

Political information flow and management guidance

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Accepted: 5 January 2022/Published online: 07 March 2022

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Abstract

We examine whether politically connected firms play a role in disseminating political information via their management guidance. Using campaign financing activity or the presence of a government affairs office to proxy for firms' access to political information, we find that politically connected firms are more likely to issue management guidance, and their guidance is more likely to discuss government policies. Further, these relations are attenuated for firms facing high proprietary costs of disclosure. To provide evidence on the source of the political information disclosed through guidance, we examine the timing of when guidance is issued. We find that politically connected firms are more likely to issue guidance and change their government policy—related disclosures *prior* to the public revelation of government policy decisions. Collectively, these findings suggest that the privileged information firms obtain through their political connections is shared with investors through voluntary disclosures.

 $\textbf{Keywords} \ \ Political \ connections \cdot Information \ flow \cdot Management \ forecasts \cdot Corporate \ disclosure$

JEL classification D82 · D83 · G38 · G14 · M41

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Published online: 07 March 2022.

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1 Introduction

A recent line of research investigates the role of differential access to material nonpublic information from policymakers in securities markets (e.g., Gao and Huang 2016; Christensen et al. 2017). Privileged access to the strategic details of upcoming hearings, current policy positions, and any potential amendments that others might offer (i.e., political information) is possible because members of Congress are legally permitted to selectively disclose such information to outside parties (see, e.g., Jerke 2010; Bainbridge 2011; Nagy and Painter 2012; Wright 1996). Provisions that would have required mandatory disclosure around the flow of political information were initially included in the Stop Trading on Congressional Knowledge (STOCK) Act (which passed in April 2012) but were removed prior to the final vote on the bill. A subsequent bill that aimed at addressing the lack of transparency around the flow of political information (the Political Intelligence Transparency Act of 2017) was introduced but not enacted, in part due to lack of evidence on how political information is disseminated, to whom, and for what purpose.

In this paper, we provide evidence on the potential dissemination of political information by examining whether, in equilibrium, firms with privileged access (i.e., politically connected firms) are more likely to issue guidance and discuss policy-related information in this guidance. To determine whether the source of policy-related information stems, at least in part, from selective access to political information, we also investigate the timing of guidance and assess whether politically connected firms are more likely to issue their guidance *prior* to public political events (e.g., the passage of legislation).

We conjecture that if politically connected firms have an information advantage, they will alter the provision, content, and timing of their guidance. Access to private political information increases the quantity, quality, and/or timeliness of managers' information about the potential impact of various policy alternatives (Ovtchinnikov et al. 2020; Wellman 2017). Based on the comparative statics in Verrecchia (1990), this increase in the quality of private information should lead to more discretionary disclosure ceteris paribus because it avoids the market's discounting the value of the firm. Further, politically connected firms may disclose the impacts of expected policy developments to influence the outcomes of the legislative process. Collectively, these benefits would lead managers at politically connected firms to be more likely to issue management guidance, discuss government policy in their guidance, and provide this information earlier to their investors, relative to managers at unconnected firms.

Even if selective access to political information improves firms' ability to anticipate and analyze the impact of various policy alternatives, there are costs associated with conveying this information in advance of the policy-related information becoming public. First, if expected political outcomes are unfavorable for the firm, managers may be reluctant to issue "bad news" guidance (e.g., Beyer et al. 2010). Second, even if managers expect favorable policy developments, they may incur proprietary costs. The comparative statics in Verrecchia (1990) predict that as proprietary costs increase, disclosure is less likely. Thus, holding the level of managers' private information

² If both the amount of managers' private information and the level of proprietary costs change simultaneously, the comparative statics in Verrecchia (1990) do not hold. As shown in Kim et al. (2021), when both of these factors increase, the relation with disclosure is inverse U-shaped.



Wellman (2017) and Ovtchinnikov et al. (2020) document that access to institutional details throughout the legislative and regulatory process leads to more informed investment decisions.

constant, firms may be reluctant to disclose political information when they first have access to it because it also reveals a competitive advantage that politically connected firms have over their unconnected industry peers (Ferracuti et al. 2020).³ Relatedly, firms with political connections may face lower capital market incentives and/or litigation risk, making them less likely to voluntarily disclose information (Hung et al. 2018). Further, if insiders trade based on information they glean from political connections (Jagolinzer et al. 2020), this agency cost might reduce the incentives for managers to disclose this information publicly in a timely manner. Finally, the source of the political information (e.g., a member of Congress) may prefer that firms not disclose privileged information to the market, and doing so may damage the relationship between the firm and the politician. Thus, in equilibrium, whether and how access to political information is related to voluntary disclosure depends on whether the benefits outweigh the costs of conveying this information to the public.

We examine two proxies for firms' access to this information based on their political connections. Our first proxy relies on arguments, in prior literature, that political connections formed through campaign-financing activity serve as the most observable proxy for access to politicians and political information (e.g., Christensen et al. 2017; Hojnacki and Kimball 2001; Humphries 1991). Thus, we use political connection measures from Cooper et al. (2010), which are based on contributions from firms' political action committees (PACs), as our first proxy for access to political information. Our second proxy is the existence of a government affairs office at a firm. Firms' government affairs offices act as a central resource for analyzing the likelihood of policy change and the potential impact on the firm (Bremmer 2005).

Using these measures, we first document that the likelihood of issuing earnings guidance increases by almost 23% if the firm is politically connected, after controlling for other firm characteristics that might influence guidance decisions, such as sensitivity to policy uncertainty, and both time and industry fixed effects. Consistent with proprietary costs of disclosure, we also find that connected firms facing high levels of industry competition are less likely to issue earnings guidance than connected firms facing low levels of industry competition.

If access to political information induces firms to issue guidance, then we also expect politically connected firms to mention government policy—related terms more frequently in their guidance. To test this prediction, we measure the frequency of government policy—related terms that appear in firms' guidance disclosures obtained from 8-K filings. To measure the frequency of policy-related terms, we use the policy dictionaries developed by Baker et al. (2016), which cover topics such as government spending, national defense, healthcare, trade, and fiscal and monetary policy. We find evidence consistent with our prediction. This finding holds after including industry and year-quarter fixed effects, which control for any unmodeled factor that is constant across an industry (such as guidance practices that vary by industry or industry-level benefits from shaping policies) or within a quarter (such as the level of policy uncertainty or other macroeconomic factors), respectively. We also find some evidence that the use of policy words in

⁴ A key input into legislators' policy decisions is the policy research provided by politically connected firms regarding the economic viability of proposed legislation (Wright 1996). By supplying this information to legislators, politically connected firms reinforce ongoing access to policymakers and thus political information (Hillman and Hitt 1999).



³ See, for example, Bamber and Cheon (1998), Verrecchia and Weber (2006), and Cao et al. (2018).

guidance disclosures is lower if the connected firm faces high levels of industry competition.

Since the choice to become politically connected is endogenous, a concern is that our findings are driven by this self-selection. To address this concern, we employ various econometric techniques, including entropy balancing and firm fixed effects, to address the influence of both observable and unobservable characteristics on our inferences. In addition to addressing endogeneity, the use of firm fixed effects also controls for stickiness in a firm's disclosure practices over time. Our findings are generally robust to these econometric techniques.

We provide more direct evidence on politically connected firms' selective access to policy-related information by studying the timing and content of management guidance surrounding legislation that will impact the firm. These analyses mitigate differences in the expected impact of legislation across firms by including only those firms that either directly lobbied on the legislation or are product-market peers to lobbying firms. Further, we control for differences in firm characteristics related to the propensity to issue voluntary disclosures by focusing on only those firms that issue guidance in the window before or after the passage of legislation. Using this setting, we compare differences in the timing and content of guidance across firms conditional on their political connections. If politically connected firms have differential access to political information and incentives to voluntarily disclose this information through guidance, we expect them to strategically release guidance *before* uncertainty about legislative action is resolved (i.e., when their information advantage is greatest).

Consistent with this prediction, we find that politically connected firms are more likely to issue guidance in the pre-enactment period. In contrast, politically unconnected firms that are also affected by the legislation experience an increase in the incidence of guidance, but this increase occurs during the post-enactment period. Together, this evidence suggests that both politically connected and unconnected firms are sensitive to newly enacted legislation (i.e., both groups of firms respond to legislative changes by issuing guidance), but politically connected firms are able to issue guidance during a window that is consistent with differential access to political information (i.e., during the pre-enactment window). We also find that the results are stronger for more contentious legislation (i.e., legislation that moves slowly through the legislative process), relative to less controversial legislation (i.e., legislation that moves quickly through the legislative process).

Moreover, if access to private information is inducing the decision to disclose, we expect the content of guidance ahead of legislative decisions (i.e., when the firm is more likely to have political information) to be different than guidance issued during periods when the firm is less likely to have political information (i.e., around the earnings announcement). Our results are consistent with this prediction. Specifically, using firms' own guidance at the prior earnings announcement as a benchmark, we find that immediately *prior* to legislative votes politically connected firms change the policy-related language in their guidance more than politically unconnected firms. This change analysis effectively controls for any consistent patterns in the content of a firm's disclosures over time. Collectively, these results provide support for our conclusion that observed differences in management guidance by politically connected firms can be attributed (at least in part) to differential access to political information.



Our work contributes to the ongoing policy debate concerning regulation of the flow of political information. While the STOCK Act prohibits insider trading by members of Congress, it does not prevent them from disclosing material nonpublic political information to constituents, despite concerns that this practice leads to an unfair advantage for those with access. Prior research provides support for this concern by documenting that sophisticated investors with access to political information amass greater trading profits (Gao and Huang 2016; Jagolinzer et al. 2020). Our findings suggest that management guidance is one channel through which the market can learn about the expected impact of policy developments, potentially mitigating some concerns about an unfair advantage.

Our findings also contribute to the literature that investigates incentives to provide voluntary disclosure. Extant disclosure models suggest that managers will respond to greater uncertainty about firm value by providing more voluntary disclosure (e.g., Verrecchia 1990). Consistent with this theoretical prediction, a growing empirical literature finds that firms respond to deterioration in the information environment by providing greater voluntary disclosure (e.g., Balakrishnan et al. 2014; Guay et al. 2016). Recent research documents an increase in the provision of guidance in response to market-wide political uncertainty in general (Nagar et al. 2019) and around monetary policy announcements specifically (Choi et al. 2019). Furthermore, Hassan et al. (2019) find that political risk receives greater discussion during quarterly conference calls by firms with greater exposure to economic policy uncertainty.⁵ Taken together, these papers suggest an association between aspects of political uncertainty and voluntary disclosure. However, they do not provide evidence on whether firms have differential access to private political information and, if so, the mechanism through which firms can gain access to political information. Further, these studies do not investigate whether politically connected firms choose to voluntarily disclose this information to their investors; nor do they provide evidence on the timing and policy-related discussion in politically connected firms' guidance, which we provide.

This paper proceeds as follows. In Section 2, we provide background on the institutional details of political information. In Section 3, we discuss the empirical measures for our key constructs: a firm's access to political information, policy-related disclosures, and sensitivity to policy changes. Section 4 first describes our sample and then provides the results of our tests for the association between political connections and the likelihood and content of guidance. Section 5 provides our analysis on the timing and content of guidance surrounding industry-relevant legislative events. Section 6 discusses additional tests to address the effects of potential self-selection on our findings. Section 7 concludes.

2 Background on political information

Politicians and their constituents engage in an ongoing informational exchange in which each party benefits. Constituents benefit from early and privileged access to

⁵ As the discussion in conference calls comes from both participants (e.g., analysts) and managers, it is unclear whether their findings primarily relate to questions being asked of firms by participants or managers' discussion.



information about upcoming policy developments. Policymakers benefit because they obtain insights on the economic viability and expected consequences of proposed legislation. Policymakers also benefit because constituents are willing to "pay" for political access by providing policy-related research and/or political contributions. This information exchange, described in more detail below, allows each party to make more informed decisions.

In order to reduce uncertainty over how their constituents will react to or be affected by their policy decisions, legislators seek out information when evaluating the efficacy and political viability of various policy alternatives. They invite groups and individuals to provide information on the expected consequences of policy decisions (Chan and Dickstein 2019). Firms participate in these meetings by providing research on the economic viability of proposed legislation from firms' in-house policy analysts and government affairs teams (Wright 1996; Bremmer 2005).

Firms are willing to incur the costs of this research because it not only reduces uncertainty about the impact of expected political outcomes on firm performance (Bremmer 2005) but also provides access to, and the potential to influence, the legislative process. In their discussions with firms, policymakers reveal institutional details, such as procedural strategies that committee members will employ in markup sessions, positions that legislators have taken or are thinking about taking, and amendments that other legislators or outside groups might suggest (Wright 1996).

A growing body of research investigates the benefits of differential access to political information in securities markets. Gao and Huang (2016) find that hedge funds with lobbyist ties earn abnormal profits on policy-sensitive stocks. Christensen et al. (2017) find that analyst recommendations issued by politically connected brokerage houses are more profitable than those by nonconnected brokerages. The evidence in Jagolinzer et al. (2020) suggests that access to politicians increases managers' and directors' trading profits. These studies provide evidence of unintended consequences associated with politicians' selective disclosure of material nonpublic information in the form of benefits obtained by sophisticated market participants.

To capitalize on these benefits, an entire industry has developed recently around the practice of gathering and disseminating nonpublic political information to select outside parties. The recent emergence of the political intelligence industry is drawing the attention of lawmakers who publicly question the industry practice of gathering political information for well-paying clients but are reluctant to take steps toward regulating the industry without a better understanding of how political information is disseminated and the potential consequences associated with differential information flow (Heltman 2015; Mullins 2012, 2014; Mullins and Ackerman 2012). While third-party consultants and sophisticated traders are the focus of media attention, some corporate players are bringing the practice of collecting and analyzing political inteligence in-house through a government affairs office (Bremmer 2005).

Consistent with the ability of politically connected firms to access and rely on political information, additional studies explore the role of political information in firms' corporate decisions. Ovtchinnikov et al. (2020) document evidence consistent with politically connected firms innovating more (i.e., through developing and/or acquiring well-cited patents). Moreover, the authors analyze investments in patent

⁶ Jerke (2010) and Nagy and Painter (2012) provide institutional details on the political intelligence industry.



technology around industry deregulation and document that politically connected firms have an advantage over unconnected firms stemming from their ability to anticipate regulatory developments. Wellman (2017) analyzes differences in the timing of capital investments between politically connected and unconnected firms around the Jobs and Growth Tax Reconciliation and Relief Act (JGTRRA). She demonstrates that politically connected firms seem to anticipate the passage of JGTRRA, delaying investments relatively more in the pre-enactment period in order to take advantage of lucrative tax incentives in the post-enactment period. Collectively, these studies support the notion that managers of politically connected firms access and rely on political information to strategically time investment decisions.

We build on the literature documenting the benefits of privileged access to political information by examining the effect of this access on firms' voluntary disclosures. Our predictions are based on the costs and benefits of disclosing this information to market participants. Based on the comparative statics in Verrecchia (1990), if access to privileged political information reduces the uncertainty about the impact of expected political outcomes on firm performance, the threshold for issuing voluntary disclosure is reduced.⁷ Further, since certain aspects of firms' political activities are public (and thus, outside parties are able to reasonably infer whether firms have access to political information), market participants may demand that firms communicate these informed expectations of firm performance. Building on theory and evidence suggesting that managers are motivated to reduce investor uncertainty by providing more voluntary disclosure, Nagar et al. (2019) document an increase in the average level of management guidance in response to market-wide policy uncertainty, which partially mitigates the negative effect of policy uncertainty on investor information asymmetry. Moreover, Choi et al. (2019) document that management guidance in advance of monetary policy news assists in reducing investor uncertainty.8

There are also costs associated with publicly conveying this nonpublic political information. These include proprietary costs (Ferracuti et al. 2020), lower capital market incentives and/or increased litigation risk (Hung et al. 2018), lower information rents to insiders (Jagolinzer et al. 2020), and potential damage to the firm's relationship with the politician. If the benefits of providing this political information to the market outweigh the costs, we expect that managers at politically connected firms will be more likely to issue management guidance in general, to discuss policy-related issues in their guidance, and to issue their guidance before the policy information is public, relative to managers at unconnected firms.

While prior research investigates time-series variation in the provision of guidance conditional on general policy uncertainty and investors' reliance on guidance during high policy uncertainty periods, we are, by contrast, interested in the potential information flows to managers and capital market participants that stem from firms' differential access to policy news. As such, we examine the incidence, content, and timing of the voluntary guidance that firms provide to the market. By doing so, we examine whether, in equilibrium, there is evidence consistent with managers not only

⁸ For additional evidence on investor uncertainty stemming from governmental actions, see Pástor and Veronesi (2012, 2013), Kelly et al. (2016), Baker et al. (2016), and Hassan et al. (2019).



⁷ See also Anantharaman and Zhang (2011), Balakrishnan et al. (2014), Billings et al. (2015), and Guay et al. (2016) for the relation between uncertainty and voluntary disclosure.

gaining access to political information but also sharing that information with the capital markets. In the next section, we discuss our empirical strategy for investigating our research questions.

3 Data and measurement

In this section, we outline our approach for measuring firms' access to political information. Since the decision to invest in political access is not exogenously determined, we ensure that our results hold after employing several tests to address correlated omitted variables and endogeneity (see Section 6).

3.1 Access to political information

Our measures for political connections are intended to capture firms' access to legislators because access should facilitate information flow between firms and legislators. Consistent with this conjecture, most scholars agree that political connections formed through campaign-financing activity serve as the most observable proxy for access (e.g., Schuler et al. 2002; Hojnacki and Kimball 2001; Wright 1996; Humphries 1991). Firms' campaign-financing activity (or lack thereof) is observable because of the Federal Election Commission (FEC) requirements to disclose campaign contributions. Although the Federal Election Campaign Act prohibits corporations from making contributions directly to federal elections campaigns, corporations may legally participate in federal election activities through a corporate-sponsored Political Action Committee (PAC). For example, the corporate-sponsored PAC can solicit contributions from the corporation's executives, employees, and stockholders. Corporate executives managing the PAC then strategically allocate these funds to political campaigns. ⁹ These contributions are summarized and reported to the FEC on an interim basis. Unfortunately, other forms of campaign support (such as helping candidates with fundraising, PAC operating expenses, and independent expenditures) do not require disclosure. To the extent that corporations rely on multiple political tactics in order to accomplish their objectives, measures based on disclosed contributions may be incomplete. However, as Cooper et al. (2010) discuss, regardless of how political connections are formed, as long as campaign contributions disclosed to the FEC are correlated with other ways that political connections are created and maintained, the measures we use should serve as reasonable proxies for access to political information.¹⁰

Thus, our first two proxies for firms' access to political information are based on firms' campaign financing activities as reported to the FEC. The first, *CONNECTED*, is

¹⁰ Prior literature maintains that less observable political strategies are complementary to investments in campaign financing (Schuler et al. 2002). However, to the extent that other indirect sources serve as a substitute mechanism for obtaining political information, it would bias us against finding our predicted results.



There are limits imposed on both the amount of money a PAC can solicit and the amount of money a PAC can contribute to a federal election. For example, individuals can contribute up to \$5000 per year per corporate-sponsored PAC. Contributions from the corporate-sponsored PAC to candidate campaigns are limited to \$5000 per candidate per election. The limits on contributions to House and Senate candidates apply separately to each election in which a candidate participates. In House and Senate races, each primary election, general election, runoff, and special election is considered a separate election. There are no limits, however, on PAC "operating costs," which includes fundraising activities and electioneering campaigns.

an indicator variable that equals one if the firm makes any PAC contributions during the year, zero otherwise (Christensen et al. 2017). This simple dichotomous variable, while useful for assessing economic magnitudes, does not consider the degree of political contributions, nor the multi-period nature of political support. Our second measure, $CONNECTED_{Candidate}$, factors in the number of politicians the firm supports and uses a longer window to measure political connections. As a consequence, this measure may better capture the number of channels through which information can flow. Specifically, following Cooper et al. (2010), it is defined as:

$$CONNECTED_{Candidate,i} = Ln \quad 1 + \sum_{p=1}^{J} Cand_{pt,t-5}$$
 (1)

where $Cand_{pt,t-5}$ is an indicator variable equal to one if firm i has contributed money to candidate p over the years t-5 to t.

In addition to gaining access through campaign support, firms can also obtain access to legislators by providing them with policy research. An important input into government policy decisions is the research that legislators receive on the economic viability of proposed legislation from firms' in-house policy analysts (Wright 1996). Typically, in-house policy analysts are part of the firms' government affairs teams (Bremmer 2005). Thus, our next proxy for access to political information is the existence of a government affairs division at the firm. In contrast to the proxies based on campaign support given to specific candidates, the government affairs office facilitates information exchange with *any* politician, whether they are incumbents, newly elected, or appointed. Data on government affairs staff come from Columbia Books & Information Services' (CBIS) comprehensive historical dataset of firms' government affairs offices. Our proxy for access to political information through a government affairs office, *GOV AFFAIRS*, equals one if firm *i* employed any government affairs staff in year *t*, zero otherwise.

3.2 Propensity to guide: Sample and descriptive statistics

To form our sample, we first merge Compustat data with return data from CRSP, management guidance and analyst following data from I/B/E/S, political contribution data from the FEC files, and government affairs staff data from CBIS. This allows us to build a comprehensive database of firm contributions, government affairs staff, annual firm accounting characteristics and performance, and guidance. ¹² Our initial sample contains 406,531 firm-quarter observations (representing 15,906 unique firms) for years 2001 through 2014. Our estimation sample requires nonmissing data for all the

CUSIP, PERMNO, etc.). Therefore, we manually match the FEC data to CRSP/Compustat based on historical company names applicable to that time period (Christensen et al. 2022). If we do not observe contributions for firm i in any of the detailed committee and candidate summary contribution files, we code the number of candidates they support and their level of PAC contributions as zero.



¹¹ CBIS was able to provide an electronic dataset beginning in 2011. For the earlier years in our sample, we hand collect data on firms' government relations data from *Washington Representatives*, a directory published semiannually by CBIS. We augment the electronic dataset provided by CBIS with our hand-collected data. ¹² We obtain data on political contributions made by firm-sponsored political action committees from the FEC detailed committee and candidate summary contribution files. The FEC does not use company identifiers (i.e., CUSIP, PERMNO, etc.). Therefore, we manually match the FEC data to CRSP/Compustat based on historical

control variables, reducing our sample to 228,987 observations (8925 unique firms). We also drop 376 observations that are singletons due to the use of firm fixed effects in our later analyses. Our final sample contains 228,611 firm-quarter observations from 8549 unique firms.

Table 1 provides descriptive statistics for the sample. As shown in Panel A, just over 31% of our firm-quarter observations contain quarterly guidance, and around 14% of our observations correspond to quarters when the firm is politically connected. For these politically connected firms, Panel B of Table 1 shows the incidence of guidance increases to 52.9%, while the incidence of guidance for unconnected firms is 27.6%. This difference in the propensity to issue guidance between connected and unconnected firms is significant at the 1% level (t = 93.07). Further, we find that connected firms use a greater number of policy-related words in their guidance (t = 85.65, p < 0.01). These findings provide preliminary evidence consistent with politically connected firms having privileged access to policy-related information and disclosing the effects of this information for the firm through increased voluntary disclosure. Panel B of Table 1 also compares additional firm characteristics for connected and unconnected observations. We observe that connected firms are larger, tend to outperform their unconnected counterparts (i.e., connected firms report fewer loss quarters and amass greater annual returns), have lower return volatility, have higher leverage, are more likely to be followed by analysts, and attract more institutional investors. In the next subsection, we control for these observable differences across connected and unconnected firms. Further, in Section 6, we perform several additional tests to rule out the possibility that our findings for CONNECTED are due to correlated omitted variables.

4 Empirical tests: Propensity to guide

4.1 Propensity to guide conditional on political access

To test whether politically connected firms are more likely to issue management guidance, we estimate the following linear probability model using OLS¹³:

$$GUIDE_{it} = \alpha + \beta_1 CONNECTED_{it} + \gamma CONTROLS_{it} + \varepsilon_{it}$$
 (2)

where the propensity to issue guidance, GUIDE, is an indicator variable set to one in firm-quarters where firm i reports management guidance pertaining to net income (NET), earnings per share (EPS), fully reported earnings per share (EPS), EBITDA per share (EBT), and/or funds from operations (FFO); zero otherwise. Assuming the benefits of disclosing this information outweigh the costs, we predict that the estimated coefficient on CONNECTED will be positively associated with GUIDE (i.e., $\beta_1 > 0$).

 $[\]overline{}^{13}$ Similar to other recent studies (e.g., Christensen 2016), we use a linear probability model to avoid the incidental parameters problem that can arise when fixed effects are included in maximum likelihood estimators like logit and probit (Greene 2004). In our setting, we avoid the two primary limitations of the linear probability model. First, we are only interested in interpreting the parameter β_1 and not predicted values, so we do not require a function that limits predictions to [0,1]. Second, our variable of interest (*CONNECTED*) is an indicator; therefore, by construction, it is immune to the difficulties in interpreting extreme values of the variable of interest (Wooldridge 2010, pp. 563–564).



Table 1 Summary statistics

Panel A: Descriptive Statistics for Full Sample (N=228,611)					
Variablea	Mean	Std. Dev.	P25	Median	P75
GUIDE	0.312	0.463	0.000	0.000	1.000
POLICY WORDS	0.227	0.360	0.000	0.000	0.490
CONNECTED	0.144	0.351	0.000	0.000	0.000
CONNECTED _{Candidate}	15.050	57.784	0.000	0.000	0.000
GOV AFFAIRS	0.049	0.215	0.000	0.000	0.000
SIZE	6.060	2.084	4.563	6.009	7.439
log(BTM)	-0.685	0.884	-1.162	-0.619	-0.143
LOSS	0.305	0.460	0.000	0.000	1.000
RETURN	0.150	0.675	-0.211	0.062	0.349
RETVOL	0.034	0.021	0.019	0.028	0.042
FOLLOWED	0.746	0.435	0.000	1.000	1.000
INSTOWN	0.393	0.341	0.011	0.360	0.719
EPU BETA	-0.025	0.179	-0.044	-0.007	0.012

Panel B: Sample Means for Connected vs. Not Connected Observations

Variable ^a	<i>CONNECTED</i> = 1 (<i>N</i> = 32,812)	<i>CONNECTED</i> = 0 (<i>N</i> = 195,799)	Difference ^b (t-statistic)
GUIDE	0.529	0.276	0.253*** (93.07)
POLICY WORDS	0.382	0.201	0.181*** (85.65)
HIGH POLICY WORDS	0.078	0.014	0.064*** (71.44)
SIZE	8.438	5.661	2.777*** (252.59)
log(BTM)	-0.791	-0.667	-0.124*** (-23.53)
LOSS	0.145	0.332	-0.187*** (-68.81)
RETURN	0.172	0.147	0.025*** (6.31)
RETVOL	0.024	0.036	-0.012*** (-100.58)
FOLLOWED	0.954	0.712	-0.242*** (-95.25)
INSTOWN	0.538	0.369	0.169*** (83.97)
EPU BETA	-0.043	-0.022	0.021*** (19.76)

^a All variables are defined in Appendix 1

^b T-statistics are provided in parentheses

 $^{^{*}}$, ** , and *** indicate statistical significance at the 0.10, 0.05, and 0.01 levels (two-tailed test), respectively

We include additional controls (CONTROLS_{it}) that may influence firms' disclosure incentives. We draw these variables from prior research (e.g., Li and Zhang 2015; Huang, Jennings, and Yu 2017). First, we include stock returns (RETURN), an indicator for loss firms (LOSS), and stock return volatility (RETVOL) to control for stock and financial performance. Second, we include market capitalization (SIZE), book-to-market ratio (BTM), institutional ownership (INSTOWN), and an indicator variable for analyst following (FOLLOWED) to control for the demand for information. Third, it is possible that politically connected firms have heightened exposure to political outcomes and thus are more likely to provide guidance and discuss government policies to alleviate investor uncertainty (e.g., Nagar et al. 2019). ¹⁴ Thus, we include the firm's time-varying sensitivity to government policy (EPU BETA) to control for a firm's exposure to policy-related issues. (See Appendix 1 for additional detail on variable definitions.) We include year-quarter fixed effects to control for aggregate time-series trends such as the overall level of policy uncertainty. To mitigate concerns that time-invariant industry characteristics affect our inferences, we include industry indicators based on the Fama-French 49 classification. 15 Finally, standard errors are clustered at the firm level.

Panel A of Table 2 provides the estimation results for eq. (2). We find that politically connected firms are significantly more likely to issue management guidance, relative to unconnected firms, after controlling for typical firm characteristics that are associated with the decision to issue management guidance. Based on the results in column (1), the estimated coefficient on CONNECTED suggests that on average, politically connected firms are seven percentage points more likely to issue guidance, relative to unconnected firms (p < 0.01). This effect represents a 22.6% increase in the likelihood of issuing guidance for politically connected firms. ¹⁶ In column (2), we find similar evidence when we re-estimate eq. (2) using the continuous measure $CONNECTED_{Candidate}$ (p < 0.01), suggesting that the propensity to guide is also increasing with the number of candidates supported. Finally, in column (3), we reestimate eq. (2) using our indicator for whether the firm maintains a government affairs office. We find that firms with government affairs offices are eight percentage points more likely to issue guidance, relative to firms without a government affairs office ($p < \infty$ 0.01). This effect represents an increase of 25% in the likelihood of issuing guidance for politically connected firms. As reported in Section 6 below, these findings are robust to various approaches to deal with the potential endogeneity in a firm's decision to become politically connected.

We examine if this finding varies cross-sectionally with the level of proprietary costs faced by the firm. We proxy for the level of proprietary costs using the firm-level competition measure from Li et al. (2013).¹⁷ We use this measure to construct an indicator variable, *HIGH COMPETITION*, that equals 1 if the firm's level of perceived

¹⁷ We thank Kyle Peterson for providing the competition measure for our sample firms.



¹⁴ For evidence on investor uncertainty stemming from governmental actions, see Pástor and Veronesi (2012, 2013), Kelly et al. (2016), and Baker et al. (2016).

¹⁵ All inferences hold if we omit the industry fixed effects (results not tabulated).

 $^{^{16}}$ If we set all control variables at their means, the probability of issuing guidance for connected (unconnected) firms is 37.1% (30.3%). Thus, the likelihood that connected firms issue guidance is 6.8 percentage points higher (i.e., 37.1%-30.3%), which represents a 22.6% increase in the likelihood of issuing guidance (i.e., 6.5% / 30.3%).

Table 2 Political Connections and Propensity to Guide (N = 228,611)

Panel A: Propensity to Guide Conditional on Political Connections				
		GUIDE		
Variable ^{a,b}	Prediction	(1)	(2)	(3)
CONNECTED	(+)	0.07***		
		(4.91)		
$CONNECTED_{Candidate}$	(+)		0.02^{***}	
			(4.32)	
GOV AFFAIRS	(+)			0.08***
				(4.26)
SIZE		0.04***	0.04***	0.05***
		(14.91)	(14.37)	(17.02)
log(BTM)		-0.00	-0.00	0.00
		(-0.70)	(-0.81)	(0.35)
LOSS		-0.06***	-0.06***	-0.06***
		(-13.28)	(-13.36)	(-12.94)
RETURN		-0.02***	-0.02***	-0.02***
		(-6.90)	(-6.83)	(-7.21)
RETVOL		-0.59***	-0.60***	-0.55***
		(-4.33)	(-4.44)	(-4.12)
INSTOWN		0.14***	0.14***	0.14***
		(12.17)	(12.21)	(12.18)
FOLLOWED		0.16***	0.16***	0.16***
		(24.11)	(24.38)	(24.23)
EPU BETA		14.73**	14.48***	14.90***
		(2.34)	(2.29)	(2.38)
Cluster by Firm		Yes	Yes	Yes
Year-Quarter Fixed Effects		Yes	Yes	Yes
Industry Fixed Effects		Yes	Yes	Yes
Adj. R-squared		0.25	0.25	0.25

competition is in the 75th percentile, 0 otherwise. We augment eq. (2) with HIGH COMPETITION and $CONNECTED \times HIGH$ COMPETITION. As shown in Panel B of Table 2, we find that the interaction term is significantly negative for each of the specifications. Moreover, the F-statistic testing if $CONNECTED + CONNECTED \times HIGH$ COMPETITION equals zero is not significant. These results indicate that connected firms that face high levels of proprietary costs are less likely to issue earnings guidance than connected firms that face low levels of proprietary costs.

Our main findings contrast with a recent study by Hung et al. (2018), who document, in an international sample of firms from 2002 to 2004, that firms with political connections issue fewer voluntary disclosures. However, Hung et al. classify a firm as having political connections if a politician has control rights over a company (as indicated by a politician being a major shareholder, officer, or top director). This arrangement is rare in our setting; Hung et al. find it in only nine of the U.S. firms in



Table 2 (continued)

Panel B: Cross-Sectional Variation in Propensity to Guide with Firm Competition				
		GUIDE		
Variable ^{a,b}	Prediction	(1)	(2)	(3)
CONNECTED	(+)	0.08***		
		(5.31)		
$CONNECTED_{Candidate}$	(+)		0.02***	
			(4.84)	
GOV AFFAIRS	(+)			0.10***
				(5.22)
HIGH COMPETITION	(-)	-0.02***	-0.02***	-0.02***
		(-3.05)	(-2.85)	(-3.60)
$CONNECTED \times$	(-)	-0.06^{***}		
HIGH COMPETITION		(-2.28)		
CONNECTED _{Candidate} ×	(-)		-0.02***	
HIGH COMPETITION			(-2.71)	
GOV AFFAIRS × HIGH COMPETITION	(-)			-0.12*** (-3.29)
F-Test: CONNECTED + CONNECTED ×		0.48	0.05	0.21
$HIGH\ COMPETITION = 0$				
Controls		Yes	Yes	Yes
Cluster by Firm		Yes	Yes	Yes
Year-Quarter Fixed Effects		Yes	Yes	Yes
Industry Fixed Effects		Yes	Yes	Yes
Adj. R-squared		0.25	0.25	0.25

^a All variables are defined in Appendix 1

their sample. 18 Our results, together with those of Hung et al., suggest that both the regulatory and institutional environments affect the net benefits of voluntary disclosure and thus influence the extent to which politically connected firms serve as a conduit through which political information flows to the market. Our cross-sectional tests for the firm's level of competition support this inference. Overall, the results in Table 2 are consistent with our prediction that politically connected firms are significantly more likely to issue management guidance, relative to politically unconnected firms.

4.2 Use of policy words in guidance conditional on political access

If access to political information motivates firms to increase their voluntary disclosures, then we should observe that politically connected firms mention more policy-related terms in their guidance. To investigate whether political access is related to the use of policy-related discussion in guidance disclosures, we use 8-Ks filed around guidance events to create two quarterly measures of policy word use. Both measures begin with

 $[\]frac{18}{18}$ In their sample, the majority of politically connected firm-year observations are concentrated in Southeast Asia, a region with vastly different institutional features than our setting; see Table 1 in Hung et al. (2018).



^b All t-statistics (in parentheses) are calculated based on standard errors that are clustered by firm

^{*, **,} and *** indicate statistical significance at the 0.10, 0.05, and 0.01 levels (two-tailed test), respectively

all available 8-Ks on the SEC EDGAR website that were filed within five days (i.e., t-2, t + 2) around the earnings guidance date (t) reported in I/B/E/S.¹⁹ We then count policy words mentioned in each guidance-related 8-K disclosure and sum them at the firm-quarter level across all guidance-related 8-Ks.²⁰ Our continuous measure of policy word use, POLICY WORDS, equals the number of policy words used per 100 words in firm i's guidance-related 8-K disclosure.²¹ Our dichotomous measure, HIGH POLICY WORDS, indicates firm-quarters where the firm's policy word use (i.e., unscaled POLICY WORDS) exceeds the 75th percentile of sample observations.²² We then test our prediction by estimating the following model:

POLICY WORD FREQUENCY_{it} =
$$\alpha + \beta_1 CONNECTED_{it} + \gamma CONTROLS_{it} + \varepsilon_{it}$$
 (3)

where the frequency of policy words is measured using *POLICY WORDS* or *HIGH POLICY WORDS*. We predict that the estimated coefficient on *CONNECTED* will be positively associated with *POLICY WORDS* and *HIGH POLICY WORDS* (i.e., $\beta_1 > 0$). Additional controls (*CONTROLS_{it}*) are defined above. As before, we include industry and year-quarter fixed effects. We again cluster standard errors at the firm level.

Panel A of Table 3 reports results from estimating eq. (3) using OLS. In columns (1) through (3), we report the results using the *HIGH POLICY WORDS* indicator. We find that conditional on issuing guidance, politically connected firms are also more likely to include policy terms more frequently in their guidance-related 8-K disclosures, relative to politically unconnected firms. This holds regardless of which measure we use to capture firms' access to political information. Moreover, as shown in columns (4) through (6), our results are insensitive to estimating eq. (3) using *POLICY WORDS* as the dependent variable. Further, as discussed in Section 6, our findings are generally robust to various approaches to dealing with the potential endogeneity in a firm's decision to become politically connected.

Panel B of Table 3 examines cross-sectional variation in the use of policy-related words with the firm's level of competition. In this specification, the estimated coefficients on our political connections proxies remain statistically positive, consistent with Panel A. We find some evidence that politically connected firms that face high levels of competition use fewer policy words in their earnings guidance. Although the estimated coefficient on the interaction term is not significant when *HIGH POLICY WORDS* is used as the dependent variable (columns (1)–(3)), we do find that it is significant for the continuous measure of policy word use (*POLICY WORDS*) for *CONNECTED* and *CONNECTED* (columns (4) and (5),

^{22°}This measure is calculated using unscaled policy words to minimize the confounding impact that scaling by total words can induce when the total length of the filing changes due to reasons unrelated to policy words.



¹⁹ Our objective is to identify the narrative surrounding the guidance event reported by I/B/E/S. To confirm that the 8-Ks we examine include guidance-related discussion, we randomly select 100 I/B/E/S-8-K matches and find narrative discussion related to guidance in 86 of them. Tightening the window to [-1,1] does not improve the match.

²⁰ Rather than focus exclusively on the voluntary portion of firms' 8-Ks (i.e., Items 2.02, 7.01, and 8.01), we gather all 8-Ks around the guidance event and sum all policy-related words included in the entire 8-K. Treating all policy words used within 48 h of a guidance event as voluntary is ideal in our setting because policy words used within any item are arguably voluntary, as guidance may trigger or be triggered by events that lead to filing other 8-K items.

²¹ Baker et al. (2016) use several dictionaries related to various categories of economic policy uncertainty to develop an index of economic policy uncertainty (EPU). Following their approach, we use the list of terms provided on their website, www.policyuncertainty.com, to identify policy-related words. This list is reproduced in Appendix B.

Table 3 Political connections and policy word use within guidance (N = 71,414)

		HIGH PO	OLICY WOR	DS	POLICY W	VORDS	
Variable ^{a,b}	Prediction	(1)	(2)	(3)	(4)	(5)	(6)
CONNECTED	(+)	0.04***			0.03**		
		(4.93)			(2.35)		
$CONNECTED_{Candidate}$	(+)		0.01***			0.01***	
			(5.49)			(2.68)	
GOV AFFAIRS	(+)			0.07***			0.04***
				(5.34)			(2.94)
SIZE		0.02***	0.02***	0.02***	-0.00	-0.00	-0.00
		(8.72)	(7.78)	(9.13)	(-0.27)	(-0.77)	(-0.12)
log(BTM)		0.01***	0.01***	0.01***	-0.01**	-0.01**	-0.01**
		(4.55)	(4.04)	(4.53)	(-2.00)	(-2.19)	(-1.99)
LOSS		0.02***	0.02***	0.02***	-0.03***	-0.03***	-0.03**
		(6.06)	(5.78)	(6.14)	(-4.63)	(-4.73)	(-4.56)
RETURN		0.00**	0.00^{**}	0.00^{*}	-0.02***	-0.02***	-0.02**
		(2.20)	(2.42)	(1.91)	(-4.98)	(-4.92)	(-5.07)
RETVOL		0.69***	0.67***	0.64***	-0.87***	-0.88***	-0.90**
		(5.09)	(4.98)	(4.67)	(-3.31)	(-3.37)	(-3.44)
INSTOWN		-0.00	0.00	-0.00	0.11***	0.11***	0.10***
		(-0.07)	(0.03)	(-0.20)	(8.72)	(8.75)	(8.69)
FOLLOWED		-0.01**	-0.01*	-0.01**	0.02^{*}	0.03*	0.02^{*}
		(-2.37)	(-1.80)	(-1.97)	(1.79)	(1.93)	(1.86)
EPU BETA		-8.32	-9.61	-7.74	-17.27**	-17.98**	-16.60
		(-1.36)	(-1.58)	(-1.25)	(-2.03)	(-2.11)	(-1.95)
Cluster by Firm		Yes	Yes	Yes	Yes	Yes	Yes
Year-Quarter Fixed Effects		Yes	Yes	Yes	Yes	Yes	Yes
Industry Fixed Effects		Yes	Yes	Yes	Yes	Yes	Yes
Adj. R-squared		0.07	0.07	0.07	0.22	0.22	0.22

respectively). Coupled with our results in Panel B of Table 2, these findings suggest that the effect of proprietary costs on the decision to issue guidance is stronger than the effect of proprietary costs on the content of the guidance for firms that have chosen to disclose.

Overall, the evidence presented in this section indicates that politically connected firms are more likely to issue guidance, on average, than politically unconnected firms. Moreover, politically connected firms include policy terms in their guidance-related 8-K disclosures at a significantly higher rate than politically unconnected firms. Taken together, these results are consistent with firms' political connections providing selective access to policy news. However, the increased incidence of guidance and the greater use of policy-related words do not speak to the source of the political information. For example, an alternative explanation for these findings is that investors in a politically connected firm demand more information because they face uncertainty over how political outcomes will impact the firm even if the firm has not gained privileged access to political information. In the next section, we investigate whether the evidence is consistent with politically connected firms gaining selective access to political information.



Table 3 (continued)

		HIGH P	OLICY W	ORDS	POLICY	WORDS	
Variable ^{a,b}	Prediction	(1)	(2)	(3)	(4)	(5)	(6)
CONNECTED	(+)	0.04***			0.04***		
		(5.00)			(3.44)		
$CONNECTED_{Candidate}$	(+)		0.01***			0.01***	
			(5.42)			(3.45)	
GOV AFFAIRS	(+)			0.07***			0.04***
				(5.21)			(2.90)
HIGH COMPETITION	(?)	-0.01***	-0.01***	-0.01***	-0.05***	-0.05***	-0.07**
		(-3.26)	(-3.48)	(-4.26)	(-5.43)	(-5.59)	(-6.91)
CONNECTED × HIGH COMPETITION	(-)	-0.02			-0.08***		
		(-1.36)			(-2.96)		
$CONNECTED_{Candidate} \times HIGH COMPETITION$	(-)		-0.00			-0.02**	
			(-0.76)			(-2.52)	
GOV AFFAIRS × HIGH COMPETITION	(-)			-0.01			-0.01
				(-0.52)			(-0.33)
F-Test: CONNECTED+ CONNECTED × HIGH COMPETITION= 0		2.17	6.24**	5.62**	2.28	0.79	0.92
Controls		Yes	Yes	Yes	Yes	Yes	Yes
Cluster by Firm		Yes	Yes	Yes	Yes	Yes	Yes
Year-Quarter Fixed Effects		Yes	Yes	Yes	Yes	Yes	Yes
Industry Fixed Effects		Yes	Yes	Yes	Yes	Yes	Yes
Adj. R-squared		0.07	0.07	0.07	0.22	0.22	0.22

^a All variables are defined in Appendix 1

5 Timing of guidance around political events conditional on political access

To support our conclusion that observed differences in management guidance by politically connected firms stem in part from differential access to political information, in this section we study the timing of guidance in anticipation of industry-relevant legislation. These analyses examine the extent to which politically connected firms issue management guidance *before* legislative decisions are publicly revealed. We conjecture that, if politically connected firms have differential access to political information, then connected firms should communicate earlier than their unconnected peers around political events that are equally important to connected and unconnected firms. The next section describes the setting we use to test this prediction.

5.1 Differential timing: Identification of legislative events

To identify legislation that impacts firms in our sample, we rely on a sample of legislative bills where (1) either the focal firm (or a peer) lobbied for the bill (signaling



^b All t-statistics (in parentheses) are calculated based on standard errors that are clustered by firm

^{*, **,} and *** indicate statistical significance at the 0.10, 0.05, and 0.01 levels (two-tailed test), respectively

that the bill is economically important to the focal firm and/or peer firm), and (2) the bill was ultimately signed into law.^{23,24} Lobbying disclosures include details on the total amount of lobbying dollars spent by firms across all issues (e.g., taxation, budget and appropriation, healthcare).²⁵ In addition to providing details on the issues of interest to the firm, the lobbying disclosures also include details on specific bills.²⁶ We obtain the date each bill is introduced and the date of each bill's final vote before it is signed into law from ProPublica's Congress API.²⁷ While each bill is voted on many times throughout its life, we focus on the final roll call vote as this is the date on which virtually all uncertainty around the bill's fate is removed. These procedures yield 415 bills that firms lobbied on and were ultimately passed into law. Using these events, we can identify the period before and including the passage of legislation that is likely to impact the firm, providing a setting to test our information flow hypothesis. This design helps mitigate differences in government policy sensitivity across firms by including, in our analysis, only those firms that either directly lobbied for the legislation or are product-market peers of the lobbying firm(s). Further, we include in our sample only those firms that issue guidance in the window before or after the passage of legislation, and thereby control for firm-level characteristics associated with the decision to issue voluntary disclosures.

5.2 Timing of legislative guidance conditional on political access

In this section, we examine the timing, relative to the final roll-call vote, of guidance issued by firms that are affected by the newly enacted legislation (i.e., the focal firm or a peer that lobbied for the bill). We conjecture that if firms obtain information about legislative outcomes through their political access, then firms with access should communicate more than their unconnected peers in the days *before* enactment (i.e., prior to public knowledge of the final details and outcome of the final vote). To focus on voluntary guidance that is likely driven by the access to legislative outcomes, we eliminate guidance observations issued around the firm's earnings announcement. We examine all non–earnings announcement guidance issued by focal firms or their peers

https://projects.propublica.org/api-docs/congress-api/



²³ This approach has a similar intuition to that of Cohen et al. (2013). They develop a methodology designed to measure the impact of legislation on affected firms (and industries) by mapping the terms used for industry classifications to the language in legislative proposals, under the assumption that most legislative changes tend to apply to entire industries rather than specific firms.

²⁴ Lobbying reports are filed with the Secretary of the Senate's Office of Public Records and are available by calendar year beginning in 1998. The Center for Responsive Politics (CRP) maintains the lobbying data, which we manually match to Compustat by company name. The lobbying reports disclose specific bills that firms lobby for

²⁵ The full list of lobbying issue codes can be found on the House.gov website: https://lobbyingdisclosure.house.gov/help/default.htm?turl=WordDocuments%2Flobbyingissuecodes.htm. There are a total of 79 issue codes.

²⁶ For example, from reviewing Lockheed Martin's 2014 lobbying disclosures, we learn that the firm spent over \$14 million on lobbying and lobbied over policies pertaining to defense, the federal budget and appropriations, aviation, and taxes. Among the specific bills that Lockheed Martin targeted were the Howard P. "Buck" McKeon National Defense Authorization Act for Fiscal Year 2015 (H.R.4435), Carl Levin National Defense Authorization Act for Fiscal Year 2015 (S.2410), and the Department of Defense Appropriations Act, 2015 (H.R.4870). This detail was pulled from OpenSecrets.org: https://www.opensecrets.org/lobby/clientsum.php?id=D000000104&year=2014.

in the 30 days before and 30 days after the final roll call vote for bills that the focal firm lobbied on. We identify peers using Hoberg and Phillips' (2010) product description—based classifications rather than industrial classifications. We do this because appropriations bills dominate other forms of legislation in our sample; therefore, as appropriations concern eligible bidders for procurement contracts most directly, we feel that product description—based classifications are the most relevant peer group definition.²⁸

To test our conjecture that firms with access to private political information are more likely to issue guidance *before* the final roll call vote, we analyze whether the distribution of the timing of guidance by firms with political access differs from the distribution of the timing of guidance by firms without political access around the final vote. To provide statistical tests of our conjecture, we use Epanechnikov kernel density estimates. Epanechnikov kernel density estimates. Kernel density estimation uses observed data to estimate the distribution function that generated the data. Though inspection of density plots can be quite convincing, we provide several distributional tests to confirm our inferences from the density plots. First, we use the Kolmogorov-Smirnov (K-S) test, which tests the hypothesis that two samples come from the same distribution. In addition to testing for equality of distributions, the K-S test allows us to test directional hypotheses around the date of the final roll call. We supplement the K-S test with the Epps-Singleton (E-S) test, which is more robust for testing the equality of distributions of discrete data.

Figure 1 plots the Epanechnikov kernel density estimates of non–earnings announcement guidance issued in the 60 days around the final roll call vote (i.e., 30 days before and 30 days after) for connected and unconnected firms with 95% confidence intervals. Consistent with our conjecture, we observe that guidance issued by *CONNECTED* firms is concentrated in the pre-vote period, and this difference is significant at the 5% level for the two weeks leading up to the final vote.

The first row of Panel A of Table 4 reports a K-S test of the hypothesis that unconnected firms (CONNECTED = 0) are *more* likely to guide in the 30 days before and after the final roll call vote than their politically connected peers (CONNECTED = 1). Consistent with our expectations, we reject this hypothesis before the vote and fail to reject it following the vote. The second row of Table 4 reports a K-S test of the hypothesis that unconnected firms (CONNECTED = 0) are *less* likely to guide in the 30 days before and after the final roll call vote than their connected peers (CONNECTED = 1). Consistent with our expectations, we fail to reject this hypothesis before the vote and reject it following the vote. The third row of Panel A and Panel B report K-S and E-S tests, respectively, of the hypothesis that the distributions of guidance by

³⁰ Although the K-S test was developed for continuous data, Conover (1972) shows that this test is conservative for discrete data.



²⁸ We read the titles and topics of a sample of 250 of the 415 bills in this analysis. Of the 250 bills, 121 are appropriations bills, 26 concern regulation, and 19 concern taxation. The remainder are a mix related to immigration (H1b visas), subsidies, and trade.

²⁹ Although we have discrete data (naturally binned by days), we chose to use kernel density estimation for two reasons. First, weekends, during which there is little voting and guidance activity, create a large amount of noise in the plot, making the differences in the distributions difficult to interpret without non-day binning. Despite this issue, visual inspection of the daily probability of guidance plots shows a higher (lower) incidence of guidance during the 30 days prior to (after) the final roll call vote for politically connected firms, relative to unconnected firms (untabulated). Second, and most importantly, the kernel density estimation approach provides both an estimated distribution and confidence intervals, which allow for statistical testing of the differences in guidance activity.

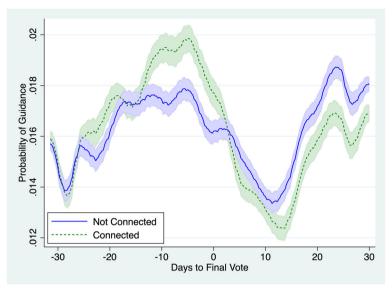


Fig. 1 Plots of Epanechnikov Kernel Density Estimates (EKDE) for Unbundled Guidance around Final Vote Date^a. (a) This figure provides the EKDE estimates and 95% confidence intervals around the final vote date. The sample excludes earnings announcement guidance

connected and unconnected firms are equal in the pre- and post-vote period. We are able to reject this hypothesis under both tests in the pre period (p < 0.01) and post period (p < 0.07). In untabulated analyses, we find that these results hold when comparing the distribution of guidance across firms with and without government affairs offices.

5.3 Robustness analysis: Timing of legislative guidance conditional on political access

A disadvantage of this distributional analysis is that it is not able to control for observable and unobservable differences between the two groups. We perform four tests to determine if our results are induced by differences that are not controlled for. First, we balance the sample on the basis of *EPU BETA* and *SIZE* and then re-examine the distribution of guidance surrounding the final roll call vote.³¹ The distribution of guidance in this balanced sample is similar to that provided in Fig. 1 (not presented), suggesting that the observed differences in the timing of guidance between politically connected and unconnected firms surrounding final roll call votes are not driven by differences in firm size and sensitivity to political uncertainty.

Second, as an alternative way to address the potential effect of observable factors, we model the timing of guidance around the final roll call vote as a function of the firm-level observables used in Table 2. Specifically, we estimate the following model:

³¹ Using the methodology developed in Hainmueller (2012), we reweight the observations in the connected and unconnected groups creating two samples with identical mean, variance, and skewness for *EPU BETA* and *SIZE*.



Table 4 Distribution of Unbundled Guidance around Final Roll-Call Vote^a

Panel A: Kolmogorov-Smirnov Two	-Sample Test for Distribution	around Final Roll-Call Vote		
Null Hypothesis	30 Days Pre	30 Days Post		
Not Connected > Connected	≤ 0.001	0.812		
Not Connected < Connected	0.994	0.012		
Not Connected=Connected	≤ 0.001	0.023		
Panel B: Epps-Singleton Two-Sample Test for Distribution Around Final Roll-Call Vote				
Null Hypothesis	30 Days Pre	30 Days Post		
Not Connected=Connected	≤ 0.001	0.062		

^a This table reports *p*-values from statistical tests regarding whether the distribution of the timing of unbundled guidance by firms with political access differs from the distribution of the timing of unbundled guidance by firms without political access around the final vote

$$BEFORE_{it} = \alpha + \beta_1 CONNECTED_{it} + \gamma CONTROLS_{it} + \varepsilon_{it}$$
 (3)

where *BEFORE* is an indicator variable that equals 1 if the firm issued guidance in the 30 days prior to the final roll call vote, 0 otherwise.³² We include the same set of control variables used in previous tables. We also include bill fixed effects to control for differences across the bills examined.³³ As in previous tables, we cluster the standard errors by firm.

Consistent with our expectation that politically connected firms are more likely to issue guidance in the period before the roll call vote relative to unconnected firms, column (1) of Table 5 Panel A shows that the estimated coefficient on *CONNECTED* is significantly positive. This effect represents a 7.4% increase in the likelihood of issuing guidance prior to the final vote for politically connected firms. The coefficient remains significantly positive at one-tailed p < 0.08 if we include controls in the estimations (column (2)). These findings are consistent with the distributional analysis presented in Table 4 and Fig. 1.

As an alternative to the approach followed in Table 4, we follow the approach in Bushee et al. (2020) and test whether the difference in disclosure between politically connected and politically unconnected firms is greater (less) immediately prior to (after)

³⁵ If we set all control variables at their means, the probability of issuing guidance before the final vote for connected (unconnected) firms is 55.0% (51.2%). Thus, the likelihood that connected firms issue guidance is 3.8 percentage points higher (i.e., 55.0% - 51.2%), which represents a 7.4% increase in the likelihood of issuing guidance (i.e., 3.8% / 51.2%).



 $^{^{32}}$ Our inferences are similar if we replace *BEFORE* in equation (3) with a variable that measures the number of days the guidance is issued before (after) the legislation (*TIMING*). *TIMING* ranges from -30 to +30 (untabulated).

³³ The inclusion of bill fixed effects in equation (3) effectively controls for calendar time and industry fixed effects.

³⁴ By contrast, if we replace *BEFORE* with *AFTER*, an indicator variable that equals 1 if the firm issued guidance in the 30 days *after* the final roll call vote and 0 otherwise, and re-estimate column (1), we find that the estimated coefficient on *CONNECTED* is negative and significant (results not tabulated). This finding suggests that, consistent with the distributional analysis presented in Table 4 and Fig. 1, politically connected firms issue less guidance than politically unconnected firms in the period immediately following the roll call vote.

Table 5 Regression Analyses of Timing of Unbundled Guidance Release Relative to Final Roll-Call Vote (N = 47,856)

Panel A: Full Sample			
		BEFORE	
Variable ^{a,b}	Prediction	(1)	(2)
CONNECTED	(+)	0.04***	0.02^{\dagger}
		(3.77)	(1.45)
Controls		No	Yes
Cluster by Firm		Yes	Yes
Bill Fixed Effects		Yes	Yes
Adj. R-squared		0.05	0.05
Panel B: Cross-Sectional Variation Conditional on Bill	Speed		
		BEFORE	
Variable ^{a,b}	Prediction	(1)	(2)
CONNECTED	(+)	0.05***	0.03**
		(4.35)	(2.21)
$CONNECTED \times FAST$	(-)	-0.05***	-0.05***
		(-2.88)	(-2.83)
Controls		No	Yes
Cluster by Firm		Yes	Yes
Bill Fixed Effects		Yes	Yes
Adj. R-squared		0.05	0.05
F Statistic: $CONNECTED + CONNECTED \times FAST = 0$		0.01	1.31

^a All variables are defined in Appendix 1

the final roll call vote. Specifically, for each firm-bill date in our sample, we code a daily guidance indicator for the 30 days prior and the 30 days after the final roll call vote. We then regress the daily guidance indicator variable on event period indicator variables for the windows (-30, -21), (-20, -11), (-10, -1), (0), (+1, +10), (+11, +20), and (+21, +30), where t=0 is the date of the final roll call vote, as well as the interaction of *CONNECTED* with these event period indicator variables. Consistent with Fig. 1, we find that during each of the pre-period time windows, politically connected firms generally are more likely to issue guidance than unconnected firms are incrementally less likely to issue guidance than unconnected firms are incrementally less likely to issue guidance than unconnected firms (results available upon request).

Third, as a placebo test, we examine differences in guidance between politically connected and unconnected firms around randomly selected dates. Specifically, we replace each final roll call vote date with a randomly selected date that does not fall in the seven days before or after any final roll call dates in our sample (see Bushee et al.



^b All t-statistics (in parentheses) are calculated based on standard errors that are clustered by firm

 $^{^{*}}$, ** , and *** indicate statistical significance at the 0.10, 0.05, and 0.01 levels (two-tailed test), respectively

[†] indicates statistical significance at the 0.10 level (one-tailed test)

2018).³⁶ We repeat this random selection and re-estimate our tests 1000 times to generate a distribution of estimated coefficients. In contrast to the findings presented in Tables 4 and 5, the average estimated coefficient on *CONNECTED* from these 1000 estimations is -0.0003, which is not significantly different from zero (t-statistic = -0.17, two-tailed p > 0.10, results not tabulated).³⁷ This placebo test provides some assurance that our results are not induced by politically connected firms always providing more disclosure than politically unconnected firms.³⁸

Fourth, as a falsification test, we examine guidance that is bundled with earnings announcements. Our tests in Section 5.2 rely on the notion that firms choose to issue guidance when they gain access to political information, and thus assume that the firm can choose the date on which it issues guidance. If firm characteristics or other unobservable factors induce the findings in Table 4 and Panel A of Table 5 for the timing of nonbundled guidance, we should continue to find significant differences in the relative timing of bundled guidance. Figure 2 provides the distribution of bundled guidance by firms with and without political access in the days around the final vote. Neither group exhibits the clear pre-vote spike and post-vote slump in bundled guidance exhibited in Fig. 1; we find that firms with and without political access are equally likely to issue bundled guidance in both the pre- and post-final-vote periods (p > 0.10, not tabulated). Taken together, these additional analyses suggest that the differences in the distribution of timing conditional on political connections is not driven by observable or unobservable differences between connected and unconnected firms.

5.4 Variation in the timing of legislative guidance conditional on political access

In this subsection, we analyze the distribution of guidance around the final roll call vote conditional on how quickly the bill moves through the legislative process. We expect that differential access to political information is increasing with the length of time between the introduction of the bill and the final roll call vote. Thus, we expect more dramatic differences between connected and unconnected firms in the pre-enactment window when the bill moves slowly through the legislative process (i.e., political information is more valuable when bills are more controversial). We classify a vote as slow when the time between introduction and enactment exceeds the first quartile of bill speeds of eight weeks (56 days). The first quartile of bill speeds corresponds to the notional expected speed of a bill that experiences no delays (i.e., an uncontroversial bill).

³⁹ In each chamber (House and Senate), a bill must (1) be introduced, numbered, and assigned to a committee; (2) read, debated, and voted on in committee; and (3) returned to the chamber for debate and vote. Once both houses have voted, any differences in the two bills are voted upon as amendments in reconciliation. Based on the congressional calendar and observations of the function of both houses, we expect the minimum time required for *each* step to be no less than one week (see https://thinkprogress.org/the-three-day-workweek-d4944a813746/, https://www.newyorker.com/magazine/2010/08/09/the-empty-chamber and https://www.congress.gov/days-in-session).



³⁶ As an alternative, we randomly selected a date for each bill in our sample, requiring that the random date not fall in the seven days before or after any final roll call dates for sample bills that affect a similar group of industries. All inferences remain unchanged.

 $^{^{37}}$ The average coefficient from these 1000 estimations is also statistically different from the coefficient reported in column (1) of Table 5 Panel A (t-statistic = 95.60, two-tailed p < 0.001). Furthermore, of these 1000 iterations, only 5% yield a significantly positive coefficient on *CONNECTED* at two-tailed p < 0.05.

³⁸ In alternative placebo tests where we shift the event dates back 60 days (so that the pseudo-event window does not overlap with the actual event window) or forward 60 days, we continue to find no significant differences in disclosure between politically connected and politically unconnected firms (untabulated).

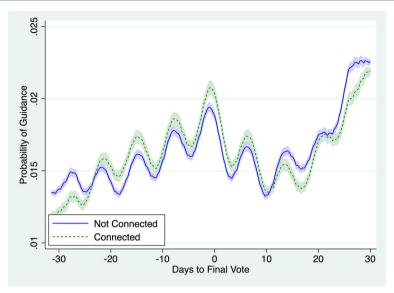


Fig. 2 Falsification Test: Plots of Epanechnikov Kernel Density Estimates (EKDE) for Bundled Guidance around Final Vote Date^a. (a) This figure provides the EKDE estimates and 95% confidence intervals around the final vote date. The sample is limited to guidance that is bundled with an earnings announcement

Figure 3 plots the densities of guidance for firms with and without political access around the final vote for bills that move quickly through both houses of Congress (i.e., in less than eight weeks). These densities rarely diverge and critically overlap for the two weeks leading up to the vote. This is consistent with the notion that there is no

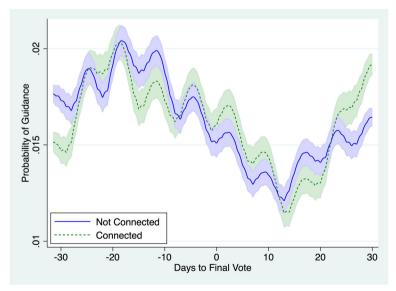


Fig. 3 Plots of Epanechnikov Kernel Density Estimates (EKDE) for Unbundled Guidance around Final Vote Date of "Fast" Bills^a. (a) This figure provides the EKDE estimates and 95% confidence intervals around the final vote date for "fast" bills. A bill is defined as "fast" if it moves through both houses of Congress in less than eight weeks. The sample excludes earnings announcement guidance



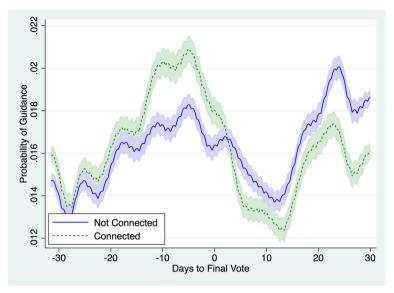


Fig. 4 Plots of Epanechnikov Kernel Density Estimates (EKDE) for Unbundled Guidance around Final Vote Date of "Slow" Bills^a. (a) This figure provides the EKDE estimates and 95% confidence intervals around the final vote date for "slow" bills. A bill is defined as "fast" if it moves through both houses of Congress in more than eight weeks. The sample excludes earnings announcement guidance

difference in the degree of material nonpublic information possessed by politically connected and unconnected firms prior to the passage of uncontroversial bills.

In contrast, Fig. 4 plots densities for the same groups over the same period, but for bills that take more than eight weeks to pass. In this subsample, we find that the effect that is evident in Fig. 1 is even more pronounced. The difference in findings between Figs. 3 and 4 could be a result of two potential mechanisms: first, fast bills may move too quickly for firms to gather and release information; second, fast bills may be unimportant, uncontroversial, or not associated with high levels of uncertainty. Thus, while information may be available to the firm, the firm may see no value in releasing it.

To determine if this result holds in the multivariate setting, we also conduct a cross-sectional test where we define the variable FAST as equal to one when the bill is passed in fewer than eight weeks and zero otherwise. In Panel B of Table 5, we present the results from estimating eq. (3) including the interaction of FAST with CONNECTED. Specifically, the estimated coefficient on CONNECTED remains significantly positive in columns (1) and (2), indicating that politically connected firms are more likely to release guidance in the period before the final roll call vote of controversial bills than politically unconnected firms. The interaction term between CONNECTED and FAST, however, is significantly negative. The F-statistic is unable to reject the null hypothesis that the sum of CONNECTED and $CONNECTED \times FAST$ is zero (p > 0.10). Thus, consistent with Figs. 3 and 4, the difference in the timing of when guidance is issued is concentrated in controversial bills where differential access to political information is more valuable.

⁴⁰ Note that the main effect of FAST in this specification is subsumed by the bill fixed effects.



5.5 Use of policy words in legislative guidance conditional on political access

Finally, we examine whether changes in the language accompanying guidance issued around these legislative events is consistent with differences in access to private political information. We argue that Figs. 1 and 4 and Tables 4 and 5 are suggestive of firms using their access to amass private political information and then releasing this information to investors in the two weeks prior to the legislative action. If this spike in disclosure is driven, as we argue, by the arrival of new information, then we expect a greater change in the government policy—related discussion contained in this guidance for firms with political access, compared to their peer firms without access.

To test our prediction, we compare the government policy words used in the text of guidance issued in the two weeks prior to the date of the final vote (i.e., treatment) with those used in guidance issued by the same firm in the 90 days prior to the date the bill is introduced and that is also bundled with earnings announcements (i.e., benchmark). By using bundled earnings guidance as our benchmark, we assume that the firm's general operating environment, not access to private political information, drives the usage of policy-related words in the benchmark guidance. In essence, we assume that the language in the benchmark guidance reflects general firm characteristics (such as general exposure to policy uncertainty or consistency in disclosures over time); thus, any difference in the language used in the treatment guidance reflects private political information.

To evaluate how similar the use of policy words is between legislative guidance and earnings announcement guidance issued by the same firm, we calculate the cosine difference between the two texts. We use the token frequency—inverse document frequency (TF-IDF) weighted cosine difference, as this measure puts less weight on common words. The cosine difference increases as the two texts become more dissimilar. In Table 6, we regress the TF-IDF weighted cosine distance on *CONNECTED* and our control variables. As we did in the timing analysis above, we again limit our sample

Table 6 Textual Differences between Unbundled Guidance Issued Prior to Bill Introduction and Passage Relative to Earnings Announcement Guidance (N = 5,291)

		TEXTUAL DIFFERENCES	
Variable ^{a,b}	Prediction	(1)	(2)
INTERCEPT	(+)	0.34***	0.25***
		(35.01)	(2.86)
CONNECTED	(+)	0.11***	0.07***
		(5.36)	(3.64)
Controls		No	Yes
Cluster by Firm		Yes	Yes
Bill Fixed Effects		Yes	Yes
Adj. R-squared		0.18	0.19

^a All variables are defined in Appendix 1

^{*, ***,} and **** indicate statistical significance at the 0.10, 0.05, and 0.01 levels (two-tailed test), respectively



^b All t-statistics (in parentheses) are calculated based on standard errors that are clustered by firm

to firms that compete with firms that lobby for the bills, and we include bill effects. Thus, the coefficient on *CONNECTED* captures the extent to which the change in the information disclosed with guidance differs between firms with political access and their product market competitors without political access.

Consistent with our assumption that these bills impact both politically connected and politically unconnected firms in this sample, we find that the estimated intercept is positive and significant. Thus, the degree of dissimilarity in the guidance text relative to the benchmark bundled guidance text increases for both types of firms. More importantly, we find that the estimated coefficient on CONNECTED is positive and significant, regardless of whether control variables are included. These results indicate that, relative to unconnected firms, the guidance that politically connected firms issue in the two weeks prior to a legislative final vote is more dissimilar to their bundled earnings guidance issued prior to the introduction of the bill. This analysis suggests that firms with political access change the information set accompanying their guidance more prior to legislative actions than their peers without access. While our measure of new information (TF-IDF weighted cosine distance) does not pinpoint precisely which policy words are emphasized differently prior to the legislative final vote, the measure does demonstrate a change in the use of policy-related words for politically connected firms. This evidence is consistent with politically connected firms having access to different information than politically unconnected firms and voluntarily disclosing that information to investors.

6 Robustness analyses to address self-selection

In Section 4, we control for determinants of disclosure policy by including numerous firm characteristics in the regression model. We also provide evidence consistent with connected firms having earlier access to political information in Section 5. However, it is possible that our measures for firms' political connections are significant in our analyses because they are correlated with another determinant (such as general resources or political savviness) that is excluded from or not fully controlled for in our regression models. If this is true, the inference that firms gain access to political information through their political connections would not be valid.

To mitigate the potential self-selection problem, we perform two additional econometric analyses: entropy balancing and firm fixed effects. These approaches address the influence of both observable and unobservable characteristics correlated with *CONNECTED* and *GUIDE* on our inferences. These additional tests provide further support for our conclusion that observed differences in the incidence of management guidance and use of policy-related words by politically connected firms stem in part from differential access to political information. The following subsections summarize the research design and results of these additional tests.

6.1 Entropy balancing

As we observed in Table 1 Panel B, politically connected firms differ from unconnected firms along several dimensions. One concern with the validity of our findings is that observable differences across politically connected and unconnected firms explain



differences in the propensity to issue guidance and to include policy words in that guidance. To this end, in the prior sections we controlled for relevant observable characteristics in the regression model and included industry fixed effects throughout our analysis, accounting for the linear effect of the observable differences. In this section, following Hainmueller (2012), we employ entropy balancing to account for a possible nonlinear effect stemming from these factors. Specifically, we balance the data across politically connected and unconnected firms relying on observable firm characteristics and repeat our analysis using this newly balanced data structure. Using methodology developed in Hainmueller (2012), we balance the data with respect to the first and second moments of observable firm characteristics for CONNECTED and GOV AFFAIRS. 41 This procedure ensures that the observable features of firms with and without policy access have similar means. We are able to achieve covariate balance using entropy balancing (untabulated). We then re-estimate eq. (2) using the entropybalanced data structure. The results are provided in Panel A of Table 7. The table shows that the results are robust to the use of entropy balancing: the coefficient on CON-NECTED remains significantly positive (p < 0.01) for both the propensity to guide (column (1)) and the use of policy words (column (2)).

6.2 Firm fixed effects

To ensure that time-invariant firm uncertainty (or any other time-invariant firm characteristic) does not drive the increased likelihood to guide that we document, we include firm fixed effects in our regression models in addition to firm characteristics. The result of this estimation is provided in Panel B of Table 7. The estimated coefficient on CONNECTED remains positive and significant in column (1), suggesting that a persistent unobservable correlated omitted variable does not drive our findings for the propensity to guide. In column (2), the estimated coefficient on CONNECTED is positive but only significant at one-tailed p < 0.10, for the usage of policy words. These results, however, should be interpreted with caution given the potential bias induced by including high-dimensional fixed effects when there is measurement error in the independent variable (see Jennings et al. 2021). Taken together, these additional analyses suggest that our findings can be attributed to differential access to political information rather than other firm characteristics.

7 Conclusions

In this study, we examine whether and how political information is disclosed to market participants. We document that firms that are politically connected are more likely to issue guidance and to include more policy-related terms in their guidance disclosures

⁴³ See also deHaan (2021) for a discussion of issues associated with the inclusion of firm fixed effects in regression models.



 $[\]overline{^{41}}$ This process reweights the observations in the connected and unconnected creating two samples with identical mean and variance. We do not perform entropy balancing for $CONNECTED_{Candidate}$ as it is a continuous variable.

⁴² Note that the subsample used to estimate equation (3) with firm fixed effects is reduced because firms with only one observation are excluded.

Table 7 Robustness Analysis: Political Connections and Propensity to Guide and Policy Word Use

Panel A: Entropy Balanced Sar	nple		
		GUIDE	POLICY WORDS
Variable ^{a,b}	Prediction	(1)	(2)
CONNECTED	(+)	0.09***	0.05***
		(5.45)	(3.67)
Controls		Yes	Yes
Cluster by Firm		Yes	Yes
Year-Quarter Fixed Effects		Yes	Yes
Industry Fixed Effects		Yes	Yes
N		228,611	71,444
Adj. R-squared		0.24	0.18
Panel B: Firm Fixed Effects			
		GUIDE	POLICY WORDS
Variable ^{a,b}	Prediction	(1)	(2)
CONNECTED	(+)	0.03**	0.02^{\dagger}
		(2.46)	(1.39)
Controls		Yes	Yes
Cluster by Firm		Yes	Yes
Year-Quarter Fixed Effects		Yes	Yes
Firm Fixed Effects		Yes	Yes
N		228,611	70,789
Adj. R-squared		0.61	0.00

^a All variables are defined in Appendix 1

than politically unconnected firms, especially when the proprietary costs of disclosure are low. These findings are robust to various econometric techniques to control for the endogenous decision to become politically connected.

To provide evidence that differential access to political information induces firms to issue guidance, we examine the timing and content of guidance relative to the passage of bills that potentially impact the firm. We find that politically connected (unconnected) firms are significantly more likely to issue nonbundled guidance in the period immediately before (after) legislation is passed. This timing difference is concentrated surrounding controversial bills where the value of privileged access to political information is high. Moreover, the similarity in policy-related language between guidance issued immediately before legislation is passed and bundled earnings guidance issued prior to the introduction of the bill is lower for politically connected firms than politically unconnected firms. Overall, our results are consistent with politically connected firms obtaining privileged access to policy-related information and incorporating it into the guidance they provide investors, thereby facilitating the flow of political information to the market.



^b All t-statistics (in parentheses) are calculated based on standard errors that are clustered by firm

 $^{^{*}}$, ** , and *** indicate statistical significance at the 0.10, 0.05, and 0.01 levels (two-tailed test), respectively

[†] indicates statistical significance at the 0.10 level (one-tailed test)

Appendix 1

Variable Definitions

Variable Name	Description
GUIDE	An indicator variable set to one in firm-quarters where the firm reports management guidance pertaining to net income, earnings per share, fully reported earnings per share, EBITDA, EBITDA per share, and/or funds from operations, zero otherwise.
POLICY WORDS	The number of policy words per 100 words within 8-Ks that correspond to guidance. Policy words are defined based on Baker et al. (2016). Appendix 2 contains a complete list of the policy words.
HIGH POLICY WORDS	An indicator variable set equal to one for firm-quarters in which the aggregate number of policy words in the firm's 8-Ks are above the 75th percentile in sample period, zero otherwise.
BEFORE	An indicator variable set equal to one if the firm issued guidance in the 30-day period before the final roll call vote of legislation, zero otherwise.
CONNECTED	An indicator variable set equal to one if the firm reports any Political Action Committee contributions during fiscal year <i>t</i> .
$CONNECTED_{Candidate}$	The natural logarithm of 1 plus the number of political candidates (House, Senate, and presidential) that the firm contributed money to over years <i>t</i> -5 to <i>t</i> .
GOV AFFAIRS	An indicator variable set equal to one if the firm had a government affairs office during year <i>t</i> , zero otherwise.
SIZE	The natural logarithm of the firm's beginning-of-quarter market capitalization.
BTM	The firm's beginning-of-quarter book-to-market ratio.
LOSS	An indicator variable set equal to one if the firm reports a loss in the current quarter, zero otherwise.
RETURN	The firm's cumulative daily returns over the 12 months prior to quarter t .
RETVOL	The standard deviation of the firm's daily stock returns over the 12 months prior to quarter <i>t</i> .
INSTOWN	The percentage of the firm's shares held by institutional investors at the beginning of quarter <i>t</i> .
FOLLOWED	An indicator variable set equal to one if the firm is followed by analysts in quarter t , zero otherwise.
EPU BETA	The sensitivity of the firm's daily stock returns to the daily economic policy uncertainty (EPU) index over the prior fiscal quarter.
HIGH COMPETITION	An indicator variable set equal to one if the firm's level of competition using the Li et al. (2013) measure is above the 75th percentile in sample period, zero otherwise.
FAST	An indicator variable set equal to one if the bill passed in fewer than 56 days, zero otherwise.
TEXTUAL DIFFERENCES	The token frequency–inverse document frequency between the vector of government policy words used in the text of guidance issued in the two weeks prior to the date of the final vote (i.e., treatment) to guidance issued in the 90 days prior to the date the bill is introduced that is also bundled with earnings announcements (i.e., benchmark).



Appendix 2

Policy Term List from Economic Policy Uncertainty Website^a

Category	Term Sets
Entitlement Programs	entitlement program, entitlement spending, government entitlements, social security, Medicaid, Medicare, government welfare, welfare reform, unemployment insurance, unemployment benefits, food stamps, afdc, tanf, wic program, disability insurance, part d, oasdi, Supplemental Nutrition Assistance Program, Earned Income Tax Credit, EITC, head start program, public assistance, government subsidized housing
Financial Regulation	banking supervision, glass-steagall, tarp, bank supervision, thrift supervision, dodd-frank, financial reform, commodity futures trading commission, cftc, house financial services committee, basel, capital requirement, Volcker rule, bank stress test, securities and exchange commission, sec, deposit insurance, fdic, fslic, ots, occ, firrea, truth in lending
Fiscal Policy and Government Spending	government spending, federal budget, budget battle, balanced budget, defense spending, military spending, entitlement spending, fiscal stimulus, budget deficit, federal debt, national debt, Gramm-Rudman, debt ceiling, fiscal footing, government deficits, balance the budget
Health Care	health care, Medicaid, Medicare, health insurance, malpractice tort reform, malpractice reform, prescription drugs, drug policy, food and drug administration, FDA, medical malpractice, prescription drug act, medical insurance reform, medical liability, part d, affordable care act, Obamacare
Monetary Policy	federal reserve, the fed, money supply, open market operations, quantitative easing, monetary policy, fed funds rate, overnight lending rate, Bernanke, Volcker, Greenspan, central bank, interest rates, fed chairman, fed chair, lender of last resort, discount window, European Central Bank, ECB, Bank of England, Bank of Japan, BOJ, Bank of China, Bundesbank, Bank of France, Bank of Italy
National Security	national security, war, military conflict, terrorism, terror, 9/11, defense spending, military spending, police action, armed forces, base closure, military procurement, saber rattling, naval blockade, military embargo, no-fly zone, military invasion
Regulation	regulation, banking supervision, glass-steagall, tarp, bank supervision, thrift supervision, dodd-frank, financial reform, commodity futures trading commission, cftc, house financial services committee, basel, capital requirement, Volcker rule, bank stress test, securities and exchange commission, sec, deposit insurance, fdic, fslic, ots, occ, firrea, truth in lending, union rights, card check, collective bargaining law, national labor relations board, nlrb, minimum wage, living wage, right to work, closed shop, wages and hours, workers compensation, advance notice requirement, affirmative action, at-will employment, overtime requirements, trade adjustment assistance, davis-bacon, equal employment opportunity, eeo, osha, antitrust, competition policy, merger policy, monopoly, patent, copyright, federal trade commission, ftc, unfair business practice, cartel, competition law, price fixing, class action, healthcare lawsuit, tort reform, tort policy, punitive damages, medical malpractice, energy policy, energy tax, carbon tax, cap and trade, cap and tax, drilling restrictions, offshore drilling, pollution controls, environmental restrictions, clean air act, clean water act, environmental protection agency, epa, immigration policy
Sovereign Debt, Currency Crises	sovereign debt, currency crisis, currency crash, currency devaluation, currency revaluation, currency manipulation, euro crisis, Eurozone crisis, european financial crisis, european debt, asian financial crisis, asian crisis, Russian financial crisis, Russian crisis, exchange rate



Category	Term Sets
Taxes Trade Policy	taxes, tax, taxation, taxed import tariffs, import duty, import barrier, government subsidies, government subsidy, wto, world trade organization, trade treaty, trade agreement, trade policy, trade act, doha round, uruguay round, gatt, dumping

^a The categories listed and the terms within each category are taken from https://www.policyuncertainty.com/categorical_terms.html

Acknowledgements We thank an anonymous reviewer, Vishal Baloria (discussant), Richard Cazier, Ed deHaan, John Donovan, Elia Ferracuti, Maclean Gaulin, Jeremiah Green, Xiao Han, Mingyi Hung, Zack Kaplan, Russell Lundholm (editor), Jed Neilson, Kyle Peterson, Sarah Rice, Casey Schwab, Nate Sharp, Senyo Tse, Jessica Watkins, Chris Yust, and workshop participants from The Hong Kong University of Science and Technology (HKUST), University of North Texas, Texas A&M University, University of Washington, and the 2019 Dopuch Conference at Washington University in St. Louis for helpful comments and suggestions. This project was started when Morris and Wellman were at University of Utah. We appreciate the financial support from HKUST, University of Utah, University of Oregon, New York University – Shanghai, Kellogg School of Management at Northwestern University, and Smeal College of Business at the Pennsylvania State University. Guidance data are from I/B/E/S.

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