



The liabilities of foreign institutional ownership: Managing political dependence through corporate political spending

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Abstract

Research Summary: The benefits of foreign institutional ownership (FIO) have been amply researched, but there are also potential downsides to such ownership. High FIO can subject a firm to heightened regulatory scrutiny and compliance, increasing its political dependence. Drawing on resource dependence theory, we argue that firms can manage the political dependence that arises from FIO by engaging in corporate political spending (CPS). We derive two moderating conditions from our theoretical argument, positing that the strength of the positive relationship between FIO and CPS hinges on the intensity of a firm's government contracting and on the political sensitivity of the industry. Our study advances strategic ownership research by highlighting that U.S. firms may need to manage the potential liabilities associated with FIO through nonmarket strategy.

Managerial Summary: Research suggests that firms can reap many benefits from equity investments made by foreign institutional investors. However, such investments may also have potential downsides. We posit that high levels of FIO may subject a firm to increased political and regulatory scrutiny, and that firms can manage this increased exposure to government by engaging in

corporate political activities that allow them to monitor and influence the political landscape. To explore this question, we analyzed a large sample of publicly traded U.S. firms and find empirical support for our arguments. Our study highlights an unintended “liability” of FIO that firm executives should be aware of and has practical implications for how firms manage their investors and allocate resources between market and nonmarket strategies.

KEYWORDS

corporate political spending, foreign institutional ownership, nonmarket strategy, political dependence, resource dependence theory

1 | INTRODUCTION

Institutional investors—mutual funds, pension funds, and other entities that invest on behalf of clients—have become key players in the global capital markets. According to the International Monetary Fund (IMF), these professional investors jointly manage \$76 trillion financial assets (equivalent to nearly 100% of annual global GDP and 40% of global financial assets) (IMF, 2015). The internationalization of these investments has generated a stream of research on how foreign institutional ownership (FIO) can affect domestic firms' decisions. Foreign institutional investors not only provide significant capital to domestic firms, which can drive up their stock prices, but also have been shown to promote effective corporate governance (Aggarwal, Erel, Ferreira, & Matos, 2011), improve disclosure quality (Aguilera, Desender, Lamy, & Lee, 2017), enhance corporate social performance (Dyck, Lins, Roth, & Wagner, 2019), and encourage long-term oriented investments (David, Yoshikawa, Chari, & Rasheed, 2006).

Prior research has identified numerous benefits of FIO; yet, FIO can also subject domestic firms to undesirable governmental scrutiny, leading to potential liabilities associated with such ownership. However, we know little about how firms cope with these liabilities. Exploration of this question is critical to developing balanced insights into the repercussions of FIO. Thus, to advance research on FIO, we investigate how FIO shapes the nonmarket strategy that U.S. firms deploy to manage such potential liabilities, that is, corporate political spending (CPS). FIO in publicly traded U.S. firms roughly tripled between 2000 and 2013; during roughly the same period, the U.S. political environment also became increasingly sensitive to foreign investments. We theorize that FIO can increase U.S. firms' political dependence. By *political dependence*, we mean reliance on the government for resources or legitimacy. Politicians and regulators can take *direct* regulatory actions against firms with FIO. For example, firms with FIO can be subject to enhanced regulatory scrutiny, such as review by the Committee on Foreign Investment in the United States (CFIUS), a federal interagency committee with broad authority to investigate controlling and noncontrolling foreign investment stakes in U.S. companies and to intervene as necessary (e.g., by forcing divestments). *Indirectly*, to gain public support from the electorate, politicians and regulators may publicly scrutinize and

criticize U.S. firms with considerable or visible FIO, adversely affecting these firms' legitimacy or reputation.

Resource dependence theory suggests that political actions, such as lobbying and political contributions, enable firms to alleviate political dependence and reduce external uncertainty via access to information and influence (Hadani & Schuler, 2013). We thus argue that U.S. firms with high FIO are likely to increase their CPS to manage political dependence and assuage political uncertainty. Following directly from this theoretical argument, we derive two moderating conditions pertinent to the degree of U.S. firms' political dependence. The first is the intensity of firms' contracts with the federal government. When a firm engages in substantial contracting with the government, its dependence on government increases. The second moderating condition is industry specific. Because firms operating in national-security-related industries face more stringent governmental scrutiny, these firms should exhibit stronger political dependence than those in other industries. Thus, we posit that the positive relationship between FIO and CPS will be stronger when firms have more intensive government contracting or belong to national-security-related industries.

We test our arguments using a sample of publicly traded U.S. firms between 2000 and 2013. To mitigate endogeneity concerns, our empirical strategy utilizes fixed-effects regressions and instrumental variable regressions. Furthermore, we implement a battery of supplementary analyses to deepen our insights into the relationship between FIO and CPS. Finally, to better understand our context and the mechanisms underlying our phenomenon, we conducted supplemental interviews with senior corporate executives, government affairs consultants, and lobbyists.¹

This study attempts to make three contributions. First, strategy scholars have devoted considerable attention to investigating how firms' strategic decisions can be shaped by institutional investors (Connelly, Hoskisson, Tihanyi, & Certo, 2010). This literature has largely uncovered favorable influences on the part of foreign institutional investors, such as promotion of effective governance practices and improved decision quality (Aggarwal et al., 2011; Bena, Ferreira, Matos, & Pires, 2017; David et al., 2006); little research has examined possible *liabilities* associated with FIO. We theorize that FIO can increase firms' political dependence and lead these firms to invest in CPS to manage such dependence.

Second, we contribute to nonmarket strategy research by unpacking how foreign institutional investors can trigger U.S. political activity. Strategy scholars have examined antecedents of corporate political activity such as firm size, slack, types of customers, age, and diversification level (for a review, see Hillman, Keim, & Schuler, 2004 and Dorobantu, Kaul, & Zelner, 2017), but research is scant on how foreign investors with noncontrolling stakes can indirectly affect a firm's CPS. By linking ownership research with nonmarket strategy, we shed light on an understudied yet increasingly prominent antecedent of CPS: foreign institutional investors.

Third, scholars of international strategy have looked closely at how firm behaviors change in response to receiving foreign direct investment (e.g., Meyer & Sinani, 2009). By contrast, little attention has been paid to foreign *portfolio* investors, despite their status as major players in the global capital markets. Portfolio investors differ from direct investors in that the former typically hold noncontrolling equity stakes in multiple firms and do not participate in those firms' day-to-day operating decisions. Thus, our focus on foreign institutional investors advances global strategy research by shedding light on an increasingly prominent class of global economic actors.

¹We conducted 10 supplemental interviews to more deeply understand our phenomenon (see Table A1 for details).

2 | THEORY AND HYPOTHESIS DEVELOPMENT

2.1 | Foreign institutional investors' influence on firms

The association between institutional investors and firms' decisions has elicited considerable attention in strategy research (Connelly, Hoskisson, et al., 2010; Westphal & Bednar, 2008). This line of inquiry finds associations between institutional ownership and a host of strategic decisions, including investments in research and development (David, O'Brien, & Yoshikawa, 2008; Hoskisson, Hitt, Johnson, & Grossman, 2002), corporate strategies (Connelly, Shi, Hoskisson, & Koka, 2019; Goranova, Priem, Ndofor, & Trahms, 2017; Shi, Connelly, Hoskisson, & Ketchen, in press), competitive tactics (Connelly, Tihanyi, Certo, & Hitt, 2010), financial misconduct (Shi, Connelly, & Hoskisson, 2017), and investment in corporate social responsibility (Johnson & Greening, 1999).

More recent research has begun to investigate the influence of foreign institutional investors on their portfolio firms. One stream of research examines how FIO can facilitate the adoption of effective governance practices (Aggarwal et al., 2011). Research also suggests that foreign institutional investors promote adoption of standard financial reporting practices (Fang, Maffett, & Zhang, 2015). Another stream of research investigates how FIO can influence strategic decisions, such as making strategic investments (David et al., 2006), expanding into foreign markets via cross-border M&As (Ferreira, Massa, & Matos, 2010), and increasing their long-term investment in tangible and intangible assets (Bena et al., 2017) and in corporate social responsibility (Dyck et al., 2019).

Existing research has largely focused on how institutional investors from North America and Western Europe—and from the United States in particular—have improved the corporate-governance and strategic decisions of *non-U.S.* portfolio firms. By contrast, the influence of foreign institutional investors on U.S. firms remains largely unexplored, though foreign investors' participation in U.S. equity markets has been steadily rising and is industry spanning in scope. For example, a survey by *The Pensions and Investments* indicates that investments in U.S. real estate by foreign institutional investors increased 33%, to \$62.1 billion, between 2013 and 2014 (Jacobius, 2014). Clearly, foreign institutional investment in the United States is far from trivial.

2.2 | Resource dependence theory and political uncertainty

Resource dependence theory addresses how organizations manage their relationships with external environments (Pfeffer & Salancik, 1978). The theory postulates that external environments provide support and resources that organizations depend on; those that depend more on such support and resources will be more highly motivated to manage their relationships with relevant external environmental actors and to reduce the uncertainty associated with them. Studies that draw on resource dependence theory have identified an array of co-optation strategies that organizations can deploy to absorb, defuse, or co-opt external actors (Wry, Cobb, & Aldrich, 2013), including mergers and diversifications, bridging ties via strategic alliances, membership in associations and business groups, and director appointments (Harris & Helfat, 2007; Hillman, 2005; Pfeffer & Nowak, 1976).

In particular, government policy, regulation, and enforcement “are major forces in the external environment of business” and have “enormous impact on the operations of firms” (Hillman, 2005, p. 465). Because government policies can create uncertainty and constrain firms (Hiatt, Carlos, & Sine, 2018), firms engage in corporate political activity to create linkages with the government in order to manage their dependence on government policies and regulations (Ahuja & Yayavaram, 2011). For instance, firms can potentially leverage political influence to respond to policy shifts

arising from electoral cycles (Siegel, 2007), promote favorable policies (Hillman, Zardkoohi, & Bierman, 1999), and even shape the payoff structures that govern their business environment (Gavetti, Helfat, & Marengo, 2017). Anecdotal evidence points to the importance of political spending in mitigating unfavorable policies and regulations in the United States. When Congress was considering a soda tax in 2009, PepsiCo, Coca-Cola, bottlers, and the American Beverage Association increased their lobbying spending to over \$40 million, which was more than eight times that of the prior year; the bill was subsequently abandoned (Wilson & Roberts, 2012).

2.2.1 | Political dependence

Resource dependence theory suggests that governmental and regulatory policies are critical sources of firms' external uncertainty (Marquis & Qian, 2014). Because government regulation shapes almost every aspect of business, governmental interventions or shifts in policies and regulations can significantly alter a firm's opportunity sets (Grandy & Hiatt, 2020; Li & Csaszar, 2019; Schuler, Rehbein, & Cramer, 2002). Thus, managing political dependence—a firm's dependence on the government for resources or legitimacy—becomes particularly salient when firms face high political uncertainty (Gao, Zuzul, Jones, & Khanna, 2017). For example, in democratic states, competition among interest groups or a change in party ascendancy can trigger severe policy disruptions (Alesina & Tabellini, 1990). In developed countries, including the United States, in fact, political uncertainty has been on the rise in the twenty-first century. As *The Economist* (2016) observes, managers in both emerging and developed markets need to be alert to political uncertainty:

For the past 30 years multinationals in developed markets have mostly operated in a benign environment. ... Shocks were few. No longer... Unprecedented shocks are almost routine. In 2011 Standard & Poor's downgraded America's sovereign-debt rating for the first time. Greece's default in 2015 to the International Monetary Fund was the first by a rich-world country.

Political uncertainty is a key concern for leaders of publicly traded U.S. corporations; accordingly, company executives typically devote a portion of their quarterly earnings conference calls to discussing the political uncertainty facing their firms (Hassan, Hollander, van Lent, & Tahoun, 2019). In fact, the regulatory environment ranked second in a recent large-scale survey of corporate board members on the biggest strategic challenges their companies face (Cheng & Groyberg, 2018). To alleviate political uncertainty, firms need to actively manage their dependency relationships with government.

2.2.2 | Direct influences on firms' political dependence

Although foreign institutional investors can provide important financial resources and valuable information to U.S. firms (Rishe, 1990), they can also increase those firms' political dependence both directly and indirectly. For instance, a U.S. firm could be considered to be operating under foreign ownership, control, or influence (FOCI) "whenever a foreign interest has the power, direct or indirect, whether or not exercised, and whether or not exercisable through the ownership of the U.S. company's securities, by contractual arrangements or other means, to direct or decide matters affecting the management or operations of that company"

(NISPOM, paragraph 2-300a).² In this sense, U.S. firms with FIO could be deemed to be operating under FOCI and therefore subject to close government scrutiny and stringent regulatory compliance. Relatedly, regulatory oversight of foreign investments with national-security implications (broadly and ambiguously defined), such as by the CFIUS, can increase U.S. firms' political dependence. As a federal interagency committee, CFIUS has broad authority to investigate foreign investment stakes in U.S. companies, controlling and noncontrolling, and to intervene by imposing civil penalties or fines, blocking deals, or forcing divestments. CFIUS's jurisdiction has been growing over time, strengthened by the 2007 Foreign Investment and National Security Act and also more recently when its oversight authority was extended to "a far wider array of foreign transactions that are deemed a threat to national security" (Rappeport, 2018).³

A key characteristic of CFIUS—and a challenge for firms—is that its jurisdictional scope is intentionally ambiguous. Guidance suggests that a given institutional investor can typically purchase an ownership stake in a U.S. firm on the open market without intervention from CFIUS as long as the stake is low *and* the investments are held "solely for the purpose of passive investment" (Latham and Watkins, 2017).⁴ However, as CFIUS legal experts note, what is considered "passive" is actually not straightforward and can be "called into question in light of 'other' facts deemed relevant by CFIUS" (Latham and Watkins, 2017). This ambiguity affords CFIUS considerable jurisdictional power and scope (Jackson, 2019) especially given that CFIUS "determines the scope of its own jurisdiction...and is afforded significant deference by the courts" (Latham and Watkins, 2017). For example, CFIUS recently forced the transfer of a minority investment stake in the U.S. cybersecurity company Cofense from a Russia-linked private-equity firm to a fund managed by BlackRock, an American investment-management company (Louch & Lim, 2019) and threatened hefty fines for Cofense's failure to report to CFIUS the minority ownership stake held by a foreign investor. Another example of direct governmental intervention is from a 2018 notice on the U.S. Treasury Department's website,⁵ in which CFIUS imposed a \$1 million penalty on an undisclosed party for "failure to establish requisite security policies and failure to provide adequate reports to CFIUS."

As resource dependency theory would suggest, this ambiguity in CFIUS's jurisdictional scope thus incentivizes firms to manage their political dependence by creating linkages with their source of external dependency—government in this case—in order to reduce uncertainty and buffer against potential political interventions (Hillman et al., 1999; Pfeffer, 1972; Sytch and Kim, 2020). This may be particularly salient given that likely investigation by CFIUS can impose high costs on firms. It is also important to note that CFIUS's investigations are not limited only to "rival" countries, such as China; foreign investors from advanced western democracies/OECD

²The definition of FOCI is based on National Industrial Security Program Operating Manual (NISPOM), which can be found at: <http://acqnotes.com/wp-content/uploads/2014/09/DoD-522022M-National-Industrial-Security-Program-Operating-Manual-NISPOM-18-May-2016.pdf>.

³In other words, CFIUS's jurisdictional reach is not just limited to a few specialized industries. As the New York Times reported, CFIUS "would apply its new authority very broadly and would review any foreign transaction involving a business that designs or produces technology related to 27 industries" (Rappeport, 2018).

⁴A "low" ownership stake in terms of providing "safe harbor" from potential CFIUS scrutiny or intervention typically means an ownership level at least under 10% (Latham & Watkins, 2017), or 6% depending on the source of guidance. A CFIUS expert we interviewed suggested that even at foreign ownership levels under 6%, CFIUS scrutiny is still a risk due to its broad jurisdiction: "I think it's a 6% threshold...[but] I think CFIUS would care even if it's under the threshold, if its significant, [e.g.] if its [somehow] related to critical infrastructure...because remember, you don't have to file for CFIUS, but that doesn't mean CFIUS won't come and find you...there's an office in Treasury that is monitoring it, even though DOD [Department of Defense] has a heavy hand in it, they're monitoring it... [corporate executives] view it as a huge black box and they don't understand it."

⁵The notice can be found at home.treasury.gov/system/files/206/Penalties-Imposed-and-Unilateral-Reviews-Initiated-2018.pdf.

countries are also subject to the same type of scrutiny.⁶ This was echoed by a CFIUS strategist we interviewed, who stressed that even noncontrolling minority investment stakes from Western European or Canadian companies “can still raise issues [in terms of CFIUS scrutiny] ...it’s not just China, no, you can think even Canada or [Western European countries].” For instance, “what if you’re a Canadian company that buys like 5 percent [equity stake in a U.S. company]—and that Canadian company is also 5 percent owned by a Chinese SOE. Now you’re getting dangerously close to like ‘yeah, it’s a Canadian company, but it’s almost meeting the threshold’...and not all other countries have [national security oversight mechanisms like] CFIUS.” In sum, the political dependence of U.S. firms with FIO is a reality given the direct intervention mechanisms that the U.S. government has in place.

2.2.3 | Indirect influences on firms’ political dependence

FIO can also *indirectly* increase a U.S. firm’s political dependence: to appease public criticism or to gain public support, for example, by signaling alignment with broader sociopolitical expectations such as nationalism or toughness on national security. Politicians may rhetorically attack or increase scrutiny on firms with considerable or visible FIO, potentially harming such firms’ legitimacy in the eyes of stakeholders (Dorobantu, Henisz, & Nartey, 2017; McDonnell & Werner, 2016). As an illustration, in 2017, *Business Insider* published a list of 11 former American companies, editorializing that “some of America’s most famous brands have fallen into foreign hands” (Hanbury, 2017). Domestic banks that benefited from foreign capital bailouts in the 2007–2008 financial crises have also elicited heated public criticism (Niepmann & Schmidt-Eisenlohr, 2013). Politicians may publicly disparage (e.g. rhetorically attack) firms with foreign ownership to advance their own political agendas (Shirky, 2011), which would increase political uncertainty for firms—particularly those that have high dependence on government. This public sentiment was echoed by a head legal executive at a Fortune-50 firm we interviewed, who noted that “there could be optics issues with [FIO], where you get into a realm where [it could be perceived that] a foreign entity is using a corporation as a tool...even [as far back as] the 1980s [where] there was an anti-Japanese sentiment because Japanese companies were coming in [and investing in U.S. assets]—if it appears, even without factual basis, that something is not right...it’s a concern...that’s your optics...and sometimes politicians will use that as a threat...a lot of this is politicized for sure.”⁷ These arguments suggest that indirect government influence is also a real potential trigger of U.S. firms political dependence.

2.3 | Firm strategic actions in response to political dependence

We have posited that FIO can increase a firm’s political dependence both directly and indirectly. Next, we draw on resource dependence theory to theorize that firms will pursue

⁶As a matter of fact, CFIUS’s annual reports to Congress reveal that the top three countries of origin of CFIUS-covered foreign-investment transactions in 2005–2007 were the United Kingdom (79), Canada (35), and France (25). In 2015, the top country of origin of CFIUS-covered foreign-investment transaction was China (29), but the next highest countries of origin were: Canada (22), United Kingdom (19), Japan (12), and France (8).

⁷This executive further noted that these optics issues applied not just to rival nations but also allies: “and certainly I think it cuts across the board too with friendly allies, though yes there may be a heightened level of concern with countries like Russia etc...” and that such situations needed to be actively managed: “if you know there’s a concentration like that [in terms of foreign institutional ownership], that’s when you have to be sensitive and tie in your investor relations, government relations, and communications departments.”

corporate political activity to manage their increased political dependence. Specifically, we argue that two types of CPS are particularly relevant for managing political dependence: lobbying and contributions to political action committees (PACs).

Lobbying consists of dialogue—or “transfer of information in private meetings and venues”—between interest groups (such as a corporation) and political actors (such as policymakers and regulators) (De Figueiredo & Richter, 2014, p.164). Corporations hire lobbyists to petition political actors on their behalf using “statistics, facts, arguments, messages, forecasts, threats, commitments, signals, or some combination thereof” (Baron, 1995; De Figueiredo & Richter, 2014, p. 164). Lobbying is a significant component of the influence industry: total spending on federal lobbying has surpassed \$3 billion per year in every year from 2008 to 2019 (Center for Responsive Politics, 2020). Furthermore, some of the top reasons why companies engage in lobbying is to mitigate political dependence, including direct (e.g., “protect against changes in government policies [or] actions that could be harmful”) and indirect (e.g., “respond to critics and counter negative publicity”) sources of political dependence, according to an academic survey of corporate lobbyists (Drutman, 2015, p. 73).

Lobbying helps corporations reduce their political dependence through two primary mechanisms: *monitoring* and *influencing*. Monitoring political developments to gather information and stay constantly informed is a key component of lobbying, since “when things do happen, they often happen very quickly, placing a premium on preexisting networks and information” (Drutman, 2015, p. 83). Lobbyists are well suited for monitoring political developments and uncertainty given their access to key political actors in Washington (Byun, Frake, & Agarwal, 2018). The monitoring mechanism is particularly important for mitigating sources of increased political dependence, such as CFIUS, since such regulatory bodies have broad and ambiguous jurisdictional scope, span multiple government agencies, and feature constantly evolving policies and regulations. Thus, more monitoring allows firms to better anticipate and more proactively prepare for potential interventions from complex regulatory bodies such as CFIUS, which reduces uncertainty and thus attenuates political dependence.

The influence mechanism of lobbying consists of petitioning government officials in order to sway their views through information exchange (Jia, 2018; Ridge, Ingram, & Hill, 2017). This can occur via different channels of persuasion (i.e., micromechanisms). For example, repeated lobbying interactions (i.e., transfer of information) with political or regulatory decision-makers can shape their thinking by “saturating” the intellectual environment. As Drutman (2015, p. 36) notes, political and regulatory decision-makers “may listen to the same arguments over and over again...[and] through constant repetition, they achieve a top-of-mind status...so that when the time comes to make a decision, certain arguments and frames will come to mind quicker than others,” thereby shaping the “causal stories” that underlie policymaking. Thus, the influence mechanism allows firms to directly reduce their political dependence by framing the views of political decision-makers. In other words, such “petitions are designed to influence the opinions, policies, and votes of legislators and other government officials” (de Figueiredo & Richter, 2014, p. 164), which can help facilitate favorable firm outcomes (Kim, 2019; Macher & Mayo, 2015).

PAC contributions, like lobbying, provide access to political actors so that firms can engage in monitoring and influencing to reduce their political dependence (Hadani & Schuler, 2013). “[A] system has developed over the years where if you have money to contribute to campaigns, you will also get access and influence in legislative and regulatory processes” notes Edwin Davis of the nonpartisan campaign-finance watchdog organization Common Cause (Oberholzer-Gee, Cantrill, & Wu, 2007, p. 9). Studies have shown that firms making PAC contributions have

better quality and more frequent access to politicians (Cooper, Gulen, & Ovtchinnikov, 2010). Qualitative evidence suggests that this access grants expedient opportunities to *monitor* political developments, as political fundraisers are events where one can “get to see members of Congress and get a sense of what they are thinking about issues of interest” (Drutman, 2015, p. 94). Additionally, this access also offers leverage and opportunities for *influence*. For example, a lobbyist noted in an interview that “when you can hold up a card that says you’re with [company omitted], that carries a lot of weight. When people know you have a \$2 million PAC, it makes a lot more impact than if they know you have a \$100,000 PAC. PACs are important. They’re great ways to create relationships, a great way for us to carry the weight we need to get some of things we get done, done” (Drutman, 2015, p. 95). Similarly, another noted that “it’s a lot easier working on an agenda with someone you helped get into office than someone you opposed” (Drutman, 2015, p. 94). Given this, firms generally contribute to both Republicans and Democrats to preserve access and have a voice on both sides of the aisle (Hillman et al., 2004).

In tandem, lobbying and PAC contributions grant corporations a channel through which to ease political uncertainty and manage political dependence. We thus synthesize our reasoning in the following hypothesis:

Hypothesis (H1) *A U.S. firm’s level of FIO is positively associated with its level of CPS.*

We have argued that FIO can increase U.S. firms’ political dependence, which in turn leads these firms to invest in CPS to manage such dependence and reduce political uncertainty. Building on this, we derive two moderating conditions that follow directly from our argument for Hypothesis (H1). Our first moderating condition pertains to the intensity of a firm’s contracting with government entities. We argue that FIO can play a more salient role in shaping U.S. firms’ political dependence when the firms have more intensive government contracting. Firms with high government contract intensity are more dependent on the government since their financial performance is more significantly driven by the magnitude and renewal rate of their government contracts. Additionally, government contracts could provide access to state-of-the-art technological experience or knowledge (Rishe, 1990), which can affect long-term firm competitiveness.

However, firms that seek government contracts must submit to close government scrutiny. The U.S. government treats classified information as a national-security asset, and an array of laws and regulations ensure that such information is not released to any organization subject to FOCI (Rishe, 1990, p. 45). This implies that firms with more intensive government contracting will face greater scrutiny due to the transparency requirements (e.g., competitive bidding or compliance documentation requirements) that government agencies are subject to as well as media scrutiny of government activities. An example of this was echoed by a director of a public U.S. electronics company we interviewed, who noted that the company had a partial owner who was Chinese, and because of that, the “amount of scrutiny they have to go through was huge,” including enacting mitigation measures to prevent foreign influence or control. This entails a costly process, for instance, “you got to go down the whole path of filing with the government and meeting all the requirements, which just adds costs. I mean, the amount of reporting and special restrictions and requirements and so forth, that we had to follow is unbelievable. And we have an [foreign] owner, [whose stake] it’s [single-digit percentage under six] percent, so technically, we’re not [even] at the level where [it should draw enhanced scrutiny].⁸”

⁸In fact, this respondent mentioned that given the company’s exposure to Asia-related political risk, the board was pushing the company executives to engage in more political activity: “We’re pushing to have some lobbying...”

Firms with low (or zero) levels of government-contract intensity are less dependent on the government for revenues in the first place. More importantly, FOCI regulations are less relevant to these firms; as a result, increasing FIO may not draw as much regulatory and governmental scrutiny compared to firms that are more intensive in government contracts. In other words, FIO should exert a weaker positive influence on U.S. firms' political dependence when the firms have less intensive government contracting. Consequently, these firms may not have as great of a need to manage political dependence through CPS. We thus summarize our reasoning in the following hypothesis:

Hypothesis (H2) *The positive relationship between FIO and CPS is stronger in U.S. firms with high government-contract intensity than in those with low government-contract intensity.*

Our second moderating condition pertains to the type of industry in which the U.S. firm operates. Governmental regulators are not able to monitor and scrutinize foreign ownership's control and influence in all U.S. firms, given their resource constraints (Yu & Yu, 2011). With the objective of safeguarding U.S. national security, regulators focus their attention and resources on monitoring and scrutinizing firms operating in national-security-related industries and therefore tend to be more sensitive to FIO in firms operating in such industries relative to firms operating in other industries (Nossal, 2001). This prioritization was echoed by an asset management portfolio manager we interviewed, who noted that there could be negative optics issues associated with having FIO, "especially when these companies that have some foreign ownership are still engaging in...sensitive industries such as those in the national security-related industries, and we see from even common press examples...some [industries] are not even 'too sensitive' and 'too related' to national security, but are related to privacy concerns that the U.S. Government does not feel comfortable with." Consequently, for firms operating in national-security-related industries such as telecommunications and information technology, increasing FIO would more significantly intensify their political dependence and motivate these firms to manage political dependence through higher CPS.

In contrast, firms operating in non-national-security-related industries such as apparel manufacturing and footwear manufacturing may not draw as much close scrutiny from the government. Thus, increasing FIO would less significantly augment their political dependence, and accordingly, their need to manage political dependence through CPS will be less strong relative to firms operating in national-security industries. Collectively, we posit that the impact of FIO will have a more pronounced effect on CPS for firms operating in national-security industries than firms operating in other (non-national-security-related) industries. We thus hypothesize:

Hypothesis (H3) *The positive relationship between FIO and CPS is stronger for U.S. firms operating in national-security-related industries than those operating in non-national-security-related industries.*

3 | METHODS

3.1 | Sample

Our sample selection begins with the universe of firms headquartered in the United States and covered by BoardEx, during the period 2000–2013 ($N = 7,657$). We were able to match financial data from Compustat for 5,827 firms using their eight-digit CUSIP numbers. We also merged data

on FIO from FactSet LionShares using their eight-digit CUSIP numbers. Our data on firms' lobbying expenditures and PAC contributions come from the Center for Responsive Politics, an independent nonpartisan research group that tracks the impact of lobbying and campaign contributions on U.S. federal elections, politics, and public policy. Because the Center for Responsive Politics does not track CUSIP information for firms, we manually collected such information on firms that have engaged in lobbying and made PAC contributions. After merging with all the control variables, our final sample consists of 5,674 U.S. firms.

3.2 | Dependent variable

Our dependent variable is *CPS*, which has two components. The first component is a firm's total annual *lobbying expenditure*. The Lobbying Disclosure Act of 1995 requires the Secretary of the Senate and the Clerk of the House of Representatives to compile, verify, and disclose lobbying-related information. The second component is firms' *contributions to PACs*. To calculate a firm's total CPS in a year, we combine the dollar amounts of its lobbying expenditures and PAC contributions; we take the natural logarithm of the summated value to mitigate skewness. Because foreign institutional investors may also be related to how firms allocate CPS, we examine *lobbying dispersion* across government agencies and *PAC contribution dispersion* between Democratic and Republican candidates in supplementary analyses.

3.3 | Independent variable

FIO is the percentage of a U.S. firm's equity that is owned by foreign (non-U.S.) institutional investors. It is measured as the sum of the holdings of all institutional investors domiciled outside the United States, divided by the number of shares outstanding. FactSet collects ownership information directly from fund reports, regulatory authorities, fund associations in different countries, and fund management companies. FactSet's ownership data have been extensively used in studies on foreign institutional investors (Aggarwal et al., 2011; Ferreira et al., 2010; Ferreira & Matos, 2008). The average level of FIO in our sample of U.S. firms is 3%, slightly less than the average level of FIO of non-U.S. firms (4%) (Ferreira & Matos, 2008; Luong, Moshirian, Nguyen, Tian, & Zhang, 2017).

3.4 | Moderators

Our first moderator is *government-contract intensity*.⁹ We obtain data on firms' government-contract intensity from Baker, Bloom, and Davis (2016). In their first step, the authors attain data on federal contracts from USAspending.gov, a website mandated by the Federal Funding Accountability and Transparency Act of 2006. They then match information about each contract recipient and its parent company with Compustat firms. This match generates the amount of the parent firm's revenue derived from federal contracts, allocated to its three-digit SIC industry using industry codes and line-of-business data in Compustat Segment. Baker et al. (2016) then aggregate revenues and contract awards to obtain the ratio of federal purchase payments to total revenues in each three-digit

⁹We obtain data on government-contract intensity from the website of Stanford economist Nicholas Bloom: <https://nbloom.people.stanford.edu/research>.

SIC by year. To mitigate potential bias from high-frequency variation due to lumpy contract awards, they calculate average ratios for the period 2000–2013 to attain an exposure measure for each three-digit SIC code. In the second step, they calculate each firm's exposure to government purchases as its revenue-weighted mean of the industry-level exposure measure. They choose this two-step approach because it reduces the scope for reverse causality and because “industry-level measures may better proxy for the firm's ex ante exposure to uncertainty about government purchases” (Baker et al., 2016, p. 1618).

Our second moderator is *national-security industry*. The Defense Production Act of 1950 permits the U.S. President to reject foreign investments that threaten U.S. national-security interests. Based on this Act, CFIUS was established in 1975 to review foreign acquisitions. After several high-profile foreign takeovers (e.g., Dubai Ports World's acquisition of P&O Steam Navigation in 2006) resulted in congressional inquiries, CFIUS's scope and power was strengthened in 2007 with enactment of the Foreign Investment and National Security Act. The 2008 CFIUS Annual Report to Congress provided a list of four-digit SIC industries (see Table A2) critical to national security (CFIUS, 2008). We construct a dummy variable where if a firm's main four-digit SIC industry is on this list of national-security industries, the firm will receive a value of 1 for national-security industry, and 0 otherwise.

3.5 | Control variables

Because firms with more resources may be more inclined to invest in CPS (Hillman et al., 2004), we control for several firm characteristics proxying the level of a firm's resources. First, we control for *firm size* using the natural logarithm of firm revenues. Our results are robust to using the natural logarithm of a firm's market value to proxy for firm size. Second, we control for *firm performance*, using return on equity measured as the ratio of operating income after depreciation to total shareholders' equity. Our results are robust to adding Tobin's *q* as an additional control for firm performance. Third, we control for a company's *debt ratio* (measured as the ratio of the sum of long-term debt and debt in current liabilities to total assets) and *cash-holding ratio* (measured as the ratio of cash and short-term investments to total assets).

We control for *government sales ratio*¹⁰—the ratio of revenues from all sales to government entities to total sales revenues—because firms with a higher government sales ratio are more likely to engage in CPS (Grier, Munger, & Roberts, 1994). We obtain sales information from the Compustat Customer Segments database, which provides information on a firm's sales to government. We control for *product diversification level* because highly diversified firms tend to have lower levels of external dependence and thus invest less in CPS. We use the widely adopted entropy measure to capture product diversification (Hoskisson, Hitt, Johnson, & Moesel, 1993); data used to measure product diversification are also from the Compustat Customer Segments database. Because firms with high international diversification may be subject to low political dependence at home and thus may refrain from intensive CPS, we control for *international diversification* using the ratio of international sales revenues to total sales revenues (Sambharya, 1996). Data used to measure international diversification are obtained from the Worldscope database.

¹⁰Government sales ratio captures sales to both the federal government and local governments; by contrast, our measure of government-contract intensity captures only a firm's government contracts with the federal government. Our results are similar if we do not control for government sales ratio.

We control for *domestic market uncertainty* because firms will invest intensively in CPS to mitigate external resource dependence when faced with highly uncertain domestic markets (Li & Tang, 2010; Tang, Qian, Chen, & Shen, 2015). Dess and Beard (1984) define market uncertainty along three dimensions: munificence, dynamism, and complexity: high munificence reduces market uncertainty, whereas high dynamism and high complexity increase market uncertainty. To create a comprehensive index, we rely on these three dimensions of domestic market uncertainty. To measure dynamism and munificence, we follow prior studies (Boyd, 1990) by first regressing time against the value of total industry revenues (based on four-digit SIC codes). To calculate total industry revenues, we aggregate the revenues of all Compustat firms headquartered in the United States that belong to the same four-digit SIC code. The estimate for any given year is based on the five preceding years (e.g., the dynamism estimates for 2005 is based on data from 2000 to 2004). To measure dynamism, we use the standard error of the regression slope coefficient divided by the mean value of 5 years of revenues; to measure munificence, we use the regression slope coefficient divided by the mean value of 5 years of revenues. We use the Herfindahl–Hirschman index to capture complexity. Each industry's total revenue is obtained by aggregating the revenues of all the Compustat firms headquartered in the United States that belong to the same four-digit SIC code. Because a higher level of concentration implies a lower level of complexity, we use 1 minus our measure of industry concentration to measure complexity. We then standardize these three dimensions and combine them to measure domestic market uncertainty. Because high munificence is negatively associated with market uncertainty, we reversely code munificence prior to adding it to complexity and dynamism.

We control for *domestic institutional ownership* because close monitoring by domestic institutional investors may lead firms to reduce CPS (Hadani, 2012). Domestic institutional ownership is measured as the ratio of all shares owned by institutional investors headquartered in the United States to total shares outstanding. Because investment in CPS may be affected by firms' governance characteristics, we also control for three variables related to governance quality. The first is *CEO duality*, which takes a value of 1 if the CEO chairs the board and 0 otherwise (Krause, Semadeni, & Cannella, 2014). The second is *board independence*, measured as the ratio of the number of outside directors to board size. We control for CEO duality and board independence because investors have called for separation of the CEO and board chair positions and for greater board independence to promote good corporate governance (Dalton, Hitt, Certo, & Dalton, 2007). Data on CEO duality and board independence are obtained from BoardEx. The third governance variable is whether a firm has a “poison pill” in effect in a particular year. A *poison pill* is among the most widely used defenses against a hostile takeover; it can dramatically increase the price that a hostile buyer must pay to acquire a firm (Davis, 1991). Thus, the presence of a poison pill can lead to managerial entrenchment and affect a firm's governance quality. This variable takes a value of 1 if a firm has a poison-pill provision in a particular year and 0 otherwise. Data on poison pills are obtained from the Securities Data Company (SDC) Corporate Governance dataset. Finally, we control for *year* fixed effects. The dependent variable is measured at Year $t + 1$; all other variables are measured at Year t .

3.6 | Estimation

Our dependent variable is CPS, which is non-negative and right-censored. Tobit analysis, a maximum likelihood technique, is often used to accommodate censored data; it provides a

nonparametric alternative to OLS. However, there is no statistical software that can implement firm fixed-effects Tobit regressions. Thus, we choose to use firm fixed-effects OLS regressions to test our hypotheses. Firm fixed-effects control for bias arising from time-invariant firm heterogeneity, and significantly alleviate potential endogeneity associated with omitted variable bias.¹¹ Firm fixed effects also control for industry fixed-effects, given that firms' industry classification is relatively stable over time. We implement firm fixed-effects regressions by using the Stata procedure of "xtreg" with the "fe, vce(cluster)" option. Although firm fixed-effects regressions can mitigate bias associated with time-invariant firm heterogeneity, it is possible that foreign institutional investors *choose* to invest in firms with high CPS or that unobservable time-variant heterogeneity affects both the level of FIO and CPS. We thus also test our hypotheses using instrumental variable regressions.

The two instruments we utilize for our study are a firm's time-varying membership in (a) the *Morgan Stanley Capital International All Country World Index* (MSCI ACWI) and (b) the *Russell 2000 Index*. Valid instrumental variables need to satisfy conditions of relevance and exogeneity (Semadeni, Withers, & Certo, 2014). Results from *F*-tests (described in Section 4) indicate that our two instruments can be considered relevant. In terms of exogeneity, we make theoretical arguments for the exogeneity of each of the instruments directly below. Additionally, because our model is overidentified—that is, two instruments for one endogenous regressor (FIO)—we are able to perform the Sargan–Hansen test of overidentifying restrictions to assess the exogeneity of our instruments (again described in Section 4) (Semadeni et al., 2014).

Our first instrument is a firm's membership in the MSCI ACWI.¹² We construct a dummy variable (MSCI), which takes a value of 1 if a firm is a member of the MSCI ACWI in year *t* and 0 if not. The MSCI ACWI is a global equity *index* designed to represent the "performance of the *full opportunity set* of large- and mid-cap stocks across 23 developed and 26 emerging markets."¹³ In essence, the index covers 85% of the global investable equity opportunity set and is constructed by adding stocks based on their market capitalization (in descending order of size) until the cumulative share of firms reaches 85% of the market capitalization in each country.¹⁴ A key fact about MSCI indexes is that they are the most followed by mutual funds around the world—thus foreign institutional investors are more likely to invest in MSCI indexes' stocks since "international portfolios are typically benchmarked against these indexes"—while in contrast, domestic institutional ownership does not increase significantly after a firm's stock gets added to the MSCI ACWI (Bena et al., 2017). Importantly, how the MSCI ACWI is constructed (i.e. via a *mechanical* logic) provides for arguably exogenous variation in FIO. As Bena et al. (2017, p. 129–130) point out: "because index membership is determined by the mechanical rule that firms are included depending on their market capitalization ranking, the variation in

¹¹Our results hold if we use random-effects regressions (controlling for two-digit SIC industry fixed effects).

¹²This instrument has been extensively used in recent finance and accounting research on foreign institutional ownership (Aggarwal et al., 2011; Bena et al., 2017; Dyck et al., 2019).

¹³Source: Official MSCI ACWI website: <https://www.msci.com/acwi>.

¹⁴Details about how the MSCI ACWI is constructed can be found here: <https://www.msci.com/acwi>. A short excerpt: "The MSCI ACWI Index, MSCI's flagship global equity index, is designed to represent performance of the full opportunity set of large- and mid-cap stocks across 23 developed and 26 emerging markets. As of December 2018, it covers more than 2,700 constituents across 11 sectors and approximately 85% of the free float-adjusted market capitalization in each market. The index is built using MSCI's Global Investable Market Index (GIMI) methodology, which is designed to take into account variations reflecting conditions across regions, marketcap sizes, sectors, style segments and combinations...MSCI ACWI Indexes offer a building block approach with a rules-based, consistent, and transparent methodology."

FIO included by this rule is plausibly exogenous.” Hence, stock additions to the MSCI AWCI Index would be plausibly exogenous to firms’ investment decisions including CPS.

Our second instrument is firm membership in the *Russell 2000 Index*. We construct a dummy variable (Russell 2000), which takes a value of 1 if a firm is a member of the Russell 2000 Index in year t and 0 if not. The Russell 1000 Index and Russell 2000 Index are widely used market benchmarks: the Russell 1000 consists of the largest 1000 U.S. stocks in terms of market capitalization; the Russell 2000 consists of the next largest 2,000 stocks (not including the first 1,000). Because the portfolio weight assigned to each stock in these indexes is value-weighted, and the Russell 2000 Index is a more popular benchmark for index funds, the assignment of a stock to one or the other index can have a profound impact on the extent of ownership by index funds (Appel, Gormley, & Keim, 2016). Appel, Gormley, and Keim (2018) find that ownership by passively managed mutual funds and exchange-traded funds is about 40% higher for stocks in the Russell 2000 Index than for otherwise similar stocks in the Russell 1000 Index. Therefore, a firm’s membership in the Russell 2000 Index can increase passive domestic investors’ demand for its shares, which can crowd out ownership by foreign institutional investors. Meanwhile, the Russell 2000 Index is reconstituted once a year based on stocks’ end-of-May market capitalization. At this time, all eligible securities are ranked by their current market capitalization. This implies that inclusion in the Russell 2000 Index is determined by a firm’s market-capitalization ranking and is therefore plausibly exogenous to firm decisions (Appel et al., 2016).

After constructing these two instruments, we implement firm fixed-effects instrumental variable regressions using the Stata procedure of “xtivreg2” with the “fe, cluster” option.

4 | RESULTS

Table 1 presents descriptive statistics and pairwise correlations for the variables used in this study. Before conducting regression analyses, we perform multicollinearity diagnostics. Specifically, we calculate the variance inflation factor (VIF) to detect multicollinearity issues. Untabulated results show that the average VIF is 2.3 and that none of the values for VIF are greater than 10, the threshold beyond which multicollinearity may be a concern (Hair, Black, Babin, Anderson, & Tatham, 1998).

4.1 | Firm fixed-effects regressions

Table 2 presents the firm fixed-effects OLS regressions used to test our hypotheses. Hypothesis (H1) asserts that FIO is positively associated with CPS. Model 1 includes all the control variables; Model 2 introduces FIO, and the coefficient estimate of *FIO* is positive ($\beta = 5.565$, $p < .01$), consistent with Hypothesis (H1). A one standard deviation increase in FIO will be associated with a 23% increase in CPS.

Hypothesis (H2) posits that the positive relationship between FIO and CPS is stronger when firms have high government-contract intensity. We test the moderating effect of government-contract intensity by conducting subgroup analyses, for two reasons. First, the measure of government-contract intensity is time invariant for each firm and thus cannot be included in firm fixed-effects regressions. Second, recent research (Shaver, 2019) suggests that using interaction terms to test moderating effects in fixed-effects regressions may not fully control for bias arising from time-invariant firm heterogeneity. The median value of government-contract

TABLE 1 Descriptive statistics

Variable	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1 CPS	2.93	5.30	1.00																	
2 FIO	0.03	0.04	0.34	1.00																
3 Government-contract intensity	0.01	0.05	0.10	-0.02	1.00															
4 National-security industry	0.28	0.45	0.02	0.04	0.09	1.00														
5 MSCI	0.12	0.33	0.46	0.48	-0.01	-0.01	1.00													
6 Russell 2000	0.45	0.50	-0.14	-0.10	0.00	0.03	-0.33	1.00												
7 Firm size	5.86	2.18	0.47	0.42	-0.02	-0.22	0.52	-0.04	1.00											
8 Firm performance	0.11	0.57	0.10	0.08	-0.01	-0.18	0.12	0.02	0.31	1.00										
9 Debt ratio	0.20	0.21	0.13	0.10	-0.04	-0.14	0.06	-0.04	0.23	0.10	1.00									
10 Cash-holding ratio	0.19	0.22	-0.08	0.01	0.00	0.45	-0.09	0.07	-0.40	-0.23	-0.33	1.00								
11 Government sales ratio	0.03	0.16	0.16	0.02	0.41	0.05	0.00	0.02	0.03	0.00	0.00	-0.01	1.00							
12 Product diversification	0.41	0.53	0.28	0.19	0.02	-0.07	0.24	-0.07	0.44	0.10	0.14	-0.21	0.05	1.00						
13 International diversification	0.16	0.25	0.07	0.18	-0.03	0.27	0.15	0.00	0.16	0.01	-0.08	0.15	-0.06	0.17	1.00					
14 Domestic-market uncertainty	-0.01	1.64	-0.04	-0.06	-0.02	-0.03	-0.02	-0.01	-0.07	-0.01	-0.01	-0.09	-0.06	-0.14	-0.12	1.00				
15 Domestic institutional ownership	0.54	0.30	0.26	0.38	-0.03	0.03	0.24	0.28	0.57	0.16	0.08	-0.04	0.03	0.25	0.22	-0.10	1.00			
16 CEO duality	0.51	0.50	0.11	0.04	0.01	-0.06	0.10	-0.03	0.15	0.07	0.07	-0.08	0.02	0.09	0.00	-0.03	0.08	1.00		
17 Board independence	0.72	0.14	-0.11	-0.11	0.02	-0.04	-0.19	0.02	-0.26	-0.07	-0.04	0.00	0.03	-0.13	-0.12	0.09	-0.19	-0.19	1.00	
18 Poison pill	0.25	0.43	0.09	0.05	-0.01	0.10	0.05	0.05	0.08	-0.01	0.02	0.04	-0.01	0.06	0.10	-0.07	0.20	0.04	-0.11	1.00

Note: N = 44,380.

Abbreviations: CPS, corporate political spending; FIO, foreign institutional ownership.

TABLE 2 Firm fixed-effects regressions on FIO and CPS

Variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
			Low contract intensity	High contract intensity	Non-national security	National security
FIO		5.565 [.000]	3.408 [.015]	7.242 [.000]	5.098 [.000]	6.433 [.001]
Firm size	0.532 [.000]	0.502 [.000]	0.413 [.000]	0.863 [.000]	0.542 [.000]	0.461 [.000]
Firm performance	-0.006 [.827]	-0.007 [.812]	0.008 [.813]	-0.051 [.360]	-0.006 [.871]	-0.011 [.822]
Debt ratio	-0.126 [.556]	-0.128 [.551]	0.206 [.428]	-0.653 [.113]	-0.089 [.736]	-0.154 [.667]
Cash-holding ratio	0.093 [.666]	0.031 [.883]	-0.355 [.153]	0.727 [.091]	0.036 [.902]	0.049 [.877]
Government sales ratio	0.499 [.126]	0.509 [.120]	0.876 [.368]	0.308 [.367]	1.169 [.007]	-0.699 [.144]
Product diversification	0.072 [.483]	0.064 [.529]	-0.032 [.816]	0.066 [.664]	-0.059 [.614]	0.393 [.052]
International diversification	0.024 [.931]	-0.036 [.898]	0.428 [.204]	-1.046 [.054]	-0.145 [.737]	0.085 [.806]
Domestic-market uncertainty	-0.002 [.909]	0.000 [.993]	0.041 [.312]	0.056 [.461]	-0.009 [.636]	0.101 [.239]
Domestic institutional ownership	0.006 [.975]	0.035 [.866]	0.286 [.283]	-0.234 [.559]	-0.074 [.762]	0.248 [.520]
CEO duality	0.148 [.027]	0.144 [.030]	0.149 [.093]	0.222 [.059]	0.178 [.020]	0.039 [.769]
Board independence	-0.079 [.770]	-0.012 [.964]	0.142 [.688]	-0.222 [.649]	-0.221 [.474]	0.565 [.286]
Poison pill	0.035 [.741]	0.063 [.546]	0.010 [.946]	0.104 [.526]	0.195 [.132]	-0.276 [.124]
Constant	-1.277 [.002]	-1.147 [.005]	-1.266 [.011]	-1.911 [.049]	-1.385 [.009]	-0.868 [.178]
Observations	44,380	44,380	23,011	14,902	31,902	12,478
Firm FE	YES	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES	YES
Within R^2	.0352	.0375	.0324	.0515	.0406	.0358
Between R^2	.222	.245	.122	.338	.261	.234
Overall R^2	.224	.242	.123	.281	.252	.237
Log-likelihood	-99,842	-99,788	-50,888	-35,819	-70,399	-29,178

Note: SEs are clustered by firms. p -Values are reported in brackets. Two-tailed tests.

Abbreviations: CPS, corporate political spending; FIO, foreign institutional ownership.

intensity across our sample is zero, and we divide our sample into two groups: low contract intensity (equal to 0) and high contract intensity (greater than 0). In Model 3 (low contract intensity), the coefficient estimate of *FIO* is positive ($\beta = 3.408$, $p = .015$). In Model 4 (high contract intensity), the coefficient estimate of *FIO* is also positive ($\beta = 7.242$, $p < .01$). Although Chow tests are often applied to compare the statistical difference of two coefficient estimates across models, such tests are not applicable to panel regressions with firm fixed effects. Nevertheless, in terms of magnitude, for firms with low government-contract intensity, a 1 SD increase in *FIO* is associated with a 13% increase in CPS; however, for firms with high government-contract intensity, a 1 SD increase in *FIO* is associated with a 31% increase in CPS.

Hypothesis (H3) argues that the positive relationship between FIO and CPS is stronger for firms in national-security industries than in other industries. To test this moderating hypothesis, we again conduct subgroup analyses. Model 5 presents results from non-national-security industries; the coefficient of *FIO* is positive ($\beta = 5.098, p < .01$). Model 6 presents results from national-security industries; the coefficient of *FIO* is also positive ($\beta = 6.433, p = 0.001$). In terms of magnitude, for firms in non-national-security industries, a 1 SD increase in FIO is associated with a 20% increase in CPS; however, for firms in national-security industries, a 1 SD increase in FIO is associated with a 27% increase in CPS.

4.2 | Instrumental variable regressions

As noted, there may be endogeneity concerns regarding FIO due to potential reverse causality or omitted variable bias. These concerns could be mitigated with instrumental variable regressions. The instruments that we use (as described in the previous section) are a firm's membership in the MSCI Index and in the Russell 2000 Index. Table 3 reports results from instrumental variable regressions.

Model 1 presents the first-stage regression results. The coefficient estimate of MSCI is positive ($\beta = .024, p < .01$); that of the Russell 2000 is negative ($\beta = -.003, p < .01$). This indicates that firms belonging to the MSCI Index have a higher level of FIO while those belonging to the Russell 2000 Index have a lower level, consistent with our arguments. We also conduct tests to assess the relevance and exogeneity of our instruments. Estimators can perform poorly when instruments are weak. The Cragg–Donald Wald *F* statistic is 709, much higher than the 19.93 suggested by Stock and Yogo (2005), which indicates that our instruments can be considered relevant. We conduct the Sargan–Hansen test to examine the exogeneity of our instruments. The Hansen *J* statistic has a *p*-value of .523 in Model 2, suggesting that we cannot reject the null that the instruments are uncorrelated with the error terms and are correctly excluded from the second-stage regressions. It is important to note that the Sargan–Hansen test rests on the assumption that at least one of the two instruments is truly exogenous. As argued, given that a firm's inclusion into the MSCI Index and Russell 2000 Index is to a large degree orthogonal to its strategic decisions, we believe that these two instruments may arguably be exogenous.

Model 2 presents the second stage of the firm fixed-effects instrumental variable regression. The coefficient estimate of FIO is positive ($\beta = 36.087, p < .01$), supporting Hypothesis (H1). Models 3 and 4 report instrumental variable regression results for the low-contract-intensity and high-contract-intensity subgroups. The coefficient estimate for FIO is larger in the latter subgroup ($\beta = 46.245, p < .01$) than in the former ($\beta = 30.777, p = .01$). Models 5 and 6 report instrumental variable regression results for non-national-security industries and for national-security industries. The coefficient estimate for FIO is larger in the latter ($\beta = 49.114, p < .01$) than in the former ($\beta = 30.884, p = .001$).

4.3 | Supplementary analyses

4.3.1 | Lobbying dispersion and PAC contribution dispersion

Our analyses focus on the influence of FIO on the magnitude of CPS. We argue that firms engage in intensive CPS to reduce political uncertainty brought about by FIO. They manage

TABLE 3 Instrumental variable regression results

Variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
	First stage	Second stage	Low contract intensity	High contract intensity	Non-national security	National security
FIO		36.087 [.000]	30.777 [.010]	46.245 [.000]	30.884 [.001]	49.114 [.000]
MSCI	0.024 [.000]					
Russell 2000	−0.003 [.000]					
Firm size	0.004 [.000]	0.336 [.000]	0.319 [.000]	0.428 [.031]	0.382 [.000]	0.256 [.026]
Firm performance	0.000 [.557]	−0.009 [.745]	0.007 [.835]	−0.067 [.256]	−0.015 [.694]	−0.001 [.979]
Debt ratio	0.002 [.308]	−0.138 [.542]	0.175 [.524]	−0.510 [.247]	−0.036 [.898]	−0.338 [.397]
Cash-holding ratio	0.010 [.000]	−0.304 [.191]	−0.615 [.030]	0.105 [.826]	−0.262 [.407]	−0.318 [.348]
Government sales ratio	−0.001 [.586]	0.559 [.099]	0.740 [.460]	0.638 [.086]	1.211 [.006]	−0.635 [.236]
Product diversification	0.001 [.135]	0.022 [.829]	−0.073 [.588]	0.043 [.792]	−0.090 [.445]	0.342 [.115]
International diversification	0.010 [.000]	−0.361 [.253]	0.067 [.858]	−1.156 [.077]	−0.609 [.226]	−0.078 [.840]
Domestic market uncertainty	−0.000 [.002]	0.012 [.503]	0.027 [.495]	0.026 [.737]	0.002 [.909]	0.176 [.061]
Domestic institutional ownership	0.000 [.817]	0.190 [.380]	0.140 [.622]	0.616 [.216]	0.068 [.791]	0.441 [.294]
CEO duality	0.000 [.430]	0.126 [.062]	0.120 [.184]	0.204 [.090]	0.151 [.052]	0.080 [.570]
Board independence	−0.009 [.000]	0.353 [.208]	0.401 [.273]	0.740 [.187]	0.025 [.938]	1.261 [.024]
Poison pill	−0.005 [.000]	0.221 [.052]	0.098 [.533]	0.307 [.104]	0.313 [.022]	0.013 [.951]
Observations		44,060	22,749	14,891	31,698	12,362
Cragg–Donald Wald <i>F</i> statistic		709.391	294.029	258.689	495.018	206.711
Hansen <i>J</i> statistic		0.408	0.567	0.301	1.417	0.273
<i>p</i> -Value for Hansen <i>J</i> statistic		.523	.451	.584	.234	.601
Firm FE		YES	YES	YES	YES	YES
Year FE		YES	YES	YES	YES	YES

Note: SEs are clustered by firms. *p*-Values are reported in brackets. Two-tailed tests.

Abbreviation: FIO, Foreign institutional ownership.

their political dependence by monitoring and influencing political and regulatory decision-makers. Thus, firms may earmark their lobbying expenditures for overtures to an array of government agencies (Ridge et al., 2017); especially, since interagency committees like CFIUS span multiple Cabinet departments and federal agencies (Latham and Watkins, 2017). We assign agencies lobbied by our sample firms to three classifications: executive branch (e.g., Department of the Treasury), legislative branch (e.g., Medicare Payment Advisory Commission), and independent agency (e.g., Nuclear Regulatory Commission). We then calculate lobbying dispersion using the entropy measure, defined as

$$\text{Lobbying dispersion} = \sum_i [P_i \times \ln(1/P_i)]$$

where P_i is the lobbying expenditure attributed to one of the government agencies and $\ln(1/P_i)$ is the weight given to each type, or the natural logarithm of the inverse of lobbying expenditure on each type. This measure considers both the number of government agencies that lobbyists approach and the proportion of total expenditures that each type represents. Results with lobbying dispersion as the dependent variable are presented in Model 1 of Table 4. The coefficient estimate of FIO is positive ($\beta = .188, p = .004$), suggesting that FIO is positively associated with the degree of lobbying dispersion.

We also create an alternative dependent variable that captures PAC-contribution dispersion. Specifically, we calculate a firm's total PAC contribution to Democratic candidates and Republican candidates and then use the entropy measure to calculate PAC-contribution distribution. Results appear in Table 4, Model 2. The coefficient estimate of FIO is positive ($\beta = .197, p < .01$), implying that firms increase the degree of their PAC-contribution dispersion as FIO increases.

4.3.2 | FIO and disclosed political risk

We have argued that a high level of FIO can increase a firm's political dependence, which may in turn spur it to raise its CPS. Although we cannot directly measure political dependence, we can capture the degree of political risk that firms have disclosed. When a firm's top executives disclose substantial political risk in public communications, it suggests that the firm is subject to higher political uncertainty and dependence. We obtain a measure of political risk, based on executives' disclosures in earnings conference calls, from Hassan et al. (2019). Specifically, they construct a firm-level measure of the political risk faced by U.S. firms by means of textual analysis of quarterly earnings conference-call transcripts: the political risk faced by a given firm at a given point in time is quantified as the share of the conversation that centers on risk associated with politics. Using the quarter-year political-risk measure from Hassan et al. (2019), we then calculate an average annual measure. Our goal is to investigate whether FIO can predict political risk. Results from such analyses appear in Table 5. Political risk is measured at Year t ; FIO and control variables are measured at Year $t-1$. We control for two-digit SIC industry fixed effects instead of firm fixed effects as we are attempting to show the mediating role of political risk between FIO and CPS and a cross-sectional analysis is more intuitive than a within-firm analysis.

In Model 1, the coefficient estimate of FIO is positive ($\beta = .478, p = .047$), indicating that FIO is positively associated with political risk. In Model 2, with CPS as the dependent variable, we find that the coefficient estimate of political risk is positive ($\beta = .325, p < .01$). In Model 3, after we introduce both CPS and political risk, we find that the coefficient estimate of political risk decreases from 0.325 in Model 2 to 0.317 in Model 3. We conduct the Sobel test to evaluate whether political risk partially mediates the relationship between FIO and CPS. We find that Sobel test = 1.87 ($p = .06$). These findings provide some evidence that a firm's disclosed political risk partially mediates the relationship between its FIO and CPS.

4.3.3 | Foreign institutional investors' country of origin

We classify foreign institutional investors into two types based on whether their country of origin is a democratic country following Marshall, Jagers, and Gurr (2011). We then create two

TABLE 4 FIO and lobbying/PAC dispersion

Variables	Model 1	Model 2
	Lobbying dispersion	PAC dispersion
FIO	0.188 [.004]	0.197 [.000]
Firm size	0.016 [.000]	0.015 [.000]
Firm performance	−0.001 [.577]	0.001 [.556]
Debt ratio	−0.010 [.416]	−0.009 [.367]
Cash-holding ratio	0.006 [.637]	−0.023 [.002]
Government sales ratio	0.014 [.503]	0.051 [.014]
Product diversification	0.000 [.930]	0.008 [.105]
International diversification	0.009 [.531]	0.013 [.333]
Domestic-market uncertainty	0.001 [.132]	0.000 [.624]
Domestic institutional ownership	−0.015 [.172]	−0.010 [.193]
CEO duality	0.009 [.010]	0.002 [.581]
Board independence	0.006 [.680]	−0.016 [.147]
Poison pill	0.008 [.192]	−0.009 [.079]
Constant	−0.042 [.035]	−0.052 [.004]
Observations	44,380	44,380
Firm FE	YES	YES
Year FE	YES	YES
Within R^2	.00971	.0307
Between R^2	.179	.131
Overall R^2	.159	.118
Log-likelihood	25,640	29,642

Note: SEs are clustered by firms. p -Values are reported in brackets. Two-tailed tests.
Abbreviation: FIO, foreign institutional ownership.

FIO variables: FIO from democratic countries and FIO from nondemocratic countries. The level of FIO from nondemocratic countries accounts for less than 1% of total FIO. In other words, FIO in U.S. firms mainly arises from foreign investors from democratic countries. The top five countries where foreign institutional investors are from are: the United Kingdom, Canada, Germany, Switzerland, and Spain. As such, it is not surprising that our results (unreported but available upon request) are mainly driven by foreign institutional investors from democratic countries rather than from nondemocratic countries.

4.3.4 | Heterogeneity among foreign institutional investors' strategies

The investment strategies of foreign institutional investors differ. Among the most important such differences are their investment time horizons (Yan & Zhang, 2009): foreign institutional investors with long-term investment horizons tend to concentrate their shareholdings in a small number of firms for an extended period of time and maintain lower turnover rates; in contrast,

TABLE 5 FIO and disclosed political risk

Variables	Model 1	Model 2	Model 3
	Political risk	CPS	CPS
FIO	0.478 [.047]		18.212 [.000]
Political risk		0.325 [.000]	0.317 [.000]
Firm size	−0.001 [.925]	1.746 [.000]	1.571 [.000]
Firm performance	−0.030 [.038]	−0.251 [.001]	−0.224 [.003]
Debt ratio	−0.061 [.318]	−0.006 [.986]	−0.134 [.704]
Cash-holding ratio	0.107 [.134]	3.692 [.000]	3.104 [.000]
Government sales ratio	0.919 [.000]	4.147 [.000]	4.198 [.000]
Product diversification	−0.045 [.025]	0.644 [.000]	0.659 [.000]
International diversification	−0.005 [.958]	−1.661 [.000]	−1.757 [.000]
Domestic-market uncertainty	−0.012 [.095]	0.037 [.425]	0.042 [.361]
Domestic institutional ownership	−0.132 [.018]	−1.326 [.000]	−1.555 [.000]
CEO duality	0.018 [.383]	0.368 [.003]	0.363 [.003]
Board independence	0.018 [.843]	0.338 [.482]	0.794 [.094]
Poison pill	−0.013 [.492]	0.574 [.000]	0.547 [.000]
Constant	−0.075 [.630]	−7.125 [.000]	−6.264 [.000]
Observations	24,719	26,583	26,583
R^2	.095	.353	.364
Industry FE	YES	YES	YES
Year FE	YES	YES	YES
Adjusted R^2	.0919	.351	.361

Note: SEs are clustered by firms. p -Values are reported in brackets. Two-tailed tests.

Abbreviation: FIO, foreign institutional ownership.

their counterparts with short-term investment horizons tend to hold stakes in a wide and diverse range of firms and move in and out of individual stocks more frequently. Hence, firms with a higher level of ownership by long-term foreign institutional investors are more likely to become targets of political scrutiny given such investors' concentrated ownership (as opposed to the dispersed ownership characteristic of short-term institutional investors).

The FactSet database assigns institutional investors to five classifications based on their investment horizons: very low, low, medium, high, and very high. We designate foreign institutional investors with very low/low turnover rates as long term and those with very high/high turnover rates as short-term; those with medium turnover rates are designated medium term. In unreported results, we find that the coefficient estimate of *Short-term FIO* is negative ($\beta = -.018$, $p = .348$); the coefficient estimates of *Long-term FIO* and *Medium-term FIO* are positive ($\beta = .170$, $p < .01$ for *Long-term FIO* and $\beta = .093$, $p = .003$ for *Medium-term FIO*). The coefficient estimate of *Long-term FIO* is greater than those of *Medium-term FIO* or *Short-term FIO*. The F -test shows that the coefficient estimates differ from each other. Consistent with our theory, these findings indicate that long-term FIO bears a stronger association with CPS than medium-term FIO, whereas short-term FIO does not seem to be associated with CPS.

5 | DISCUSSION

This study examines how U.S. firms' institutional ownership affects their CPS. We find that FIO is positively associated with the level of U.S. firms' CPS, and that this relationship between FIO and U.S. firms' CPS is stronger for firms with higher government-contract intensity and for firms that operate in national-security-related industries. We believe that our findings contribute to several streams of research.

First, prior research (Aggarwal et al., 2011; David et al., 2006; Fang et al., 2015) has documented many potential benefits of FIO. Through investigating the relationship between FIO and CPS, our study highlights the potential liabilities of FIO for U.S. firms. Although foreign investors' purchasing of equity shares in U.S. public firms can drive up their stock prices, high FIO could also increase the degree of regulatory scrutiny placed on firms as well as firms' compliance costs (e.g., filing reports to government agencies and adjusting their practices to align with compliance requirements). This can heighten firms' political dependence on government actions. We argue that to mitigate political dependence, firms allocate resources to CPS in order to monitor and influence political actors, which does not come without cost as such expenditures can crowd out resources that could otherwise be used for attaining market aims (i.e., R&D or business expansion). In addition, existing research has examined U.S. institutional investors' influence on domestic firms' decisions (Bermiss, Hallen, McDonald, & Pahnke, 2017; Bushee, 1998) and on non-U.S. firms' strategic decisions (David et al., 2006). Our study expands this research by investigating the relationship between *foreign* institutional ownership and U.S. portfolio firms' decisions.

Second, our study extends prior research on the domestic antecedents of nonmarket strategy by examining foreign influences on U.S. firms' CPS. This question has become increasingly pertinent given the drastic escalation in CPS following the 2010 *Citizens United* ruling and rising public interest in the impact of foreign influences on firm strategy. Research has examined the role of foreign direct investors in shaping nonmarket strategy by comparing the CPS of foreign subsidiaries in the United States with that of U.S.-headquartered firms (Hansen & Mitchell, 2000). Departing from existing research, our study points out that noncontrolling ownership stakes by foreign institutional investors may *indirectly* shape firms' CPS through intensifying these firms' political dependence.

Finally, at a broader level, our study contributes to a growing call for better understanding of how firms shape their environments (Ahuja, Capron, Lenox, & Yao, 2018). Prior research has focused on the *actions* of shaping (Gavetti et al., 2017); our study helps unpack some of its antecedents. We believe that our examination of how foreign entities are related to firms' CPS is particularly timely given immense policy and public interest in the role of foreign influence in U.S. corporate political activity. We hope that this study will motivate future research on other antecedents of shaping strategies, including such key firm characteristics as political capabilities and cognition (Schilke, Hu, & Helfat, 2018).

5.1 | Policy and managerial implications

Our study has important policy implications. A significant increase in CPS following the 2010 *Citizens United* ruling has generated growing public and political interest in understanding the impact of foreign entities on U.S. political activities. This is particularly relevant given recent legislative developments, such as the Foreign Investment Risk Review Modernization Act of 2018, which reflects the increased interest and jurisdiction that U.S. regulatory bodies such as CFIUS have over foreign investments in U.S. companies. Our study yields important insights

into the antecedents of corporate political activity amidst heightened regulatory uncertainty, arguing that higher levels of aggregate FIO can subject U.S. firms to high political dependence and thus spur them to increase CPS. The managerial implications of our findings suggest that firm managers and stakeholders should be aware of the potential “costs” of FIO and carefully consider how to best allocate resources to their market and nonmarket strategies.

5.2 | Limitations and future research

We cannot observe directly how FIO can increase portfolio firms' political dependence. Building on nonmarket strategy research, we infer that high FIO subjects U.S. firms to higher political dependence than is experienced by firms with no or low FIO. However, through our supplemental analysis, we do find empirical evidence that FIO is positively associated with the political risk disclosed by top executives. To systematically unpack the pertinent mechanisms, processes, and moderating conditions, it may be useful to employ survey methodologies to identify how FIO affects U.S. firms' political dependence.

Our two moderating conditions attempt to capture a firm's political dependence. However, these two moderators pertain more to the direct influence of FIO on a firm's political dependence than the indirect influence through shaping public opinions. More research is needed to investigate the indirect mechanism. For instance, are firms with high FIO more likely to become targets of public criticism when economic nationalism is on the rise? Additionally, we have tested our arguments using a sample of U.S. firms, and this may constrain the generalization of our findings. Given that some country governments (e.g., China and Russia) have more direct power over resource control and allocation, are firms from these countries more motivated to pursue nonmarket strategies to alleviate political dependence arising from foreign ownership (Armanios, Eesley, Li, & Eisenhardt, 2017)? Additionally, further research can incorporate types of CPS beyond lobbying and PAC donations (Jeong & Siegel, 2018; Luo, Kaul, & Seo, 2018; Westphal & Park, 2020) and examine whether our results differ for nonpublic firm types, such as private companies and new ventures operating in nascent rather than mature industries (McDonald & Gao, 2019). For example, in Silicon Valley there have been growing concerns over potential liabilities stemming from foreign ownership stakes in private startups (Crichton, 2018). There is also broad scope for future research to examine how other corporate stakeholders—for example, communities, employees, suppliers, and customers—(differentially) influence CPS (Dorobantu & Odziemkowska, 2017; Gatignon & Capron, 2020), and in particular, how managers engage with and balance the preferences of different stakeholder groups. Finally, to help alleviate endogeneity concerns, we have utilized instrumental variable regressions. Yet, such regressions cannot fully rule out endogeneity concerns since no statistical tests can definitively verify the exogeneity of instruments. Therefore, future research can try to find natural experiments as an identification strategy to further investigate the causal relationship between FIO and CPS.

6 | CONCLUSION

Foreign institutional investors have become increasingly important players in the global capital markets. In a departure from prior research that emphasizes the positive benefits of foreign institutional investors, our findings imply that foreign institutional ownership could also increase firms' political dependence, and thus spur firms to allocate resources to CPS. Our findings help contribute to a more balanced view regarding the implications of foreign institutional investors.

We hope that our study will motivate further strategy research on the potential liabilities or costs of FIO and thus advance cumulative knowledge on the strategic implications of firm ownership, foreign investors, and corporate political activity.

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APPENDIX

TABLE A1 List of supplemental exploratory interviews

Interview respondent	Organization
General counsel and government affairs director, Middle East and North Africa (former)	U.S. publicly traded company (Fortune 50)
Senior U.S. executive (former)	U.S. publicly traded company (Fortune 50)
Group vice-president and head of governmental affairs (former)	U.S. publicly traded company (Fortune 50)
CFIUS strategist (former)	Leading political strategy consulting firm
Portfolio manager (former)	Leading investment management firm with over \$30 billion assets under management
Co-founder	Boutique political risk consulting firm
Investor-relations executive	U.S. publicly traded company
Executive vice president	U.S. lobbying firm specializing in relations with Capitol Hill
Public policy executive ^a	Leading investment management firm with over \$1 trillion assets under management
Managing director ^a	Leading government affairs consulting firm

^aEmail back-and-forth.

TABLE A2 List of national-security industries

Category	SIC codes
Advanced materials and processing	3313, 2899, 3299, 2821, 3341, 3087, 2892, 8731
Chemicals	3829
Advanced manufacturing	3823, 3559, 3827, 3559, 3544, 3549, 3829, 3844, 3542, 3549
Information technology	3571, 3575, 7372, 7375, 7374, 7371, 8243, 7373, 3577, 3572
Telecommunications	4813, 3661, 3663, 3812, 4812, 4899
Microelectronics	3674, 3672
Semiconductor fabrication equipment	3559, 3674, 3825
Electronics: Military related	3699, 3812, 3663, 3571, 3812, 3679, 3571, 3569
Biotechnology	2836, 8733, 2835, 2833, 2834, 2836
Professional/scientific instruments	3845, 3826, 3844, 3841, 3842, 3843, 3851
Aerospace and surface transportation	3721, 3724, 3711, 7371
Energy	4911, 1381
Space systems	3663, 3571, 3761, 3229, 3822, 3764, 3812, 8711, 3663, 3845
Marine systems	4499, 3699, 8711, 3731

Note: Source: CFIUS (2008).