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## Political sentiment and syndicated loan borrowing costs of multinational enterprises<sup>☆</sup>

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### ABSTRACT

International business literature widely recognizes that political forces play a crucial role in modern corporations. Yet, rare are the studies of how foreign operations mitigate the detrimental effect that firm-level political exposure has on the cost of lending. We study such channels in a sample of U.S. corporations with foreign subsidiaries in 69 countries. We proxy firm-level political exposure via political sentiment. We show that firms with a lower political sentiment (i.e., higher political exposure) have a higher cost of lending. We document that multinational enterprises with a presence in many countries, and those having an extended network of foreign subsidiaries can lower the harmful effects of increased political uncertainty. This outcome also holds in the presence of foreign economies of scale, and when multinational corporations have foreign subsidiaries in countries with higher political polarization.

### 1. Introduction

The political environment a firm is operating in is very volatile. Changes in legislation or regulation can have an imminent impact on a firm's operations (Boubakri et al., 2013). Recent examples include trade wars and the United Kingdom's withdrawal from the European Union (Brexit). Apart from aggregate political shocks and uncertain events, such as elections, the tone politicians might use towards specific sectors or firms might have tangible consequences for them. As firms differ in organizational structure, industry, and foreign operations, the impact of political shocks is not homogenous.

Building on prior international finance literature studying how political forces affect the business environment (e.g., Boubakri et al., 2013; Qi and Nguyen, 2020; Liu et al., 2021), we study how firm-level political shocks, measured via political sentiment, affect the cost of syndicated loans and foreign operations. In doing so, we use a component from the Hassan et al. (2019) database, political sentiment, which captures good or bad news regarding a firm's exposure to political events. Thus, we enhance our understanding of how political shocks affect loan costs for multinational enterprises (MNEs). This issue is of interest to investors (domestic and international) as well as to MNEs seeking international partners. Therefore, it is crucial to understand the mechanisms under which an MNE can mitigate or even eliminate the effects of political shocks on the cost of capital.

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According to [Giambona et al. \(2017\)](#), political sentiment in management teams proxies for the mean political exposure of firms. Political sentiment also accounts for managers' potential biases. According to [Jiang et al. \(2019\)](#), "...corporate managers are not immune from behavioral biases. As a result, they can be overly optimistic or pessimistic relative to fundamentals, leading to irrational market outcomes..." According to [Giambona et al. \(2017\)](#), manager sentiment captures an important part of political uncertainty.

In this study, we argue that lower exposure to political shocks, expressed by more positive political sentiment, translates into a lower cost of lending.<sup>2</sup> A firm with lower political exposure could either have direct political links or operate in a politically favorable business environment. On one hand, the relevant literature stresses the influence of political connections on firms ([Chen et al., 2010](#); [Brockman et al., 2013](#); [Guariglia and Mateut, 2016](#); [Sojli and Tham, 2017](#)). On the other hand, firms in favorable business environments — for example, under the leadership of a "business-friendly" political party (not necessarily a right-wing party) — enjoy economic benefits (see e.g., [Julio and Yook, 2012](#)).

To examine the relationship between political sentiment and the cost of syndicated loans for firms with foreign operations, we construct a unique dataset from DealScan, Call Reports from the Federal Reserve Board of Governors (FRB), Compustat, and Orbis from 2002 to 2015. Importantly, we utilize a component from a new firm-level political uncertainty database of [Hassan et al. \(2019\)](#). The authors employ conference call transcripts of public U.S. firms and perform textual analysis to construct several indexes of political risk and sentiment. This is different from previous academic work that mostly relies on the [Baker et al. \(2016\)](#) policy uncertainty index, which varies at the country-year level. The advantage of working with firm-level data is that we can isolate the net-idiosyncratic impact that political exposure and its interaction with foreign operations have on a firm's cost of loans.

We find that firm-level political sentiment is highly correlated with the cost of loan syndicates. In our most restrictive baseline model, we find that a one-standard-deviation decrease in political sentiment — lower values indicate more negative sentiment — precede an increase of all-in-spread-drawn (AISD) of about 4.4 basis points. This implies an increase of about 2.9% compared to the mean value of AISD, which translates to about \$1.7 million.<sup>3</sup> However, MNEs with a strong international presence can mitigate or even eliminate the negative effects of low political sentiment. Our findings show that the average MNE, with a presence in 12 countries or with 43 foreign subsidiaries, eliminates the negative effects of low political sentiment. That is, although negative political sentiment is priced higher in the loan market, MNEs mitigate the effect with increased international presence.

Our granular data and research design allow us to use a multicountry setting to explore how political risk affects the cost of loans. Contrary to concurrent research (see [Gad et al., 2019](#); [Saffar et al., 2019](#)) our study considers MNEs' foreign operations strategies. If not included in the model, this could be an omitted factor. Including a full set of time-invariant and time-varying fixed effects, along with relevant controls suggested in the literature, might still yield biased results. Although we do not have a natural experiment to solve this issue, we rely on a two-stage least squares estimation to decrease such a bias. Specifically, we construct an instrument for MNE political exposure based on the average five-year lagged value of the political sentiment index of all other firms belonging to the same SIC code except the firm of interest. We perform several sensitivity tests to examine the robustness of our findings. Specifically, we control for corporate governance, the exclusion of the top three lead arrangers, firm volatility, credit ratings, and the inclusion of several types of fixed effects (e.g., bank and firm, *inter alia*). Finally, we construct the total cost of borrowing following [Berg et al. \(2016\)](#) and rerun all models. Our results hold.

Our paper makes several contributions to the international finance literature. First, by utilizing a unique dataset with granular information about firm-level political exposure, we provide new evidence about the interaction between political exposure, cost of loans, and foreign operations. Our granular data and research design allow us to isolate how firm-specific political exposure affects the cost of loans and how firms diversify this via foreign operations. Thus, we add to the literature examining political heterogeneities, the cost of funding, and foreign operations ([Beaulieu et al., 2005](#); [Guariglia and Mateut, 2016](#); [Qi and Nguyen, 2020](#)).

Second, we provide new evidence about the international diversification of political shocks. We first show that MNEs with a significant presence in multiple countries and/or with an extended network of foreign subsidiaries, mitigate the harmful effects of low political sentiment on the cost of loans. Further, we provide evidence that foreign subsidiaries in the same industry (i.e., foreign economies of scale) and/or in countries with high political polarization drive this result. Our finding is in line with previous literature stating that not all types of international geographic diversification benefit MNEs. According to [Doukas and Lang \(2003\)](#), international diversification is beneficial only when parent and subsidiary companies are in core-related businesses.

Third, MNE operations allow us to examine the role potential cross-countries tax avoidance has on multinationals' political uncertainty. Prior tax-related literature finds that foreign operations are systematically associated with corporate tax avoidance opportunities (e.g., see [Rego, 2003](#); [Wilson, 2009](#); [Rego and Wilson, 2012](#); [Chow et al., 2019](#)). According to [Brühne and Jacob \(2019\)](#) "...foreign operations can determine the general availability of cross border tax avoidance opportunities..." and "...Firms with foreign operations in low-tax jurisdictions are able to set up beneficial tax structures in these countries at lower cost..." Utilizing Orbis, we construct proxies for foreign operations for U.S. MNEs — specifically, the number of countries with subsidiaries, the number of foreign subsidiaries, and (in untabulated results) the number of low-tax subsidiaries. [Hasan et al. \(2014\)](#), using a single-country dataset, show that banks penalize tax avoidance by raising the cost of lending. We find that MNEs with extensive foreign operations (in terms of the number of foreign countries they operate, foreign subsidiaries, and low-tax subsidiaries) mitigate the negative effects of political shocks on loan cost. This extends and complements [Hasan et al. \(2014\)](#) by providing evidence that foreign operations, which enable cross-border tax-avoidance opportunities, are diversification tools for MNEs.

<sup>2</sup> According to [Pérez-Martín et al. \(2018\)](#), banks utilize new technologies (e.g., artificial intelligence and machine learning), to infer uncertainty and risk about a firm.

<sup>3</sup> Calculated as 2.9%\*57 million.

Our results have general implications for business practices in a global setting. Understanding how firm-level exposure due to political events affects the cost of lending for MNEs should be of interest to domestic and international investors. Moreover, the channels through which MNEs can diversify negative political sentiment should be of interest to MNEs seeking international partners.

## 2. Literature review and hypotheses development

Well-established literature examines how political forces influence the business environment, as well as how firms' strategies respond to these political forces (e.g., [Faccio et al., 2006](#)). Politicians and political institutions, through their decisions, can shape firms' *modus operandi* ([Boubakri et al., 2013](#)), but also affect the economy. For example, in a recent study, [Liu et al. \(2021\)](#) find that political risk has a moderating effect on a country's economic growth. Ideally, political decisions should be exogenous to a firm. Nevertheless, firms spend a non-negligible portion of their resources to internalize political factors, for example through political connections.

The relevant literature widely recognizes two types of political connections: direct, where major shareholders, high-ranking executives, and/or board members have political affiliations; and indirect which is linked with lobbying expenditures ([Bertrand et al., 2020](#)) and/or campaign contributions ([Ansolabehere et al., 2003](#)). Politically connected firms have several benefits. For example, they may face lower chances of audits, court orders, or penalties. They might also have insider information regarding imminent laws, and they can alter operations accordingly ([Bertrand et al., 2014](#); [Wellman, 2017](#)). In addition, politically connected firms face a lower cost of bank loans as shown in [Houston et al. \(2014\)](#) and [Guariglia and Mateut \(2016\)](#).

Additionally, [Faccio et al. \(2006\)](#) finds a significant increase in corporate value when officers or large shareholders enter politics. Similarly, [Goldman et al., \(2009\)](#) find that positive abnormal stock returns accompany nominations of politically connected board members. [Brockman et al. \(2013\)](#) find that in jurisdictions with weak legal systems or high corruption, politically connected bidders outperform unconnected peers. The benefits are not limited to domestic firms. [Sojli and Tham \(2017\)](#) find that foreign political connections increase firm value and improve access to foreign markets. In a recent study of small- and medium-sized enterprises (SMEs), [Qi and Nguyen \(2020\)](#) find that politically connected SMEs are more likely to approach banks for loans. Likewise, [Khwaja and Mian \(2005\)](#) find that government banks favor politically connected firms. In previous cases, firms leverage political connections to reduce the political uncertainty they face. Further, [Beaulieu et al. \(2005\)](#) use political news to show that political risk increases stock volatility, suggesting that firms can diversify political risk under certain conditions.

There is also a large mass of literature studying the factors of lending terms. For example, [Bharath et al. \(2009\)](#) find that repeated borrowing leads to lower lending costs due to the reduction of asymmetries. [Custódio et al. \(2013\)](#) find that firms with higher asymmetric information have lower debt maturities, which might lead to credit and liquidity shocks ([Farinha et al., 2019](#)). From a bank's perspective, firm transparency and riskiness are crucial. [Hung et al. \(2018\)](#) show that compared to nonconnected firms, connected firms issue fewer earnings forecasts. Also, [Chen et al. \(2010\)](#) find that politically connected firms are associated with enhanced information asymmetry due to reduced transparency.

Another strand of the literature looks at the effects of macroeconomic characteristics as well as regional characteristics on the cost of borrowing. For example, [Ioannidou \(2005\)](#) and [Agarwal et al. \(2014\)](#) point out that supervisory behavior is not homogenous across U.S. regulators and that this might affect the economy in multiple dimensions. [Qi et al. \(2010\)](#) study the impact of country-level political rights on the cost of corporate bonds and find a negative relationship between political rights and bond spreads. Likewise, [Bradley et al. \(2016\)](#) find that firms in regions with a higher policy risk face a higher cost of debt. Finally, [Deli et al. \(2019\)](#) show that enforcement actions decrease the cost of lending. The authors conjecture that the mechanism at work is that of competition-reputation.<sup>4</sup>

More recently, [Kaviani et al. \(2020\)](#) study how policy uncertainty affects credit spreads. The authors posit that macroeconomic conditions and general uncertainty are unable to explain credit spreads. They argue that policy uncertainty plays a key role and is more pronounced in firms that are more exposed to government policies, and firms that show a higher dependency on external financing. The authors list three direct economic channels that lead to this outcome: the level of regulation in an industry, how much a firm is exposed to taxation policies, and how much a firm is dependent on government money. This indicates that more exposed firms face increased uncertainty, especially around election time.

Many authors have devoted great efforts in trying to understand the mechanisms that pin down loan pricing under different heterogeneous environments, such as bank organizational structure, bank competition, and the economic environment under which they operate. [Ruckes \(2004\)](#) argues that credit standards tend to be characterized by large volatility and that the main reason for this is the competition among banks over the business cycle. The author maintains that bank-screening activity is heterogeneous over the business cycle. As a result, this affects bank competition and eventually the quality of borrowers. Particularly, the author argues that during expansions, banks tend to give loans to lower-quality borrowers when there is intense price competition among lenders and lower screening activity.<sup>5</sup> [Canales and Nanda \(2012\)](#) show that decentralized banks tend to be more responsive under competition and are more likely to increase credit. More recently, [Lian \(2018\)](#) finds a negative relationship between loan spreads and bank competition.

[Giambona et al. \(2017\)](#) show that managers express sentiment via subjective perceptions of the political exposure of their firm. In this work, we utilize political sentiment, which captures good or bad news regarding a firm's exposure to political events. This measure

<sup>4</sup> According to the authors, the competition-reputation effect pertains to the fact that punished banks suffer from a lower reputation stigma after enforcement takes place and because they compete with other banks in the syndicated loan market, they offer lower loan costs. Furthermore, [Deli et al. \(2019\)](#), argue that such an outcome has a clear positive welfare outcome for society.

<sup>5</sup> [Gomez and Ponce \(2014\)](#) find that the relationship between bank competition and the quality of loans is U-shaped.

also captures potential manager biases regarding political shocks. We conjecture that more negative exposure to political events (captured via low values of political sentiment) increases the cost of loans.

**Hypothesis 1.** *Firms with lower political sentiment have higher loan costs.*

Next, we argue that foreign operations help firms diversify exposure due to political events. The relevant literature, however, tends to be controversial on this issue. On one hand, much of the early literature on MNEs posits a diversification benefit for multinationals, leading to lower risk and higher leverage (e.g., Hughes et al., 1975). On the other hand, more recent studies show that international diversification increases firm risk (Bartov et al., 1996; Kobrin, 2020). Many studies try to identify factors that affect the relationship between firm risk and international diversification. Kwok and Reeb (2000), for example, show that the relative risk between host and source country matters.

Although numerous studies examine channels through which firms diversify risk, few, if any, directly examine the mechanism under which international diversification mitigates the negative effect of exposure due to political events on the cost of loans. Beaulieu et al. (2005) utilize political news regarding Quebec's separation from the Canadian federation to proxy for political risk. They find enhanced stock volatility for firms exposed to political risk, though investors do not seem to require higher premia. Diversification can indirectly explain the latter. Disentangling the effect of foreign operations on the relationship between political sentiment and loan costs, we state our hypothesis as follows:

**Hypothesis 2a.** *The negative effect of lower political sentiment on the cost of loans for MNEs decreases when the number of countries in which an MNE has subsidiaries increases.*

**Hypothesis 2b.** *The negative effect of lower political sentiment on the cost of loans for MNEs decreases when the number of foreign subsidiaries increases.*

Next, we want to examine whether there is any "pattern" in the choice of foreign subsidiaries that drive the international diversification of negative exposure to political events. The international finance literature suggests that international diversification is beneficial only if it takes place in the firm's core business (Doukas and Lang, 2003). Further, Van Zanten and Van Tulder (2018) add that MNEs protect their sustainable development by taking action within their operations. According to these authors, this is because synergy gains from the internalization of markets through the economies of scale and scope are possible via the core activities of the firm. Following this strand of literature, we examine whether international diversification via subsidiaries in the same industry (i.e., in the core business) reduces the impact of the political sentiment on the cost of loans. Our hypothesis is the following:

**Hypothesis 2c.** *The negative effect of lower political sentiment on the cost of loans for MNEs decreases when the ratio of foreign subsidiaries in the same industry increases.*

Finally, exploring certain strategic choices that potentially drive the international diversification of firm-level (negative) political exposure we consider the political conditions in the subsidiaries' countries. The international finance literature recognizes that a country's political situation affects MNE success (see e.g., Boubakri et al., 2013; Brockman et al. 2013; Sojli and Tham, 2017). For example, the literature acknowledges that corruption is one of the most significant impediments to growth and prosperity. To that end, lower corruption should attract more foreign business to a country.

According to Persson and Tabellini (2005), corruption thrives in environments with limited political competition. Higher political polarization may make reforms more difficult to implement, but it also increases political competition. In the same vein, Brown et al. (2011) argue that politicians can serve as agents of the public good when political polarization is high. This is because they must deal with an opposition that is unlikely to cooperate. Knowing that they will not collaborate with the opposition, they have an incentive to distinguish themselves from [them], and as a result, they are more willing to expose any political misdeeds of the opposition.

Hence, under increased polarization, the conflict between the incumbent and opposition parties increases. Because of this, politicians are more likely to expose corruption. If higher political polarization decreases political corruption, we expect MNEs with relatively more subsidiaries in such countries to benefit, as corruption does not favor the business environment. We formalize this in the following hypothesis:

**Hypothesis 2d.** *The negative effect of lower political sentiment on the cost of loans for MNEs decreases when the ratio of foreign subsidiaries in countries with higher polarization increases.*

### 3. Empirical specification

We use ordinary least squares to estimate the following model:

$$SPREAD_{f,b,t} = \beta_0 + \beta_1 \cdot PSentiment_{f,t-1} + \beta_2 \cdot L_{i,t} + \beta_3 \cdot B_{b,t} + \beta_4 \cdot F_{f,t-1} + \mu_b + \nu_t + \xi_{SIC} + \epsilon_{f,b,t} \quad (1)$$

In Eq. (1), *SPREAD* is the spread over LIBOR on the drawn amount plus the facility fee in basis points for loans from bank *b* to firm *f* in year *t*. *PSentiment* is the measure of political sentiment in firm *f* at time  $(t-1)$ . This measure is from Hassan et al. (2019) and it captures good or bad news regarding a firm's exposure to political events. In line with previous studies (e.g., Ivashina and Scharfstein, 2010; Delis et al., 2019) we control for loan (*L*), firm (*F*), and bank (*B*) characteristics to rule out alternative explanations. In addition, our baseline models, include bank, year, sector — three-digit SIC codes — as well as loan purpose and loan-type fixed effects. In robustness tests, we also include combinations of these fixed effects as well as firm fixed effects. As it is standard in the literature, we

cluster our standard errors at the bank level. Our baseline results (not reported but available upon request) hold with clustering at the firm level as well as double clustering at the bank-year level.

We control for several loan characteristics  $l$  at time  $t$  that potentially affect the cost of lending. Namely, we control for loan duration using a dummy that equals 1 if a bank and a firm have a relationship in the previous five years (Bharath et al., 2009). We use a dummy that equals 1 if the loan has financial covenants to control for unobserved borrower-specific risk factors (e.g., Carey and Nini, 2007; Karavitis et al., 2021). Regarding bank-specific characteristics, we control for bank size using the natural logarithm of total assets.

In addition, we utilize several firm-level variables to control for firm characteristics. The relevant literature finds that firm size matters (e.g., Almeida and Campello, 2010). We control for firm size using the natural logarithm of total assets. Moreover, we control for firm profitability and market-to-book ratio, as these measures depict a firm's ability to service its debt obligations (e.g., Guntay and Hackbarth, 2010). To control for potential alternative sources of finance, we also use *NYSE*, which equals 1 if a firm is listed on the New York Stock Exchange. We expect that firms with access to public markets (i.e., quoted firms) are more likely to have lower loan spread since they might have alternative sources of finance, but also because they signal credit quality via previous market participation (see Karavitis et al., 2021).

### 3.1. Measuring firm-level political sentiment

Several studies use natural language processing techniques from various sources, such as newspapers or corporate documents (e.g., 10-K filings). They aim to derive important insights about firms (e.g., Baker et al., 2016, Loughran and McDonald, 2011). These studies use predefined dictionaries of specific words to draw inferences about certain categories, such as firm risk, using advanced natural language processing techniques. Hassan et al. (2019) utilize information from earnings conference calls to capture political sentiment at the firm level. The authors gather around 180,000 conference calls for more than 7,000 listed U.S. firms for 2002 to 2016. Because earnings conference calls usually occur once per quarter, the authors provide a dynamic, quarterly measure of firm-level political sentiment. Hassan et al. (2019) differs from previous studies in that the authors endogenously capture a series of words that are relevant to a specific topic. Because of this, their database consists of several components that capture either risk or sentiment.

The authors employ advanced methods developed in computational linguistics (e.g., Manning et al., 2008) and create training libraries that categorize text as political or nonpolitical. Through this procedure, they identify bigrams — two-word combinations — mostly utilized in political talk. They construct their political sentiment index by combining bigrams with positive and negative words — these words are similar to the list in Loughran and McDonald (2011). In mathematical terms, they calculate the political sentiment measure in the following manner:

$$PSentiment_{i,t} = \frac{1}{B_{i,t}} \sum_b^{B_{i,t}} \left( 1[b \in \mathbb{P} \setminus \mathbb{N}] \times \frac{f_{b,\mathbb{P}}}{B_{\mathbb{P}}} \times \sum_{c=b-10}^{b+10} S(c) \right). \quad (2)$$

In the formula,  $b$  denotes a transcript for firm  $i$  in quarter  $t$ ; specifically, we set  $b = 1, \dots, B_{i,t}$ . In addition,  $\mathbb{P}$  is a library containing political topics, and  $\mathbb{N}$  a library not containing political topics. Hence,  $\mathbb{P} \setminus \mathbb{N}$  is a set of bigrams in the political library but not in the nonpolitical one. Moreover,  $c$  denotes a bigram, and  $S(c)$  equals +1 when a specific bigram is associated with positive sentiment, -1 if the sentiment is negative, and zero otherwise. Further,  $f_{b,\mathbb{P}}$  indicates the frequency of a specific bigram. Finally,  $1[b \in \mathbb{P} \setminus \mathbb{N}] \times \frac{f_{b,\mathbb{P}}}{B_{\mathbb{P}}}$  is the inverse document frequency multiplied by term frequency. Higher values of the political sentiment index indicate the presence of more positive words than negative words. For example, a firm with high positive values of the index might have been affected beneficially by new legislation, while a firm with low values might have been hit by antitrust action.

The authors perform several scrutiny tests to make sure their index captures political sentiment. Importantly, their measure is dynamic and changes within firms over time; it takes higher values around important political events and presents heterogeneities in different sectors. The correlation of their firm-level index with the well-perceived and highly cited aggregate measure of political uncertainty developed by Baker et al. (2016) is highly positive, further validating their work. Finally, the authors look at how their index affects firm outcomes and find, *inter alia*, that higher political risk and uncertainty predict higher stock volatility, along with lower investment and employment growth.

### 3.2. Empirical identification

Our research design and the granularity of our dataset (i.e., loan level) enable us to mitigate endogeneity concerns. First, we utilize not only firm-level characteristics (to control for demand-side effects) as in Anderson et al. (2004), but also, we use bank controls to check for potential supply-side effects. Second, to ensure that the choice of regressors does not drive our results, we run several different specifications utilizing additional controls.

Third, even though we control for numerous firm-, bank-, and loan-level characteristics, the empirical identification of the causal effect running from the firm's political sentiment to the cost of borrowing (*SPREAD*) is still challenging. To rule out alternative explanations stemming from confounders, we utilize various fixed effects. The multilevel structure of our dataset enables us to use time-invariant as well as time-varying fixed effects to mitigate omitted-variable bias. Bank and industry fixed effects (at the three-digit SIC level) control for time-invariant characteristics of financial intermediaries and sectors, while time fixed effects capture annual common shocks. In robustness exercises we also include firm fixed effects which can capture any omitted variables at the firm level that stay constant through time.

An issue with the main variable of interest — political sentiment — is that it might be endogenous, either because during conference calls the interviewees purposely use specific language that does not describe the reality of the firm, or because our model might suffer from omitted variables. Not having a quasi-experiment at hand to provide a bias-free estimate of how political sentiment affects

**Table 1**  
Summary statistics.

Variables	Mean	Median	S.D.	Min.	Max.	Obs.
All-in-spread-drawn (AISD)	152.004	150	111.023	0	1,405	36,529
Total cost of borrowing (TCB)	110.44	81.72	99.5	5.06	773	20,083
PSentiment	-0.020	-0.066	0.991	-4.665	4.268	36,529
Facility amount	57.036	29.167	149.939	0	12,250	36,529
Financial covenants	1.487	2	1.200	0	7	36,529
Board size	9.77	10	2.35	3	22	36,403
Audit committee size	3.98	4	1.02	1	9	36,403
Number of Ind. NED with audit experience	0.68	1	0.77	0	4	36,403
Mean number of board directorships	3.33	3.18	1.27	1	10.63	36,403
Mean board age	60.75	61.13	3.89	44.89	77.22	36,403
Relationship dummy	0.556	1	0.497	0	1	36,529
Covenant dummy	0.529	1	0.499	0	1	36,529
Maturity	52.500	60	17.581	0	180	36,529
Firm size	8.315	8.164	1.614	2.314	14.608	36,529
NYSE	0.799	1	0.401	0	1	36,529
Profitability	0.158	0.134	0.124	-1.691	1.024	36,529
MTB	1.726	1.466	0.914	0.478	13.735	36,529
Company rating	13.38	12	5.98	1	23	34,726
Bank size	17.952	18.317	3.124	6.186	21.605	36,529
Lead bank	0.301	0	0.459	0	1	36,529
Top 3 bank	0.244	0	0.430	0	1	36,529
No. countries MNE operates	7.515	6	6.862	1	32	9,552
No. subsidiaries	17.025	10	27.478	1	256	9,552
Foreign economies of scale	0.856	0.428	1.216	0	4.93	9,552
Sub. country political polarization	1.262	1.345	0.656	0	2	9,461
Realized volatility	0.352	0.3	0.192	0.147	1.942	7,768
Implied volatility	0.323	0.3	0.122	0.159	1.091	7,577

the cost of lending, we rely on an instrumental variables approach. For this 2SLS model, we construct our instrument based on average (deep) lagged values of political sentiment by SIC code (we use both two- and three-digit SIC codes). While constructing this measure, we use values of all other firms in the same SIC code, except the firm of interest. Because of this, this measure is exogenous to each firm.

#### 4. Data and summary statistics

##### 4.1. Data

This study uses several databases. From Thomson Reuters LPC (DealScan), we identify the cost of syndicated loans and other important loan characteristics. We complement these data with bank financial information hand-collected from Call Reports from the Federal Reserve Board of Governors (FRB). Firm-level information is from Compustat. In addition, we use Orbis to identify each firm's ownership information. It is via the Orbis database that we identify each MNE's foreign subsidiaries and execute our analysis utilizing parent firms' foreign operations. This allows us to use an instrumental variables approach.

The sample selection from DealScan follows Karavitis et al. (2021), who use insights from Lim et al. (2014) to avoid bias. The first step is to disentangle banks from non-banks. For example, a loan facility in a syndicate is said to have a non-bank institutional investor when at least one such investor is neither a commercial nor an investment bank. Bank lenders are then identified based on the type they have in DealScan.<sup>6</sup> Importantly, we carefully hand-match each lender from DealScan with its commercial bank identifier (i.e., RSSD9001) from the Call Reports. By doing this, we obtain a unique identifier for each lender. This is crucial because it allows for the use of bank fixed effects. We merge DealScan with Compustat using the updated links from Chava and Roberts (2008).

Our analysis is at the loan-facility level. According to Deli et al. (2019) this is more appropriate than analysis at the package level because loan facilities may differ in several dimensions, such as the starting date or loan type, among others. The use of loan packages, by simply adding facilities without accounting for their differences, may lead to biased estimates. Our baseline estimation has 35,951 observations. We count 8,128 unique facilities and 1,927 unique firms. The number of unique banks is 361.

Finally, to explore in detail how foreign operations affect the relationship between political risk and the cost of lending, we utilize ownership information from the Orbis database. We link each U.S. borrower in our dataset with its respective subsidiaries globally. Based on the above, we can pin down the number of different countries in which an MNE operates, along with the number of foreign subsidiaries it owns.

Our database spans from 2002 to 2015. The upper limit is to match the time-series availability of all data sources in this analysis. As is standard in the literature, we winsorize all continuous variables at the 1% and 99% levels. Concise information is in appendix Table A1.

<sup>6</sup> The specific types are U.S. Bank, African Bank, Asian-Pacific Bank, Foreign Bank, Eastern Europe/Russian Bank, Middle Eastern Bank, Western European Bank, or Thrift/S&L.

**Table 2**  
The relation between political sentiment and the cost of syndicated loans.

	(1)	(2)	(3)	(4)	(5)
PSentiment	−1.503** (−2.47)	−2.653*** (−4.77)	−4.519*** (−9.25)	−4.318*** (−9.76)	−4.137*** (−10.45)
Relationship dummy	−16.109*** (−14.12)	−13.784*** (−14.25)	−11.273*** (−10.97)	−3.202*** (−3.62)	−3.000*** (−3.80)
Covenant dummy	7.628*** (3.65)	16.819*** (9.16)	10.896*** (6.87)	12.012*** (9.21)	11.011*** (9.06)
Maturity	0.107 (1.49)	0.561*** (9.25)	0.420*** (7.20)	0.317*** (5.78)	−0.377*** (−4.30)
Firm size	−20.997*** (−20.63)	−20.710*** (−27.69)	−22.573*** (−28.24)	−21.260*** (−29.74)	−19.490*** (−28.85)
NYSE	−16.298*** (−5.68)	−9.821*** (−3.62)	−4.02 (−1.36)	−2.294 (−0.87)	−1.052 (−0.45)
Profitability	−56.516*** (−6.09)	−82.962*** (−8.97)	−105.640*** (−12.60)	−100.276*** (−11.65)	−89.641*** (−12.57)
MTB	−25.467*** (−25.47)	−18.479*** (−21.09)	−19.483*** (−23.16)	−19.389*** (−19.94)	−17.261*** (−19.75)
Bank size	−3.719*** (−7.39)	−1.282*** (−3.49)	−1.366*** (−4.19)	−1.240*** (−3.56)	−0.828** (−2.51)
Observations	36,529	36,529	36,439	35,954	35,951
Adjusted R <sup>2</sup>	0.215	0.345	0.415	0.476	0.534
Cluster	Bank	Bank	Bank	Bank	Bank
Bank FE	√	√	√	√	√
Year FE		√	√	√	√
SIC3 FE			√	√	√
Purpose FE				√	√
Loan type FE					√
Number of banks	258	258	258	258	258
Number of firms	1,953	1,953	1,940	1,927	1,927

The dependent variable is AISD—all-in-spread-drawn (bps)—defined as the sum of spread over LIBOR plus the facility fee. Definitions of all variables along with their sources are in appendix Table A1. Robust standard errors clustered by bank and t-statistics are reported in parentheses. Significance at the 1%, 5%, and 10% level is indicated by \*\*\*, \*\*, and \*, respectively.

## 4.2. Summary statistics

We present summary statistics in Table 1 and correlations for some of the variables in Table A2. *All-in-drawn (AISD)*, which is the main dependent variable in our analysis, has a mean value of 152 basis points. The total cost of borrowing (*TCB*), has a mean value of 110 basis points. These values are close to those in the literature on syndicated loans (e.g., Berg et al., 2016). More than 50% of firms have prior relationships with a syndicate bank (as *Relationship dummy* shows). Furthermore, about 53% of syndicated loans require a covenant.

We start by presenting summary information about the main explanatory variable, *Political sentiment*, which has a zero mean and standard deviation of 1. This is expected, as we have standardized these variables to match the procedure in Hassan et al. (2019). We find that about 80% of the firms in our sample trade on the New York Stock Exchange (NYSE), indicating that most firms in our sample are public. Further, the average number of foreign countries in which an MNE operates is around 7.5, the number of subsidiaries in foreign countries is around 17, and the number of subsidiaries in low-tax countries is about 16.5.

## 5. Results

### 5.1. Preliminary results

Table 2 presents our preliminary findings. It shows the effect of political sentiment on the cost of syndicated loans (*AISD*). Apart from the main control variables, we start gradually adding fixed effects. Column (5) is the most conservative case in this table, where we include bank, year, sector (three-digit SIC), purpose-, and loan-type-fixed effects. We find that higher *Political sentiment*—that is, more positive political sentiment for a firm—leads to a decrease in loan cost. According to the most restrictive specification in column (5), the coefficient of *Political sentiment* is negative and highly statistically significant at the 1% level (coefficient: −4.14 and *t*-statistic: −10.45).

Our findings are in accordance with the mechanisms in the relevant literature (Bradley et al., 2016; Kim, 2019). Specifically, if a lender believes a firm will face higher uncertainty and thus have problems repaying debt, it might opt out of a loan contract or charge a premium for the higher uncertainty.

Bae and Goyal (2009) document that poor contract enforceability leads to worse loan terms. The idea behind this is that banks trust more firms who [they] know will be more likely to pay back their debt. Thus, one could argue that the effect of political sentiment in the cost of lending is spurious and that it captures the effect of a firm's governance characteristics. To verify that our results withstand the inclusion of governance characteristics we include several controls that the past literature has found to be significant in determining loan outcomes. Specifically, we expect that better governance—manifested in the form of a larger board size or audit committee size, will decrease the cost of lending (Anderson et al., 2004). We present our results in Table 3 that follow next.

**Table 3**

The relation between political sentiment and the cost of syndicated loans controlling for boardroom characteristics.

	(1)	(2)	(3)	(4)	(5)	(6)
PSentiment	-4.264*** (-8.53)	-4.296*** (-8.46)	-4.351*** (-8.62)	-4.378*** (-8.66)	-4.721*** (-8.75)	-4.320*** (-10.10)
Relationship dummy	-11.236*** (-10.91)	-11.181*** (-10.99)	-11.092*** (-10.87)	-10.941*** (-10.84)	-10.969*** (-10.79)	-2.704*** (-3.44)
Covenant dummy	10.574*** (6.58)	10.299*** (6.40)	10.206*** (6.33)	10.406*** (6.43)	10.418*** (6.51)	10.730*** (8.57)
Maturity	0.406*** (6.99)	0.406*** (7.06)	0.405*** (7.02)	0.402*** (6.99)	0.395*** (6.90)	-0.392*** (-4.46)
Firm size	-20.715*** (-27.09)	-20.544*** (-26.85)	-20.501*** (-26.81)	-21.251*** (-26.74)	-21.171*** (-27.21)	-19.063*** (-26.82)
NYSE	-3.36 (-1.13)	-2.984 (-1.02)	-2.887 (-0.98)	-3.139 (-1.07)	-2.368 (-0.83)	-0.089 (-0.04)
Profitability	-104.291*** (-12.34)	-103.651*** (-12.38)	-104.220*** (-12.50)	-103.796*** (-12.59)	-101.395*** (-12.99)	-86.588*** (-12.59)
MTB	-19.429*** (-23.04)	-19.335*** (-22.56)	-19.355*** (-22.47)	-19.618*** (-22.66)	-19.819*** (-23.34)	-17.740*** (-20.34)
Bank size	-1.459*** (-4.50)	-1.385*** (-4.20)	-1.388*** (-4.19)	-1.404*** (-4.22)	-1.370*** (-4.06)	-0.809** (-2.40)
No. directors	-2.223*** (-6.45)	-1.690*** (-4.84)	-1.702*** (-4.84)	-1.730*** (-4.92)	-1.588*** (-4.43)	-1.052*** (-4.09)
Audit committee size		-3.350*** (-4.43)	-3.516*** (-4.69)	-3.617*** (-4.83)	-3.137*** (-4.52)	-1.818*** (-3.08)
No. independent directors			2.259*** (2.77)	2.166*** (2.66)	1.515* (1.67)	1.619** (2.03)
Mean directorship				1.945*** (3.75)	2.148*** (4.13)	2.602*** (5.86)
Director's average age					-1.159*** (-4.59)	-0.872*** (-4.27)
Observations	36,439	36,439	36,439	36,403	36,403	35,914
Adjusted R <sup>2</sup>	0.416	0.416	0.416	0.417	0.418	0.536
Cluster	Bank	Bank	Bank	Bank	Bank	Bank
Bank FE	✓	✓	✓	✓	✓	✓
Year FE	✓	✓	✓	✓	✓	✓
SIC3 FE	✓	✓	✓	✓	✓	✓
Purpose FE	-	-	-	-	-	✓
Loan type FE	-	-	-	-	-	✓
Number of banks	258	258	258	258	258	257
Number of firms	1,940	1,940	1,940	1,938	1,938	1,925

The dependent variable is *AISD*—all-in-spread-drawn (bps)—defined as the sum of spread over LIBOR plus the facility fee. *PSentiment* denotes a firm's overall political sentiment and it is an index that is constructed by [Hassan et al. \(2019\)](#). This variable is standardized with zero mean and a standard deviation equal to one. *Relationship* dummy takes value one if the bank lent to the same borrower in the five years prior to the current loan and zero otherwise. *Covenant* is a dummy taking value one when a loan has a covenant and zero otherwise. *Maturity* denotes the loan duration in months. *Firm size* denotes a firm's natural logarithm of total assets. *NYSE* is an indicator that takes value one for firms with presence at the New York Stock Exchange. *Profitability* is the ratio on pre-tax profits to total assets. *MTB* denotes market-to-book value. *Bank size* is the natural logarithm of total assets. Definitions of all variables along with their sources are in appendix [Table A1](#). Robust standard errors clustered by bank and t-statistics are reported in parentheses. Significance at the 1%, 5%, and 10% level is indicated by \*\*\*, \*\*, and \*, respectively.

Next, we check whether our preliminary results hold when we exclude facilities where the lead arranger is a top 3 bank. The argument here is that the role of leading banks might be crucial and that these banks differ from the rest in a way that our model is unable to capture. This could add bias in our findings. We present results of this exercise in [Table 4](#). If anything, our findings are qualitatively the same and even stronger in statistical terms.

Another concern is that our variable of interest might be picking up firm credibility and thus the result we find is not purely due to political uncertainty. To deal with this concern, we include company ratings. Higher values of this variable indicate a lower rating. The results in [Table 5](#) show, as expected, that firms with lower ratings pay higher premiums for loans. Paramount for our analysis is that political sentiment still enters with the expected sign and it is strongly statistically significant at the 1% level.

The results we have presented so far contain common determinants of syndicated loan pricing and many types of fixed effects. Nonetheless, one concern is that our results might be still driven by omitted characteristics that we have not included in our analysis. To deal with this issue we run models by including bank-year, SIC3-year, loan-type-year, purpose-year, and firm fixed effects. The inclusion of such fixed effects further saturates our model and controls for the influence of unknown determinants. We report results in [Table 6](#). Our findings echo the results from the previous models. Namely, the main determinant of our analysis is negative and statistically significant. In the most conservative model presented in column (11) that includes firm fixed effects, the adjusted R-squared is almost 82%, which is significantly larger than the average values found in most studies with syndicated loans that range between 40% and 60%.

**Table 4**

The relation between political sentiment and the cost of syndicated loans excluding the top 3 lead arrangers.

	(1)	(2)	(3)	(4)
PSentiment	-2.818*** (-4.55)	-3.966*** (-6.76)	-5.287*** (-8.19)	-4.407*** (-7.39)
Relationship dummy	-18.075*** (-12.93)	-14.345*** (-10.70)	-11.571*** (-7.94)	-3.417*** (-3.16)
Covenant dummy	9.284*** (4.01)	18.928*** (9.86)	12.083*** (6.99)	10.931*** (9.26)
Maturity	0.01 (0.13)	0.519*** (8.91)	0.396*** (7.68)	-0.403*** (-4.38)
Firm size	-21.344*** (-16.10)	-20.781*** (-23.49)	-22.601*** (-22.57)	-19.721*** (-20.88)
NYSE	-14.244*** (-4.56)	-7.917*** (-2.70)	-2.308 (-0.72)	0.204 (0.08)
Profitability	-46.760*** (-4.19)	-75.192*** (-7.37)	-102.614*** (-9.92)	-92.367*** (-9.19)
MTB	-23.928*** (-18.20)	-16.904*** (-15.81)	-18.897*** (-18.89)	-17.050*** (-16.58)
Bank size	-2.574*** (-4.81)	-1.454*** (-3.01)	-1.645*** (-3.36)	-1.271*** (-2.70)
Observations	27,140	27,140	27,073	26,748
Adjusted R <sup>2</sup>	0.239	0.371	0.438	0.546
Cluster	Bank	Bank	Bank	Bank
Bank FE	√	√	√	√
Year FE	-	√	√	√
SIC3 FE	-	-	√	√
Purpose FE	-	-	-	√
Loan type FE	-	-	-	√
Number of banks	257	257	257	257
Number of firms	1,829	1,829	1,817	1,804

The dependent variable is *AISD*—all-in-spread-drawn (bps)—defined as the sum of spread over LIBOR plus the facility fee. *PSentiment* denotes a firm's overall political sentiment and it is an index that is constructed by [Hassan et al. \(2019\)](#). This variable is standardized with zero mean and a standard deviation equal to one. *Relationship* dummy takes value one if the bank lent to the same borrower in the five years prior to the current loan and zero otherwise. *Covenant* is a dummy taking value one when a loan has a covenant and zero otherwise. *Maturity* denotes the loan duration in months. *Firm size* denotes a firm's natural logarithm of total assets. *NYSE* is an indicator that takes value one for firms with presence at the New York Stock Exchange. *Profitability* is the ratio on pre-tax profits to total assets. *MTB* denotes market-to-book value. *Bank size* is the natural logarithm of total assets. Definitions of all variables along with their sources are in appendix [Table A1](#). Robust standard errors clustered by bank and t-statistics are reported in parentheses. Significance at the 1%, 5%, and 10% level is indicated by \*\*\*, \*\*, and \*, respectively.

## 5.2. Firms' foreign operations

Our next step is to explore how firms' foreign operations affect the potency of political shocks on the cost of loans. Therefore, our interest here is MNEs and not firms with domestic presence only.<sup>7</sup> To perform this analysis, we match the U.S. firms in our sample with their foreign subsidiaries using the Orbis database. Our granular data allow us to examine how political sentiment affects the cost of loans when firms operate in foreign countries. Our premise is that MNEs diversify via foreign operations and thus mitigate the negative effects of low political sentiment using their large networks of foreign subsidiaries.

*Ex ante* it is not clear whether foreign operations increase or decrease the impact of political sentiment on the cost of loans. The empirical evidence regarding MNEs' benefits from international diversification is unclear (see e.g., [Bartov et al., 1996](#); [Hughes et al., 1975](#); [Kwok and Reeb, 2000](#); [Doukas and Lang, 2003](#)). On one hand, firms with an international presence are exposed to foreign risk, but at the same time they can achieve higher diversification. To examine how foreign operations affect the cost of lending via political sentiment, we employ four variables: (i) the number of foreign countries in which a multinational firm has a presence, (ii) the number of foreign subsidiaries of a firm, (iii) the percentage of foreign subsidiaries in the same industry, and (iv) the degree of political polarization of the subsidiaries' countries. These variables serve a dual purpose. First, they proxy for any potential risk a multinational firm might face by operating in foreign countries. Second, they capture potential incentives of tax avoidance, which affects the cost of loans (see e.g., [Hasan et al., 2014](#)).

We present our results in [Table 7](#). In line with our findings in [Table 2](#) and throughout all specifications, *PSentiment* enters with a negative and strongly significant sign. In this table, the variable of interest is the interaction term between *Political sentiment* and the proxies for foreign operations. Column (1) shows the value of the interaction term between political sentiment and the number of countries in which a multinational operates. Its value is positive and statistically significant at the 1% level. This indicates that for firms

<sup>7</sup> A simple test to investigate whether foreign operations moderate the effects of political shocks on the cost of lending would have been to compare firms with and without subsidiaries. Our research question, however, is not concerned with firms that operate only domestically. Further, since we care about different dimensions of multinationals' presence in foreign markets, we opt to use only MNEs for this part of our analysis.

**Table 5**  
The relation between political sentiment and the cost of syndicated loans controlling for company credit ratings.

	(1)	(2)	(3)	(4)
PSentiment	−1.954*** (−3.49)	−3.011*** (−5.81)	−4.690*** (−9.13)	−4.243*** (−10.54)
Relationship dummy	−15.519*** (−13.16)	−13.280*** (−14.69)	−10.754*** (−10.63)	−2.350*** (−2.81)
Covenant dummy	7.188*** (3.49)	16.564*** (9.18)	10.456*** (6.66)	10.635*** (8.59)
Maturity	0.105 (1.54)	0.562*** (9.59)	0.414*** (7.25)	−0.360*** (−4.15)
Company rating	3.041*** (9.67)	2.056*** (6.37)	2.090*** (7.05)	1.832*** (7.19)
Firm size	−14.823*** (−12.59)	−16.643*** (−18.02)	−16.398*** (−19.07)	−15.731*** (−18.88)
NYSE	−10.024*** (−3.78)	−5.277** (−2.04)	−1.148 (−0.39)	1.128 (0.50)
Profitability	−48.302*** (−5.12)	−79.267*** (−8.51)	−106.248*** (−13.46)	−96.214*** (−15.06)
MTB	−26.237*** (−24.67)	−18.530*** (−19.31)	−19.787*** (−21.91)	−17.157*** (−18.92)
Bank size	−2.647*** (−4.75)	−0.949* (−1.92)	−1.280*** (−2.94)	−0.618 (−1.45)
Observations	35,115	35,115	35,024	34,726
Adjusted R <sup>2</sup>	0.231	0.354	0.424	0.542
Cluster	Bank	Bank	Bank	Bank
Bank FE	√	√	√	√
Year FE	−	√	√	√
SIC3 FE	−	−	√	√
Purpose FE	−	−	−	√
Loan type FE	−	−	−	√
Number of banks	256	256	256	256
Number of firms	1,866	1,866	1,853	1,849

The dependent variable is *AISD*—all-in-spread-drawn (bps)—defined as the sum of spread over LIBOR plus the facility fee. *PSentiment* denotes a firm's overall political sentiment and it is an index that is constructed by [Hassan et al. \(2019\)](#). This variable is standardized with zero mean and a standard deviation equal to one. Definitions of all variables along with their sources are in appendix [Table A1](#). Robust standard errors clustered by bank and *t*-statistics are reported in parentheses. Significance at the 1%, 5%, and 10% level is indicated by \*\*\*, \*\*, and \*, respectively.

with international operations, the potency of political sentiment is smaller. For example, firms with low values of *Political sentiment* can offset the negative effect on its loan cost, by having at least subsidiaries in 12 different countries.<sup>8</sup> Column (2) shows how *PSentiment* fares when interacted with the number of foreign subsidiaries. Again, the interaction term is positive and statistically significant (coeff. 0.156 and *t*-stat: 3.82). In the same manner, we calculate the number of subsidiaries a firm needs to offset the negative effects of low *PSentiment*; this translates to about 37 subsidiaries (5.772/0.156).

Thus far, our findings indicate that a firm's foreign operations mitigate the negative effects of low *Political sentiment* on the cost of loans. Using a firm-level measure that accounts for the mean effect of political exposure and current networks of foreign subsidiaries, we provide evidence regarding MNEs' abilities for international diversification. This outcome is in line with earlier studies (e.g., [Beaulieu et al., 2005](#)), which find that firms can diversify political uncertainty under certain conditions. We decompose some of these conditions and provide the analysis below.

Prior literature finds that foreign operations are associated with higher corporate tax avoidance (e.g., see [Rego, 2003](#); [Wilson, 2009](#); [Rego and Wilson, 2012](#); [Brühne and Jacob, 2019](#)). In our case, this is even more evident, because our sample comprises US multinational firms, for whom corporate taxation was one among the highest worldwide for the period studied. To explore the tax-planning channel instead of using an indicator variable for foreign operations (e.g., [Rego, 2003](#); [Chow et al., 2019](#)), we utilize our granular data and dig deeper. Specifically, to proxy for foreign operations we use the number of foreign countries a firm operates, the number of foreign subsidiaries, and the number of low-tax subsidiaries (in untabulated tests). We find that a well-diversified portfolio of (low tax) foreign subsidiaries, can bring non-negligible tax returns to the MNE, thus mitigating the negative effects of political uncertainty on the cost of loans. Hence, our results show that the potential tax-planning activities available to MNEs are a factor that moderates the relationship between low political sentiment and the cost of loans.

The latter extends and complements the significant contribution of [Hasan et al. \(2014\)](#). The authors, using single-country data, show that banks penalize aggressive tax avoidance among U.S. firms because it increases the risk banks bear. Our study differs from [Hasan et al. \(2014\)](#) in that we use the Orbis database to pin down exactly how many different countries an MNE is operating in and how many foreign subsidiaries it has. In this way, we explore cross-country heterogeneity and provide robust new evidence about how banks anticipate their customers' cross-country tax-avoidance opportunities. In untabulated tests, we also experiment with the percent of low tax subsidiaries for each MNE in our sample. The results are qualitatively similar to those in columns 1 and 2 and are available upon request.

<sup>8</sup> We calculate this by taking the ratio:  $\frac{\text{coeff}(PSentiment)}{\text{coeff}(Interaction)}$ .

**Table 6**  
The relation between political sentiment and the cost of syndicated loans controlling for time varying fixed effects.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
PSentiment	−4.443*** (−9.38)	−4.129*** (−9.78)	−3.962*** (−10.35)	−3.428*** (−5.40)	−2.875*** (−4.64)	−2.888*** (−5.27)	−2.730*** (−5.23)	−2.596*** (−5.40)	−2.449*** (−5.14)	−5.277*** (−8.00)	−2.395*** (−2.95)
Relationship dummy	−11.977*** (−12.07)	−3.856*** (−4.67)	−3.417*** (−4.45)	−11.583*** (−10.69)	−4.105*** (−4.61)	−3.531*** (−3.98)	−4.077*** (−4.17)	−3.546*** (−3.76)	−2.890*** (−3.28)	−1.410* (−1.94)	−1.192 (−1.34)
Covenant dummy	10.584*** (6.70)	11.754*** (8.51)	10.924*** (8.39)	9.712*** (5.80)	9.905*** (6.71)	9.385*** (6.65)	10.965*** (7.97)	10.215*** (7.36)	10.468*** (7.97)	5.241*** (4.03)	5.872*** (5.81)
Maturity	0.414*** (6.94)	0.305*** (5.43)	−0.370*** (−4.13)	0.418*** (7.16)	0.297*** (5.43)	−0.190** (−2.31)	0.288*** (4.73)	−0.199** (−2.18)	−0.209** (−2.37)	−0.314*** (−4.28)	−0.083 (−1.22)
Firm size	−22.401*** (−26.72)	−21.116*** (−27.92)	−19.436*** (−26.97)	−22.150*** (−23.81)	−20.539*** (−23.12)	−19.323*** (−22.84)	−20.734*** (−23.93)	−19.450*** (−23.90)	−19.224*** (−25.16)	−18.374*** (−8.24)	−12.774*** (−4.43)
NYSE	−3.629 (−1.21)	−1.971 (−0.74)	−0.853 (−0.36)	−7.599*** (−2.79)	−5.656** (−2.06)	−4.358* (−1.81)	−6.962** (−2.57)	−5.679** (−2.36)	−5.329** (−2.23)	8.744*** (3.56)	−2.334 (−0.65)
Profitability	−103.502*** (−11.72)	−99.207*** (−11.18)	−88.633*** (−12.15)	−133.942*** (−10.97)	−134.553*** (−10.91)	−120.890*** (−11.39)	−132.804*** (−11.32)	−120.787*** (−11.79)	−115.085*** (−11.84)	−57.936*** (−8.06)	−36.679** (−2.25)
MTB	−19.519*** (−24.35)	−19.328*** (−20.44)	−17.347*** (−20.35)	−16.400*** (−19.27)	−15.444*** (−18.50)	−14.247*** (−18.67)	−16.127*** (−17.69)	−14.743*** (−17.88)	−14.625*** (−18.12)	−12.150*** (−12.33)	−9.484*** (−7.65)
Bank size	−1.191*** (−3.34)	−1.269*** (−3.81)	−0.986*** (−3.02)	−1.797*** (−3.45)	−1.404*** (−2.98)	−1.109** (−2.43)	−1.222*** (−2.84)	−0.874** (−2.20)	−0.872** (−2.51)	−0.547 (−1.23)	−0.594 (−1.20)
Observations	36,158	35,670	35,667	36,056	35,567	35,564	35,553	35,550	35,537	35,505	35,373
Adjusted R <sup>2</sup>	0.422	0.483	0.54	0.56	0.605	0.646	0.622	0.66	0.676	0.718	0.819
Cluster	Bank	Bank	Bank	Bank	Bank	Bank	Bank	Bank	Bank	Bank	Bank
Bank * Year FE	√	√	√	√	√	√	√	√	√	√	√
SIC3 FE	√	√	√	−	−	−	−	−	−	√	−
Purpose FE	−	√	√	−	√	√	−	√	−	√	−
Loan type FE	−	−	√	−	−	√	−	√	−	√	−
SIC3 * Year FE	−	−	−	√	√	√	√	√	√	−	√
Purpose * Year FE	−	−	−	−	−	−	√	−	√	−	√
Loan type * Year FE	−	−	−	−	−	−	−	−	√	−	√
Firm FE	−	−	−	−	−	−	−	−	−	√	√
Number of banks	235	235	235	234	234	234	234	234	234	234	234
Number of firms	1,937	1,924	1,924	1,921	1,908	1,908	1,904	1,904	1,903	1,766	1,751

The dependent variable is *AISD*—all-in-spread-drawn (bps)—defined as the sum of spread over LIBOR plus the facility fee. *PSentiment* denotes a firm's overall political sentiment and it is an index that is constructed by Hassan et al. (2019). This variable is standardized with zero mean and a standard deviation equal to one. Definitions of all variables along with their sources are in appendix Table A1. Robust standard errors clustered by bank and t-statistics are reported in parentheses. Significance at the 1%, 5%, and 10% level is indicated by \*\*\*, \*\*, and \*, respectively.

**Table 7**  
Political sentiment and foreign operations.

	(1)	(2)	(3)	(4)
PSentiment	-8.465*** (-4.41)	-5.772*** (-3.58)	-7.514*** (-5.18)	-8.955*** (-3.17)
No. countries MNE operates	-1.914*** (-9.10)			
PSentiment × No. countries MNE operates	0.754*** (6.04)			
No. subsidiaries		-0.104** (-2.22)		
PSentiment × No. subsidiaries		0.156*** (3.82)		
Foreign economies of scale			-6.375*** (-5.64)	
PSentiment × Foreign economies of scale			5.445*** (9.04)	
Sub. country political polarization				0.915 (0.46)
PSentiment × Sub. country political polarization				4.870*** (2.80)
Relationship dummy	-6.473*** (-3.27)	-6.599*** (-3.29)	-6.372*** (-3.26)	-6.878*** (-3.25)
Covenant dummy	13.974*** (6.67)	13.805*** (6.49)	12.862*** (6.08)	11.618*** (5.60)
Maturity	-0.259 (-1.20)	-0.26 (-1.22)	-0.251 (-1.18)	-0.195 (-0.93)
Firm size	-15.807*** (-13.24)	-19.269*** (-13.58)	-19.436*** (-15.46)	-21.060*** (-16.86)
NYSE	10.811*** (2.70)	8.367* (1.97)	8.740** (2.09)	8.649** (2.07)
Profitability	-76.893*** (-8.08)	-79.401*** (-8.28)	-83.594*** (-8.34)	-83.900*** (-9.05)
MTB	-18.013*** (-14.66)	-18.770*** (-14.51)	-19.013*** (-14.62)	-18.085*** (-14.62)
Bank size	-0.352 (-0.70)	-0.267 (-0.53)	-0.141 (-0.29)	-0.293 (-0.57)
Observations	9,552	9,552	9,552	9,461
Adjusted R <sup>2</sup>	0.547	0.542	0.546	0.538
Cluster	Bank	Bank	Bank	Bank
Bank FE	√	√	√	√
Year FE	√	√	√	√
SIC3 FE	√	√	√	√
Purpose FE	√	√	√	√
Loan type FE	√	√	√	√
Number of banks	135	135	135	135
Number of firms	595	595	595	590

The dependent variable is AISD—all-in-spread-drawn (bps)—defined as the sum of spread over LIBOR plus the facility fee. Definitions of all variables along with their sources are in appendix Table A1. Robust standard errors clustered by bank and *t*-statistics are reported in parentheses. Significance at the 1%, 5%, and 10% level is indicated by \*\*\*, \*\*, and \*, respectively.

Next, we examine whether economies of scale through foreign operations help MNEs diversify their political exposure. To this end, we use the interaction of *PSentiment* with the percentage of foreign subsidiaries in the same industry as the parent firm (*Foreign Economies of Scale*). Column (3) shows the results of this test. The coefficient of (*PSentiment* × *Foreign Economies of Scale*) is positive and significant at the 1% level. This finding is in line with Doukas and Lang (2003), who document that international diversification is beneficial only if it takes place in a firm's core business. When an MNE invests in firms in the same industry, it employs economies of scale, which benefits the MNE and mitigates bad news due to exposure to political events.

Finally, in column (4) we examine whether political environments in subsidiaries' countries mitigate the effects of low political sentiment on the cost of loans. The coefficient of (*PSentiment* × *Sub. Country Political Polarization*) is once again positive and significant at the 1% level, suggesting that diversification toward subsidiaries in countries with high political polarization reduces the cost of lending due to lower corruption, as Brown et al. (2011) suggests.

For our core specification presented in Table 7, we perform two additional exercises. First, apart from political sentiment (*PSentiment*), we also control for political risk (*PRisk*). This is because one might argue that our main variable, political sentiment, picks up the effect of political risk. This is not possible as the two variables are weakly correlated (in our sample their correlation is about -0.07) and Hassan et al. (2019) are clear in that while political sentiment captures the mean of political shocks, political risk captures the variance. Second, in our rich model that includes a plethora of fixed effects that are standard in the literature of syndicated loans, we also add firm fixed effects to rule out any possibility that our findings are driven by time-invariable factors at the firm level that are unobservable. Results in Table A3 and Table A4 indicate that our findings are robust with the inclusion of additional variables and firm

**Table 8**  
Political sentiment and foreign operations controlling for boardroom characteristics.

	(1)	(2)	(3)	(4)
PSentiment	−8.397*** (−4.31)	−5.894*** (−3.65)	−7.834*** (−5.50)	−9.254*** (−3.44)
No. countries MNE operates	−1.975*** (−9.15)			
PSentiment × No. countries MNE operates	0.713*** (5.47)			
No. subsidiaries		−0.095** (−1.99)		
PSentiment × No. subsidiaries		0.146*** (3.59)		
Foreign economies of scale			−6.260*** (−5.10)	
PSentiment × Foreign economies of scale			5.594*** (9.32)	
Sub. country political polarization				0.744 (0.38)
PSentiment × Sub. country political polarization				4.699*** (2.82)
Relationship dummy	−5.473*** (−2.78)	−5.654*** (−2.84)	−5.436*** (−2.78)	−5.729*** (−2.73)
Covenant dummy	13.400*** (6.78)	13.230*** (6.55)	12.266*** (6.09)	10.673*** (5.59)
Maturity	−0.251 (−1.18)	−0.253 (−1.21)	−0.241 (−1.16)	−0.185 (−0.90)
Firm size	−15.407*** (−13.44)	−19.087*** (−13.57)	−19.448*** (−15.43)	−21.060*** (−16.65)
NYSE	11.668*** (2.89)	9.074** (2.12)	9.380** (2.23)	9.600** (2.31)
Profitability	−75.377*** (−7.88)	−77.780*** (−8.09)	−81.678*** (−8.17)	−82.083*** (−8.84)
MTB	−18.765*** (−14.99)	−19.512*** (−14.67)	−19.641*** (−14.82)	−19.116*** (−15.04)
Bank size	−0.422 (−0.84)	−0.343 (−0.69)	−0.179 (−0.37)	−0.399 (−0.78)
No. directors	−0.49 (−0.91)	−0.517 (−0.98)	0.041 (0.07)	−0.959* (−1.74)
Audit committee size	−3.511*** (−3.49)	−3.246*** (−3.17)	−4.229*** (−4.14)	−2.778*** (−2.92)
No. independent directors	3.684*** (4.01)	3.228*** (3.57)	2.473*** (2.75)	4.477*** (4.83)
Mean directorship	2.636*** (3.90)	2.464*** (3.61)	2.314*** (3.44)	3.881*** (5.99)
Director's average age	−0.590* (−1.87)	−0.551* (−1.72)	−0.660* (−1.97)	−1.049*** (−3.33)
Observations	9,525	9,525	9,525	9,434
Adjusted R <sup>2</sup>	0.548	0.543	0.547	0.541
Cluster	Bank	Bank	Bank	Bank
Bank FE	√	√	√	√
Year FE	√	√	√	√
SIC3 FE	√	√	√	√
Purpose FE	√	√	√	√
Loan type FE	√	√	√	√
Number of banks	135	135	135	135
Number of firms	593	593	593	588

The dependent variable is *AISD*—all-in-spread-drawn (bps)—defined as the sum of spread over LIBOR plus the facility fee. *PSentiment* denotes a firm's overall political sentiment and it is an index that is constructed by Hassan et al. (2019). This variable is standardized with zero mean and a standard deviation equal to one. Definitions of all variables along with their sources are in appendix Table A1. Robust standard errors clustered by bank and t-statistics are reported in parentheses. Significance at the 1%, 5%, and 10% level is indicated by \*\*\*, \*\*, and \*, respectively.

fixed effects.<sup>9</sup>

<sup>9</sup> The use of firm fixed effects on top of the fixed effects we already include might lead to some of the main controls regarding firms' foreign operations to drop in the regression process. This is because firm-fixed over-saturate our model. Because this paper aims to study the moderating effects of foreign operations in syndicate loan lending costs due to negative political exposure, we have opted not to use firm fixed effects in most of our tables. Nonetheless, the models presented in this paper still provide statistically strong results of our main findings even with the inclusion of firm fixed effects. To conserve space, we have not included these tables herein, but they are available upon request.

**Table 9**  
Political sentiment and foreign operations excluding the top 3 lead arrangers.

	(1)	(2)	(3)	(4)
PSentiment	-10.578*** (-4.76)	-7.508*** (-3.75)	-7.403*** (-3.82)	-7.310** (-2.04)
No. countries MNE operates	-1.622*** (-5.79)			
PSentiment × No. countries MNE operates	0.943*** (6.02)			
No. subsidiaries		-0.106 (-1.12)		
PSentiment × No. subsidiaries		0.242*** (3.84)		
Foreign economies of scale			-6.957*** (-4.90)	
PSentiment × Foreign economies of scale			4.861*** (5.34)	
Sub. country political polarization				0.683 (0.27)
PSentiment × Sub. country political polarization				3.249 (1.65)
Relationship dummy	-8.295*** (-3.84)	-8.224*** (-3.67)	-7.814*** (-3.50)	-8.261*** (-3.67)
Covenant dummy	12.487*** (4.94)	11.975*** (4.83)	11.570*** (4.55)	11.698*** (4.61)
Maturity	-0.677*** (-3.04)	-0.669*** (-3.01)	-0.644*** (-2.93)	-0.662*** (-3.06)
Firm size	-17.126*** (-8.66)	-19.788*** (-8.87)	-19.410*** (-10.86)	-20.952*** (-11.09)
NYSE	12.286*** (2.72)	10.639** (2.29)	11.502** (2.54)	10.602** (2.34)
Profitability	-73.715*** (-5.73)	-76.457*** (-5.92)	-80.282*** (-6.10)	-79.325*** (-6.03)
MTB	-17.893*** (-10.22)	-18.678*** (-10.13)	-18.953*** (-10.39)	-18.548*** (-10.71)
Bank size	-1.805*** (-3.20)	-1.684*** (-2.93)	-1.452*** (-2.64)	-1.656*** (-2.82)
Observations	6,614	6,614	6,614	6,571
Adjusted R <sup>2</sup>	0.552	0.549	0.552	0.549
Cluster	Bank	Bank	Bank	Bank
Bank FE	√	√	√	√
Year FE	√	√	√	√
SIC3 FE	√	√	√	√
Purpose FE	√	√	√	√
Loan type FE	√	√	√	√
Number of banks	135	135	135	135
Number of firms	557	557	557	552

The dependent variable is *AISD*—all-in-spread-drawn (bps)—defined as the sum of spread over LIBOR plus the facility fee. *PSentiment* denotes a firm's overall political sentiment and it is an index that is constructed by [Hassan et al. \(2019\)](#). This variable is standardized with zero mean and a standard deviation equal to one. Definitions of all variables along with their sources are in appendix [Table A1](#). Robust standard errors clustered by bank and t-statistics are reported in parentheses. Significance at the 1%, 5%, and 10% level is indicated by \*\*\*, \*\*, and \*, respectively.

In a similar manner to what was described above ([Tables 3 to 5](#)), we present a series of sensitivity tests regarding firms' foreign operations. Specifically, we control for governance ([Table 8](#)), we check whether our results hold when we drop observations where the lead arranger is a top 3 bank ([Table 9](#)), and we control for credit rating ([Table 10](#)). In all cases our hypotheses stand.

One could argue that the effect we obtain might not be precise, as we have not accounted for firm-level uncertainty shocks. Among others, [Alfaro et al. \(2018\)](#) show that higher uncertainty decreases investment, hiring, and affects firms' financial policies. [Alfaro et al. \(2018\)](#) create measures of firm-level volatility, which broadly capture firms' exposure and are estimated based on a Bartik identification strategy that exploits the exposure of different regions to different types of industry level shocks. Importantly here, this aggregate uncertainty differs among firms (e.g., energy companies are affected more due to oil shocks). Since firms are affected by such shocks, it is possible that financial intermediaries perceive higher firm volatility as a factor that makes firms less likely to pay their debt. Because of this, we expect financial intermediaries to provide worse loan terms for more volatile firms.

We test this using controls of realized and implied volatility using the [Alfaro et al. \(2018\)](#) measures of volatility. Our results in [Table 11](#) and [Table 12](#) show that firm volatility indeed plays a key role; both realized and implied volatility enter with a positive and highly significant coefficient, indicating that firm volatility is priced in the loan market. The inclusion of firm volatility, however, does not affect markedly our variables of interest. The interaction terms are still statistically significant and in tandem with our hypotheses.

**Table 10**  
Political sentiment and foreign operations: controlling for a company's credit rating.

	(1)	(2)	(3)	(4)
PSentiment	−8.617*** (−4.10)	−5.788*** (−3.37)	−7.842*** (−5.23)	−8.462*** (−2.95)
Company rating	2.215*** (5.10)	2.337*** (5.20)	2.365*** (5.42)	2.124*** (4.79)
No. countries MNE operates	−1.826*** (−8.97)			
PSentiment × No. countries MNE operates	0.737*** (5.53)			
No. subsidiaries		−0.097** (−1.98)		
PSentiment × No. subsidiaries		0.147*** (3.57)		
Foreign economies of scale			−6.319*** (−5.67)	
PSentiment × Foreign economies of scale			5.699*** (8.36)	
Sub. country political polarization				0.334 (0.16)
PSentiment × Sub. country political polarization				4.518** (2.48)
Relationship dummy	−7.265*** (−3.29)	−7.257*** (−3.28)	−7.038*** (−3.25)	−7.608*** (−3.30)
Covenant dummy	15.021*** (7.36)	14.652*** (7.20)	13.653*** (6.82)	12.325*** (6.00)
Maturity	−0.173 (−0.79)	−0.167 (−0.77)	−0.156 (−0.72)	−0.109 (−0.52)
Firm size	−11.725*** (−8.75)	−14.767*** (−9.77)	−14.780*** (−10.48)	−16.893*** (−12.21)
NYSE	12.812*** (3.28)	10.287** (2.50)	10.807*** (2.70)	10.666*** (2.63)
Profitability	−66.940*** (−7.28)	−68.850*** (−7.23)	−74.297*** (−7.49)	−72.843*** (−8.05)
MTB	−22.344*** (−13.25)	−23.187*** (−13.09)	−23.460*** (−13.45)	−22.125*** (−12.81)
Bank size	0.075 (0.12)	0.238 (0.40)	0.45 (0.75)	0.132 (0.22)
Observations	8,917	8,917	8,924	8,839
Adjusted R <sup>2</sup>	0.562	0.558	0.562	0.552
Cluster	Bank	Bank	Bank	Bank
Bank FE	√	√	√	√
Year FE	√	√	√	√
SIC3 FE	√	√	√	√
Purpose FE	√	√	√	√
Loan type FE	√	√	√	√
Number of banks	131	131	131	131
Number of firms	554	554	555	552

The dependent variable is *AISD*—all-in-spread-drawn (bps)—defined as the sum of spread over LIBOR plus the facility fee. *PSentiment* denotes a firm's overall political sentiment and it is an index that is constructed by [Hassan et al. \(2019\)](#). This variable is standardized with zero mean and a standard deviation equal to one. Definitions of all variables along with their sources are in appendix [Table A1](#). Robust standard errors clustered by bank and t-statistics are reported in parentheses. Significance at the 1%, 5%, and 10% level is indicated by \*\*\*, \*\*, and \*, respectively.

### 5.3. Results with 2SLS model

So far, the results document an association between political sentiment and the cost of lending. However, due to omitted variables or measurement errors, our findings might be biased. The use of various fixed effects suggested by the extant literature on syndicated loans solves the problem of omitted variables to a large extent. Nonetheless, there are still concerns regarding causality. Since for this type of study, the existence of a purely natural exogenous shock is scarce, we resort to a two-stage least squares approach (2SLS) to mitigate potential bias errors.

The model for the 2SLS model is the following:

$$SPREAD_{f,b,t} = \beta_0 + \beta_1 \cdot \widehat{PSentiment}_{f,t-1} + \beta_2 \cdot L_{l,t} + \beta_3 \cdot B_{b,t} + \beta_4 \cdot F_{f,t-1} + \mu_b + \nu_t + \xi_{SIC} + \epsilon_{f,b,t}, \quad (3)$$

$$PSentiment_{f,t-1} = \gamma_0 + \gamma_1 \cdot IV + \gamma_2 \cdot L_{l,t} + \gamma_3 \cdot B_{b,t} + \gamma_4 \cdot F_{f,t-1} + \mu_b + \nu_t + \xi_{SIC} + u_{f,b,t}. \quad (4)$$

The instrument we use is the average five-year lagged value of the political sentiment index measured at the three- and two-digit SIC level. While constructing this measure at the firm level, we only use entries from all other firms belonging to the same SIC code

**Table 11**  
Political sentiment and foreign operations: controlling for realized volatility.

	(1)	(2)	(3)	(4)
PSentiment	-6.396*** (-3.11)	-3.918** (-2.37)	-5.579*** (-3.70)	-0.855 (-0.25)
Realized volatility	128.567*** (9.17)	129.717*** (9.07)	132.442*** (9.26)	118.679*** (7.89)
No. countries MNE operates	-1.817*** (-9.46)			
PSentiment × No. countries MNE operates	0.666*** (5.04)			
No. subsidiaries		-0.231*** (-4.47)		
PSentiment × No. subsidiaries		0.153*** (3.88)		
Foreign economies of scale			-5.215*** (-4.67)	
PSentiment × Foreign economies of scale			4.408*** (6.10)	
Sub. country political polarization				2.523 (1.15)
PSentiment × Sub. country political polarization				-0.084 (-0.04)
Relationship dummy	-6.010*** (-3.21)	-6.378*** (-3.36)	-6.891*** (-3.46)	-6.788*** (-3.40)
Covenant dummy	9.941*** (5.12)	9.320*** (4.88)	8.194*** (4.26)	8.042*** (4.38)
Maturity	0.029 (0.11)	0.02 (0.08)	-0.093 (-0.54)	0.09 (0.37)
Firm size	-14.690*** (-10.21)	-17.065*** (-11.32)	-17.820*** (-12.26)	-20.186*** (-14.56)
NYSE	14.465*** (3.46)	12.513*** (2.91)	10.671** (2.28)	12.331** (2.54)
Profitability	-66.361*** (-7.91)	-68.402*** (-8.16)	-71.237*** (-8.46)	-73.501*** (-8.33)
MTB	-14.719*** (-10.90)	-15.258*** (-11.01)	-15.683*** (-10.38)	-15.112*** (-13.04)
Bank size	-0.709 (-1.35)	-0.645 (-1.21)	-0.569 (-1.18)	-0.657 (-1.21)
Observations	7,768	7,768	7,769	7,681
Adjusted R <sup>2</sup>	0.586	0.582	0.585	0.571
Cluster	Bank	Bank	Bank	Bank
Bank FE	√	√	√	√
Year FE	√	√	√	√
SIC3 FE	√	√	√	√
Purpose FE	√	√	√	√
Loan type FE	√	√	√	√
Number of banks	132	132	130	132
Number of firms	508	508	508	504

The dependent variable is *AISD*—all-in-spread-drawn (bps)—defined as the sum of spread over LIBOR plus the facility fee. *PSentiment* denotes a firm's overall political sentiment and it is an index that is constructed by [Hassan et al. \(2019\)](#). This variable is standardized with zero mean and a standard deviation equal to one. Definitions of all variables along with their sources are in appendix [Table A1](#). Robust standard errors clustered by bank and t-statistics are reported in parentheses. Significance at the 1%, 5%, and 10% level is indicated by \*\*\*, \*\*, and \*, respectively.

except the firm of interest. By doing this, the measure we obtain is exogenous to the firm. We theorize that the status of political sentiment (positive or negative) is persistent at least in the short run — firms in sectors with positive political sentiment will continue to have a positive sentiment. We understand that banks might know the situation of a sector and thus price loans accordingly, and because of this, we utilize deep lags. Should we have not used deep lags, our exclusion restriction might not have been valid. Therefore, our premise is that the lagged values of political sentiment at the sectoral level affect the cost of loans only through a firm's political sentiment at present.

We present our results in [Table 13](#). Our findings follow our conjecture. Specifically, the instrument has a positive and statistically significant coefficient in the first stage. This means that when a sector has positive political sentiment, a firm belonging in that sector

**Table 12**  
Political sentiment and foreign operations: controlling for implied volatility.

	(1)	(2)	(3)	(4)
PSentiment	−8.084*** (−4.03)	−5.655*** (−3.51)	−7.477*** (−4.88)	−2.717 (−0.85)
Implied volatility	207.036*** (10.53)	210.002*** (10.44)	219.693*** (10.31)	195.450*** (8.96)
No. countries MNE operates	−1.562*** (−7.82)			
PSentiment × No. countries MNE operates	0.703*** (5.39)			
No. subsidiaries		−0.167*** (−3.55)		
PSentiment × No. subsidiaries		0.179*** (4.67)		
Foreign economies of scale			−6.992*** (−7.10)	
PSentiment × Foreign economies of scale			5.024*** (7.21)	
Sub. country political polarization				1.619 (0.79)
PSentiment × Sub. country political polarization				0.562 (0.26)
Relationship dummy	−4.423** (−2.33)	−4.638** (−2.42)	−5.233*** (−2.66)	−5.129** (−2.59)
Covenant dummy	11.926*** (6.06)	11.367*** (5.82)	9.965*** (4.41)	10.078*** (4.76)
Maturity	−0.217 (−0.90)	−0.225 (−0.94)	−0.330** (−2.16)	−0.117 (−0.51)
Firm size	−12.844*** (−9.53)	−15.104*** (−11.43)	−15.031*** (−12.23)	−17.737*** (−15.23)
NYSE	16.221*** (4.03)	14.424*** (3.56)	13.236*** (3.06)	15.220*** (3.33)
Profitability	−63.024*** (−7.43)	−64.421*** (−7.64)	−67.837*** (−8.25)	−70.014*** (−7.80)
MTB	−12.531*** (−10.61)	−13.000*** (−10.81)	−13.248*** (−10.12)	−12.860*** (−12.29)
Bank size	−0.952** (−2.05)	−0.887* (−1.92)	−0.766* (−1.89)	−0.773 (−1.62)
Observations	7,577	7,577	7,578	7,490
Adjusted R <sup>2</sup>	0.594	0.592	0.597	0.58
Cluster	Bank	Bank	Bank	Bank
Bank FE	√	√	√	√
Year FE	√	√	√	√
SIC3 FE	√	√	√	√
Purpose FE	√	√	√	√
Loan type FE	√	√	√	√
Number of banks	132	132	130	132
Number of firms	493	493	493	489

The dependent variable is *AISD*—all-in-spread-drawn (bps)—defined as the sum of spread over LIBOR plus the facility fee. *PSentiment* denotes a firm's overall political sentiment and it is an index that is constructed by Hassan et al. (2019). This variable is standardized with zero mean and a standard deviation equal to one. Definitions of all variables along with their sources are in appendix Table A1. Robust standard errors clustered by bank and t-statistics are reported in parentheses. Significance at the 1%, 5%, and 10% level is indicated by \*\*\*, \*\*, and \*, respectively.

five years in the future also has positive political sentiment and vice versa. The second-stage results indicate that the coefficient of *Political sentiment* is negative and statistically significant but is higher (in absolute terms) than the baseline model. This could indicate an underestimation of the effect if endogeneity concerns are not considered. In all cases, the first-stage F-statistics are far higher than the Stock and Yogo (2002) critical values, reassuring our findings.<sup>10</sup>

#### 5.4. Additional tests

Our next sensitivity test is to look at how political sentiment affects the total cost of lending instead of the *all-in-spread-drawn*

<sup>10</sup> The higher magnitude of the effect of political sentiment on the cost of lending could be due to the presence of compliers. That is, the IV captures a local average treatment effect (*LATE*) instead of the population. This issue is well known in the empirical literature (see e.g., Jiang, 2017). The first-stage F-statistics are smaller when we use two-digit SIC codes instead of three. This is expected, as the sample of firms we use to construct the instrument is affected less by outlier values or values that are mechanically highly correlated.

**Table 13**  
Two-stage least squares estimations.

	Instrument: 5-year average industry P <i>Sentiment</i> (SIC3)				Instrument: 5-year average industry P <i>Sentiment</i> (SIC2)			
	Second-stage	First-stage	Second-stage	First-stage	Second-stage	First-stage	Second-stage	First-stage
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
P <i>Sentiment</i> (fitted)	−11.747*** (−6.57)		−11.148*** (−8.07)		−12.278*** (−6.46)		−11.115*** (−6.71)	
Instrument		6.68E-04*** (33.96)		6.71E-04*** (33.78)		7.76E-04*** (27.82)		7.73E-04*** (28.06)
Relationship dummy	−11.577*** (−10.85)	−0.014 (−1.34)	−3.083*** (−3.70)	−0.021** (−2.06)	−11.390*** (−10.74)	−0.017 (−1.62)	−3.141*** (−3.92)	−0.024** (−2.33)
Covenant dummy	10.960*** (6.80)	−0.015 (−1.58)	10.949*** (8.91)	−0.017* (−1.75)	10.940*** (6.89)	−0.019* (−1.87)	10.990*** (9.06)	−0.017* (−1.66)
Maturity	0.428*** (7.40)	−0.000 (−0.19)	−0.346*** (−3.99)	0.001** (2.03)	0.419*** (7.30)	3.81E-05 (0.11)	−0.374*** (−4.30)	0.001** (2.05)
Firm size	−22.270*** (−28.47)	0.031*** (5.53)	−19.211*** (−28.73)	0.030*** (5.13)	−22.312*** (−28.19)	0.030*** (5.29)	−19.233*** (−28.18)	0.028*** (4.72)
NYSE	−4.981 (−1.64)	−0.003 (−0.21)	−1.894 (−0.77)	−0.003 (−0.19)	−4.001 (−1.34)	0.015 (1.04)	−1.131 (−0.48)	0.014 (0.93)
Profitability	−103.261*** (−12.37)	0.037 (0.67)	−87.151*** (−12.49)	0.024 (0.44)	−105.167*** (−12.70)	0.258*** (4.95)	−89.306*** (−12.62)	0.245*** (4.77)
MTB	−19.000*** (−21.50)	0.100*** (10.04)	−16.877*** (−18.85)	0.103*** (11.01)	−18.690*** (−20.70)	0.092*** (10.06)	−16.502*** (−18.41)	0.095*** (10.87)
Bank size	−1.462*** (−4.31)	−0.012** (−2.56)	−0.905*** (−2.66)	−0.013*** (−2.58)	−1.471*** (−4.40)	−0.009* (−1.9)	−0.927*** (−2.74)	−0.010* (−1.95)
Observations	35,043		34,569		36,101		35,613	
Cragg-Donald Wald F statistic	5,256.596		5,203.428		2867.015		2829.186	
Kleibergen-Paap rk Wald F statistic	1,153.238		1,140.931		773.972		787.33	
Stock-Yogo critical values	16.38		16.38		16.38		16.38	
Cluster	Bank		Bank		Bank		Bank	
Bank FE	√		√		√		√	
Year FE	√		√		√		√	
SIC3 FE	√		√		√		√	
Purpose FE	-		√		-		√	
Loan type FE	-		√		-		√	
Number of banks	255				258			
Number of firms	1,898				1,921			

The dependent variable is *AISD*—all-in-spread-drawn (bps)—defined as the sum of spread over LIBOR plus the facility fee. *P*Sentiment** denotes a firm's overall political sentiment and it is an index that is constructed by [Hassan et al. \(2019\)](#). This variable is standardized with zero mean and a standard deviation equal to one. Definitions of all variables along with their sources are in appendix [Table A1](#). Robust standard errors clustered by bank and t-statistics are reported in parentheses. Significance at the 1%, 5%, and 10% level is indicated by \*\*\*, \*\*, and \*, respectively.

(*AISD*). It is important to test whether our results are robust to the use of such a measure, as private loan contracts have complex pricing mechanisms, and relying only on one statistic (*AISD*) might not capture the whole effect. After gathering all necessary information from DealScan and Compustat and following the process in [Berg et al. \(2016\)](#), we calculate the total cost of borrowing. We then rerun all models in the main text and succinctly provide the results in [Table 14](#). In this table, each row is a regression. Our results are very close to our initial findings, adding further confidence in our conclusions.

Finally, in a series of robustness tests, we also check the sensitivity of our findings controlling for macro-level variables that prior studies find important for syndicated loans (see e.g., [Allen and Paligorova, 2015](#); [Drago and Gallo, 2020](#)) as well as for a company's exposure to aggregate political uncertainty (see [Baker et al., 2016](#); [Gad et al., 2019](#)). More precisely, in untabulated tests, we additionally control for GDP per capita, financial crisis, and the Economic Policy Uncertainty index (EPU). The results of these tests confirm our baseline findings, and they are available upon request.

## 6. Conclusion

This paper studies how firm-level political sentiment affects the cost of syndicated loans of multinational enterprises. We conjecture that increases in positive political sentiment (as indicated by higher values of the political sentiment index) decrease the cost of syndicated loans. Our results confirm this conjecture, as the coefficient is negative and strongly statistically significant in most tests. The mechanism at work operates along the following lines: firms with higher political sentiment face lower political exposure. Banks use this information to price properly the syndicated loan contract. Next, we show that the foreign operations of parent companies (MNEs) — that potentially activate tax-planning activities, — play an important role, as they can be a diversification force. Through this international diversification, MNEs can decrease (or even eliminate) the negative effects of political exposure on their cost of loans.

**Table 14**  
Main models using the total cost of borrowing as a dependent variable.

Variable	Coefficient	t-stat	Observations	Adjusted-R <sup>2</sup>	Bank FE	Year FE	SIC3 FE	Purpose FE	Loan type FE	Number of banks	Number of firms
<i>Panel A: Preliminary results</i>											
(1) PSentiment	-2.217***	-5.69	20,060	0.731	✓	✓	✓	✓	✓	208	1,373
<i>Panel B: Results with foreign operations</i>											
(2) PSentiment	-2.565***	-2.85									
No. countries MNE operates	-0.965**	-2.62	3,880	0.846	✓	✓	✓	✓	✓	100	353
PSentiment × No. countries MNE operates	0.638***	3.59									
(3) PSentiment	-1.448**	-2.13									
No. subsidiaries	0.107	1.32	3,880	0.846	✓	✓	✓	✓	✓	100	353
PSentiment × No. subsidiaries	0.184***	3.68									
(4) PSentiment	-1.446*	-1.72									
Foreign economies of scale	-1.949***	-4.39	3,880	0.847	✓	✓	✓	✓	✓	100	353
PSentiment × Foreign economies of scale	2.883***	8.77									
(5) PSentiment	-0.2	-0.17									
Sub. country political polarization	5.076***	2.87	3,819	0.845	✓	✓	✓	✓	✓	100	350
PSentiment × Sub. country political polarization	1.751**	2.09									

The dependent variable is the total cost of borrowing calculated according to Berg et al. (2016). All models include the firm and bank controls presented in the specifications of the main text. Definitions of all variables along with their sources are in appendix Table A1. Robust standard errors clustered by bank and t-statistics reported. Significance at the 1%, 5%, and 10% level is indicated by \*\*\*, \*\*, and \*, respectively.

Our results further suggest that MNEs with foreign subsidiaries in the same industry, and in countries with higher political polarization can mitigate the negative effects of low political sentiment on the cost of loans. Finally, we find that our results still hold in a two-stage least squares setting whereby deep lags of political sentiment (averaged at the sectoral level) are used as an instrument.

Our results have implications for business practices in a global setting. Understanding the way firm-level political exposure affects the cost of lending for MNEs should be of interest to domestic and international investors. Moreover, the channels through foreign operations that an MNE can use to diversify its political exposure should be of interest to MNEs that seek international partners.

## Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

## Appendix A

See [Tables A1–A4](#).

**Table A1**

Description of variables.

Variable	Definition	Source
AIISD	All-in-spread-drawn (basis points), defined as the sum of the spread over LIBOR plus the facility fee.	DealScan
Total cost of borrowing (TCB)	We use <a href="#">Berg et al. (2016)</a> code to retrieve the total cost of borrowing. The algorithm to calculate the total cost of borrowing is: $TCB = \text{Upfront fee}/\text{Expected loan maturity in years}$ $+ (1 - PDD) \times \text{Facility fee} + \text{Commitment fee}$ $+ PDD \times (\text{Facility fee} + \text{Spread})$ $+ PDD \times \text{Prob}(\text{Utilization} > \text{Utilization threshold} \mid \text{Usage greater than } 0) \times \text{Utilization fee}$ $+ \text{Prob}(\text{Cancellation}) \times \text{Cancellation fee}.$	<a href="#">Berg et al. (2016)</a> and the code from Tobias Berg's Website.
PSentiment	This is the standardized value of the political sentiment of <a href="#">Hassan et al. (2019)</a> .	<a href="#">Hassan et al. (2019)</a>
Facility amount	The loan (facility) amount in M\$ weighted by the bank's share.	DealScan
Financial covenants	The total number of financial covenants in the loan contract.	DealScan
Relationship dummy	Dummy equal to 1 if the bank lent to the same borrower in the five years before the current loan, 0 otherwise.	Own calculation
Covenant dummy	Dummy equal to 1 if the loan has covenants, 0 otherwise.	DealScan
Maturity	Loan duration in months.	DealScan
Firm size	Firm's natural logarithm of total assets.	Compustat
NYSE	Dummy equal to 1 if the firm is listed on the New York Stock Exchange, 0 otherwise.	Compustat
Profitability	The ratio of pretax profits to total assets.	Compustat
Tobin's Q (MTB)	The natural logarithm of market-to-book value.	Compustat
Company rating	Company S&P credit rating. Higher values indicate lower rating.	Compustat
Bank size	Bank's natural logarithm of total assets.	Call Reports
Board size	The total number of directors in a board.	BoardEx
Audit committee size	The number of directors who participate in audit committee.	BoardEx
No. directors	The number of independent non-executive (external) directors with functional audit experience in the board.	BoardEx
Mean directorship	The mean number of directorships held by the directors of a board.	BoardEx
Directors' average age	The mean age of the directors in a board.	BoardEx
No. countries MNE	This variable indicates the number of countries in which a parent company has multinational enterprises. For example, if an American parent company has subsidiaries in five countries, this variable equals 5.	Orbis and own calculations
Lead bank	Dummy equal to 1 if the bank is acting as a mandated arranger, arranger, lead manager or agent, 0 o/w.	DealScan
Top 3 bank	Dummy equal to 1 if lead arranger is one of the top 3 arrangers, namely Bank of America, Citigroup, or JPMorgan Chase, 0 o/w.	DealScan
No. subsidiaries	This variable indicates the number of foreign subsidiaries of a parent company.	Orbis and own calculations
Foreign economies of scale	This is the weighted ratio of subsidiary companies in the same industry as the parent company in a year.	Orbis and own calculations
Sub. country political polarization	With party orientations taking values one if Right, two if Center, and three if Left, country-level polarization measures "the maximum difference between the chief executive's party's values and the values of the three largest government parties and the largest opposition party." In our database, for each parent company and year, subsidiary country political polarization is the average value of the political polarization index, measured in the subsidiary country and weighted by the number of subsidiaries in that specific country.	Orbis, Database of Political Institutions ( <a href="#">Cruz et al., 2016</a> ), and own calculations.
Realized volatility	This is the standard deviation of daily cum-dividend stock returns over the fiscal year.	<a href="#">Alfaro et al. (2018)</a> database
Implied volatility	This is the 252-day average of daily implied volatility values originating from OptionMetrics.	<a href="#">Alfaro et al. (2018)</a> database

**Table A2**  
Correlations.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
(1) AISD	1										
(2) TCB	0.86	1									
(3) PSentiment	-0.05	-0.03	-0.00	1							
(4) Relationship dummy	-0.11	-0.10	-0.01	-0.01	1						
(5) Covenant dummy	0.12	0.07	0.60	0.00	0.01	1					
(6) Maturity	0.08	0.12	0.16	0.03	-0.03	0.17	1				
(7) Firm size	-0.31	-0.22	-0.34	-0.01	0.10	-0.30	-0.18	1			
(8) NYSE	-0.18	-0.19	-0.08	-0.04	0.08	-0.05	-0.04	0.40	1		
(9) Profitability	-0.12	-0.12	0.05	0.11	-0.00	0.08	0.08	-0.15	-0.00	1	
(10) MTB	-0.18	-0.12	0.00	0.14	-0.01	0.03	0.02	-0.19	-0.10	0.51	1
(11) Bank size	-0.01	0.03	-0.12	-0.03	0.02	-0.17	-0.07	0.06	-0.05	-0.23	-0.04

**Table A3**  
Political sentiment and foreign operation, controlling for political risk.

	(1)	(2)	(3)	(4)
PSentiment	-8.295*** (-4.31)	-5.535*** (-3.42)	-7.213*** (-4.95)	-8.499*** (-3.11)
PRisk	0.738 (0.99)	1.098 (1.50)	1.441* (1.97)	2.365*** (3.41)
No. countries MNE operates	-1.902*** (-8.87)			
PSentiment (x) No. countries MNE operates	0.748*** (5.95)			
No. subsidiaries		-0.100** (-2.13)		
PSentiment (x) No. subsidiaries		0.153*** (3.73)		
Foreign economies of scale			-6.476*** (-5.68)	
PSentiment (x) Foreign economies of scale			5.382*** (8.86)	
Sub. country political polarization				0.864 (0.44)
PSentiment (x) Sub. country political polarization				4.829*** (2.83)
Relationship dummy	-6.493*** (-3.28)	-6.627*** (-3.31)	-6.421*** (-3.29)	-6.934*** (-3.29)
Covenant dummy	13.906*** (6.58)	13.704*** (6.41)	12.734*** (5.99)	11.370*** (5.49)
Maturity	-0.259 (-1.20)	-0.261 (-1.22)	-0.251 (-1.18)	-0.197 (-0.94)
Firm size	-15.916*** (-13.42)	-19.424*** (-13.78)	-19.575*** (-15.73)	-21.329*** (-17.07)
NYSE	11.021*** (2.71)	8.695** (2.02)	9.199** (2.17)	9.370** (2.23)
Profitability	-77.125*** (-8.13)	-79.722*** (-8.34)	-83.998*** (-8.41)	-84.686*** (-9.18)
MTB	-17.985*** (-14.55)	-18.724*** (-14.41)	-18.947*** (-14.51)	-17.941*** (-14.49)
Bank size	-0.37 (-0.73)	-0.296 (-0.59)	-0.18 (-0.36)	-0.353 (-0.69)
Observations	9,552	9,552	9,552	9,461
Adjusted R <sup>2</sup>	0.547	0.542	0.546	0.538
Cluster	Bank	Bank	Bank	Bank
Bank FE	✓	✓	✓	✓
Year FE	✓	✓	✓	✓
SIC3 FE	✓	✓	✓	✓
Purpose FE	✓	✓	✓	✓
Loan type FE	✓	✓	✓	✓
Number of banks	135	135	135	135
Number of firms	595	595	595	590

The dependent variable is AISD—all-in-spread-drawn (bps)—defined as the sum of spread over LIBOR plus the facility fee. Definitions of all variables along with their sources are in appendix Table A1. Robust standard errors clustered by bank and *t*-statistics are reported in parentheses. Significance at the 1%, 5%, and 10% level is indicated by \*\*\*, \*\*, and \*, respectively.

Table A4

Political sentiment and foreign operation, controlling for political risk and including firm fixed effects.

	(1)	(2)	(3)	(4)
PSentiment	-10.906*** (-5.17)	-6.104*** (-3.75)	-6.746*** (-4.47)	-9.532*** (-3.08)
PRisk	0.341 (0.27)	0.622 (0.50)	1.052 (0.85)	1.062 (0.83)
No. countries MNE operates	—			
PSentiment (x) No. countries MNE operates	0.996*** (6.54)			
No. subsidiaries		—		
PSentiment (x) No. subsidiaries		0.188*** (4.91)		
Foreign economies of scale			—	
PSentiment (x) Foreign economies of scale			4.421*** (6.07)	
Sub. country political polarization				-5.226** (-2.03)
PSentiment (x) Sub. country political polarization				5.655*** (3.22)
Relationship dummy	-4.142*** (-2.65)	-3.980** (-2.52)	-3.556** (-2.28)	-4.009** (-2.40)
Covenant dummy	10.782*** (4.88)	10.290*** (4.78)	9.765*** (4.55)	8.598*** (4.30)
Maturity	0.036 (0.18)	0.035 (0.18)	0.02 (0.10)	0.098 (0.50)
Firm size	-21.826*** (-2.69)	-20.389** (-2.52)	-19.988** (-2.48)	-18.914** (-2.43)
NYSE	10.800*** (3.32)	10.586*** (3.26)	10.123*** (3.13)	8.278** (2.58)
Profitability	-46.974*** (-5.18)	-44.494*** (-4.82)	-45.255*** (-4.94)	-44.549*** (-4.80)
MTB	-11.088*** (-2.84)	-10.934*** (-2.77)	-10.649*** (-2.66)	-11.039*** (-2.84)
Bank size	-0.398 (-1.01)	-0.329 (-0.86)	-0.22 (-0.59)	-0.446 (-1.14)
Observations	9,524	9,524	9,524	9,433
Adjusted R <sup>2</sup>	0.737	0.735	0.736	0.73
Cluster	Bank	Bank	Bank	Bank
Bank FE	✓	✓	✓	✓
Year FE	✓	✓	✓	✓
SIC3 FE	✓	✓	✓	✓
Purpose FE	✓	✓	✓	✓
Loan type FE	✓	✓	✓	✓
Firm FE	✓	✓	✓	✓
Number of banks	135	135	135	135
Number of firms	567	567	567	562

The dependent variable is AISD—all-in-spread-drawn (bps)—defined as the sum of spread over LIBOR plus the facility fee. Definitions of all variables along with their sources are in appendix Table A1. Robust standard errors clustered by bank and *t*-statistics are reported in parentheses. Significance at the 1%, 5%, and 10% level is indicated by \*\*\*, \*\*, and \*, respectively.

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