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Dodging expropriation? The role of cash holdings as a firm-level driver of risky FDI location choices

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ABSTRACT

Despite the higher expropriation risks associated with investing in corrupt countries, many multinational enterprises (MNEs) still choose to do so. The motivations for investing in such countries remain unclear. Using rich data on 3500 outward foreign direct investment (FDI) projects undertaken by U.S. manufacturing MNEs, we find that cash-rich firms are significantly less likely to locate FDI activities in more corrupt countries. We show that this effect is most pronounced in firms with stronger governance and monitoring regimes. Overall, our findings, which are robust to a battery of tests and treatment of a potential endogenous determination of cash holdings and FDI location decisions, suggest that liquidity influences firms' perceived expropriation risk, with cash-rich firms optimally sheltering their FDI activities from more corrupt countries when expected expropriation costs outweigh the economic gains that can be easily exploited through FDI. These findings have important implications for research, practice, and policy regarding the FDI location decisions of MNEs.

1. Introduction

Foreign direct investment (FDI) decisions involve difficult choices for multinational enterprises (MNEs) regarding which countries to locate their value chain activities and how much capital to invest. One of the most important considerations for location choice by MNEs is the extent of corruption in foreign host countries (Mauro, 1995; Wei, 2000; Cuervo-Cazurra, 2006; Rabbiosi & Santangelo, 2019; Bahoo et al., 2020; Hanousek et al., 2021). The importance of corruption in influencing FDI has been shown to be highly significant and to greatly exceed other potential drivers such as taxation (Wei, 2000), with businesses and individuals estimated to pay between US\$1.5 to US\$2 trillion in bribes every year, which is approximately 2 % of the global GDP (IMF, 2016).¹

At the aggregate-level, corruption has been associated with significantly lower inflows of FDI (Bhardan, 1997; Mauro, 1998; Wei, 2000; Habib & Zurawicki, 2002; Brada et al., 2019)—especially from firms originating from low corruption countries (Cuervo-Cazurra, 2006; Kano & Iriyama, 2023). However, while corruption is widely perceived as a deterrent to FDI, relatively less is understood about whether firms' responsiveness to corruption is heterogeneous. In this paper, we focus on

the potential role of cash holdings in explaining the heterogeneity in MNEs' responsiveness to host country corruption. Our choice to examine cash holdings is economically well-grounded. Specifically, liquid assets, compared to other assets, are known to be fluid and more difficult to trace, which increases the risks of expropriation (Pinkowitz et al., 2006). Indeed, several studies suggest that firms shelter liquid assets away from expropriation when facing higher corruption levels (Caprio et al., 2013; Smith, 2016). Moreover, MNEs and government officials are thought to play a bargaining game, which ultimately determines which firms are more vulnerable to expropriation and how much they pay. Notably, resourceful firms who have more to pay end up paying larger grafts (Svensson, 2003). Since cash holdings could signal to officials how much firms can pay and the amount of extractable resources available for expropriation, we conjecture that firms holding more cash may be less likely to locate their FDI activities in more corrupt countries. In other words, cash holdings could influence how sensitive firms are to host countries' corruption when making FDI location choices.

Our empirical analysis is based on outward FDI undertaken by U.S. manufacturing firms. We use a novel dataset that matches 3554 unique manufacturing Greenfield FDI projects located in over 80 countries, with

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¹ These figures are based on extrapolation of estimates by Kaufmann (2005).

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data on more than 569 distinct public U.S. firms from 2003 to 2019. To examine the effect of corruption and its interaction with cash holdings on FDI location choices, we employ [McFadden \(1973\)](#)'s conditional logistic model (clogit), which has been widely used in the FDI location literature (e.g., [Head et al., 1995](#); [Nachum et al., 2008](#)).

Our baseline results show that higher host economy corruption (empirically proxied by the World Bank Control of Corruption Index) is associated with a significantly lower likelihood of FDI location choice. More importantly, our main findings show a significantly negative interaction between host country corruption and firm-level cash holdings, indicating that firms holding more cash are less likely to locate their investments in more corrupt countries. This finding is consistent with the notion that higher cash holdings may expose firms to increased expropriation risk, thus cash-rich firms being more reluctant to locate FDI activities in more corrupt countries as a result.

We further examine the roles of governance and ownership structures, as the extent to which firms incur expropriation risk may be influenced by internal governance mechanisms. For instance, the risks of expropriation associated with high cash holdings may be mitigated by strong governance ([Dittmar & Mahrt-Smith, 2007](#)), as well as reducing the likelihood firms engage in misconduct and corruption ([Dela Rama, 2012](#); [Cole et al., 2021](#)). By employing three-way interactions between cash, corruption, and measures of corporate governance (board independence) and shareholders' monitoring (institutional ownership), we find that cash-rich firms with stronger corporate governance and monitoring regimes are even less likely to locate their FDI activities in more corrupt countries. Therefore, corruption does deter FDI when firms hold more liquid assets, and have stronger governance mechanisms in place to mitigate agency problems.

We run batteries of sensitivity checks to ensure the robustness of our main findings. Our results are robust even after accounting for several sources of unobserved heterogeneity at both the investment (project) and firm levels. Importantly, they remain robust to the inclusion of control variables that, at country level, could obfuscate the effects of corruption and to variables that, at firm level, could confound the effects of cash holdings. Furthermore, we also attenuate a potential endogenous determination of cash holdings and FDI location related decisions. We utilize increases in corruption convictions ruled by courts of law in firms' home states (e.g., [Smith \(2016\)](#)) as sources of exogenous signals capturing heightened exposure to expropriation risk. Our results remain robust.

We further examine the potential role of the size (scale) of FDI projects. We show that higher corruption makes FDI capital expenditures (capex) marginally less sensitive to cash holdings. That is, cash-rich firms not only shelter their FDI activities away from more corrupt countries but use less cash to finance FDI activities when they must end up choosing to invest in more corrupt countries.

Our study makes several contributions that establish closer linkages between the corporate finance and international business literatures. While several international business studies have examined how corruption affects FDI location decisions ([Wei, 2000](#); [Cuervo-Cazurra, 2006](#); [Hakkala et al., 2008](#); [Kesternich & Schnitzer, 2010](#); [Azzimonti, 2018](#); [Rabbiosi & Santangelo, 2019](#); [Hanousek et al., 2021](#); [Kano & Iriyama, 2023](#)). However, evidence on the sources of heterogeneity in MNEs' responses to corruption remain scarcer and thus less understood. For instance, in a survey article, [Bahoo et al. \(2020\)](#) suggest that identifying firm-level variables that mediate the effects of corruption on MNEs' investments is an important avenue for future research. We contribute to this by highlighting how the interplay between cash holdings, governance, and ownership structure serves as novel finance and governance mechanisms that significantly influence MNEs' sensitivity to host country corruption in FDI location choices.

We also provide new insights to the finance literature by examining the interplay of corruption, cash holdings, investment, and corporate policies. Existing studies typically find that corruption is associated with negative firm outcomes, and that firms hold less cash in more corrupt

jurisdictions (e.g., [Colonnelli et al., 2022](#); [Du & Heo, 2022](#); [Huang & Yuan, 2021](#); [Hossain et al., 2021](#)). Although interactions between agency costs—both internal and external to the firm—such as corruption, managerial incentives, governance, and cash holdings have been studied (e.g., [Pinkowitz et al., 2006](#); [Dittmar & Mahrt-Smith, 2007](#); [Caprio et al., 2013](#); [Smith, 2016](#)), our study is the first in the corporate finance literature to expand the examination of the relationships between corruption, cash holdings, and investment to the domain of FDI location decisions. We provide novel evidence demonstrating how cash holdings and corruption interplay with one another and with governance and ownership structure to explain FDI location choices. Given the higher risks (e.g., [Lin et al., 2019](#)) and complexities (e.g., [Daude & Fratzscher, 2008](#)) associated with FDI compared to domestic investments, along with the growing importance of cash for US firms (e.g., [Pinkowitz et al., 2016](#)), our examination of how investment, liquidity and corruption interact in the context of FDI is an important contribution.

The rest of the paper proceeds as follows. [Section 2](#) introduces the theoretical background and develops our hypotheses. We explain our empirical strategy in [Section 3](#). The empirical results are reported and discussed in [Section 4](#). [Section 5](#) concludes by discussing policy and managerial implications.

2. Literature review and hypotheses development

2.1. Corruption and FDI

Corruption, which can be defined as illegal activities including bribery, fraud and falsification resulting from the actions and misuse of "authority or power by public (government) or private (firms) officeholders for private gain and benefit, financial or otherwise" ([Bahoo et al., 2020, p.2](#)), remains an unfortunate reality of doing business internationally. Although foreign investors may be typically averse to firms' investments in corrupt countries ([Wei, 2000](#); [Habib & Zurawicki, 2002](#)), given the additional risks and costs such investments entail ([Cuervo-Cazurra, 2006](#); [Rabbiosi & Santangelo, 2019](#)), many MNE choose to locate FDI activities in corrupt economies. Yet quite why such decisions are taken by MNEs remain an elusive enigma.

A growing literature emphasises the expropriation risks accounted by MNEs when they invest in corrupt countries (e.g., [Petrou & Thanos, 2014](#); [Cuervo-Cazurra, 2016](#); [Rabbiosi & Santangelo, 2019](#)). These risks arise from both levels of country corruption as well as uncertainties regarding the precise levels of corruption faced by firms ([Rodriguez et al., 2005](#); [Uhlenbruck et al., 2006](#); [Hanousek et al., 2021](#)). Environment dependent, these uncertainties stem from differences in countries formal and informal institutions, which induce unpredictability for managers when evaluating the risk associated with investments in foreign markets ([Miller, 1992](#)).² These uncertainties are important because they can distort the incentives of firms and managers to invest in corrupt economies – for example by incentivising managers and firms to forgo or delay investments ([Chi et al., 2019](#); [Hanousek et al., 2021](#)) or to structure asset holdings to avoid expropriation ([Stulz, 2005](#)). Overall, the effects of corruption are likely to be dynamic at the firm-level ([Kaufmann & Wei, 1999](#)).

Recent studies have explored the effect of corruption and expropriation risk on international investments; this is predominately in relation to the entry mode decisions of MNEs, and/or the nature of investment in foreign subsidiaries. [Sartor and Beamish \(2018\)](#) find that the nature of corruption affects the choice of equity-based foreign entry strategies (wholly owned subsidiary entry mode vs partnering with a local firm)

² Firms located in more corrupt environments have been associated with weaker corporate governance ([Porta, Lopez-De-Silanes, Shleifer and Vishny, 2000](#)), and with greater engagement in corrupt and/or opportunistic actions such as insider trading, fraud and management of earnings ([Liu, 2016](#)).

for a sample of international investments by Japanese MNEs from 2004 to 2007. Sartor and Beamish (2020b) show that in host countries with higher private (public) corruption MNEs are more likely to invest through a wholly owned subsidiary rather than forming joint venture with a local partner. Gómez-Mera and Varela (2024) highlight the role of bilateral investment agreements in mitigating the likelihood of expropriation due to weaker and more unstable institutions that firms encounter when pursuing FDI activities. Spencer and Gomez (2011) find that MNEs structure foreign subsidiary investments to mitigate the uncertainty associated with investing in emerging markets that have higher corruption levels. Additionally, they show that the pressure these subsidiaries face to engage in corruption is influenced by both home and host market conditions. More specifically, MNEs originating from less corrupt home countries face less pressure to engage in corruption locally in subsidiaries located in host markets, in the absence of a local partner. This suggests the importance of controlling for home market conditions when examining the effects of corruption on international investment.

There are two main and contrasting views of corruption. The first, the *grabbing hand* view, considers that investing in corrupt countries imposes additional costs and risks on firms and their investors, associated with the uncertainty of establishing and conducting business in corrupt environments (Mauro, 1995; Voyer & Beamish, 2004; Javorcik & Wei, 2009), which makes FDI less attractive (Uhlenbruck et al., 2006). Since these additional costs and risks are internalised by foreign investors, the expectation is that a negative relationship should exist between corruption and FDI (Javorcik & Wei, 2009). Furthermore, from a real-options perspective corruption uncertainty is considered undesirable, since it exposes firms to increased downside risk, which infers that greater corruption uncertainty would induce firms to invest less (Hanousek et al., 2021). Finally, as theorised by Kaufmann and Wei (1999), in the context of a Stackelberg “game between a rent-seeking government official and a representative firm,” (p.5), corruption has dynamic effects over time, such that firms who pay more bribes face “both a higher nominal rate of harassment in equilibrium, but also have to deal with a higher effective rate of harassment” (p.7), thereby inconsistent with a *helping hand* view. In this way focusing on paying bribes may also distract managers from investing in projects that create long-term value (Birhanu et al., 2016).

A number of empirical studies present evidence in support of the *grabbing hand* view. Sartor and Beamish (2020a) examine the impact of corruption on international investments using data on foreign subsidiary investments made by Japanese MNEs from 1998 to 2015. They document a positive relationship between corruption and the likelihood of MNE subsidiaries exiting host emerging markets. Attributing this result to the uncertainty regarding levels of corruption and its effects in the host market, they further show that the likelihood of exit from higher corruption emerging countries is reduced when MNEs hold a larger equity stake in the subsidiary. This suggests that managers may internalise the costs of risky international location decisions (King et al., 2021). Javorcik and Wei (2009) also provide evidence consistent with the *grabbing hand* view, arguing that since corruption increases the uncertainties associated with dealing with local bureaucracy, effectively acting as a tax on foreign investors. Similarly, Voyer and Beamish (2004) find that higher levels of perceived corruption in emerging markets reduce the likelihood of FDI by Japanese firms.

Alternatively, the *helping hand* view posits that corruption can help to ‘grease the wheels of commerce’, thus generating corporate advantage (Petrou & Thanos, 2014; Ferris et al., 2021). From this perspective corruption can have beneficial effects, and the use of bribes may also be advantageous to firms and potentially more so in corrupt environments. Survey evidence based on a sample of corporate managers from 125 countries by D’Souza and Kaufmann (2013), highlights that over 60 % of managers believe firms like theirs use bribes to win public contracts, with these bribes accounting for approximately 8 % of the contract value. Additionally, the Dow Jones State of Anti-Corruption Survey, (2011; 2014) indicate that 33 % (2014) to 40 % (2011) of firms report

losing business to competitors willing to use bribes to win contracts. In fact, some top management teams (TMTs) may justify corruption, and investments in more corrupt environments, if it allows them to maintain and advance international competitiveness (Collins et al., 2009; Cuervo-Cazurra, 2016). Even considering the expected reputational and financial costs to firms associated with paying bribes, projects involving bribes can still generate positive value to firms (Karpoff et al., 2017; Cheung et al., 2021). Furthermore, returns to MNEs from paying bribes may also be substantial. As shown by Cheung et al. (2021), for a sample of 195 firms prosecuted for international bribery, a \$1 bribe is associated with \$6–9 increase in the market value of bribe paying firms, which suggests bribery can be valuable to MNEs. This is especially true of corrupt countries, given that the benefits to bribes are higher in such countries but lower in less corrupt economies and those in which general law-enforcement is more efficient (Cheung et al., 2021).³

There is also recent evidence to suggest that both the *grabbing hand* and *helping hand* views could play a role in influencing FDI. Petrou and Thanos (2014) explore FDI by banks and present evidence that the effect of corruption on FDI is U-shaped. More specifically, at low to moderate levels of corruption their results are consistent with the *grabbing hand* view, whereas at high level of corruption their findings support the *helping hand* perspective. More recently, Ferris et al. (2021) show that while corruption has negative effects at the country level, corruption can enhance the profitability of private European firms. Furthermore, since managers do not consider international investment decisions independently (Buckley et al., 2007), corruption uncertainty will be weighed against expected benefits of investing in particular locations. Thus, given that uncertainty is endogenous there may be significant first-mover advantages to investing in more uncertain environments, which could encourage investment and early entry (Kulatilaka & Perotti, 1998; Folta & O’Brien, 2004; Chi et al., 2019).

The arguments presented in this section lead to Hypotheses 1a and 1b:

Hypothesis 1a. : Corruption is negatively associated with FDI location choice.

Hypothesis 1b. : Corruption is positively associated with FDI location choice.

2.2. Firm heterogeneity: the role of cash holdings

Firms’ cash holdings could potentially play an important role in influencing FDI in the presence of host country corruption. Since the degree of expropriation by corrupt host country officials may vary according to their perception of a foreign MNE’s ability to pay (Svensson, 2003) and cash availability (Birhanu et al., 2016), higher cash could signal that MNEs have abundant liquid assets for grabs. This is consistent with the idea that firms with more (less) liquid assets are (less) more likely to be at risk from expropriation, given the relative ease through which cash and other liquid assets can be expropriated compared to illiquid assets (Myers & Rajan, 1998; Pinkowitz et al., 2006). Brown et al. (2021) argue that corruption has a negative impact on firms’ investment efficiency. In terms of FDI, it can therefore be argued that cash rich firms face greater costs, risk, and uncertainty, regarding the extent of expropriation in host markets, which could negatively influence the willingness of foreign MNEs to invest in corrupt economies.

This view is reflected in the “sheltering effect” (e.g., Smith, 2016), whereby the threat from political expropriation from corrupt host country officials, who may employ targeted taxation and regulatory threats, can encourage firms with higher liquidity to decrease their

³ However, Cheung et al. (2021) find no evidence that supports the idea that the size of bribes paid is associated with the size of the benefit, nor that the introduction of explicit anti-bribery enforcement reduces the benefits to bribing firms.

exposure to corrupt environments. Smith (2016) shows evidence in the context of local corruption in the U.S., with firms holding less cash in environments that are more politically corrupt. Chen (2011) demonstrates that high cash holdings can reduce the value of firms who operate in corrupt countries and in countries with ineffective securities laws, while Caprio et al. (2013) show that firms operating in corrupt environments hold less cash.

Nevertheless, even in higher corruption environments, expropriating the FDI itself may be relatively difficult for local officials given its fixed capital nature. Yet, higher corporate liquidity may work as a signal of how much MNEs can afford to pay when asked for bribes and grafts, but also MNEs' willingness to pay. This would be in line with the *liquidity hypothesis*, which predicts that firms use their liquid assets to issue cooperative signals to corrupt officials (Smith, 2016). Thus, firms holding more cash could be more reluctant to invest in corrupt countries to avert expropriation directly, and to avoid signalling to officials they have assets to bargain with. In other words, foreign firms with higher cash holdings may try to shelter their liquid assets away from political expropriation by avoiding investing in corrupt countries. In summary, the arguments presented in this section infer that cash holdings could *negatively* moderate the effect of corruption on FDI location choice. Thus, we suggest that:

Hypothesis 2: *The negative association between corruption and FDI location choice is stronger (more negative) in firms with higher cash holdings.*

Finally, and as a caveat, although the focus of our paper is on the important role of firm cash holdings in moderating the effects of corruption on FDI location choice, we acknowledge that other factors including firm leverage and dividend payout policy could also influence investment choices. For example, Jensen (1986) describes the agency issue whereby managers may act opposite to shareholder interests and engage in empire building by withholding dividends and using retained earnings to invest in unattractive projects. In support, a number of empirical studies have documented a positive association between high cash holdings and risks associated with opportunistic behaviour by managers (e.g., Jensen, 1986; Myers & Rajan, 1998; Harford, 1999), including inefficient investment and empire building (Richardson, 2006; Dittmar & Mahrt-Smith, 2007; Harford et al., 2008). Alternatively, managers may be similarly reluctant to pay dividends and more likely to hoard cash but due to risk-averse management styles and financial conservatism (Jensen, 1986; Graham et al., 2001; Graham & Tucker, 2006; Chava & Purnanandam, 2010; Denis & Denis, 2009). Consistent with this, several prior studies support the notion that a scarcity of available funds, captured by low cash holding and/or high leverage, should be associated with lower investment (e.g., Fazzari et al., 1988; Hubbard, 1998).

However, the recent empirical evidence in relation to FDI is mixed. For example, Morck et al. (2008) present evidence consistent with the idea that Chinese firms with lower dividends are more likely to engage in outward FDI. The focus of King et al. (2021) is on the role of leverage. The authors provide evidence in support of a disciplining effect of corporate leverage on managerial behaviour, with higher leverage associated with lower financial commitments to FDI projects, moreover, they demonstrate that this effect is stronger in firms with lower growth opportunities. Finally, Caprio et al. (2013) find that firms operating in corrupt environments issue more dividends (to lower cash holdings), and invest more in fixed assets, since hard assets are more difficult to expropriate.

Given these observations, we are careful to control for such factors throughout our empirical analyses to better isolate the effect of cash holdings on FDI location choice. Moreover, we conduct an extensive set of additional tests to mitigate potential endogeneity concerns, specifying models that separate the effects of the interaction between corruption and cash holdings across firms with high/ low cash flows, dividend payment propensity, and leverage, given these variables and corporate policies are likely correlated with cash holdings and can potentially

affect perceived expropriation risks by managers and investors. Thus, we further expect, as extensions of *Hypothesis 2*, that the reluctance of high-cash firms to locate in corrupt countries should be more pronounced (binding) when firms have (a) more cashflows that can be expropriated, (b) when firms have lower dividend payment propensity and hence do not fully utilize the dividend governance mechanism to shield cash from expropriation risk, and (c) when firms have higher leverage such that the risk of cashflow expropriation is conducive to higher default risk.

2.3. Averting expropriation risk: the function of corporate governance

We now consider whether the moderating effect of cash holdings on the proclivity of MNEs to locate FDI projects in corrupt environments may be more pronounced when firms have weaker or stronger corporate governance and monitoring regimes in place to avert expropriation.

The increased risk of expropriation associated with high-cash holdings in corrupt countries may be mitigated by strong corporate governance (Dittmar & Mahrt-Smith, 2007; Dittmar et al., 2003). For example, managers and other stakeholders have greater scope to appropriate the value generated by cash when cash is abundant, which, in the absence of strong governance, could lead to misallocation of firm capital, as predicted by agency theory (Jensen, 1986). In a U.S. setting Armstrong et al. (2015) present results consistent with strong firm governance representing an effective disciplining tool that can reduce the likelihood that managers pursue risky investment opportunities. In their study, risky investment is explored in the context of tax avoidance, and they find that effective governance can mitigate the likelihood that managers engage in extreme levels of tax avoidance. Supportive evidence also comes from Harford et al. (2017). They question why U.S. industrial firms choose to invest heavily in risky financial assets and find that financially unconstrained firms, and those with poor governance, invest significantly more in risky assets; a finding consistent with the notion that governance may be an effective channel through which the effect of cash on risky international investment is moderated. Similarly, Harford et al. (2008) find support to what they refer to as the *spending hypothesis*, whereby high-cash firms with weaker governance spend cash sub-optimally and more quickly than high-cash strong governance firms. In these firm cash is used to engage in riskier investments such as acquisitions as well as capital expenditures.

If corporate governance is strong enough, the extent to which corporate managers may enjoy leeway to engage with corrupt foreign officials in host economies, so as to create dealings whereby firms' cash could be expropriated, can be rather limited as managers are more closely monitored by the board. In support, several studies (Dela Rama, 2012; Liu, 2016; Cole et al., 2021) suggest that stronger corporate governance and weaker opportunistic culture inside firms are typically associated with a lower incidence of corporate misconduct, fraud, earnings manipulation, and corruption. Likewise, stronger governance may curb sub-optimal investment, disciplining managers' excessive risk-taking in corrupt countries.

Based on these arguments, governance could therefore further strengthen a negative interactive effect of cash holdings on the proclivity of firms to invest in corrupt markets. In different words, with stronger governance firms should be more aware of the perils from expropriation, thus limiting managers' opportunities to use firms' cash to invest in more corrupt (thus riskier) countries where they could exercise greater discretion over the firm's liquid assets. Based on the preceding arguments, we hypothesise:

Hypothesis 3: *The negative association between corruption and FDI location choice is stronger (more negative) in firms with higher cash holdings, and even more so in firms with stronger corporate governance.*

3. Research design

3.1. Data and variables

In this paper, we utilize a unique firm and project level dataset to test the proposed hypotheses. The dataset employed in our study combines project-specific FDI data sourced from fDi Markets: Cross-border Investment Monitor (a database provided by The Financial Times)⁴ with firm-specific financial data sourced from Compustat. The fDi Markets dataset monitors FDI announcements, providing granular project-level FDI that allows us identifying the investing firm, the location, capex, and the year of the investments. We collect data on outward FDI undertaken by U.S. manufacturing MNEs to over 80 countries. Our dataset boasts 3554 investments, undertaken by 569 U.S. publicly listed firms, covering a period of 16 years, between 2003 and 2019. We focus on manufacturing FDI for several reasons. For example, as suggested by Janeba (2002), the location selection of industrial plants, typically requiring larger investments and bearing heavier sunk costs, is more sensitive to country risk compared to other types of investments, which are more footloose. Second, the international trade literature, which provides the theoretical underpinnings for estimating conditional logistic FDI location choice models, builds predominantly on the empirical industrial location literature (e.g., Alcácer & Delgado, 2016).

3.1.1. Dependent variable

The dependent variable in our empirical analysis is project FDI location choice. In deciding on a project location, firms select between j candidate countries (alternatives). Location choice (L_{ict}) equals one when firm i locates the project in country c , and equals zero otherwise.

3.1.2. Explanatory variables

We employ country and firm-level explanatory variables. Corruption ($Corrupt_{ct}$) is the main country explanatory variable. We measure corruption using the World Bank Corruption Control index (CCE) (Kaufmann et al., Kraay and Mastruzzi, 2006; 2010). The CCE ranges from -2.5 (most corrupt) to $+2.5$ (least corrupt). To measure corruption on an increasing basis, we follow Cuervo-Cazurra (2006) and re-calculate the CCE as: 2.5 (maximum score) minus CCE actual score, which re-balances the scale to a theoretical maximum of 5 (most corrupt) and a theoretical minimum of 0 (least corrupt). As an illustrative example, in the year of 2010 the CCE for India is estimated at -0.468 . Therefore, the re-scaled continuously increasing measure of corruption is $2.5 - (-0.468) = 2.968$. At firm level, our main explanatory variable is Cash Holdings ($Cash_{it}$), which is calculated as Cash & Cash Equivalents divided by Total Assets (Cash/Assets), which is a standard metric for Cash Holdings in the finance literature (e.g., Pinkowitz et al., 2006).

We also examine empirically the roles of governance and monitoring regime as factors conditioning the relationship between cash holdings, corruption, and FDI location choices by MNEs. For example, Dittmar and Mahrt-Smith (2007) show that the value of cash holdings is higher (lower) in well (badly) governed firms, whereas Masulis et al. (2007) show that weak governance is associated with less efficient investment project choices. Our preferred proxy for governance quality is Board Independence (the number of outside directors as a fraction of the total number of directors), following evidence suggesting that board independence is associated with independent monitoring, improved governance, and shareholder wealth (e.g., Choi et al., 2007; Rosenstein &

Wyatt, 1990). We also test institutional ownership (IO) as an alternative proxy, given institutional ownership is often associated with more effective monitoring (Demiralp et al., 2011; Aggarwal et al., 2011)⁵.

3.1.3. Main control variables

We employ several country and firm level controls as recommended by extant literature. We control for country attributes known to correlate with corruption and affect FDI location choices, and which have been widely employed in the international business literature (e.g., Wei, 2000; Brouthers, Gao, McNicol., 2008; Nachum et al., 2008; Duanmu, 2012; Nielsen et al., 2017; Loncan, 2021; King et al., 2021). First, since a country's relative size and wealth positively influences its attractiveness of a host country (Aaker & Day, 1986; Henisz & Delios, 2001; Bevan & Estrin, 2004; Brouthers et al., 2008; Nachum et al., 2008) and "speak directly to the core of trade theory" (Loncan, 2021, p.165), we control for market size (GDP) and consumer wealth (GDP per capita) (Brouthers et al., 2008; Nachum et al., 2008; Yeaple, 2009; King et al., 2021), which have been employed as standard gravity variables in the literature (e.g., Bevan & Estrin, 2004; Yeaple, 2009; King et al., 2021; Loncan, 2021). Market size controls for the extent of product demand and market growth potential of host countries and is expected to be positively associated with FDI (Bevan & Estrin, 2004; Markusen, 2004; Loncan, 2021), whereas consumer wealth is an important determinant of the price sensitivity of consumers (Brouthers et al., 2008). Although higher corruption should reduce the attractiveness of investing in larger and wealthier host countries (Brouthers et al., 2008; Brada et al., 2019), higher consumer wealth can mitigate the effect of increases in business costs attributable to corruption since it reduces the price elasticity of a typical consumer, thus allowing higher prices to be charged (Brouthers et al., 2008). More recent general evidence on FDI location decisions of U.S. MNEs by King et al. (2021) demonstrates that firms commit greater financial resources to FDI projects located in countries with larger markets (based on GDP). Using comparable data, Yeaple (2009) also shows that increases in a host country's GDP per capita is associated with a greater number of FDI projects being located in that country, while King et al. (2021), find that increases in a host country's GDP per capita result in reductions in the extent of financial resources committed to FDI projects in that country. King et al. (2021) argue that this may reflect MNEs seeking cost economies through FDI such as access to lower labour costs, given this is typically associated with lower costs of production too (e.g., Helpman et al., 2004; Brouthers et al., 2008). Consequently, although lower host country labour costs may attract FDI any cost savings may be insufficient to offset the negative influence of host country corruption on FDI, given limits to cost savings but lack of limit on corruption costs (Brouthers et al., 2008), which infers that corruption should reduce potential cost advantages. Therefore, we control for labour costs (labour share of GDP per worker), since this is an important FDI determinant (e.g., Bevan & Estrin, 2004; Brouthers et al., 2008). We also control for trade openness (Trade/GDP) (e.g., Loncan, 2021), which proxies for a country's international orientation (Brouthers et al., 2008), since countries more open to trade are expected to receive more FDI (e.g., Asiedu, 2002; Brouthers et al., 2008; Loncan, 2021). All of the aforementioned variables in this section are sourced from the Penn World Table (Feenstra et al., 2015). Next, we control for a country's growth opportunities (GDP growth, with data from the World Bank), since GDP growth should positively influence the likelihood of FDI (King et al., 2021; Burlea-Schiopoiu et al., 2023). Finally, we control for corporate taxation (Statutory Corporate tax, from KPMG) since higher host country tax rates are expected to negatively impact FDI (e.g., Wei, 2000; Barrios et al., 2012; King et al., 2021). Barrios et al. (2012) employ corporate taxation as a predictor of FDI location choice and find that

⁴ The fDi Markets database has been widely employed by investment promotion agencies, development institutions and in scholarly research. For papers that have employed this data source, see, for example: Desbordes and Wei (2017), and Castellani and Lavoratori (2020). For further details on the database itself we kindly refer the interested reader to the provider's website: <https://www.fdimarkets.com/>.

⁵ Data on Board Independence and Institutional Ownership is available for a more limited number of firms (usually those from the S&P 1500), hence these variables feature a lower number of observations in our models.

higher corporate taxation discourages FDI, while Wei (2000), who also employ corruption taxation as a main explanatory variable, compares the relative importance of corporate tax rates with corruption as potential drivers of FDI, and concludes that while tax is a determinant of FDI the role of corruption in influencing FDI choices is substantially more important.

Akin to the logit model, we also employ a project-specific (group) fixed effect that absorbs investment-specific time-invariant unobserved heterogeneity (we elaborate more on the control variables, including controls at the firm level, when discussing our empirical FDI location model in Section 3.2).

3.1.4. Summary statistics

We present basic summary statistics in Table 1 (Table A1 in the Appendix also reports FDI and Corruption statistics per country, whereas Tables A2 and A3 present summary statistics separating between countries with high and low corruption based on the median, and Table A4 displays a correlation matrix).

Average Corruption across countries in the sample is 2.074 (out of a maximum of 5). Countries with higher corruption (75th percentile) have an average corruption score close to 3.00 (typically emerging/developing economies), whereas the least corrupt countries (25th percentile) have average scores close to 1.00 (usually developed countries). Average Cash (Cash/Assets) is at 0.12. Firms that hold more cash (75th percentile) have on average 0.16 cash ratios, whereas firms with lower liquidity (25th percentile) 0.04 on average. The FDI data suggests that U.S. firms show preferences for investments in key emerging markets, with China, India, Mexico, Brazil, and Russia leading, and invest heavily in strategic developed economies, such as the U.K., Germany, France, Spain and Ireland. Corruption is systematically higher in emerging economies, in line with the notion that emerging markets struggle with poorer institutions with a strong bargaining role of government officials.

3.2. Empirical model

To examine the effect of corruption and its interactions with cash on FDI location choices, we employ McFadden (1973)'s conditional logistic regression (clogit), a widely employed model in the empirical FDI location literature (e.g., Nachum et al., 2008; Head et al., 1995). The clogit is consistent with random utility maximisation, being thus suitable to study optimal FDI location choices. The economic intuition behind the model is that firms assess the utility (profitability) of investing in different candidate host economies by comparing the economic/institutional attributes of the countries (e.g., corruption, market size, taxation, labour costs, etc), choosing to locate the investment in the candidate host country where the expected profits are maximised.

The clogit model employs grouped data, where the unit of analysis is the investment, and a group (investment) fixed effect is applied by default. It is the group fixed effect that effectively pools each investment within the location choice set, allowing the decision-maker to compare the utility of the attributes of each candidate location. As such, each investment features a location choice set with all the c, \dots, j candidate host countries. Location choice takes the value of 1 in one instance per investment, and the value of 0 in $j-1$ instances (for more on the clogit data structure, see Cameron & Trivedi (2010)). It is important to highlight that, although the clogit model features variation across locations, firms, and time (as we match to each FDI the firm and country financial/economic characteristics prevailing in the year when the investment is undertaken), the model does not exhibit a typical longitudinal structure, as each FDI project has a unique occurrence (FDI is a discretionary type of investment, instead of a recurrent one). Hence, common panel data techniques are not suitable to examine investment-level FDI location choices.

The main country locational attribute that we examine is corruption. As well noted by Nachum et al. (2008), in multinomial models like the clogit, only alternative-specific variables (e.g., country location

variables) can have their main effects estimated explicitly (directly) by their respective baseline (stand-alone/independent) regression coefficients. Nevertheless, it is a common approach in the empirical FDI location literature to expand the location choice model as to incorporate firm heterogeneity (e.g., Nachum et al., 2008; Chen & Moore, 2010). As such, the variables capturing the characteristics of the decision-makers (firm-level variables, like cash in our case) enter the model interacted with country-specific variables, but do not display baseline (stand-alone) coefficients.⁶

Therefore, to test for the moderating effect of cash holdings on firms' locational preferences towards corruption, we model location choice as a function of corruption's main effect (baseline), plus an interaction of corruption with firms' cash holdings. Hence, we can tease out whether the (dis)utility of investing in more corrupt countries changes for varying degrees of firms' cash holdings (plus depending upon corporate governance and ownership in subsequent analyses) through the interactions. In other words, cash holdings can condition the extent to which corruption brings (dis)utility to MNEs, thus affecting optimal FDI location choices.

We model the location choice probability (L_{ict}) as a function of country-level corruption and its interaction with firm-level cash, further including the vector of country controls (X') specified in the previous sub-section, plus the group (investment) fixed effect. An interesting feature of the group fixed effect is that it absorbs investment-specific unobserved heterogeneity (e.g., firms' unobservable preferences for particular locations), which confers much stringency to the estimation. Our clogit model, estimated via maximum likelihood (ML), is specified as:

$$P[L_{ict} = 1] = \frac{e^{\alpha + \beta \text{Corruption}_{ct} + \delta \text{cash}_{it} \times \text{Corruption}_{ct} + \gamma' X'_{ct}}}{\sum_j e^{\alpha + \beta \text{Corruption}_{jt} + \delta \text{cash}_{it} \times \text{Corruption}_{jt} + \gamma' X'_{jt}}} \quad (1)$$

We are particularly interested in two regression parameters from this equation. First, the parameter *Beta* captures the effect of corruption on FDI location choices. Based on our discussion of the literature, we expect a negative *Beta* coefficient. Second, and most importantly, the parameter *Delta* captures the effect of cash on the sensitivity of location choices to corruption. We expect a negative *Delta*, meaning that cash-rich firms are even more reluctant to invest in corrupt countries.

It is noteworthy that the empirical model does not feature a vector of firm-level controls. The reason is because, as we alluded to previously in the paper, in the clogit model firm-level variables cannot be included in their baselines, thus it is only possible to model firm characteristics via their interactions with the country-level (location-specific) variables that we are mostly interested about (corruption). Nevertheless, to ensure our findings are not affected by omitted firm characteristics that could affect FDI location choices and correlate with cash holdings, later in this paper we conduct robustness checks where we augment the model with interactions between corruption and key firm variables that are known to correlate with cash (e.g., size, cashflows, growth, and leverage).

⁶ This is a standard feature of such multinomial models, and not a deliberate choice. This occurs because firm characteristics that potentially condition (affect) location choices (e.g., cash holdings) do not exhibit variability across the candidate countries in the location choice set, such that when included in their baselines (main effects), they are subsumed and dropped from the estimation when the clogit (group) fixed effect is applied. Notwithstanding, the effect of firm variables is fully identifiable via the interactions, and the absence of firm variables in their baseline effects is inconsequential for the consistency of estimated coefficients.

Table 1
Descriptive statistics.

Variables	Mean	SD	Median	p25	p75	N
<i>Country variables</i>						
Location choice (0/1)	0.011	0.108	0	0	0	301,773
Corruption	2.074	1.049	2.238	1.164	2.893	301,773
Trade/GDP	0.794	0.605	0.644	0.416	1.022	301,773
Labour inc. p.w. (\$ 000)	28.53	18.67	24.28	12.91	43.22	301,773
Distance (KM 000)	8.289	3.609	7.445	6.235	10.91	301,773
Corporate taxes	0.254	0.0861	0.257	0.200	0.310	301,773
GDP p.c. (\$ 000)	26.87	21.88	20.72	10.77	39.41	301,773
GDP (\$ billion)	622.8	866.7	245.6	68.60	692.0	301,773
GDP growth	0.037	0.041	0.038	0.017	0.060	301,773
Projected Growth	0.025	0.017	0.024	0.016	0.035	298,219
Government Effect.	0.526	0.926	0.464	-0.147	1.262	301,773
Regulatory Quality	0.531	0.886	0.536	-0.152	1.247	301,773
<i>Firm/state variables</i>						
Cash/Assets	0.117	0.101	0.091	0.041	0.160	301,773
Board Independence	0.810	0.111	0.833	0.750	0.900	164,472
Institut. Ownership	0.723	0.157	0.715	0.621	0.834	164,050
FDI capex (\$ million)	124.6	406.7	40	20	100	301,773
EBITDA/Assets	0.113	0.820	0.130	0.0891	0.174	301,518
Debt/Assets	0.231	0.153	0.212	0.129	0.325	301,688
Dividends (0/1)	0.758	0.428	1	1	1	301,773
Tobin's Q	1.542	5.618	1.149	0.772	1.840	295,653
Ln Assets (\$)	9.484	2.086	9.595	8.171	10.88	301,773
Corr. convict. (state)	0.305	0.311	0.271	0.191	0.368	301,773

4. Results

4.1. Main results

In Table 2, we begin our analysis by looking at the effect of corruption unconditionally on firm cash. In column (1) we find a significantly negative effect of corruption on FDI location likelihood. This initial finding suggests that firms are less likely to locate FDI in countries

Table 2
Corruption, cash holdings and FDI location: conditional logit estimates.

Y = FDI Location	(1)	(2)	(3)
Corruption	-0.137 *** (0.030)	-0.096 *** (0.035)	-0.120 *** (0.031)
Corruption x Cash/Assets		-0.355 ** (0.149)	
Corruption x Cash/Assets (3Q)			-0.072 ** (0.036)
GDP	0.001 *** (0.000)	0.001 *** (0.000)	0.001 *** (0.000)
GDP growth	7.941 *** (0.578)	7.945 *** (0.579)	7.940 *** (0.578)
GDP per capita	-0.005 ** (0.002)	-0.006 ** (0.002)	-0.006 ** (0.002)
Labour income p.w.	-0.015 *** (0.003)	-0.015 *** (0.003)	-0.015 *** (0.003)
Corporate taxes	-1.192 *** (0.244)	-1.191 *** (0.244)	-1.192 *** (0.244)
Trade/GDP	0.583 *** (0.036)	0.583 *** (0.036)	0.583 *** (0.036)
Distance (km 000)	-0.071 *** (0.007)	-0.071 *** (0.007)	-0.071 *** (0.007)
Observations	301,773	301,773	301,773
Pseudo R-square	0.186	0.187	0.186
chi2	7425	7470	7449
Log-likelihood	-12844	-12841	-12842

FDI location choice is modelled as a function of country-level corruption proxied by the World Bank Control of Corruption Index measured on an increasing basis from 0 (least corrupt) to 5 (more corrupt) (model 1), plus interactions of corruption with cash holdings (Cash/Assets) continuously measured in (model 2) and measured as a dummy in (model 3) (the dummy is =1 for firms in the 3Q of the distribution, =0 if below). Country controls include GDP, GDP growth, GDP p.c., Labour income p.w., Corporate taxes, Trade/GDP, and Distance (km 000). ***, **, and * indicate statistical significance at the 1 %, 5 %, and 10 % levels. Robust standard errors are in parentheses.

with higher corruption levels, corroborating hypothesis H1a. Such stronger location preferences for less corrupt countries offer renewed empirical support for the *grabbing hand* hypothesis (e.g., Kaufmann & Wei, 1999).

Briefly commenting on the country controls, these are mostly in line with the extant literature. Location likelihood is positively associated with the size of GDP and higher GDP growth, suggesting firms' value market size and economic growth as location attractiveness signals. Location is negatively associated with labour costs, with GDP per capita, and with corporate taxes, signalling that firms may prefer investment in countries with lower costs. The results further suggest that firms' location choice is more likely in countries with higher trade openness, but less likely in countries with higher geographical distance, which indicates that trade frictions may obstruct FDI.⁷

Next, in column (2) we introduce the interaction with firms' cash holdings. While the baseline effect of corruption remains significantly negative, we observe a significantly negative interaction between corruption and cash holdings. Thus, when firms hold more liquid assets, they derive more disutility from investing in more corrupt countries. This finding corroborates hypothesis 2 (H2) and seems to be in line with Smith (2016) and Caprio et al. (2013), whereby firms shelter their liquid assets away from political extraction. Since liquid assets are relatively easier to expropriate, higher liquidity might signal to bureaucrats in host economies that MNEs have resources up for grabs, or that they are willing to bargain with these assets (Svensson, 2003). Hence, firms with higher liquidity may prefer investing in countries with lower corruption to avert expropriation risk.

To facilitate the interpretation of the economic effects emerging from

⁷ Because certain country characteristics typically correlate highly with one another (e.g., Corruption, Labor income or GDP per capita as shown in the correlation matrix in Table A4), we run further testing to ensure issues of multicollinearity do not drive our results. We run a VIF test (variance inflation factors) reported in Table A5 in the Appendix. The test shows no sign of collinearity issues given the mean VIF value is 2.45, a test statistic way below values that typically trigger concerns, i.e., values at 10 and above (Note: The VIF is based on an OLS estimation of our location model, since in the clogit model the conditional fixed effect subsumes the constant, rendering the VIF test unfeasible). Furthermore, we run additional models (not reported for brevity) where we exclude the covariates with high pairwise correlations (namely Labor Income p.w. and GDP per capita), without any changes to the results.

the interactions (since the clogit coefficients yield the effect of corruption on the utility of choice, but not, directly, on choice probability), in Table 3 we tabulate the marginal effects (dydx) and elasticities (eyex) associated with the interactions. The table shows how the effect of corruption changes for varying levels of cash holdings as per the distribution of firms' Cash/Assets ratios (1Q, Median, and 3Q).

We observe that both the marginal effects and the elasticities of location choice with respect to corruption are strongly statistically significant and negative across the distribution of cash holdings (as was already hinted by the significant interaction). Both the marginal effects and the elasticities grow stronger in magnitude as we move from low (1Q) to high (3Q) cash firms. For instance, the elasticity of location choice with respect to corruption is estimated at -0.127 for low cash firms (1Q) and at -0.184 for high cash firms (3Q). These estimates suggest that a 10 % increase in corruption is associated with a reduction of 1.27 % in location likelihood for low cash firms, and with a reduction of 1.84 % in location likelihood for high cash firms (an effect roughly 45 % stronger in high vis-à-vis low cash firms in relative terms). Therefore, high cash firms are not only statistically but also economically less likely to invest in more corrupt countries, corroborating Hypothesis 2.

4.2. Addressing potential endogeneity

4.2.1. Omitted variable bias and firm unobserved effects

Since the clogit does not allow to control for firm main effects, one remaining concern is whether firm characteristics that might correlate with cash and affect FDI sensitivity to corruption remain unaccounted for, thus possibly triggering omitted variable bias. To mitigate this risk, we test our models with additional interactions between corruption and several firm covariates that are usually correlated with firms' cash holdings (e.g., Opler et al., 1999): Ln Assets (firm size), EBITDA/Assets (cashflows), Tobin's Q (growth opportunities), and Debt/Assets (firm leverage). These additional findings are reported in Table 4.⁸

In Table 4, we first include additional interactions one by one (models 1–4). Importantly, despite the inclusion of the interactions between corruption and the control variables, the interaction of cash with corruption (our main result) remains significantly negative. We document a significantly negative interaction between corruption and size, suggesting smaller firms are more likely to locate in corrupt countries, whereas the interactions with cash flows, growth, and leverage are insignificant.

Next, in model (5) we test a much more stringent model. We adapt our model slightly, shifting the group fixed effect from the investment-level to the firm-level. This allows us to absorb firm unobserved

Table 3
Economic effects of corruption conditioning on cash holdings levels.

Economic effects of corruption	Cash	1Q	Median	3Q
Marginal effects (dydx)	-0.023^{***} (0.006)	-0.026^{***} (0.005)	-0.031^{***} (0.005)	-0.031^{***} (0.005)
Elasticities (eyex)	-0.127^{***} (0.043)	-0.150^{***} (0.042)	-0.184^{***} (0.045)	-0.184^{***} (0.045)

This table shows the economic effects (dydx – marginal effects, and eyex - elasticities) of the interactions between corruption and cash holdings at varying levels of Cash/Assets distribution (1Q, Median, and 3Q). ***, **, and * indicate statistical significance at the 1 %, 5 %, and 10 % levels. Robust standard errors are in parentheses.

⁸ There are slight variations in the sample size in these models due to occasional missing values in some of the control variables now utilized (e.g., Tobin's Q which requires market valuation data).

heterogeneity. We also include the interactions of corruption with all the controls. We observe, once again, a significantly negative interaction between cash holdings and corruption, even after absorbing firm unobserved heterogeneity and including key controls.⁹ Therefore, our findings are unlikely driven by omitted observable and unobservable factors.

Next, we run a couple of sensitivity checks by conditioning the joint effect of country corruption and firm cash holdings on firm characteristics that can interplay with cash policy and expropriation risk: cash flows, leverage, and dividends. The findings reported in Table 5 split the sample according to key characteristics potentially correlated with cash and that can affect firms' perceived expropriation risk due to high country corruption.¹⁰ In columns (1,2) we split the sample based on cash flows (EBITDA/Assets), separating between firms with high (above the median) and low (below the median) cash flow generation. In columns (3,4) we do the same regarding firm leverage (Debt/Assets), whereas in columns (5,6) we separate firms between dividend payers and non-payers.

The results show that the interaction between country corruption and cash holdings remains significantly negative in the sub-samples of firms with (a) high cash flows, (b) high leverage, and (c) among firms that are not active dividend payers, whereas turning insignificant in the sub-samples of firms with low cash flows, low leverage, and among firms that pay dividends. Overall, these findings corroborate the notion that high-cash firms avoid locating FDI activities in more corrupt countries particularly when (i) they have more cash flows that are subject to the risk of expropriation, (ii) when the governance function of dividends whereby firms reduce expropriation risk by paying dividends back to shareholders is not fully operative, and (iii) when firms have high leverage and thus cash expropriation can be conducive to higher financial distress risk. In all, these additional findings reinforce the notion that the higher the expropriation risk (manifested in higher cash holdings, higher cashflows, and lower tendency to pay dividends), the less likely firms are to locate FDI activities in countries with higher corruption.

4.2.2. Evidence from state-level corruption convictions

We now try and tease-out a stronger responsiveness of firms to corruption by examining state-level corruption convictions. Extant literature suggests that firms and shareholders take localized increases in corruption as signals of higher expropriation risk, with shareholders discounting firm value (Brown et al., 2021), and with firms lowering cash holdings (Smith, 2016), increasing dividends (Hossain et al., 2021), and cutting back on innovations (Huang & Yuan, 2021). Following this literature, we employ state-level corruption convictions data obtained from the reports published by the US Department of Justice (DOJ) Public Integrity Section (PIN). The report provides disaggregated annual data on the corruption convictions ruled by all federal judiciary districts. We aggregate the district-level corruption convictions at the state-level and normalize the number of convictions by the states' populations to net-out any potential size effect. We then calculate the yearly change in convictions per state and lag the measure by one period. We introduce in our location models three-way interactions between the host countries' corruption, firms' cash holdings, and the corruption convictions ruled in

⁹ By shifting the group fixed effect from the investment to the firm-level, we are also able to test another specification of the model with firm clustered robust standard errors. As shown, the results remain robust.

¹⁰ These models feature lower numbers of observations compared to our baseline model because we split the sample according to the relevant firm characteristics (i.e., cash flows, leverage, and dividends).

Table 4
Mitigating omitted variable bias and firm unobserved heterogeneity.

Y = FDI Location	(1)	(2)	(3)	(4)	(5)
Corruption	0.111 (0.079)	-0.054 (0.044)	-0.100 *** (0.035)	-0.110 ** (0.048)	0.083 (0.114)
Corruption*Cash/Assets	-0.418 *** (0.152)	-0.373 ** (0.150)	-0.334 ** (0.155)	-0.332 ** (0.159)	-0.288 ** (0.135)
Corruption*Ln Assets	-0.021 *** (0.008)				-0.023 ** (0.011)
Corruption*EBITDA/Assets		-0.304 (0.204)			-0.175 (0.176)
Corruption*Tobin's Q			-0.013 (0.026)		-0.009 (0.029)
Corruption*Debt/Assets				0.052 (0.118)	0.058 (0.095)
Country controls	Yes	Yes	Yes	Yes	Yes
Investment (group) FE	Yes	Yes	Yes	Yes	No
Firm FE	No	No	No	No	Yes
Observations	301,773	301,518	295,653	301,688	295,483
Pseudo R-square	0.187	0.187	0.186	0.187	0.161
chi2	7478	7467	7299	7467	2739
Log-likelihood	-12837	-12829	-12583	-12837	-15204

Location choice is modelled as a function of country corruption, plus interactions of corruption with Cash/Assets. Model

(1) controls for an interaction of Corruption and Ln Assets (firm size). Model

(2) controls for an interaction of Corruption and EBITDA/Assets (cash flows). Model

(3) controls for an interaction of Corruption and Tobin's Q (growth opportunities). Model

(4) controls for an interaction of Corruption and Debt/Assets (Leverage). Model

(5) includes all the interactions between corruption and the firm covariates altogether and is estimated with firm fixed effects. Robust standard errors are in parentheses.

Table 5

The roles of cash flows, leverage, and dividends.

Y = FDI Location	(1)	(2)	(3)	(4)	(5)	(6)
	High Cash Flow	Low Cash Flow	High Leverage	Low Leverage	Dividend Payers	Non Payers
Corruption	-0.009 (0.049)	-0.174 *** (0.050)	-0.063 (0.051)	-0.114 ** (0.049)	-0.100 ** (0.040)	-0.122 * (0.071)
Corruption*Cash/Assets	-0.715 *** (0.224)	-0.099 (0.205)	-0.763 *** (0.292)	-0.200 (0.180)	-0.151 (0.208)	-0.555 ** (0.222)
Country controls	Yes	Yes	Yes	Yes	Yes	Yes
Observations	147,813	153,705	154,329	147,359	228,882	72,891
Pseudo R-square	0.162	0.215	0.190	0.185	0.183	0.200
chi2	3227	4243	3879	3623	5492	2064
Log-likelihood	-6483	-6307	-6543	-6280	-9785	-3050

Location choice is modelled as a function of country corruption, plus interactions of corruption with Cash/Assets. Models (1,2) split the sample based on cash flows (EBITDA/Assets above or below the median). Models (3,4) split the sample based on leverage (Debt/Assets above or below the median). Models (5,6) split the sample based on dividends (dividend payers and non-payers). ***, **, and * indicate statistical significance at the 1 %, 5 %, and 10 % levels. Robust standard errors are in parentheses.

the firms' states.¹¹

Because increases in corruption convictions ruled by courts of law in firms' states are hardly driven by the actions of individual firms, we conjecture that corruption hikes act as external signals of heightened expropriation risk, potentially helping to attenuate endogeneity concerns. We expect that firms facing exposure to increasingly higher expropriation risks in their local states in their home country (the U.S.)

¹¹ The model also features the two-way interaction of corruption and cash, and the two-way interaction of corruption and corruption convictions (state). It is noteworthy that the two-way interaction of cash holdings and the corruption convictions (state) displays within-firm variability but no variability across locations (countries), hence it is subsumed by the group fixed effect, being automatically dropped from the estimation.

should be even less likely to double down on their expropriation risk exposure by locating FDIs in highly corrupt foreign countries. Table 6 presents the results.

Model (1) shows the findings for the full sample.¹² While we find a negative triple interaction between Corruption (country) x Cash x Corruption convictions (states), this interaction is insignificant. Model (2) shows the results comparing firms in the 25th vs 75th percentiles of cash holdings, allowing to cleanse the estimation from marginal cases around the median. The results this time return a statistically significant ($p < 0.10$) and negative three-way interaction of Corruption (country) x Cash x Corruption convictions (states), indicating that high-cash firms from states experiencing surges in corruption convictions are more

¹² The model with the full sample features a lower number of observations compared to our baseline model due to some loss in information when matching the state convictions data to firms without state identifiers in the Compustat database. The remaining models feature lower numbers of observations given the sub-samples used in the estimations.

Table 6
Evidence from state-level corruption convictions.

Y = FDI Location	(1)	(2)	(3)	(4)
Corruption x Cash x Corruption convictions (state)	-1.207	-1.284 *	-1.583 **	-1.882 **
	(0.772)	(0.763)	(0.764)	(0.928)
Corruption	-0.070	-0.114 **	-0.167 ***	-0.173 **
	(0.047)	(0.055)	(0.057)	(0.083)
Corruption x Cash	-0.420 *	-0.392 *	-0.352	-0.408 *
	(0.220)	(0.220)	(0.220)	(0.237)
Corruption x Corruption convictions (state)	0.081	-0.095	0.028	-0.036
	(0.097)	(0.146)	(0.145)	(0.168)
Cash holdings percentiles	Full Sample	25th vs 75th	20th vs 80th	10th vs 90th
Country controls	Yes	Yes	Yes	Yes
Observations	274,318	138,070	109,703	54,844
Pseudo R-squared	0.189	0.176	0.178	0.174
chi2	2932	1794	1791	927.1
Log-likelihood	-11628	-5951	-4719	-2369

Location choice is modelled as a function of three-way interactions of Corruption (country), Cash/Assets (firm) and Corruption convictions (state) measured as the yearly increase in the number of convictions scaled by the state's population (lagged by one period). Model

- (1) reports the results for the full sample of firms. Model
- (2) compares firms in the 25th vs 75th percentiles of cash, model
- (3) compares firms in the 20th vs 80th percentiles, whereas model
- (4) contrasts firms in the 10th vs 90th percentiles. Country controls include GDP, GDP growth, GDP p.c., Labour income p.w., Corporate taxes, Trade/GDP, and Distance. ***, **, and * indicate statistical significance at the 1 %, 5 %, and 10 % levels. Robust standard errors are in parentheses.

strongly less likely to locate FDIs in more corrupt countries. The findings from model (3) compare firms in the 20th vs 80th percentiles (first and fifth quintiles), whereas the findings from (4) contrast firms in the 10th vs 90th percentiles (first and tenth deciles). We observe that as we compare firms further apart in the distribution of cash, the three-way interactions become more strongly significant ($p < 0.05$), whereas the three-way interaction coefficients increase in size, suggesting stronger economic effects. Taken together, these analyses suggest that state-level surges in corruption affect the extent to which high-cash firms take on additional exposure to expropriation risk via FDI, with cash-rich firms more exposed to local corruption being less likely to locate FDI in foreign corrupt countries.

4.3. The roles of corporate governance and monitoring

In this section, we explore the role of corporate governance and monitoring by shareholders as potential mechanisms affecting the relationship between cash, corruption, and FDI location choice. In Table 7 we introduce three-way interactions between corruption, cash, and measures of (i) corporate governance quality (board independence), and (ii) shareholder monitoring (institutional ownership). To facilitate the interpretation of the somewhat complicated three-way interactions, in Fig. 1 we illustrate the economic effects by plotting the elasticities. Each marker (circle/triangle) in the figure yields the elasticity of location choice with respect to corruption along several values of firms' cash holdings ratios, conditioning again on the governance/ ownership variables (1Q/3Q).

Model (1) of Table 7 explores the three-way interaction between corruption, cash holdings, and board independence. We find a significantly negative three-way interaction, which corroborates our

Table 7
The roles of corporate governance and monitoring.

Y = FDI Location	(1)	(2)
Corruption	-0.844 ***	-0.099 *
	(0.255)	(0.051)
Corruption x Cash/Assets	3.021 *	-0.444 *
	(1.583)	(0.258)
Corruption x Board Independence	0.862 ***	
	(0.307)	
Corruption x Cash/Assets x Board Independence	-4.048 **	
	(1.967)	
Corruption x Low IO (1Q)		-0.210 **
		(0.086)
Corruption x Cash/Assets x Low IO (1Q)		1.093 **
		(0.539)
Country controls	Yes	Yes
Observations	164,472	164,050
Pseudo R-square	0.185	0.185
chi2	4002	3984
Log-likelihood	-7007	-6991

Location choice is modelled as a function of three-way interactions of Corruption, Cash/Assets and (1) Board Independence, (2) Institutional Ownership measured as a dummy = 1 for low IO firms (1Q of the distribution) and = 0 otherwise. Country controls include GDP, GDP growth, GDP p.c., Labour income p.w., Corporate taxes, Trade/GDP, and Distance. ***, **, and * indicate statistical significance at the 1 %, 5 %, and 10 % levels. Robust standard errors are in parentheses.

conjecture that governance plays a role in this relationship.¹³ The significantly negative three-way interaction suggests that high-cash firms are even less likely to invest in more corrupt countries especially when monitored by a more independent board of directors. The elasticities tabulated in Table 7 and plotted in Fig. 1 indicate that at moderate cash ratios (roughly up to 0.20), the effect of corruption on location choice is immaterial regardless of governance quality, as the elasticity is tangent to zero for both high and low degrees of board independence. It is when cash ratios become higher that firms' reluctance to locate in more corrupt countries shows. We can see that as cash increases, the elasticity turns negative, with the curves of high and low board independence detaching from one another. For high levels of cash, the elasticity of location to corruption becomes much stronger for firms with more independent boards, thus stronger governance.

The findings from model (2) in Table 7 explore the interaction of corruption, cash, and institutional ownership measured as a dummy capturing high/low institutional ownership (low = 1). We find a significantly positive three-way interaction, which suggests that high-cash firms are less deterred by corruption when they are more weakly monitored by institutional investors. The corresponding elasticities presented in Fig. 1 suggest that non-linear dynamics are present. Interestingly, for both governance variables we explore, the turning point appears to be at cash ratios around 0.20/0.25, values of cash that sit at the upper quartile of the distribution. This suggests that strong monitoring plays a more relevant role when firms have substantial amounts of cash that risk being expropriated. In fact, when cash is low, firms with low institutional ownership are marginally more sensitive to corruption than firms with high institutional ownership. However, as cash increases, it is firms with higher institutional ownership that show stronger reluctance of locating FDI in more corrupt countries. In all, the findings including the interactions of corruption, cash, board independence, and institutional ownership altogether suggest that stronger

¹³ It is noteworthy that the two-way interaction of cash holdings and the governance variables displays within-firm variability but no variability across locations, hence it is subsumed by the group fixed effect, being automatically dropped from the estimation.

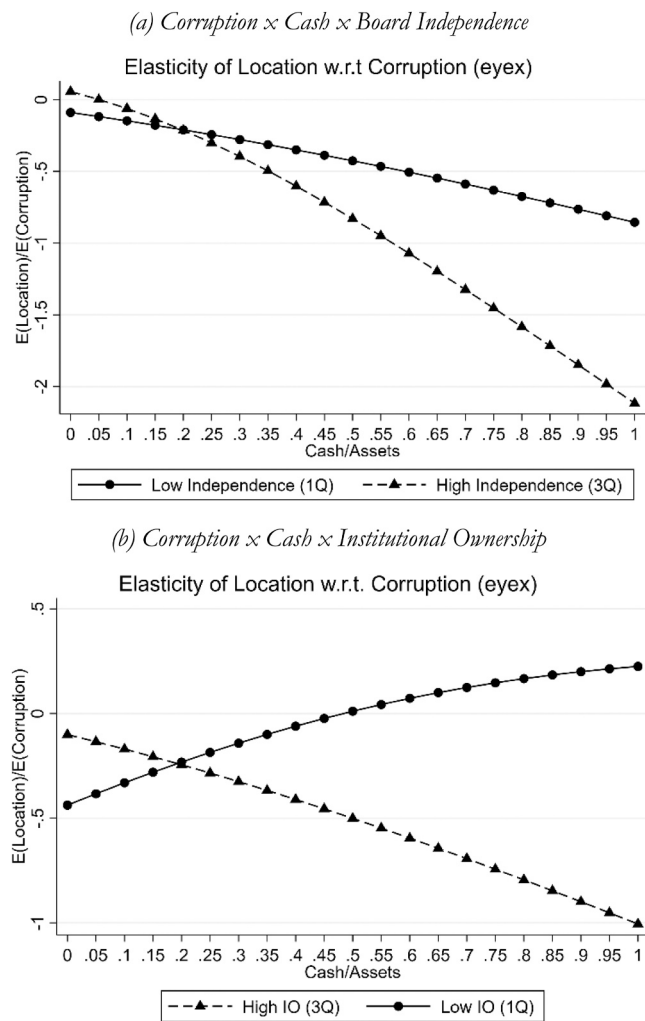


Fig. 1. Corruption, cash and governance: economic effects (eyex). This figure plots the elasticity effects (eyex) of the interactions between corruption, cash holdings and governance measures: (a) board independence, and (b) institutional ownership. Each marker in the plots captures the % change in location likelihood for every 1 % increase in corruption across varying levels of cash and conditioning on Low (1Q)/High (3Q) values in the distribution of the governance variables.

governance and monitoring may work as deterrents against the risk of expropriation, corroborating H3.¹⁴

4.4. The effect of corruption on the sensitivity of FDI capex to cash holdings

We now test whether corruption affects how much capital firms commit to their FDIs, and the sensitivity of investment (FDI capex) to cash holdings. This analysis is important because FDIs are typically characterized by large capital investments, so cash may act as an

¹⁴ We further tested several additional governance variables to identify alternative transmission channels. Specifically, we tested interactions of corruption and cash with ESG ratings (from Refinitiv), with board composition (e.g., CEO duality, board size, etc.), and managerial risk-taking behaviour (e.g., compensation). These additional tests returned inconclusive, as we did not find robustly significant findings. Thus, the governance forces affecting firms' location choices in the presence of corruption and cash expropriation risk come effectively from monitoring encapsulated by the role of independent directors and institutional investors.

important source of finance. That is, we would like to ensure that the relation between cash and location preferences that we uncovered thus far is not obfuscated by a simpler and almost mechanical association between cash as a source of finance and the sizeable capital pledged to FDIs. Also importantly, FDIs of different sizes may respond to corruption differently, thus considering the amount of capital pledged to the FDIs can shed light on important relationships.

To this objective, we examine if corruption is associated with a lower use of cash to fund FDIs. Because we now examine FDI capex value (investment) measured on a continuous basis, we no longer require a location choice model as the decision of how much to invest is not of a discrete nature. Intuitively, we only observe in the dataset the amount of the final investment made in the country of destination of the FDI. Although it is plausible that firms may have considered investing different amounts when evaluating the choice in countries that ended up dismissed, we do not observe this information from the dataset. For this reason, we cannot model investment size in a location-choice setting explicitly. To tease-out the roles of corruption and cash on the FDI Capex, a pooled model suffices, and we must “undo” the location choice set (that is, now each investment appears only once in the regression). We regress the natural log of each project's FDI capex against country corruption, cash holdings, and the interaction between the two, plus including country and firm controls, industry, and year fixed effects. This is a much simpler regression, much closer to common corporate finance models often seen in the empirical literature.

The model reported in column (1) shows an initial specification where we include the country controls only. We find a significantly negative interaction between corruption and cash, which suggests that high-cash firms commit less capital to the FDIs when investing in more corrupt countries. In column (2) we augment the model with the firm controls. We find that larger firms make more sizeable FDIs, and that firms with higher Tobin's Q ratios (stronger growth opportunities) also invest more. While we see no effect of cashflows, firms with higher leverage invest less, in line with the monitoring role of leverage. This is comparable to King et al. (2021), who show that more leveraged MNEs commit lower capital expenditure to FDI projects located in countries with higher political risk. Importantly, the interaction of corruption with cash holdings remains significantly negative. Thus, the interaction of corruption and cash seems to be negatively associated not only with firms' FDI location choices, but also with how much capital firms pledge to their foreign investments, exerting a dual effect on risk-aversion.

The findings reported in Table 9 provide more structure to the role of investment size. We re-estimate the location choice model (using the full location choice set) by splitting the sample of FDIs into large and small investments (based on the median FDI Capex). The logic behind this test is to tease-out whether the location of investments with different sizes responds heterogeneously to corruption, especially when firms hold more cash and face higher expropriation risk. We see two possible outcomes here. First, larger investments put more capital at risk, such that cash-rich firms may be more concerned about locating in corrupt countries when making larger investments. This view predicts that the interaction between corruption and cash holdings should be more pronounced when FDI capex is larger. Alternatively, the costs associated with corruption may be relatively more important for smaller investments, such that the interaction between corruption and cash could be more pronounced in smaller investments, instead. Empirically, we find support for the first view, as the interaction between country corruption and firm cash holdings takes on a significantly negative coefficient in the sample of large FDI capex, whilst being insignificant in the sample of small FDI capex. These results highlight the important role of investment size and suggest that expropriation risk elicits different responses in terms of investment location for FDIs with different levels of financial commitment.

Table 8
The effect of corruption on the sensitivity of FDI capex to cash holdings.

Y = (Ln) FDI capex	(1)	(2)
Corruption	0.024 (0.057)	0.022 (0.058)
Cash/Assets	0.753 (0.497)	0.587 (0.536)
Corruption x Cash/Assets	-0.474 * * (0.210)	-0.456 * * (0.216)
Ln Assets		0.067 * * * (0.018)
Ln Tobin's Q		0.128 * (0.067)
EBITDA/Assets		-0.725 (0.448)
Debt/Assets		-0.414 * * (0.200)
Country controls	Yes	Yes
Year FE	Yes	Yes
Industry FE	Yes	Yes
Observations	3492	3419
Adjusted R-square	0.268	0.269
F	12.37	9.809

The natural log of FDI capex is modelled, via OLS, as a function of country corruption, cash holdings, plus an interaction between corruption and cash. Model

(1) includes country controls: GDP, GDP growth, GDP p.c., Labour income p.w., Corporate taxes, Trade/GDP, and Distance. Model

(2) also includes firm controls: size, cashflows, growth opportunities, and leverage. All models include industry (4-digit SIC codes) and year fixed effects. * * *, * *, and * indicate statistical significance at the 1 %, 5 %, and 10 % levels. Robust standard errors are in parentheses.

Table 9
The role of FDI capex on the sensitivity of location to corruption and cash holdings.

Y = FDI Location	(1)	(2)
	Large Capex	Small Capex
Corruption	0.011 (0.050)	-0.204 * * * (0.050)
Corruption*Cash/Assets	-0.829 * * * (0.200)	0.158 (0.237)
Country controls	Yes	Yes
Observations	153,994	147,779
Pseudo R-square	0.197	0.183
chi2	4045	3399
Log-likelihood	-6466	-6315

Location choice is modelled as a function of country corruption, cash holdings, plus an interaction between corruption and cash holdings. Model

(1) is estimated for the sample of large FDI Capex (above the median). Model (2) is estimated for the sample of small FDI Capex (below the median). * * *, * *, and * indicate statistical significance at the 1 %, 5 %, and 10 % levels. Robust standard errors are in parentheses.

4.5. Controlling for future growth, government effectiveness, and regulatory quality

In this section, we add structure to our findings by adding additional control variables that could play a relevant role in the corruption-location nexus. First, we consider the role of future economic growth as a key driver of FDI. While current economic growth clearly matters for investment location, FDI involves a long-term capital commitment and should, therefore, respond not only to current growth but also to future growth expectations. Given countries with more corruption may be those with higher future growth (e.g., frontier/developing economies), we control for the variable *Projected Growth*, estimated by the IMF and available at the Our World in Data repository (from Oxford University). Using the best data available, we calculate *Projected Growth* as the average expected annual GDP growth rate (from 2022 till 2029).

We also control for two key variables (both from the World Bank), that capture dimensions of countries' institutional setup that may correlate with corruption. First, we control for the Government Effectiveness index to account for any correlation between corruption and government inefficiency. Second, we control for the Regulatory Quality index to account for the correlation between regulatory inefficiency and corruption. Table 10 shows the results of the tests.

The findings in column (1) refer to the model augmented with Projected Growth as a control variable. We find a significantly positive association between FDI location choice and Projected Growth, in line with the view that firms take future growth opportunities into account when making long-term investments such as FDI. The results reported in columns (2) and (3) refer to the models where we control for the Government Effectiveness and Regulatory Quality indices, respectively (higher scores in both variables are associated with stronger performance in the indicator – i.e., higher government effectiveness and regulatory quality). The findings show a significantly positive association between both Government Effectiveness and Regulatory quality and FDI location. Crucially, in all additional tests we continue to observe a negative association between corruption and FDI location that grows significantly stronger for high-cash firms.

4.6. A closer look at the trade-off between expropriation risk and growth opportunities

Whilst the findings from the previous section show that firms consider Projected Growth as an important factor when locating FDIs, in this section we explore the role of growth by examining whether it influences how firms perceive corruption.

Our prior in these tests is that, if future growth is high enough, then firms could become relatively more tolerant of corruption, as the marginal benefits from expected future growth opportunities could outweigh the higher expropriation costs associated with corruption. To test for this potential moderating role of future growth, we introduce an interaction between Corruption and Projected Growth (measured as dummy =1 for countries with Projected Growth above the median, and =0 for countries with Projected Growth below the median). We run this test for the full sample of firms, and separate models for sub-samples of firms with high cash holdings (above the median) and low cash holdings (below the median), so that we can understand the role of cash holdings

Table 10
Controlling for future projected growth, government effectiveness and regulatory quality.

Y = FDI Location	(1)	(2)	(3)
Corruption	-0.057 (0.036)	-0.332 * * * (0.040)	-0.219 * * * (0.039)
Corruption*Cash/Assets	-0.361 * * (0.150)	-0.376 * * (0.158)	-0.371 * * (0.156)
Projected Growth	6.896 * * * (1.175)		
Government Effectiveness		1.510 * * * (0.075)	
Regulatory Quality			0.668 * * * (0.070)
Other Country controls	Yes	Yes	Yes
Observations	292,599	301,773	301,773
Pseudo R-square	0.191	0.199	0.189
chi2	7385	7031	7311
Log-likelihood	-12491	-12637	-12797

Location choice is modelled as a function of country corruption, cash holdings, plus an interaction between corruption and cash holdings. Model

(1) further controls for Projected Growth (the future projected growth rate of GDP from 2022 to 2019). Model

(2) controls for the Government Effectiveness index from the World Bank. Model (3) controls for the Regulatory Quality index, from the World Bank. * * *, * *, and * indicate statistical significance at the 1 %, 5 %, and 10 % levels. Robust standard errors are in parentheses.

in this potentially moderating role played by growth prospects on corruption exposure.

The findings reported in column (1) of Table 11 refer to the full sample estimates. We find a significantly negative effect of corruption on FDI location likelihood that becomes significantly weaker in countries with higher Projected Growth, given the significantly positive interaction between Corruption and Projected Growth. These results provide evidence supporting the notion that firms may trade-off expropriation risk against the expected benefits from future growth. As a result, they may become marginally more tolerant of investing in countries with higher corruption, where returns may be higher due to faster expected growth, and where corruption may ease or bypass bureaucratic burdens surrounding investments (e.g., permits).

The additional findings reported in columns (2) and (3) split the sample of firms between high and low cash holdings. We do not observe any material changes in the significance of the coefficients, though the size of the positive interaction between Corruption and Projected Growth is slightly larger in the sample of low cash firms. This suggests that, although the role of cash holdings may be statistically immaterial, firms with lower cash appear economically more likely to take their chances and invest in more corrupt countries as to benefit from higher expected growth, whilst firms with higher cash seem marginally less likely to take on higher expropriation risk to benefit from higher future growth. These additional findings altogether highlight the trade-off between exposure to corruption and growth opportunities, and suggest that in some instances (i.e., when future economic growth is high) firms may see in corruption less of an obstacle for FDI.

5. Discussion and conclusion

We study the effects of corruption on firms' optimal FDI location choices, showcasing the potential role of cash holdings as a firm-level driver of heterogeneity in firms' exposure to expropriation risk abroad. We argue that, given the relative ease with which liquid assets can be expropriated, cash-rich firms may be more cautious of locating FDI projects in corrupt countries. We find that firms with higher cash holdings exhibit stronger preferences for investing in less corrupt economies, thus sheltering liquid assets from host country expropriation risk. Additionally, corporate governance quality influences the moderating effect of cash holdings on the effect of corruption on FDI location likelihood, as we find that cash-rich firms characterised by stronger

Table 11

A closer look at the trade-off between expropriation risk and country growth opportunities.

Y = FDI Location	(1)	(2)	(3)
	All Firms	High Cash	Low Cash
Corruption	-0.157 *** (0.037)	-0.227 *** (0.053)	-0.099 * (0.052)
Corruption*High Projected Growth	0.245 *** (0.048)	0.243 *** (0.069)	0.268 *** (0.066)
High Projected Growth	0.108 (0.118)	0.128 (0.173)	0.037 (0.164)
Country controls	Yes	Yes	Yes
Observations	292,599	145,987	146,612
Pseudo R-square	0.195	0.198	0.195
chi2	7252	3761	3537
Log-likelihood	-12435	-6181	-6228

Location choice is modelled as a function of country corruption interacted with Projected Growth (measured as dummy =1 for countries with Projected Growth above the median, =0 for Projected Growth below the median). Model

(1) is estimated for the full sample. Model

(2) is estimated for the sample of high-cash firms (cash holdings above the median). Model

(3) is estimated for the sample of low-cash firms (cash holdings below the median). *, **, and * indicate statistical significance at the 1 %, 5 %, and 10 % levels. Robust standard errors are in parentheses.

governance are even less likely to locate FDI in more corrupt countries.

5.1. Implications for research

Our findings have important implications for the literature that has examined the effect of corruption on FDI location choices (Cordero & Miller, 2019; Cuervo-Cazurra, 2006; Kano & Iriyama, 2023; Rabbiosi & Santangelo, 2019; Sartor & Beamish, 2018). While a negative relationship between corruption and FDI has been widely reported in the literature, less is known about whether the responsiveness to corruption is heterogeneous across firms. We identify important channels behind firms' distinct response to investing in corrupt countries such as firms' cash holdings and its interactions with corporate governance and ownership structure as novel sources of heterogeneity affecting firms' exposure to expropriation risk when locating FDI activities in more corrupt countries. In general, we identify the interplay between cash holdings, governance, and ownership structure novel finance and governance mechanisms playing an important role in MNEs' FDI location choice sensitivity to host country corruption.

We also offer important insights to the finance literature examining the interplay of corruption, cash, investment, and corporate policies. Existing studies typically find corruption is associated with negative firm outcomes, and that firms hold less cash in more corrupt jurisdictions (e.g., Colonnelli et al., 2022; Du & Heo, 2022; Huang & Yuan, 2021; Hossain et al., 2021). Although interactions between agency costs internal and external to the firm, including corruption, managerial incentives, governance, and cash holdings have been studied (e.g., Pinkowitz et al., 2006; Dittmar & Mahrt-Smith, 2007; Caprio et al., 2013; Smith, 2016), our study is the first in the corporate finance literature to expand the examination of the relationships between corruption, cash, and investment to the domain of FDI location decisions. We contribute novel evidence demonstrating that cash and corruption interplay with one another and with governance and ownership to explain FDI location choices. Considering the higher risks (e.g., Lin et al., 2019) and complexities (Daude & Fratzscher, 2008) of FDI relative to domestic investments, and the growing importance of cash to US firms (e.g., Pinkowitz et al., 2016), our examination of how investment, liquidity and corruption interact in the context of FDI is important to the international business and finance streams of literature which have examined corruption, uncertainty and FDI (cf. Hanousek et al., 2021; Sartor & Beamish, 2018, 2020b).

5.2. Implications for policy

Our findings also have several implications for policy makers. Corruption remains a major concern to international policy makers and standard setters. Much corruption is driven by private sector firms and those located in wealthy nations, including countries such as the U.S. (the home country in our study) characterized by low corruption themselves. We show that to design more effective and harmonised cross-country policies and enforcement to mitigate corruption, policy makers need to better understand how MNEs may be differently deterred by corruption depending upon finance and governance drivers. We provide important findings that can help in designing effective regulatory reforms. First, since we show the natural preference of manufacturing U.S. MNEs is to invest in less corrupt countries, sanctions and fines on opportunistic behaviours seem to be working. Second, our main finding shows that corruption deters cash-rich firms more strongly, likely due to an even higher expropriation risk. Since cash serves as an important source of capital for investment, host countries may be scaring away those firms with more abundant resources to contribute to their growth by remaining corrupt. Third, our results suggest that governance reforms should be encouraged, as stronger governance deters managers from exposing firms' liquid assets to expropriation risk.

5.3. Limitations and future research

The findings of this study provide valuable insights, but have some limitations which offer important opportunities for future studies on this important topic. First, our focus on U.S. manufacturing firms might not be generalizable to other firms, particularly those originating from emerging markets, thus future studies could examine MNEs originating from emerging markets and their location choice decisions across other emerging and advanced market economies. Second, it would be interesting to investigate other drivers beside cash holdings and corporate governance such as board gender diversity, home-host country trade

ties, social movement organizations, and global multilateral institutions on influencing the location decisions of MNEs as well as their entry mode choices. Third, it would be germane to examine firms from different industries such as services and their location choice decisions in less vs more corrupt host markets. Lastly, future studies could pay more attention to host country dynamics such as political (Cordero & Miller, 2019), and other social factors such as ethnic violence and informal and organized extortions syndicates present in host markets which might influence location and entry mode choices of MNEs. Overall, more research is needed to examine why certain countries even with high corruption index attract substantial investment from MNEs.

Appendix

Table A1
Descriptive statistics per country

Country	FDIs per country	Corruption
Angola	5	3.821
Argentina	46	2.886
Australia	44	0.534
Austria	15	0.727
Bahamas	1	1.163
Bahrain	6	2.327
Belarus	1	2.805
Belgium	67	1.052
Botswana	2	1.522
Brazil	202	2.503
Bulgaria	4	2.516
Canada	141	0.556
Chile	14	1.093
China	702	2.987
Colombia	16	2.754
Costa Rica	28	1.880
Croatia	1	2.313
Czech Rep.	43	2.114
Denmark	1	0.078
Dominican Rep	5	3.272
Ecuador	1	3.255
Egypt	12	3.150
Estonia	3	1.452
Finland	3	0.253
France	135	1.085
Germany	128	0.687
Greece	3	2.461
Guatemala	3	3.126
Honduras	6	3.322
Hong Kong	1	0.629
Hungary	61	1.994
Iceland	3	0.193
India	273	2.907
Indonesia	29	3.160
Ireland	75	0.939
Israel	13	1.620
Italy	29	2.222
Jamaica	1	2.848
Japan	31	1.114
Jordan	5	2.250
Kazakhstan	14	3.350
Kuwait	2	2.313
Latvia	1	2.274
Lithuania	1	2.071
Luxembourg	4	0.598
Malaysia	73	2.310
Malta	1	1.676
Mexico	262	2.903
Mozambique	4	3.188
Netherlands	35	0.432
New Zealand	6	0.176
Nigeria	15	3.652
Norway	3	0.396

(continued on next page)

Table A1 (continued)

Country	FDIs per country	Corruption
Oman	2	2.151
Panama	2	2.943
Paraguay	3	3.487
Peru	13	2.791
Philippines	41	3.117
Poland	52	2.075
Portugal	5	1.447
Qatar	10	1.535
Russia	130	3.442
Saudi Arabia	51	2.462
Serbia	13	2.844
Singapore	89	0.311
Slovakia	34	2.163
Slovenia	1	1.577
South Africa	29	2.389
South Korea	67	2.021
Spain	78	1.341
Sri Lanka	1	2.844
Sweden	17	0.331
Switzerland	9	0.424
Thailand	57	2.820
Tunisia	3	2.637
Turkey	34	2.519
Ukraine	15	3.445
United Kingdom	195	0.730
Uruguay	2	1.224
Venezuela	9	3.649
Zambia	1	2.896
Zimbabwe	2	3.735

Table A2

Descriptive statistics – high corruption (Above Median)

Variables	Mean	SD	Median	p25	p75	N
<i>Country variables</i>						
Location choice (0/1)	0.014	0.118	0	0	0	147,091
Corruption	2.974	0.417	2.905	2.675	3.260	147,091
Trade/GDP	0.483	0.252	0.439	0.298	0.616	147,091
Labour inc. p.w. (\$)	15.18	9.956	13.57	8.313	18.98	147,091
Distance (KM 000)	8.450	3.711	7.834	6.791	11.15	147,091
Corporate taxes	0.259	0.0821	0.290	0.200	0.320	147,091
GDP p.c. (USD 000)	13.63	11.76	10.82	6.748	16.36	147,091
GDP (USD billions)	639.8	894.1	195.1	71.95	730.2	147,091
GDP growth	0.044	0.043	0.048	0.023	0.070	147,091
Projected Growth	0.028	0.022	0.031	0.021	0.038	147,091
Government Effect.	-0.236	0.523	-0.161	-0.620	0.122	147,091
Regulatory Quality	-0.182	0.611	-0.172	-0.484	0.279	147,091
<i>Firm/state variables</i>						
Cash/Assets	0.117	0.101	0.0919	0.0423	0.161	147,091
Board Independence	0.813	0.109	0.833	0.750	0.909	80,068
Institut. Ownership	0.725	0.155	0.717	0.623	0.836	79,851
FDI capex (\$ mm)	123.9	402.6	40	20	100	147,091
EBITDA/Assets	0.112	0.853	0.130	0.0899	0.173	146,972
Debt/Assets	0.231	0.152	0.213	0.130	0.328	147,047
Dividends (0/1)	0.758	0.428	1	1	1	147,091
Tobin's Q	1.543	5.812	1.149	0.771	1.830	144,068
Ln Assets (\$)	9.496	2.079	9.604	8.179	10.89	147,091
Corr. convict. (state)	0.304	0.317	0.270	0.187	0.367	147,091

Table A3

Descriptive statistics – low corruption (Below Median)

Variables	Mean	SD	Median	p25	p75	N
<i>Country variables</i>						
Location choice (0/1)	0.009	0.097	0	0	0	154,682
Corruption	1.219	0.692	1.185	0.553	1.932	154,682
Trade/GDP	1.090	0.688	0.921	0.656	1.284	154,682
Labour inc. p.w. (\$)	41.23	15.98	42.06	29.05	53.54	154,682
Distance (KM 000)	8.137	3.504	7.124	6.217	10.91	154,682

(continued on next page)

Table A3 (continued)

Variables	Mean	SD	Median	p25	p75	N
Corporate taxes	0.249	0.0896	0.250	0.190	0.300	154,682
GDP p.c. (USD 000)	39.45	21.85	37.70	25.89	46.50	154,682
GDP (USD billions)	606.6	839.4	263.2	65.37	585.4	154,682
GDP growth	0.031	0.038	0.030	0.013	0.048	154,682
Projected Growth	0.021	0.009	0.019	0.014	0.027	151,128
Government Effect.	1.251	0.578	1.248	0.779	1.761	154,682
Regulatory Quality	1.209	0.483	1.221	0.854	1.636	154,682
<i>Firm/state variables</i>						
Cash/Assets	0.117	0.102	0.0904	0.0411	0.160	154,682
Board Independence	0.807	0.112	0.833	0.750	0.900	84,404
Institut. Ownership	0.720	0.158	0.714	0.620	0.833	84,199
FDI capex (\$ mm)	125.2	410.6	40	20	100	154,682
EBITDA/Assets	0.114	0.786	0.130	0.0889	0.174	154,546
Debt/Assets	0.230	0.154	0.211	0.129	0.323	154,641
Dividends (0/1)	0.759	0.428	1	1	1	154,682
Tobin's Q	1.540	5.428	1.149	0.772	1.848	151,585
Ln Assets (\$)	9.473	2.093	9.576	8.163	10.84	154,682
Corr. convict. (state)	0.306	0.305	0.273	0.191	0.368	154,682

Table A4

Correlation matrix

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
(1) Location	1.000									
(2) Corruption	0.008	1.000								
(3) Cash/Assets	-0.002	0.000	1.000							
(4) GDP	0.157	-0.041	0.000	1.000						
(5) GDP growth	0.026	0.214	-0.016	-0.047	1.000					
(6) GDP p.c.	-0.013	-0.679	-0.001	0.044	-0.065	1.000				
(7) Labour Inc. p.w.	-0.006	-0.840	0.001	0.152	-0.302	0.790	1.000			
(8) Corporate Taxes	0.038	0.057	-0.004	0.303	0.087	-0.129	-0.076	1.000		
(9) Trade/GDP	-0.024	-0.546	-0.004	-0.203	-0.092	0.495	0.572	-0.214	1.000	
(10) Distance	0.008	0.069	0.000	0.065	0.200	-0.005	-0.173	0.040	0.011	1.000

Table A5

VIF test

Variable	VIF	1/VIF
Corruption	3.87	0.258
Corruption*Cash/Assets	1.24	0.803
GDP	1.34	0.744
GDP growth	1.25	0.801
GDP per capita	3.13	0.319
Labour income p.w.	7.09	0.141
Corporate taxes	1.16	0.861
Trade/GDP	1.81	0.551
Distance	1.17	0.857
Mean VIF	2.45	

Data availability

The authors do not have permission to share data.

References

- Aaker, D. A., & Day, G. S. (1986). The perils of high-growth markets. *Strategic Management Journal*, 7(5), 409–421.
- Aggarwal, R., Erel, I., Ferreira, M., & Matos, P. (2011). Does governance travel around the world? Evidence from institutional investors. *Journal of Financial Economics*, 100(1), 154–181.
- Alcácer, J., & Delgado, M. (2016). Spatial organization of firms and location choices through the value chain. *Management Science*, 62(11), 3213–3234.
- Armstrong, C. S., Blouin, J. L., Jagolinzer, A. D., & Larcker, D. F. (2015). Corporate governance, incentives, and tax avoidance. *Journal of Accounting and Economics*, 60(1), 1–17.
- Asiedu, E. (2002). On the determinants of foreign direct investment to developing countries: Is Africa different? *World Development*, 30(1), 107–119.
- Azzimonti, M. (2018). The politics of FDI expropriation. *International Economic Review*, 59(2), 479–510.
- Bahoo, S., Alon, I., & Paltrinieri, A. (2020). Corruption in international business: A review and research agenda. *International Business Review*, 29(4), Article 101660.
- Barrios, S., Huizinga, H., Laeven, L., & Nicodème, G. (2012). International taxation and multinational firm location decisions. *Journal of Public Economics*, 96(11–12), 946–958.
- Bevan, A. A., & Estrin, S. (2004). The determinants of foreign direct investment into European transition economies. *Journal of Comparative Economics*, 32(4), 775–787.
- Bhardan, P. (1997). Corruption and development: A review of issues. *Journal of Economic Literature*, 17(3), 1–26.
- Birhanu, A. G., Gambardella, A., & Valentini, G. (2016). Bribery and investment. *Strategic Management Journal*, 37(9), 1865–1877.
- Brada, J. C., Drabek, Z., Mendez, J. A., & Perez, M. F. (2019). National levels of corruption and foreign direct investment. *Journal of Comparative Economics*, 47(1), 31–49.

- Brothers, L. E., Gao, Y. A. N., & McNicol, J. P. (2008). Corruption and market attractiveness influences on different types of FDI. *Strategic Management Journal*, 29(6), 673–680.
- Brown, N. C., Smith, J. D., White, R. M., & Zutter, C. J. (2021). Political corruption and firm value in the US: Do rents and monitoring matter? *Journal of Business Ethics*, 168(2), 335–351.
- Buckley, P., Devinney, T., & Louviere, J. (2007). Do managers behave the way theory suggests? A choice-theoretic examination of foreign direct investment location decision-making. *Journal of International Business Studies*, 38(7), 1069–1094.
- Burlea-Schiopoiu, A., Brostescu, S., & Popescu, L. (2023). The impact of foreign direct investment on the economic development of emerging countries of the European Union. *International Journal of Finance and Economics*, 28(2), 2148–2177.
- Cameron, C. A., & Trivedi, P. K. (2010). *Microeconometrics Using Stata* (pp. 553–598). College Station, TX: Stata Press.
- Caprio, L., Faccio, M., & McConnell, J. J. (2013). Sheltering corporate assets from political extraction. *Journal of Law, Economics, and Organization*, 29(2), 332–354.
- Castellani, D., & Latoratori, K. (2020). The lab and the plant: Offshore R&D and co-location with production activities. *Journal of International Business Studies*, 51(1), 121–137.
- Chava, S., & Purnanandam, K. (2010). Risk taking and cash holdings: Evidence from firms facing unexpected litigation. *Journal of Financial Economics*, 97(2), 189–209.
- Chen, N. (2011). Securities laws, control of corruption, and corporate liquidity: International evidence. *Corporate Governance: An International Review*, 19(11), 3–24.
- Chen, M. X., & Moore, M. O. (2010). Location decision of heterogeneous multinational firms. *Journal of International Economics*, 80(2), 188–199.
- Cheung, Y.-L., Rau, P. R., & Stouraitis, A. (2021). What determines the return to bribery? Evidence from corruption cases worldwide. *Management Science*, 67(10), 5969–6627.
- Chi, T., Li, J., Trigeorgis, L. G., & Tsekrekos, A. E. (2019). Real options theory in international business. *Journal of International Business Studies*, 50(4), 525–553.
- Choi, J. J., Park, S. W., & Yoo, S. S. (2007). The value of outside directors: Evidence from corporate governance reform in Korea. *Journal of Financial and Quantitative Analysis*, 42(4), 941–962.
- Cole, R., Johan, S., & Schweizer, D. (2021). Corporate failures: Declines, collapses, and scandals. *Journal of Corporate Finance*, 67, Article 101872.
- Collins, J. D., Uhlenbruck, K., & Rodriguez, P. (2009). Why firms engage in corruption: A top management perspective. *Journal of Business Ethics*, 87(1), 89–108.
- Colonnelli, E., Lagaras, S., Ponticelli, J., Prem, M., & Tsoutsoura, M. (2022). Revealing corruption: Firm and worker level evidence from Brazil. *Journal of Financial Economics*, 143(3), 1097–1119.
- Cordero, A. M., & Miller, S. R. (2019). Political party tenure and MNE location choices. *Journal of International Business Studies*, 50(6), 973–997.
- Cuervo-Cazurra, A. (2006). Who cares about corruption? *Journal of International Business Studies*, 37(6), 807–822.
- Cuervo-Cazurra, A. (2016). Corruption in international business. *Journal of World Business*, 51(1), 35–49.
- D'Souza, A., & Kaufmann, D. (2013). Who bribes in public contracting and why: worldwide evidence from firms. *Economics of Governance*, 14, 333–367.
- Daude, C., & Fratzscher, M. (2008). The pecking order of cross-border investment. *Journal of International Economics*, 74(1), 94–119.
- Dela Rama, M. (2012). Corporate governance and corruption: Ethical dilemmas of Asian business groups. *Journal of Business Ethics*, 109, 501–519.
- Demiralp, I., D'Mello, R., Schlingemann, F. P., & Subramaniam, V. (2011). Are there monitoring benefits to institutional ownership? Evidence from seasoned equity offerings. *Journal of Corporate Finance*, 17(5), 1340–1359.
- Denis, D. J., & Denis, D. K. (2009). Management control systems and corporate cash holdings. *Journal of Accounting and Economics*, 47(2-3), 159–180.
- Desbordes, R., & Wei, S. J. (2017). The effects of financial development on foreign direct investment. *Journal of Development Economics*, 127(C), 153–168.
- Dittmar, A., Mahrt-Smith, J., & Servaes, H. (2003). International corporate governance and corporate cash holdings. *Journal of Financial and Quantitative Analysis*, 38(1), 111–133.
- Dittmar, A., & Mahrt-Smith, J. (2007). Corporate governance and the value of cash holdings. *Journal of Financial Economics*, 83(3), 599–634.
- Dow Jones State of Anti-Corruption Survey (2011). Available at: <http://www.dowjones.com/pressroom/SMPRs/DJACCSurvey2011.html>, Last accessed: 11/05/2024.
- Dow Jones State of Anti-Corruption Survey (2014). Available at: <https://images.dowjones.com/company/wp-content/uploads/sites/15/2014/04/Anti-Corruption-Survey-Brochure.pdf>, Last accessed: 11/05/2024.
- Du, Q., & Heo, Y. (2022). Political corruption, Dodd-Frank whistleblowing, and corporate investment. *Journal of Corporate Finance*, 73, Article 102145.
- Duanmu, J.-L. (2012). Firm heterogeneity and location choice of Chinese Multinational Enterprises (MNEs). *Journal of World Business*, 47(1), 64–72.
- Duchin, R., Gilbert, T., Harford, J., & Hrdlicka, C. (2017). Precautionary savings with risky assets: When cash is not cash. *Journal of Finance*, 72(2), 793–852.
- Fazzari, S. M., Hubbard, R. G., & Petersen, B. C. (1988). Financing constraints on corporate investment. *Brookings Papers on Economic Activity*, 141–195.
- Feenstra, R. C., Inklaar, R., & Timmer, M. P. (2015). The next generation of the penn world table. *American Economic Review*, 105(10), 3150–3182.
- Ferris, S. P., Hanousek, J., & Trel, J. (2021). Corporate profitability and the global persistence of corruption. *Journal of Corporate Finance*, 66, Article 101855.
- Folta, T. B., & O'Brien, J. P. (2004). Entry in the presence of dueling options. *Strategic Management Journal*, 25(2), 121–138.
- Gómez-Mera, L., & Varela, G. (2024). Emerging market multinationals and international investment agreements. *International Business Review*, Article 102252.
- Graham, J. R., Harvey, C. R., & Rajgopal, S. (2001). The economic logic of long-term cash holdings. *Journal of Finance*, 56(4), 1977–2024.
- Graham, J. R., & Tucker, J. R. (2006). Investment horizons and cash holdings. *Journal of Finance*, 61(3), 825–851.
- Habib, M., & Zurawicki, L. (2002). Corruption and foreign direct investment. *Journal of International Business Studies*, 33(2), 291–307.
- Hakkala, K. N., Norbäck, P. J., & Svaleryd, H. (2008). Asymmetric effects of corruption on FDI: Evidence from Swedish multinational firms. *Review of Economics and Statistics*, 90(4), 627–642.
- Hanousek, J., Shamshur, A., Svejnar, J., & Trel, J. (2021). Corruption level and uncertainty, FDI and domestic investment. *Journal of International Business Studies*, 52(9), 1750–1774.
- Harford, J. (1999). Corporate cash reserves and acquisitions. *Journal of Finance*, 54(6), 1969–1997.
- Harford, J., Mansi, S. I., & Maxwell, W. F. (2008). Corporate governance and firm cash holdings in the US. *Journal of Financial Economics*, 87(3), 535–555.
- Head, K., Ries, J., & Swenson, D. L. (1995). Agglomeration benefits and location choice: Evidence from Japanese manufacturing investment in the United States. *Journal of International Economics*, 38(3-4), 223–247.
- Helpman, E., Melitz, M. J., & Yeaple, S. R. (2004). Export versus FDI with heterogeneous firms. *American Economic Review*, 94(1), 300–316.
- Henisz, W. J., & Delios, A. (2001). Uncertainty, imitation, and plant location: Japanese multinational corporations, 1990–1996. *Administrative Science Quarterly*, 46(3), 443–475.
- Hossain, A. T., Hossain, T., & Kryzanowski, L. (2021). Political corruption and corporate payouts. *Journal of Banking Finance*, 123, Article 106016.
- Huang, Q., & Yuan, T. (2021). Does political corruption impede firm innovation? Evidence from the United States. *Journal of Financial and Quantitative Analysis*, 56(1), 213–248.
- Hubbard, R. G. (1998). Capital-market imperfections and investment. *Journal of Economic Literature*, 36(1), 193–225.
- IMF (2016). Corruption: Costs and mitigating strategies. IMF Staff Discussion Note. May 2016. SDN/16/05. Available at: <https://www.imf.org/external/pubs/ft/sdn/2016/sdn1605.pdf>, Last accessed: 09/02/2022..
- Janeba, E. (2002). Attracting FDI in a politically risky world. *International Economic Review*, 43(4), 1127–1155.
- Javorcik, B., & Wei, S.-J. (2009). Corruption and cross-border investment in emerging markets: Firm-level evidence. *Journal of International Money and Finance*, 28(4), 605–624.
- Jensen, M. C. (1986). Agency costs of free cash flow, corporate finance, and takeovers. *American Economic Review*, 76(2), 323–329.
- Kano, H., & Iriyama, A. (2023). Host country corruption and MNE location choice: The view of institutional pluralism. *Journal of International Management*, 29(3), Article 101028.
- Karpoff, J. M., Lee, D.S., Martin, G.S. (2017). Foreign bribery: Incentives and enforcement, SSRN Working Paper. Available at <https://ssrn.com/abstract=1573222>.
- Kaufmann, D. (2005). Myths and realities of governance and corruption. *Published in: Global Competitiveness Report*, 2005-06, 81-98.
- Kaufmann, D., Kraay, A., & Mastruzzi, M. (2006). Governance matters: Aggregate and individual governance indicators for 1996-2005. No. 4012. *World Bank Policy Research Working Paper*. Washington, DC.
- Kaufmann, D., Kraay, A., Mastruzzi, M. (2010). The Worldwide Governance Indicators: Methodology and Analytical Issues, World Bank Policy Research Working Paper No. 5430, Washington, DC.
- Kaufmann, D., & Wei, S.J. (1999). Does 'grease payment' speed up the wheels of commerce?, NBER Working Paper no. 7093. Cambridge, MA.
- Kesternich, I., & Schnitzer, M. (2010). Who is afraid of political risk? Multinational firms and their choice of capital structure. *Journal of International Economics*, 82(2), 208–218.
- King, T., Loncan, T., & Khan, Z. (2021). Investment, leverage and political risk: Evidence from project-level FDI. *Journal of Corporate Finance*, 67(3), Article 101873.
- Kulatilaka, N., & Perotti, E. C. (1998). Strategic growth options. *Management Science*, 44(8), 1021–1031.
- Lin, L., Mihov, A., Sanz, L., & Stoyanova, D. (2019). Property rights institutions, foreign investment, and the valuation of multinational firms. *Journal of Financial Economics*, 134(1), 214–235.
- Liu, X. (2016). Corruption culture and corporate misconduct. *Journal of Financial Economics*, 122(2), 307–327.
- Loncan, T. (2021). The effects of project scale on FDI location choices: Evidence from emerging economies. *Management International Review*, 61(2), 157–205.
- Markusen, J. R. (2004). *Multinational firms and the theory of international trade*. MIT press.
- Masulis, R. W., Wang, C., & Xie, F. (2007). Corporate governance and acquirer returns. *Journal of Finance*, 62(4), 1851–1889.
- Mauro, P. (1995). Corruption and growth. *Quarterly Journal of Economics*, 110(3), 681–712.
- Mauro, P. (1998). Corruption and the composition of government expenditure. *Journal of Public Economics*, 69(2), 263–27.
- McFadden, D. (1973). Conditional logit analysis of qualitative choice behavior. In P. Zarembka (Ed.), *Frontiers in Econometrics* (pp. 105–142). Academic Press.
- Miller, K. D. (1992). A framework for integrated risk management in international business. *Journal of International Business Studies*, 23(2), 311–331.
- Morck, R., Yeung, B., & Zhao, M. (2008). Perspectives on China's outward foreign direct investment. *Journal of International Business Studies*, 39(3), 337–350.
- Myers, S., & Rajan, R. J. (1998). The paradox of liquidity. *Quarterly Journal of Economics*, 113(3), 733–771.

- Nachum, L., Zaheer, S., & Gross, S. (2008). Does it matter where countries are? Proximity to knowledge, markets and resources, and MNE location choices. *Management Science*, 54(7), 1252–1265.
- Nielsen, B. B., Asmussen, C. G., & Weatherall, C. D. (2017). The location choice of foreign direct investments: Empirical evidence and methodological challenges. *Journal of World Business*, 52(1), 62–82.
- Opler, T., Pinkowitz, L., Stulz, R., & Williamson, R. (1999). The determinants and implications of corporate cash holdings. *Journal of Financial Economics*, 52(1), 3–46.
- Petrou, A. P., & Thanos, I. C. (2014). The “grabbing hand” or the “helping hand” view of corruption: Evidence from bank foreign market entries. *Journal of World Business*, 49(3), 444–454.
- Pinkowitz, L., Stulz, R., & Williamson, R. (2006). Does the contribution of corporate cash holdings and dividends to firm value depend on governance? A cross-country Analysis. *Journal of Finance*, 61(6), 2725–2751.
- Pinkowitz, L., Stulz, R. M., & Williamson, R. (2016). Do U.S. firms hold more cash than foreign firms do? *Review of Financial Studies*, 29(2), 309–348.
- Rabbiosi, L., & Santangelo, G. D. (2019). Host country corruption and the organization of HQ–subsidiary relationships. *Journal of International Business Studies*, 50(1), 111–124.
- Richardson, S. (2006). Over-investment and free cash flow. *Review of Accounting Studies*, 11, 159–189.
- Rodriguez, P., Uhlenbruck, K., & Eden, L. (2005). Government corruption and the entry strategies of multinationals. *Academy of Management Review*, 30(2), 383–396.
- Rosenstein, S., & Wyatt, J. G. (1990). Outside directors, board independence, and shareholder wealth. *Journal of Financial Economics*, 26(2), 175–191.
- Sartor, M. A., & Beamish, P. W. (2018). Host market government corruption and the equity-based foreign entry strategies of multinational enterprises. *Journal of International Business Studies*, 49(3), 346–370.
- Sartor, M. A., & Beamish, P. W. (2020a). Integration-oriented strategies, host market corruption and the likelihood of foreign subsidiary exit from emerging markets. *Journal of International Business Studies*, 51(3), 414–431.
- Sartor, M. A., & Beamish, P. W. (2020b). Private sector corruption, public sector corruption and the organizational structure of foreign subsidiaries. *Journal of Business Ethics*, 167(4), 725–744.
- Smith, J. D. (2016). US political corruption and firm financial policies. *Journal of Financial Economics*, 121(2), 350–367.
- Spencer, J., & Gomez, C. (2011). MNEs and corruption: the impact of national institutions and subsidiary strategy. *Strategic Management Journal*, 32(3), 280–300.
- Stulz, R. (2005). The limits of financial globalization. *Journal of Finance*, 60(4), 1595–1638.
- Svensson, J. (2003). Who must pay bribes and how much? Evidence from a cross section of firms. *Quarterly Journal of Economics*, 118(1), 207–230.
- Uhlenbruck, K., Rodriguez, P., Doh, J., & Eden, L. (2006). The impact of corruption on entry strategy: Evidence from telecommunication projects in emerging economies. *Organization Science*, 17(3), 402–414.
- Voyer, P. A., & Beamish, P. W. (2004). The effect of corruption on Japanese foreign direct investment. *Journal of Business Ethics*, 50(3), 211–224.
- Wei, S. J. (2000). How taxing is corruption on international investors? *Review of Economics and Statistics*, 82(1), 1–11.
- Yeaple, S. R. (2009). Firm heterogeneity and the structure of US multinational activity. *Journal of International Economics*, 78(2), 206–215.