SWF j . k takes value of 1 and 2.	RepRisk	
$PRRI_{jiq+k}$	Average peak ESG reputation risk index of each firm i in year-quarter q invested by SWF j . k takes value of 1 and 2.	RepRisk	
$\ln\left(PRRI_{jiq+k}\right)$	One plus natural log of peak ESG reputation risk index of each firm i in year-quarter q invested by SWF j . k takes value of 1 and 2.	RepRisk	
$Incidendts_{jiq+k}$	Natural log of quarterly number of incidents recorded for each firm i in year-quarter q invested by SWF j . k takes value of 1 and 2.	RepRisk and Li and Wu (2022)	
$Env \ RRI_{jiq+k}$	Environmental Reputation Score of firm i in year-quarter q invested by SWF j . It is calculated as RRI multiplied by Environment Proportion reported by RepRisk.	RepRisk	
$Soc \ RRI_{jiq+k}$	Social Reputation Score of firm i in year-quarter q invested by SWF j . It is calculated as RRI multiplied by Social Proportion reported by RepRisk.	RepRisk	
$Gov\ RRI_{jiq+k}$	Governance Reputation Score of firm i in year-quarter q invested by SWF j . It is calculated as RRI multiplied by Governance Proportion reported by RepRisk.	RepRisk	
Independent variables and	d its alternate definitions		
SWF Ownership _{jiq}	Percentage of SWF j ownership in firm i in year-quarter q .	CapitalIQ	
ΔSWF Ownership _{jiq,jiq-1}	Change (percentage points) in SWF ownership in year-quarter q from year-quarter $q-1$.	CapitalIQ	
$SWF\ Ownership_{jiy}$	Percentage of SWF j ownership in firm i in year-end y .	CapitalIQ	
SWF characteristics			
Ln (SWF Portfolio Firms)	Natural log of number of firms in the SWF j portfolio in year-quarter q	CapitalIQ	
Ln (SWF Portfolio Size)	Natural log of market value of all firms in the SWF j portfolio in year-quarter q	CapitalIQ	

$D(Transparency_j)$	Dummy variable that takes value of one for transparent SWF and zero for less transparent SWF. We identify SWF as transparent (less transparent) if their transparency score is higher (lower) than the median transparency scores.	Truman (2007)
$D(Non-Political\ Fund_j)$	Dummy variable that takes value of one for non-political fund and zero for political fund. We identify a SWF as a "political fund" if the managerial interference score is less than one and all others as a "non-political fund" (Bortolotti et al., 2015).	Truman (2007)
$D(Structure_j)$	Dummy variable that takes value of one for SWF with better structure and zero for SWF with better structure. We identify SWF as better structure (poor transparent) if their structure score is higher (lower) than the median score.	Truman (2007)
$D(Governance_j)$	Dummy variable that takes value of one SWF with better governance and zero for SWF with poor governance. We identify SWF as better governed (poor governed) if their governance score is higher (lower) than the median score.	Truman (2007)
$D(Behaviour_j)$	Dummy variable that takes value of one for SWF with good behaviour and zero for SWF with poor behaviour. We identify SWF with good behaviour (poor behaviour) if their behaviour score is higher (lower) than the median behaviour scores.	Truman (2007)
$D(\mathit{Overall}_j)$	Dummy variable that takes value of one for SWF with high overall score and zero for SWF with low overall score, which is determined based on the median overall score. The overall score is the combined score for structure, governance, transparency and accountability, and behaviour.	Truman (2007)
D (All SWF Overall Score $_j$)	Dummy variable that takes value of one if a firm has multiple SWFs and all SWF has overall score greater than the median overall score (i.e., all SWFs in a firm has value of one for $D(Overall_j)$) and zero if a firm has multiple SWFs and any one SWF has overall score less than the median score.	
Firm Characteristics		
Ln (Market Cap)	Log of market capitalization (previous year).	CapitalIQ
ln (Age)	Log of the age of the company computed as incorporation year – current year (previous year).	CapitalIQ
Leverage	Long-term debt divided by total assets (previous year).	CapitalIQ
Return on Assets	Net income divided by total assets (previous year).	CapitalIQ
Sales Growth	Growth in total revenue (previous year).	CapitalIQ
Current Ratio	Current liabilities divided by current assets (previous year).	CapitalIQ
Country characteristics		
Inflation	Rate of inflation in headquarter country of portfolio company invested by SWF (previous year).	World Bank

ln (GDP)	Log of gross domestic product (GDP) of headquarter country of portfolio company invested by SWF (previous year).	World Bank	
SWF Country Governance	Governance index of SWF headquarter country (previous year). Governance index is calculated using the principal component analysis of six governance indices. It includes Control of Corruption, Government Effectiveness, Political Stability and Absence of Violence/Terrorism, Regulatory Quality, Rule of Law, and Voice and Accountability. Higher value represents better country governance.		
In (Corruption Index)	Log of corruption perception index of headquarter country of the SWF (previous year). Low value of Corruption Index represents higher corruption.	Transparency International	
D (Foreign)	Dummy variable equal to 1 if the SWF own company in foreign country i.e., in country outside of SWF headquarter country.	Own Calculation	
Gov closeness	Absolute difference between Governance index of Firm headquarter country and SWF headquarter country scaled by sum of the Governance index. The absolute difference is then rescaled to range between 0 to 1 where higher value represents similar Governance scores.	Transparency International	
D (Common Religion)	Dummy variable equal to 1 if the religious proximity index between two countries is higher than	CEPII	
	median value in the sample. The religious proximity index is obtained by summing the products of the shares of Catholics, Protestants and Muslims in the origin and destination countries.		
Dummy variable equal to 1 if the Social Connectedness Index (SCI) between two countries is higher than median value in the sample. The SCI dataset is based on an anonymized snapshot of all active			
	Facebook users and their friendship networks. It captures the intensity of the social connectedness between different countries. More precisely, it measures the relative probability that two individuals across two locations are friends with each other on Facebook.	Baiely et al. (2018)	
Other dependent variables			
$\Delta IOwn_{jiy,jiy+1}$	Annual change (percentage points) in institutional investors ownership (excluding SWF).	CapitalIQ	
$\Delta IIOwn_{jiy,jiy+1}$	Annual change (percentage points) in Independent Institutional Investors ownership. Independent institutional investors include Hedge Funds, Investment Managers, REITs, Pension Funds (Government, Corporate and Union).	CapitalIQ	
$\Delta GIOwn_{jiy,jiy+1}$	Annual change (percentage points) in Grey Institutional Investors ownership. Grey institutional investors include Bank, Insurance, Venture Capital, Private Equity, Family, Education, Charites, and Unclassified institutional investors.	CapitalIQ	
$TobinsQ_{y+1}$	Sum of total debt and market value of equity scaled by book value of total assets	CapitalIQ	
Operating Income /Sales _{y+1}	Operating income scaled by sales	CapitalIQ	

$D(Overinvestment)_{v+1}$

Dummy variable that takes value of one if the amount of unexpected investment for firm—years have positive values of unexpected investment and zero otherwise.

In the spirit of Balachandran, Duong, Luong and Nguyen (2020), unexpected investment is the computed as residual estimated from the following normal investment model:

 $Invest_{iy+1} = \alpha + \beta_1 Market \ to \ Book_{iy} + \beta_2 Return \ on \ Assets_{iy} + \beta_3 Cash_{iy} + \beta_4 Age_{iy} + \beta_5 Leverage_{iy} + \beta_6 Assets_{iy} + \beta_7 Invest_{iy} + Firm \ FE + YearFE + \varepsilon_{iy+1}$

Asset is the natural log of total assets; Invest is the sum of capital expenditures, research and development expense, net gain (loss) from sales of assets, and depreciation divided by lagged total assets

CapitalIQ and Own Calculation

Internet Appendix

TABLE IA1: Impact of large SWF ownership on firm reputation risk

This table reports the impact of large SWF $Ownership_{jiq}$ on reputation risk in next two quarters. D(Large) takes value of one if SWF $Ownership_{jiq}$ is larger than the median value and 0 otherwise. All the variables are defined in Appendix II. t-statistics are reported in parentheses. All models include Firm, Year, and Quarter fixed effects. Errors are clustered at Firm level. *, **, and *** denote significance at 10%, 5%, and 1% respectively.

	RRI_{jiq+1}	RRI_{jiq+2}	$ln(RRI_{jiq+1})$	$ln(RRI_{jiq+2})$
	(1)	(2)	(3)	(4)
$D(Large) \times SWF \ Ownership_{iia}$	0.140***	0.143***	0.028***	0.027***
. , , , , , , , , , , , , , , , , , , ,	(2.79)	(2.90)	(4.07)	(3.93)
Ln (Market Cap)	0.592***	0.750***	0.106***	0.125***
(" " " " " " " " " " " " " " " " " " "	(5.57)	(7.22)	(7.22)	(8.61)
Ln (Age)	1.344**	2.223***	0.260***	0.347***
(8-7	(2.52)	(4.31)	(3.67)	(5.05)
Leverage	1.210	0.978	0.078	0.050
C	(1.64)	(1.35)	(0.81)	(0.52)
Return on Assets	-1.687**	-1.485**	-0.309***	-0.303***
	(-2.52)	(-2.25)	(-3.41)	(-3.36)
Sales Growth	-0.093	-0.132	-0.015	-0.019*
	(-1.07)	(-1.44)	(-1.36)	(-1.74)
Current Ratio	-0.018	-0.019	-0.001	-0.001
	(-1.14)	(-1.23)	(-0.54)	(-0.35)
Ln (SWF Portfolio Firms)	-0.029	-0.047*	-0.004	-0.006
	(-1.05)	(-1.69)	(-1.14)	(-1.60)
Ln (SWF Portfolio Size)	0.009	0.014	-0.002	-0.002
	(0.49)	(0.73)	(-0.62)	(-0.65)
Inflation	-0.131***	-0.094**	-0.013***	-0.009*
	(-3.43)	(-2.42)	(-2.61)	(-1.78)
ln (GDP)	-2.033***	-1.783***	-0.121**	-0.105**
	(-5.26)	(-4.72)	(-2.37)	(-2.09)
SWF Country Governance	-0.026**	-0.018	-0.003*	-0.002
	(-2.22)	(-1.54)	(-1.66)	(-1.18)
In (Corruption Index)	-0.250*	-0.290**	-0.002	-0.006
	(-1.86)	(-2.05)	(-0.12)	(-0.35)
D (Foreign SWF)	0.500***	0.645***	0.054***	0.069***
	(4.11)	(5.03)	(3.59)	(4.72)
Firm FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
Quarter FE	Yes	Yes	Yes	Yes
Observations	317,622	317,622	317,622	317,622
Adjusted R^2	0.635	0.624	0.544	0.536
Number of Firms	6,296	6,296	6,296	6,296

TABLE IA2: Difference-in-differences surrounding major scandals — alternative definition This reports the results of difference-in-differences analysis surrounding the major scandals. We define major scandals as the one which is covered by more than mean count of news for each scandal. The average count of news is 2.56. In Models (1) — (2), $D(Scandal_{jq})$ takes value of 1 in the four quarters after the scandal surrounding SWF who owns the firm and 0 else. In Models (3) — 43), $D(Scandal_{jq})$ takes value of 1 in the year-quarter when there was scandal surrounding SWF who owns the firm and 0 else. In. All the variables are defined in Appendix II. t—statistics are reported in parentheses. All models include Firm, Year, and Quarter fixed effects. Errors are clustered at Firm level. *, **, and *** denote significance at 10%, 5%, and 1% respectively.

	Difference-in-Differences High News Count			Scandal Quarter High News Count		
	RRI_{jiq}	$ln(RRI_{jiq})$	RRI_{jiq+1}	$ln(RRI_{jiq+1})$		
7(2, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1,	(1)	(2)	(3)	(4)		
$D(Scandal_{jq})$	1.130***	0.252***	1.297***	0.298***		
	(6.86)	(4.38)	(6.54)	(5.83)		
Ln (Market Cap)	0.640***	0.114***	0.535***	0.101***		
	(5.54)	(7.63)	(4.54)	(6.67)		
ln (Age)	1.384**	0.292***	0.451	0.214***		
	(2.40)	(4.05)	(0.78)	(2.92)		
Leverage	1.422	0.072	1.670*	0.110		
	(1.61)	(0.75)	(1.86)	(1.15)		
Return on Assets	-1.615**	-0.301***	-1.908**	-0.312***		
	(-2.09)	(-3.25)	(-2.26)	(-3.23)		
Sales Growth	-0.101	-0.016	-0.097	-0.011		
	(-0.81)	(-1.31)	(-0.80)	(-0.83)		
Current Ratio	-0.016	-0.001	-0.017	-0.002		
	(-0.93)	(-0.39)	(-0.88)	(-0.65)		
Ln (SWF Portfolio Firms)	-0.053*	-0.008***	-0.055*	-0.009***		
	(-1.92)	(-2.73)	(-1.95)	(-2.91)		
Ln (SWF Portfolio Size)	0.033	0.004*	0.032	0.005**		
	(1.61)	(1.91)	(1.54)	(2.31)		
Inflation	-0.114***	-0.011**	-0.142***	-0.013**		
	(-2.60)	(-2.07)	(-3.20)	(-2.42)		
ln (GDP)	-2.467***	-0.127**	-2.568***	-0.131**		
	(-5.46)	(-2.35)	(-5.67)	(-2.38)		
SWF Country Governance	-0.028**	-0.003*	-0.030**	-0.002		
	(-2.22)	(-1.88)	(-2.28)	(-1.64)		
In (Corruption Index)	-0.094	0.007	-0.024	0.008		
•	(-0.61)	(0.50)	(-0.17)	(0.53)		
D (Foreign SWF)	0.211	0.020	0.084	0.001		
	(1.50)	(1.50)	(0.63)	(0.07)		
Firm FE	Yes	Yes	Yes	Yes		
Year FE	Yes	Yes	Yes	Yes		
Quarter FE	Yes	Yes	Yes	Yes		
Observations	339,425	339,425	339,425	339,425		
Adjusted R^2	0.703	0.603	0.688	0.581		
Number of Firms	6,296	6,296	6,296	6,296		