Public Displays of Alignment: Firm Speech in Autocratic Regimes*

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Abstract

Political speech by firms is increasingly common around the world. This paper examines the government as an important, yet understudied, audience for such speech, focusing on how Chinese firms rhetorically align with the state. We introduce novel, general, and replicable quantitative measures of rhetorical alignment, using which we establish several empirical facts: (i) rhetorical alignment is prevalent but not universal; (ii) it has increased significantly over time; (iii) it is more pronounced in state-owned and strategic sectors; and (iv) it is negatively correlated with profitability and positively correlated with performance on political and social objectives. Exploiting two natural experiments, we further show that (v) rhetorically aligned firms experience larger stock price declines following events damaging the Party's reputation, and (vi) firms increase rhetorical alignment after regulatory inspections. Guided by these findings, we propose a conceptual framework wherein rhetorical alignment serves as a commitment device: firms commit to supporting Party interests, and the Party commits to refraining from expropriation. Additional predictions of the framework are tested and supported by the data.

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1 Introduction

Political speech in firms has been increasing worldwide (Ottonello et al., 2024). It is driven by many motives, including aligning with the political preferences of customers, investors, or employees (Cassidy and Kempf, 2025; Barari, 2024; Conway and Boxell, 2024). However, an understudied audience for corporate political expression is the government, particularly as governments can be deeply involved in economic activity and possess considerable power to expropriate firms.

In diverse settings, firms frequently express political support for regimes, both explicitly and implicitly, often mirroring the rhetoric used by political leadership. In the U.S., Amazon, Meta, Chevron, and ExxonMobil publicly supported Donald Trump during his inauguration.[1] In Russia and Turkey, owners of national media companies have publicly announced support for state leaders.[2] And in China, many firms pledge loyalty to the Communist Party in news releases and corporate events.[3]

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[1] See *Rolling Stone*, https://www.rollingstone.com/politics/politics-features/trump-inauguration-donors-big-oil-big-pharma-big-tech-crypto-1235252214.

[2] See https://www.businessinsider.com/russia-media-oligarch-konstantin-malofeyev-putin-nuclear-ukraine-trump-musk-2025-2 for Russia and https://www.theguardian.com/world/2018/mar/22/free-speech-turkey-fresh-blow-sale-of-independent-media-outlets-erdogan for Turkey.

[3] See *Bloomberg*, https://www.bloomberg.com/news/features/2024-07-02/china-s-top-bankers-are-embracing-xi-jinping-thought-chinese-communist-party

One common explanation for this behavior in an autocracy, China, shared by firm representatives, government officials, and external observers, is that firms publicly demonstrate commitment to the government as a means to protect themselves from expropriation. For example, following the government's threat to cancel subsidiary AntPay's IPO, Alibaba publicly pledged to adhere more to Communist values[4].

However, rigorously testing this explanation for firm speech poses several challenges. First, there is currently no established, general, and replicable measure of loyalist speech by firms. Second, it remains unclear what empirical strategy would credibly document a commitment motive. Third, several important conceptual questions remain about the commitment motive. Why does the government regard firm speech as credible? And, if loyalist speech genuinely benefits firms, do all firms participate in it?

In this paper, we address these challenges in several stages. First, we propose and implement a novel method of measuring loyalist speech, which we call "rhetorical alignment." Then, we document a variety of new facts about this speech. Finally, we propose a conceptual framework consistent with these facts. It posits that firm speech functions as a commitment device, allowing firms to commit to avoiding risky activities and the government to commit to less expropriation, and shows that such speech can be present in equilibrium.

Our analysis takes place in the context of China, the world's largest autocracy in terms of economic output and population. We construct our measure to capture the extent to which Chinese firms adopt language characteristic of the ruling Chi-

[4]See https://www.reuters.com/business/retail-consumer/chinas-market-regulator-says-e-commerce-giant-alibaba-has-completed-three-year-2024-08-30/.

nese Communist Party. We construct a dictionary of regime-specific phrases using machine-learning techniques applied to Party documents and search for those phrases in public statements issued by listed firms. One advantage of this approach is that it can be applied to different institutional contexts and any publicly-traded firm.

Our measure reveals several novel facts about rhetorical alignment in China. First, alignment is not universal among firms. Second, alignment increased over time. Third, it is higher among state-owned firms and in strategically important sectors. And fourth, alignment is negatively correlated with firm profitability and positively correlated with performance on political and social objectives.

We also leverage two natural experiments to reveal that, in the wake of important political scandals that decrease the perceived stability of China's regime, highly aligned firms suffer worse stock returns relative to less aligned firms, even controlling for other measures of closeness to the government, including state ownership, political connections, and party cells. We also use variation in the timing of regulatory investigations to demonstrate that rhetorical alignment increases after inspections occur, when the risk of expropriation is higher.

These results give rise to several puzzles. First, if rhetorical alignment has clear benefits and few costs, adoption should be universal—yet it is not. Second, if the regime truly wanted full compliance, it could readily compel it. Third, alignment is broadcast publicly, unlike private connections or covert promises; what does the visibility of the channel offer? To address these questions, we develop a conceptual framework in which rhetorical alignment helps the government balance its dual goals of political control and economic output. While growth generally supports stability,

certain profit-maximizing behaviors can threaten the regime. To prevent such risks, the regime may be tempted to expropriate firms preemptively, but at the expense of output.

We theorize that rhetorical alignment allows firms to internalize the regime's political objectives by publicly tying their payoffs to that of the regime. This reduces the likelihood that aligned firms take destabilizing actions, and thus that they will face expropriation. However, aligned firms will be more constrained in their business activities and be less profitable. As a result, some firms will choose to align while others do not. For the regime, alignment serves as a tool to rein in strategically important firms while allowing others to operate freely.

The framework yields several predictions: alignment rises with expropriation risk, correlates positively with political and social outcomes, and correlates negatively with profitability. Each pattern is supported by the data. While this framework is not the only possible interpretation of rhetorical alignment, we argue that it best fits all available facts and is most consistent with qualitative evidence. Furthermore, differing parameter values generate equilibria consistent with different phases of China's growth path.

Our work contributes to several literatures. First, it advances a recent and growing literature on corporate political speech (e.g., Hassan et al., 2019; Bhagwat et al., 2020; Fos et al., 2022; Conway and Boxell, 2024; Cassidy and Kempf, 2024; Cowgill et al., 2024; Ottonello et al., 2024; Kempf and Tsoutsoura, 2024; Bombardini and Trebbi, 2025) by focusing on the government as an audience for firm political speech. We introduce a novel, broadly applicable metric of alignment, use it to uncover new

empirical patterns, and develop a framework explaining how autocrats can use such speech to trade off their twin objectives of political control and economic output. In particular, this paper complements efforts to document firm speech aimed at consumers and investors in China (Jiang et al., 2023; Yue et al., 2023).

Our work contributes to the political economy literature on non-democracies by showing that firm rhetoric can serve as a tool of autocratic governance. One line of research emphasizes the role of repression in maintaining power (Egorov and Sonin, 2024; Gehlbach et al., 2016; Adena et al., 2015; Yanagizawa-Drott, 2014; Rozenas and Stukal, 2019; King et al., 2014), while another highlights how autocrats govern through targeted benefits such as transfers, job promotions, limited electoral reforms, and public employment (Jia et al., 2015; Xu, 2018; Martinez-Bravo et al., 2017; Mueller, 2024; Wen, 2025). We extend this literature by documenting how loyalist speech functions as an instrument of rule. Specifically, we show that public expressions of loyalty can help address a central challenge in autocracies: the commitment problem, in which regimes with concentrated power struggle to credibly commit not to expropriate. By linking firm and regime outcomes, such rhetoric helps align incentives and sustain cooperation. Our framework is one explanation for obsequious declarations of political loyalty in autocratic regimes. (Chung-Hon Shih, 2008; Choi and Thum, 2009; Egorov and Sonin, 2011; Baturo et al., 2024; Rithmire, 2023)

The rest of this paper proceeds as follows. Section 2 provides background on our institutional context. Section 3 details how we construct our measure. Sections 4, 5, and 6 present novel facts about rhetorical alignment. Section 7 proposes a conceptual

framework that posits rhetorical alignment as a commitment mechanism. Finally, Section 8 concludes.

2 Background

In this section, we provide context for our analysis. We begin by presenting prominent examples of rhetorical alignment in Chinese firms, along with popular explanations for this behavior. We then briefly describe the Chinese government's objectives. Next, we outline several key instruments the government uses to manage firms, including a range of punitive measures we collectively refer to as forms of expropriation. Finally, we examine how firms closely associated with the government are rewarded or punished in response to the state's shifting reputation.

Examples of Rhetorical Alignment. A growing number of Chinese firms publicly echo the rhetoric of the Chinese Communist Party (CCP), often through statements that closely mirror the language used by political leaders or official policy documents. These expressions of alignment are not confined to a particular sector or ownership type; rather, they span the spectrum of firm types, from large private enterprises to state-owned financial institutions.

High-profile examples abound. Following the Chinese central government's threat to cancel the IPO of subsidiary AntPay, Alibaba issued a public statement pledging to "promote the healthy development of the platform economy and create more value for society."[5] The company also developed the "Study to Make China Strong" application

[5] https://www.reuters.com/business/retail-consumer/chinas-market-regulator-says-e-commerce-giant-alibaba-has-completed-three-year-2024-08-30/

(*Xuexi Qiangguo*), which disseminates Xi Jinping Thought and other aspects of CCP ideology.[6]

Another example is Bytedance. In response to regulatory scrutiny in 2018, founder Zhang Yiming issued a public apology, stating that the firm's content was "incommensurate with socialist core values." He further pledged to "deepen cooperation" with the authorities in order to better promote state priorities.[7]

Financial institutions have also demonstrated high levels of rhetorical alignment. The Industrial and Commercial Bank of China (ICBC), for example, has organized CCP oath-taking ceremonies and mounted public exhibitions highlighting Party-building achievements.[8] Industrial Bank Co., Ltd. released an action plan to implement the Central Financial Work Conference's directives, prominently emphasizing the importance of "adhering to the guidance of Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era."[9]

More generally, firms commonly integrate Communist Party slogans, policy buzzwords, and ideological frameworks into their public communications (Jordan, 2024). Annual reports often reference Party guidelines and key political events and mention key government leaders (The Economist, 2020).

Government Objectives. The Chinese government's central objective is to ensure the regime's survival, and in practice, this means balancing economic and political goals. While rapid GDP growth has long been seen as essential to regime

[6] https://www.reuters.com/article/us-china-alibaba-government-idUSKCN1Q70Y7/

[7] https://foreignpolicy.com/2019/01/16/bytedance-cant-outrun-beijings-shadow/; https://www.washingtonpost.com/technology/2019/12/05/tiktok-leader-schedules-washington-trip-meet-with-lawmakers-investigations-loom/

[8] Koss, Daniel. "Discipline as Statecraft," 2023.

[9] https://www.cib.com.cn/en/aboutCIB/about/news/2023/20240123_1.html

legitimacy, it is not the government's sole concern. Policymakers simultaneously pursue many political objectives: maintaining social stability, curbing monopolistic behavior, mitigating pollution, reducing corruption, promoting equitable regional development, etc. These goals can align with economic efficiency, but often conflict with maximizing firm-level profit or GDP.

The government employs various policy instruments to balance the trade-offs between profit-maximizing behavior and political objectives in firms. These include, but are not limited to, state ownership, direct regulation, taxation, access to capital, and an array of informal institutions. We describe key categories in this section.

Instruments of Firm Governance. *State Ownership.* Since the early 2000s, the Chinese government has maintained a hybrid economic system in which both state-owned enterprises (SOEs) and private firms play large roles in the economy. Following the ownership reforms of the late 1990s, China shifted away from full state ownership toward a "grasp the large, let go of the small" strategy, privatizing smaller firms while consolidating state ownership in strategically important sectors, such as energy, telecommunications, finance, and transportation. While the state theoretically can exercise complete control over SOE decisions, in practice, many have a degree of autonomy and are free to pursue profits to an extent (Lin, 2021).

Regulation. Regulation is one of the primary tools the Chinese government uses to influence firm behavior. A constellation of powerful agencies oversees the conduct of firms. The China Securities Regulatory Commission (CSRC) regulates public offerings, securities markets, and financial disclosures to ensure alignment with both investor protection and political goals. The State Administration for Market Regu-

lation (SAMR) enforces competition policy, intellectual property rights, and product quality standards. Other agencies, such as the Ministry of Industry and Information Technology (MIIT) and the Ministry of Ecology and Environment (MEE), shape industrial policy and environmental compliance. While many regulatory activities are rules-based, the government retains a wide degree of enforcement discretion, and political considerations are known to influence regulatory decisions.

Enforcement and Expropriation. When firms engage in undesirable behaviors, the Chinese government can use many enforcement tools. Officials may impose fines, delay or revoke licenses, restrict access to formal credit, or even launch public investigations. Business leaders may be detained, removed from their positions, or pressured to donate to public causes. In more extreme cases, firms and entire sectors can be abruptly restructured or shut down. The 2021 crackdown on the private tutoring sector offers a stark example: citing concerns over inequality, social pressure, and demographic goals, the government banned for-profit tutoring in core subjects for schoolchildren, wiping out billions of dollars in market capitalization nearly overnight.

Reputational Entanglement. Rhetorical expressions of alignment lead to the entanglement of firm and government reputations. This close association manifests in many ways. One of the most salient is that Chinese firms can become collateral damage when the Chinese government engages in behavior that provokes backlash, such as aggressive foreign policy, domestic repression, or perceived violations of international norms. Investors and consumers may punish firms because they perceive them as extensions or beneficiaries of state policy. On the other hand, firms may also

benefit from being seen as associated with the Party, for example, if their consumers have nationalistic preferences (Yue et al., 2023). We offer examples of this entanglement from several perspectives: foreign investors, foreign customers, domestic investors, and domestic customers in Appendix Section B.

Distinctive Characteristics of Rhetorical Alignment. How is rhetorical alignment distinct from other methods of firm governance? We consider several dimensions to be important. First, rhetorical alignment is public. It comprises easily accessible statements, such as slogans, announcements, and explicit references to government leaders or party ideologies. Such rhetoric has a broad audience that includes government authorities, internal employees, foreign and domestic investors, as well as customers. Firms can adopt rhetorical alignment without disclosing deeper, private ties, like personal connections.

Second, rhetorical alignment can be adopted by firms of any ownership. Although it may be more commonly used by state-owned firms or those with majority state equity holdings, any firm, in principle, can employ loyal rhetoric. As a result, it can reach private firms without direct ownership or equity stakes.

Third, rhetorical alignment is not unique to a particular industry. Some compliance behaviors, such as investment in government-prioritized research, infrastructure projects, or specific performance targets, may depend heavily on a firm's sector or industry specialization; however, firms in any industry can adopt rhetorical alignment.

3 Measurement

Our baseline measure of Party rhetorical alignment uses a machine learning algorithm to select phrases that appear frequently in a corpus of Party publications relative to their general prevalence in Mandarin. We then search for these phrases within company annual reports.

Our automated phrase selection starts with a corpus of Party publications that captures the Party's policy directives and rhetoric. Our corpus contains three document types: Party circulars, Party meeting minutes, and Party journalism. Party circulars are internal policy documents circulated by various levels of government. These documents encompass a range of content, including new policies and programs, guidelines for implementing policies, and updates to the interpretation of existing policy rules. We focus on circulars issued by the State Council, the Party's highest level.[10] We include all circulars issued by the State Council or the General Office of the State Council that contain at least one of the following phrases in Chinese: company, enterprise, or industry.[11] We obtain 248 circulars, spanning 1973 to 2023.

Party meeting minutes are records of plenary sessions of the CCP Central Committee. Plenary sessions are held by the CCP's Central Committee at least once a year. There are typically seven plenary sessions held within five years, covering the nomination of party and state leadership, major economic and development issues in the country, party building, and economic planning. We obtain 29 total meeting

[10]Circulars are posted in the government's policy document library, at url-https://www.gov.cn/zhengce/zhengcewenjianku/

[11]We use '公司' for 'company,' '企业' for 'enterprise,' and '产业' for 'industry.'

reports from 2003 - 2023.[12]

The party journalism corpus is a catalog of news articles published in the People's Daily, the official newspaper of the Central Committee of the Chinese Communist Party (CCP). We use 617,937 news articles published by the People's Daily from 2003 to 2023 as the party journalism corpus.

We use a natural language processing method based on machine learning to identify the most Party-relevant phrases for this corpus of documents. For each document, we first parse it into a series of phrases.[13] We then measure the importance of each phrase by computing its term frequency-inverse document frequency (tf-idf). Intuitively, this metric captures the frequency of a given phrase normalized by its rarity in the Chinese language.

We aggregate the list of important phrases across the three corpus sources, normalizing by the number of documents from each document type. Formally, our measure of Party relevance within one document type t is:

$$\text{tfidf}_{ijt} = tf(i,j) \times \left(ln\left(\frac{1+n_t}{1+df(i)_t} \right) + 1 \right)$$

for a phrase i in document j. In this formula, $tf(i,j)$ is the number of times phrase i appears in document j, n_t is the total number of documents of type t, and $df(i)_t$ is the number of documents of type t in which word i appears (Ramos, 2003; Pedregosa et al., 2011).

[12]Reports ae posted at http://opinion.people.com.cn/n/2014/1017/c1003-25858394.html

[13]We use the jieba package, a Chinese language dictionary, to implement this step.

Then, for each phrase i, we compute:

$$\text{Corpus tfidf}_i = \frac{1}{T}\sum_{t=1}^{T}\frac{1}{J_t}\sum_{j=1}^{J_t}\text{tfidf}_{ijt}$$

where T is the total number of document types (i.e., $T = 3$), and J_t is the number of documents of type t. Finally, for each phrase i, we normalize by its frequency in standard Mandarin. We do so by subtracting its frequency in the baseline default Mandarin dictionary from the jieba Python package from the Corpus tfidf_i.

$$\text{Final tfidf}_i = \text{Corpus tfidf}_i - \text{Mandarin Frequency}_i.$$

We select the fifty phrases with the largest values of Final tfidf_i and define this as our baseline Party phrase dictionary. Appendix Table A.1 displays this dictionary. A few patterns are worth noting. First, many distinctive Party phrases are unusual verbs. Second, many refer to individuals, including Zhao Leji (Organization Department Head, 2012–2017; Discipline Inspection Secretary, 2017–2022), Xi Jinping (President and Party General Secretary since 2013), Wang Huning (Policy Research Office Director, 2002–2020), and Li Keqiang (Premier, 2013–2023). Third, many keywords mention Party institutions, including the Central Secretariat and the Party Central Committee. Other Party phrases include key policies, like Party Building and Reform and Opening Up.

Next, we search for these fifty phrases within the annual reports of A-share listed firms, which we obtain from WIND Financial Terminal. These firms together represent approximately 47.8% of China's GDP as of 2021. The data include 49,281

annual reports from 4,096 firms. Annual reports are governed by Chinese securities law and must contain detailed company information, including the firm's name, contact information, balance sheet, income statement items, and more.[14]

We search for the fifty phrases from the Party dictionary in each firm document. Then, we aggregate the data to the firm-year level, creating an indicator for whether a firm mentioned a particular phrase in any of its annual reports in a given year. We aggregate these indicators in two ways. First, we average them, creating a continuous integer variable ranging from 0 to 1 for each firm-year, which represents the share of the fifty phrases a firm uses in a given year. For brevity, we will refer to this measure as the "Machine-Picked Share."

However, one downside of this measure is that it places equal weight on each of the fifty phrases, when they may in fact be more or less indicative of rhetorical alignment. To address this possibility, we also conduct a principal components analysis on fifty key phrase indicators and compute the first principal component as our primary measure of Party rhetorical alignment. This continuous measure varies at the firm-year level. Our analysis reveals that the first principal component accounts for 6.95% of the total variance across all fifty indicators. [15] For brevity, we will call this measure the "Machine-Picked PCA."

We use a variety of data in the rest of our analysis. We will introduce them when they become relevant and provide a detailed discussion of each dataset in Appendix

[14]The laws governing annual reports are published here: https://www.sse.com.cn/lawandrules/regulations/csrcannoun/c/4444089.pdf

[15]PCA levels have no inherent meaning, but they can be used to measure changes. For example, if one firm's PCA increased from 0.2 to 0.4 and another firm's PCA increased from 0.2 to 0.6, the second firm's Party rhetorical alignment increased by 50% more than the first.

Section C.

4 Descriptive Statistics

In this section, we address several key questions about rhetorical alignment among Chinese firms. Do all firms use alignment-related rhetoric? If not, which types of firms are more likely to do so?

To explore these questions, we first construct three binary indicators for each firm-year: whether a firm uses any machine-picked phrase, more than five, and more than ten such phrases. We then average these indicators across firms to obtain the share of firms exhibiting some rhetorical alignment over time. We use multiple cutoffs because some of our machine-picked phrases could plausibly be used in apolitical contexts. Thus, the use of a single phrase is not, in our view, definitive evidence of alignment. Appendix Table A.1 lists all key phrases. For example, phrases such as "further," "combined," "positivity," and "good for" may be used in ways unrelated to politics.

Subfigure 1a reveals several important patterns. First, nearly all firms use at least one machine-picked phrase during the sample period. However, the most frequently used phrase among firm-years that use only one phrase is “Further,” which may appear in apolitical contexts. For this reason, we also examine the share of firms using more than five and more than ten phrases. At the five-phrase cutoff, two patterns emerge: substantial heterogeneity in phrase usage across firms and a clear upward trend over time. A similar qualitative pattern holds at the ten-phrase threshold,

though the absolute share of firms using more than ten phrases remains relatively low.

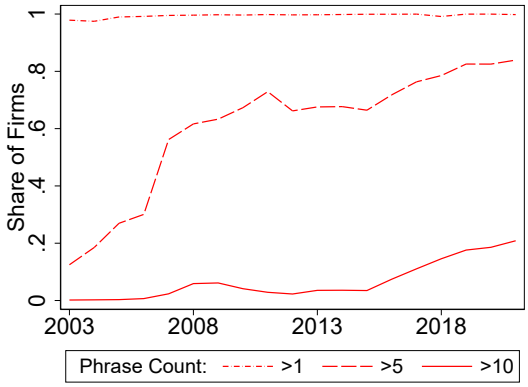
We compute the average Machine-Picked Share across all firms, which reflects the average number of machine-picked phrases (out of fifty) used by each firm per year. To convert these units to the number of phrases used, we multiply by fifty and plot this value over time. Subfigure 1b displays the results. In 2003, the average firm used about 2.75 phrases per year in their annual report. By 2021, the average firm used about 7.25 phrases per annual report, implying an increase of about 2.6 times.

Next, we average across the Machine-Picked PCA across all firms and plot this value over time. Subfigure 1c displays the trend over time. While the level of a PCA does not have a direct interpretation, the measure does allow us to make comparisons in changes. We find that the increase from 2003 to 2015 was 0.941, and the increase from 2015 to 2021 was 1.534, implying that the increase in regime alignment was 1.63 times larger in the latter 6 years of our sample compared to the first 12 years.

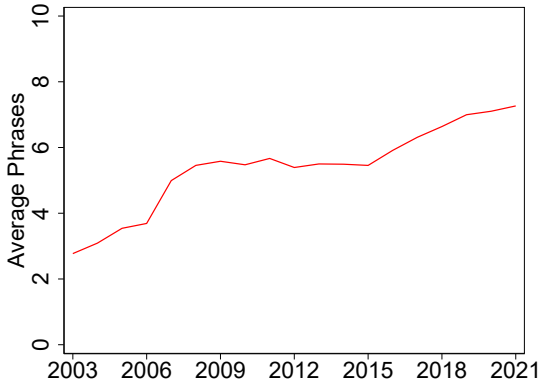
Overall, these two figures show an increase in firms' rhetorical alignment with the state over time, with a particularly pronounced increase after 2015.

Figure 1: Rhetorical Alignment Over Time

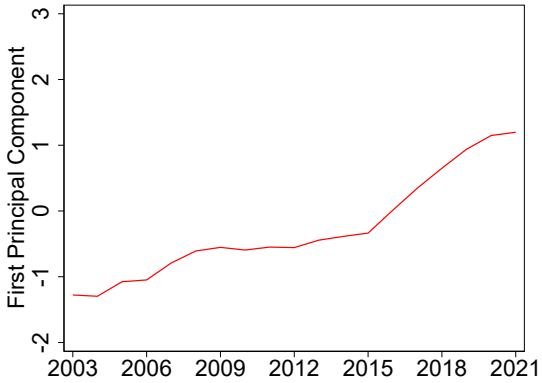
(a) Any Machine-Picked Phrase



(b) Machine-Picked Count



(c) Machine-Picked PCA



Next, we examine how these trends vary by firm ownership, comparing state-owned enterprises (SOEs) with private firms. Subfigure 2a shows the share of firms using more than one, five, and ten machine-picked phrases in a given year, separately for SOEs and private firms. We find that heterogeneity in the use of five or more and ten or more phrases exists within both ownership groups. Moreover, the share

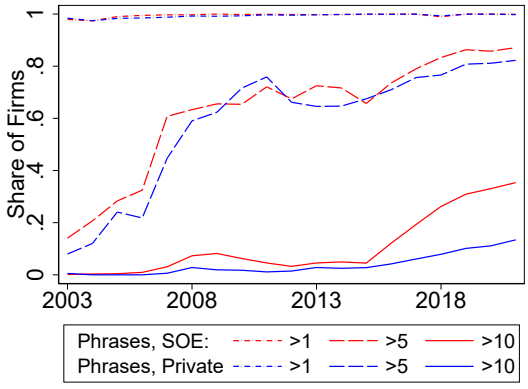
of firms exceeding these thresholds increases over time for both SOEs and private firms. Notably, SOEs are significantly more likely than private firms to use more than ten machine-picked phrases in the later years of the sample, suggesting that the most intense expressions of rhetorical alignment are concentrated among SOEs.

Subfigure 2b shows that the Machine-Picked Share increases among both SOEs and private firms over time. However, while the trajectories remain similar before 2015, SOEs exhibit a sharper increase in alignment thereafter, diverging from private firms. By the end of the sample period, SOEs use approximately 1.7 phrases more per annual report than their private counterparts. Figure 2c reveals the same qualitative pattern in the Machine-Picked PCA, with both ownership types increasing in alignment over time but SOEs increasing more rapidly after 2015.

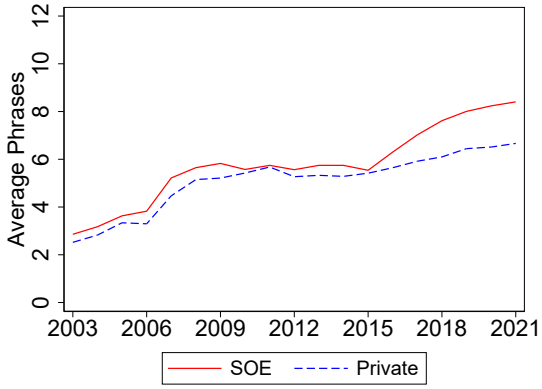
Finally, we examine variation in rhetorical alignment across industries. Figure 3a plots the Machine-Picked Share by sector, while Figure 3b shows the Machine-Picked PCA. Although rhetorical alignment has increased across all industries, the growth has been particularly pronounced in the finance, real estate, utilities, and energy sectors. Notably, these industries are highly regulated and considered strategically important. One natural question is whether differences in ownership composition drive the industry differences. To answer this question, we construct this figure for SOEs and private firms separately in Appendix Figure A.1. We find qualitatively similar patterns: even among private firms, financials, utilities, and real estate firms exhibit higher rhetorical alignment.

Figure 2: Rhetorical Alignment by Ownership

(a) Machine-Picked Share



(b) Machine-Picked Count



(c) Machine-Picked PCA

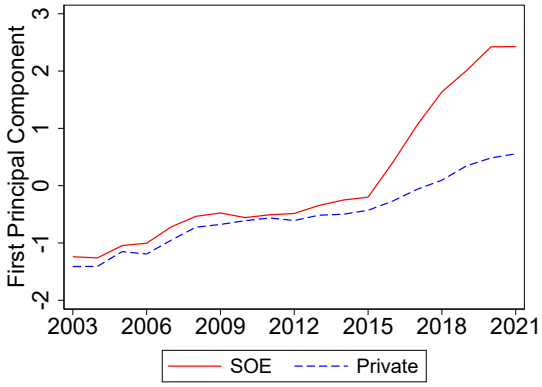
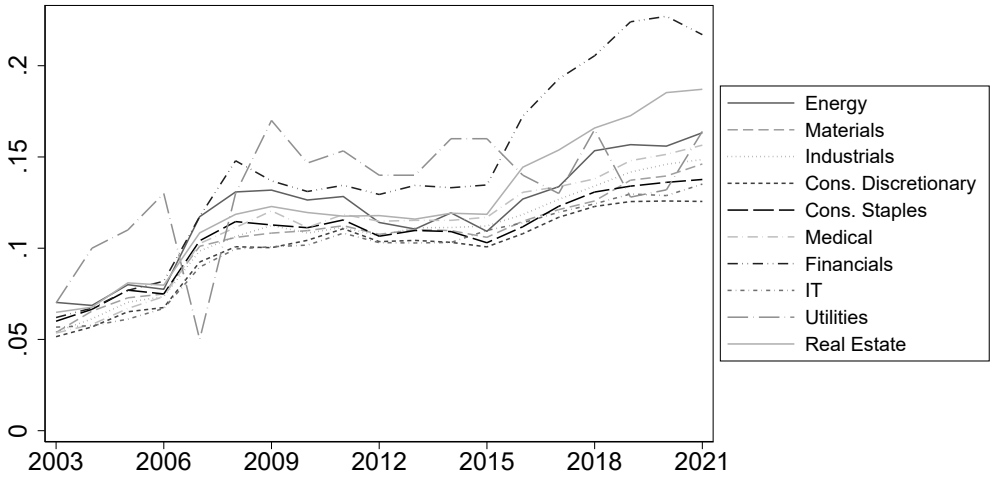
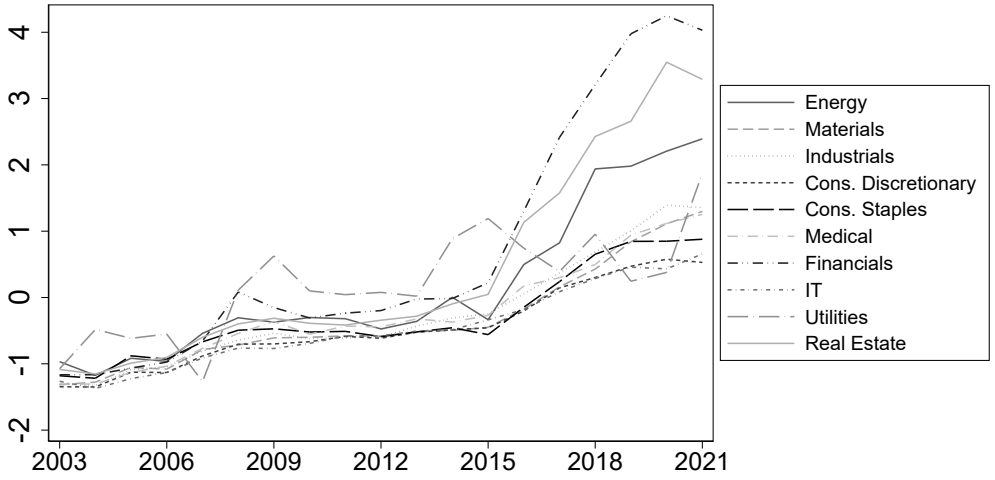


Figure 3: Rhetorical Alignment by Industry

(a) Machine-Picked Share



(b) Machine-Picked PCA



Next, to lay the groundwork for a conceptual framework of rhetorical alignment, we examine its correlation with several key firm outcomes.

Alignment is Correlated with Firm Payoffs. We start by examining the relationship between rhetorical alignment and firm payoffs, as measured by firm profitability, defined as profits divided by sales. We estimate the correlation between rhetorical alignment and profitability using a series of specifications with progressively richer sets of fixed effects. In Specification A, we include year fixed effects to account for aggregate shocks that may influence both alignment and profitability. Specification B adds fixed effects for SOEs, capturing systematic differences in profitability between state-owned and non-state firms. Specification C introduces controls for political connections, which we measure by whether there were politicians on a company's board before 2013.[16] Specification D adds controls for the presence of party cells within firms, which we measure by whether the firm mentions "party cell" in its charter amendment in that year. Finally, Specification E includes firm fixed effects, identifying the relationship using within-firm variation over time.

Across all five specifications, we find a negative correlation between profitability and rhetorical alignment. Adding SOE fixed effects in Specification B reduces the magnitude of the coefficient by 43.9%, but it remains marginally statistically significant with $p = 0.061$. The political connections and party cell controls in Specifications C and D have a minimal impact on the estimate once SOE status is taken into account.

[16]Data from Fan (2021). Politicians are defined as CCP officials, government officials, NPC deputies, CPPCC representatives, and leaders of State-owned enterprises and non-profit public institutions. After 2013, high-ranking Party-members were banned from serving on the boards of public companies.

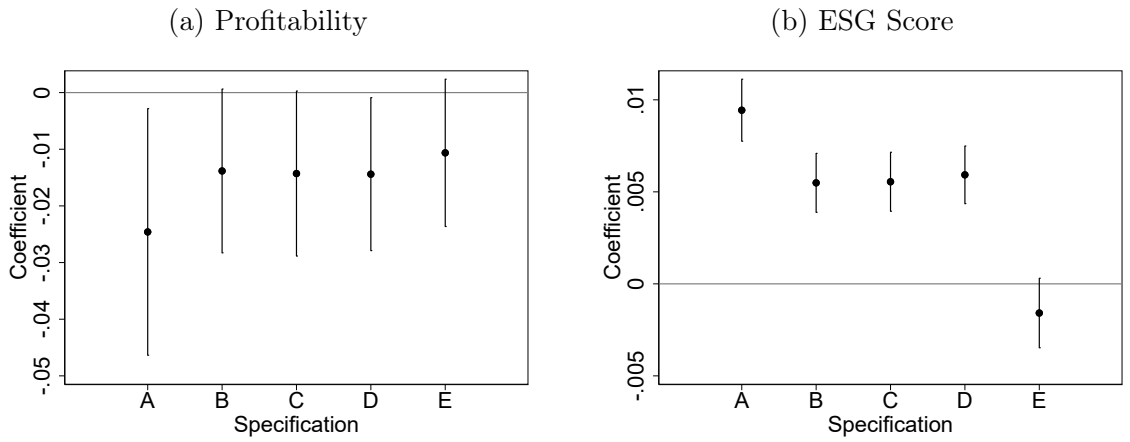
Alignment is Correlated with Performance on Political Goals. Next, we examine whether rhetorical alignment is associated with firm performance on government priorities, controlling for firm type and year effects. To measure political performance, we utilize an ESG index developed by CnOpen Data, which aggregates firm performance across several dimensions: environmental, social, employee relations, shareholder relations, and supplier practices.

Subfigure 4b shows that in Specifications A through D, ESG performance is strongly positively correlated with rhetorical alignment. As in the profitability analysis, controlling for SOE status in Specification B reduces the coefficient in size by 41.8%, but the relationship remains statistically significant with $p < 0.001$. Additional controls for political connections and party cells have limited effect on the estimate. However, Specification E, which includes firm fixed effects, reveals a null correlation between ESG performance and rhetorical alignment. This result shows that differences between firms in ESG performance and alignment drive the correlation.

While our new measure sheds light on the overall prevalence of rhetorical alignment—its evolution over time and its associations with ownership, industry, and firm outcomes—it also raises several important questions.

A central puzzle is why rhetorical alignment is not universally adopted. If alignment were both beneficial and costless, we would expect all firms to engage in it. From the state's perspective, it holds both the legal authority and the practical capacity to mandate full compliance, yet it has refrained from doing so. In the next sections, we motivate and develop a framework to explain the uneven adoption of

Figure 4: Correlates of Rhetorical Alignment



Notes: 95% confidence intervals displayed. Specification A includes year fixed effects; Specification B adds SOE fixed effects; Specification C adds political connection fixed effects; Specification D adds party cell fixed effects; and Specification E includes firm fixed effects. Each specification includes all controls from the preceding ones.

rhetorical alignment across firms, as well as its varying prevalence across ownership types and industries. We argue that rhetorical alignment functions as a mechanism through which firms tie their fate to that of the regime. In particular, we present evidence that the payoffs of aligned firms become more tightly linked to the government's reputation.

5 Alignment Links Firm and Regime Payoffs

In this section, we present evidence for a key insight motivating our framework: that rhetorical alignment ties firm payoffs to those of the regime. Specifically, we empirically test the following question: do the payoffs of rhetorically aligned firms respond more to reputational shocks to the regime? To do so, we leverage a nat-

ural experiment during which a political scandal hurt the regime's reputation, but was caused by factors orthogonal to firm performance. Specifically, we use the Sun Zhengcai scandal, during which a leading figure in the Chinese Communist Party was investigated and convicted of corruption.[17]

Sun Zhengcai was a rising political star and former Chongqing Party leader. On July 24, 2017, the Central Commission for Discipline Inspection (CCDI) announced that Sun would be placed under investigation for violating Party discipline, effectively ending his political career. Sun, who had been viewed as a potential successor of Xi Jinping, was the first such high-profile case during Xi's tenure, leading to speculation about a power struggle within senior Party leadership.[18]

We conduct an event-study analysis using weekly stock returns of Chinese firms around this date. The key empirical specification examines how stock returns responded in the weeks before and after the Sun scandal for rhetorically aligned firms relative to other firms. Specifically, we estimate:

$$\text{Stock returns}_{i,t} = \sum_{\tau=-2}^{\tau=2} \text{Alignment}_i \times \text{Scandal}_{t+\tau} + \gamma_t + \alpha_i + \epsilon_{i,t}$$

We measure stock returns in two ways. First, we use a firm's simple average stock return in week t. Alternatively, we use the cumulative abnormal return centered around week t, which normalizes stock returns by average market returns. We provide details on variable construction in Appendix D.1.

[17]The motivation and implementation of our empirical strategy is similar to that in (Liu et al., 2017), which investigates the impact of the Bo Xilai scandal in 2012 on the stock returns of politically sensitive firms.

[18]See https://thediplomat.com/2017/07/chinese-politician-sun-zhengcai-is-under-party-investigation/.

The variable $\text{Scandal}_{t+\tau}$ indicates the weeks immediately surrounding the public revelation of Sun Zhengcai's scandal. To estimate the differential effect of the scandal on aligned firms, we interact weekly time-to-scandal indicators with the continuous measure of firm alignment, Alignment_i, which coincides with our Machine-Picked PCA. This measure varies at the firm level (we fix a firm's alignment to its last observed value prior to the date of the scandal). The model also includes firm and week fixed effects (α_i and γ_t, respectively) to control for average firm-level differences in stock returns and common temporal shocks.

Figure 5a displays results for weekly stock returns. We find that rhetorically-aligned firms experienced significantly lower stock returns in the three weeks during and after the scandal relative to less-aligned firms. Similarly, Figure 5b displays results for three-week cumulative average returns. Again, we find that rhetorically-aligned firms experienced lower returns in the weeks following the scandal than other firms.

One question that arises from this test is whether rhetorical alignment is simply capturing some other measure of a firm's closeness to the state. To understand this question, we perform additional analysis. First, we compute the pooled post-scandal coefficient for aligned versus less-aligned firms. We plot these coefficients in the first column of Figure 6a. Then, we add successively more fixed effects to understand the extent to which the coefficient attenuates with different measures of government ties.

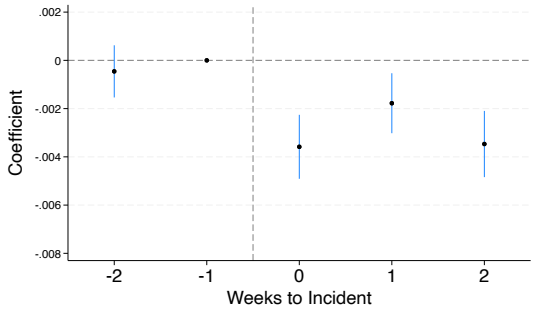
First, we introduce ownership fixed effects interacted with the post-period indicator variable. We refer to this specification as Specification A. Second, we include the interaction between the post-period indicator and an indicator for political con-

nections, as defined in Section 4. We call this Specification B. Third, we control for the interaction between the post period and an indicator for the presence of a party cell, which we measure by whether the firm mentions "party cell" in its charter amendment in that year. We refer to the final specification, which includes all three sets of controls, as Specification D.

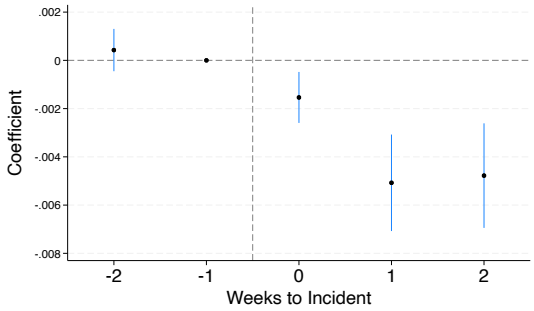
Subfigure 6a demonstrates that, while other forms of closeness to the state partly explain the negative treatment effect among highly-aligned firms, they do not completely account for the difference. In other words, rhetorically-aligned firms see decreased stock price returns in the wake of the scandal, even controlling for ownership, political connections, and party cells. We repeat the exercise for cumulative average returns in Subfigure 6b and find a similar qualitative result, though we note that the coefficients in Specifications B, C, and D are only statistically significant at the $p < 0.1$ level, with $p = 0.051$, 0.059, and 0.092, respectively. In terms of magnitudes, these other measures of closeness with the state account for approximately half of the treatment effect.

Figure 5: Stock Returns after Political Scandal

(a) Weekly Stock Returns



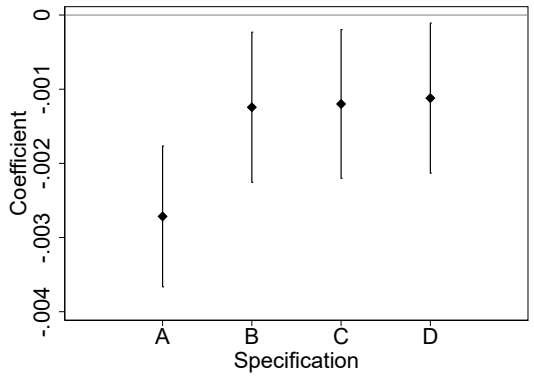
(b) CAR[-1;1]



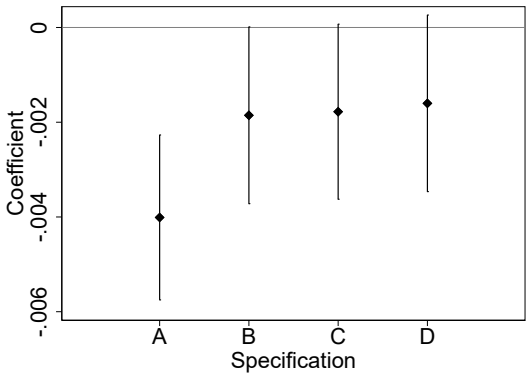
Notes: 95% confidence intervals displayed.

Figure 6: Stock Returns after Political Scandal – Controlling for Other Measures of Closeness to the State

(a) Weekly Stock Returns



(b) CAR[-1;1]



Notes: 95% confidence intervals displayed. Specification A includes ownership fixed effects interacted with the post-period indicator. Specification B controls for indicator for political connections interacted with the post-period indicator. Specification C includes an indicator for party cells interacted with the post-period indicator. Specification D incorporates all controls used in Specifications A through C.

6 Expropriation Threat Increases Alignment

Another motivation for our framework is that firms increase rhetorical alignment following heightened expropriation threats. Two empirical challenges complicate testing this hypothesis: first, measuring expropriation risk, and second, omitted variables, as firms at greater risk might align rhetorically for unrelated reasons.

To address these challenges, we exploit variation in the timing of regulatory investigations. Such investigations mark periods of heightened expropriation risk, as the state actively considers imposing new regulations, fines, shutdowns, or even criminal penalties. To mitigate omitted variable bias, we implement an event study design that compares firm behavior immediately before and after each investigation. We focus on investigations conducted by two major Chinese regulatory agencies: the China Securities Regulatory Commission (CSRC), which oversees securities law violations, and the State Administration for Market Regulation (SAMR), which handles antitrust enforcement. Appendix Section C provides detailed information on these events. We estimate:

$$\text{Alignment}_{i,t} = \sum_{\tau=-2}^{2} \text{Investigation}_{i,t+\tau} + \gamma_t + \alpha_i + \epsilon_{i,t}$$

In this regression, i indexes firms and t indexes years. The variable $\text{Investigation}_{i,t}$ is an indicator equal to one if firm i is under investigation in year t. We use an event window covering two years before and two years after the investigation. The specification includes year fixed effects γ_t to account for common shocks such as market downturns, and firm fixed effects α_i to control for time-invariant firm characteristics,

including long-run political connectedness.

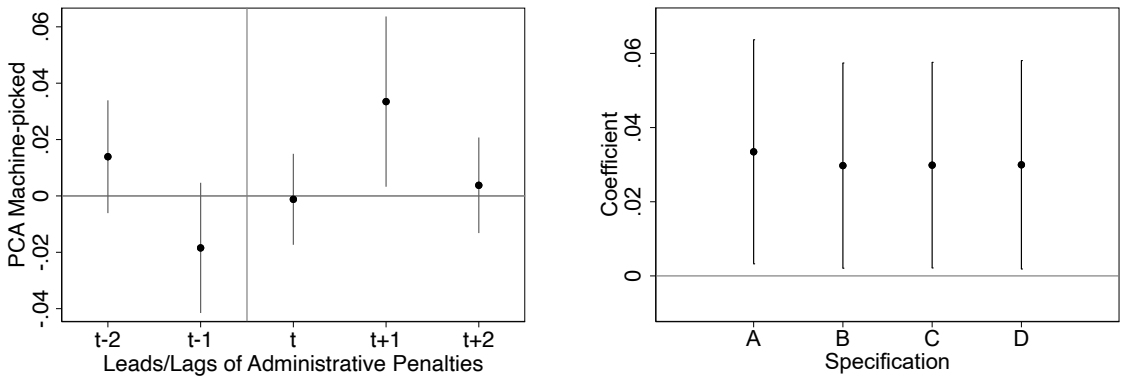
Figure 7a presents the results. We find that firms become more rhetorically aligned in the year of an investigation and one year after. The coefficient for that year implies a 0.033 increase in the machine-picked PCA measure.

We conduct a series of robustness checks to confirm that alternative forms of firm-state closeness do not drive our main result. Starting from the baseline specification, we sequentially add additional controls. Specification A in Subfigure 7b reports the baseline coefficient. Specification B includes ownership fixed effects interacted with year fixed effects. Specification C additionally controls for an indicator for political connections interacted with year fixed effects. Specification D further includes an indicator for party cells interacted with year fixed effects (while including the controls from Specifications A through C). Across all specifications, the estimated effect remains consistent in both magnitude and statistical significance.

Figure 7: Rhetorical Alignment Increases after Legal Investigations

(a) Baseline

(b) Controlling for Other Measures of Closeness to the State



Notes: 95% confidence intervals displayed. In Subfigure 7b, Specification A reports the baseline one period lag coefficient. Specification B includes ownership fixed effects interacted with year fixed effects. Specification C further controls for indicator for political connections interacted with year fixed effects. Specification D additionally includes an indicator for party cells interacted with year fixed effects (and includes all controls used in Specifications B and C).

7 Conceptual Framework

In Sections 4, 5, and 6, we documented several key facts about rhetorical alignment. First, alignment is not universal and is higher among state-owned firms and those operating in strategic industries. Second, alignment ties firms' payoffs to those of the regime. Third, alignment increases when the threat of expropriation increases. In this section, we propose a conceptual framework that explains these patterns and generates additional testable predictions.

7.1 Overview

We combine insights from the literature on firm political influence and the political economy of non-democracies to explain when and why firms rhetorically align with the ruling regime. A formal model is provided in Appendix A.

While autocratic regimes seek to exert political control (Bueno de Mesquita et al., 2003), they also aim to maximize economic output, either to gain public legitimacy or to increase rents. Profit-maximizing firms, however, often engage in actions that can threaten the regime's political control. This creates a fundamental trade-off: the regime may expropriate firms to prevent threats, but such expropriation reduces economic output.

At the heart of this dilemma is a commitment problem: firms cannot credibly promise to avoid risky, profit-driven actions that threaten regime control, and regimes cannot credibly promise to refrain from expropriation. This dynamic often results in an equilibrium marked by frequent expropriation and low economic output, characteristic of many autocratic economies (Kornai et al., 2003; Shleifer, 1998).[19]

We propose that rhetorical alignment is a commitment device to resolve this trade-off. By publicly announcing loyalty, firms tie their payoffs to the regime's, internalizing the political impacts of their actions. Consequently, the regime has reduced incentives to expropriate these firms.

Yet alignment is not universally beneficial. Our framework suggests the regime prefers not to expropriate firms whose profitable actions pose minimal threats to political control, even if these firms do not rhetorically align. Such firms, in turn, choose

[19] Yang (2024) calls this equilibrium "Autocracy 1.0."

profitable actions without alignment. The regime tolerates their non-alignment to boost economic output.[20] Thus, rhetorical alignment depends fundamentally on a firm's expropriation risk. Alignment enables firms to commit to non-threatening behavior, thereby avoiding expropriation.

7.2 Mapping to Empirics

This conceptual framework has several empirical implications. The first implication, a key assumption of the model, is that rhetorically aligned firms internalize the regime's payoffs. This implication is consistent with the results in Section 5, which shows that a large political scandal undermining the regime's stability decreases the stock returns of more-aligned firms relative to less-aligned firms.

A second implication of the framework is that higher expropriation risk increases rhetorical alignment. In Section 6, we leveraged the timing of regulatory investigations as a discontinuous increase in expropriation risk. Consistent with the model's comparative static, rhetorical alignment increased after regulatory inspections.

A third implication of the framework is that firms whose risky actions have a greater potential to destabilize the regime are more likely to align, as they would otherwise face a higher likelihood of expropriation. In practice, we empirically test this comparative static by testing whether rhetorical alignment is higher among firms that could pose such a threat to the regime, for example, those in strategic industries.

Next, the framework yields two related comparative statics. First, aligned firms are more likely to pursue political objectives, and second, they do so at the expense

[20] Yang (2024) calls this equilibrium "Autocracy 2.0."

of profit maximization. These predictions accord with Figure 4.

Finally, our framework identifies three distinct equilibria: one characterized by high expropriation and low growth; one characterized by low expropriation, moderate alignment, and high growth; and one characterized by low expropriation, high alignment, and moderate growth. These equilibria strongly resemble the progression of China's economic transition.

8 Conclusion

This paper develops and applies a novel, generalizable measure of rhetorical alignment to study how firms in autocratic regimes publicly signal support for the ruling government. Focusing on Chinese listed firms, we show that rhetorical alignment is common but not universal, has grown over time, and is concentrated in politically strategic sectors and state-owned enterprises. Using natural experiments, we provide evidence that alignment carries material consequences: firms that more closely echo Party rhetoric suffer larger market penalties during regime scandals. Furthermore, we show that firms increase their alignment after regulatory investigations.

To interpret these patterns, we propose a conceptual framework in which rhetorical alignment serves as a commitment device between firms and the state. By tying their public image to the regime's legitimacy, firms credibly pledge to serve party interests, while the regime, in turn, commits to limit expropriation. This mechanism helps resolve a fundamental commitment problem in autocratic governance: how to sustain private enterprise investment without strong institutional guarantees.

Our findings contribute to a growing literature on corporate political speech by identifying the state as a critical audience in contexts of concentrated political power. In doing so, we also enrich the political economy of autocracy by highlighting how symbolic firm behavior can serve as a governance tool. While our analysis centers on China, the methods and theoretical logic apply to other authoritarian contexts, where expressions of loyalty are common among powerful economic actors.

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Appendix

A Model

A.1 Setup

Consider a model with three relevant actors: a government g and two profit-maximizing firms, denoted firm 1 and firm 2.

The government's objective is to maximize political control P and output Y_i, which are complements:

$$U_g = P \cdot (Y_1 + Y_2) \tag{1}$$

The government makes one relevant choice, whether to expropriate no, one or both firms. The key tradeoff is that expropriating firm i weakly increases the government's political control P but decreases output Y_i.

Firm i's base output, conditional on not being expropriated by the government, is $Y_i = y_i > 0$. In addition, a firm can choose to take a risky, but in expectation profitable, action, which increases the base output of firm i by $\theta_i > 0$ to $Y_i = y_i + \theta_i$, but in expectation decreases P by $\gamma_i \in (0, 1)$, where γ_i is the strategic importance of firm i (i.e., the extent of the threat posed by firm i to the government's political control P). If the government chooses to expropriate firm i, the firm cannot take the risky action. In this case, the payoff to firm i is normalized to 0 and the government gets αy_i, with $\alpha \in (0, 1)$.

Before the government decides whether to expropriate firms, firms choose whether to rhetorically align with the government. If a firm rhetorically aligns with the gov-

ernment, its payoff is multiplied by P, that is, its payoff structure becomes intertwined with the government's degree of political control.

The key tradeoff for a firm is as follows. On one hand, a firm wants to take the risky action to maximize expected profits. However, if the effect of taking this risky action on the government's political control is comparatively large, the government will prefer to expropriate the firm, which delivers the lowest possible payoff to the firm. By aligning with the government, the firm changes its payoff structure such that it now internalizes the effect of the risky action on political control. In this way the firm can commit to not take the risky action and the government responds by not expropriating.

To summarize, the timing of the one-shot, sequential game is as follows:

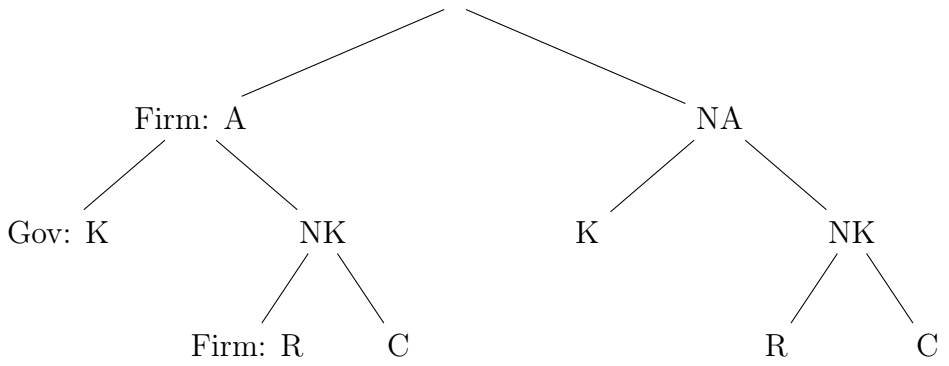
1. Both firms simultaneously decide whether to align with the government (A) or not align (NA).

2. The government observes the two firms' alignment decision. It then decides whether to expropriate (K) or not expropriate (NK) no, one or both firms.

3. Firms observe the government's expropriation decisions and the other firm's alignment decision. Both firms then simultaneously decide whether to take the risky action (R) or not (NR), conditional on not having been expropriated.

4. Payoffs materialize.

Simplified decision tree (ignoring interactions between firms for ease of exposition):



The payoff structure is as follows. Firms' payoff, conditional on alignment, expropriation and actions, is:

$$U_i = \mathbf{1}[NK_1] \cdot (1 - \mathbf{1}[A_1](1 - P)) \cdot (y_i + \mathbf{1}[R_1]\theta_i) \tag{2}$$

The government's payoff is:

$$U_g = P \cdot [\alpha(y_1 + y_2) + (1 - \alpha)(y_1 \cdot \mathbf{1}[NK_1] + y_2 \cdot \mathbf{1}[NK_2]) + \theta_1 \cdot \mathbf{1}[R_1] + \theta_2 \cdot \mathbf{1}[R_2]] \tag{3}$$

where $P = 1 - \gamma_1 \mathbf{1}[R_1] - \gamma_2 \mathbf{1}[R_2]$ is the endogenous degree of political control the government has. The other parameters are as described above.

Key underlying assumptions:

1. When firms rhetorically align, their payoff becomes a function of the government's degree of political control P; that is, firms internalize the impact of their actions on P.

2. The degree of the government's political control P is decreasing in whether firms take risky actions, and more so depending on the strategic importance of firms that take risky actions.

3. In expectation, output is highest when firms take the risky action, and the output of expropriated firms is lower than the output of non-expropriated firms: $y_i + \theta_i > y_i > \alpha y_i > 0$.

A.2 Model Solution

We solve the finite sequential model by backward induction, focusing on the characterization of pure strategy Subgame Perfect Nash Equilibria (SPNEs). To deliver the key intuition of the model, we first analyze the model in partial equilibrium, abstracting from interactions between firms. We then characterize the general equilibrium solution numerically.

Final node: firm's choice of action (R or NR), conditional on alignment and not having been expropriated.

- Non-aligned firms always choose R over NR since $(y_i + \theta_i) > y_i$ for any $\theta_i > 0$.

- Aligned firms choose NR over R if:

$$\begin{aligned}(\tilde{P}^* - \gamma_i)(y_i + \theta_i) &< \tilde{P}^* y_i \\ \tilde{P}^*(y_i + \theta_i) - \gamma_i(y_i + \theta_i) &< \tilde{P}^* y_i \\ \tilde{P}^* \theta_i &< \gamma_i(y_i + \theta_i) \\ \theta_i(\tilde{P}^* - \gamma_i) &< \gamma_i y_i \\ \frac{\theta_i}{y_i} &< \frac{\gamma_i}{(\tilde{P}^* - \gamma_i)}\end{aligned} \tag{4}$$

  where $\tilde{P}^* \equiv 1 - \gamma_j \mathbf{1}[R_j^*]$ in equilibrium. That is, conditional on having aligned and not been expropriated, firm i is more likely to commit to not taking the risky action if (i) its return to the risky action θ_i are low relative to its base output y_i and (ii) its strategic importance γ_i is high.

Second node: government's choice to expropriate no, one or both firms (K or NK), conditional on firms' alignment.

- If firm i would take the risky action in the final node conditional on not being expropriated (i.e., if it is not aligned or condition 4 does not hold), the government prefers to expropriate firm i if:

$$\begin{aligned}&\tilde{P}^* \cdot [\alpha(y_i + y_j) + (1 - \alpha)(y_j \cdot \mathbf{1}[NK_j]) + \theta_j \cdot \mathbf{1}[R_j]] \\ >&(\tilde{P}^* - \gamma_i) \cdot [\alpha(y_i + y_j) + (1 - \alpha)(y_i + y_j \cdot \mathbf{1}[NK_j]) + \theta_i + \theta_j \cdot \mathbf{1}[R_j]]\end{aligned} \tag{5}$$

  The fundamental tradeoff for the government is as follows. On the one hand, if the government expropriates firm i, it foregoes the additional output generated

by firm i taking the risky action. However, if it does not expropriate, the decrease in political control caused by firm i's risky action decreases *both* the utility it enjoys from firm i *and* firm j's outputs. The government is thus more likely to expropriate firm i if (i) the strategic importance of firm i, γ_i is higher, (ii) the return to the risky action of firm i, θ_i, is comparatively lower, and (iii) the return to the risky action of firm j, θ_j, is comparatively higher.

- If firm i would not take the risky action in the final node conditional on not being expropriated (i.e., if it is aligned and condition 4 holds), the government generally prefers not to expropriate the firm because $\alpha y_i < y_i$ for all $\alpha \in (0, 1)$.

First node: firms' choice to align or not (A or NA).

- First, note that firms are always weakly better off aligning if they were expropriated should they not align. Second, conditional on not being expropriated, firms are always better off not aligning than aligning. Hence, firms will tend to align if they face expropriation otherwise.

- Following the arguments above, firm i will thus tend to align if condition 5 holds but not otherwise.

A.3 Equilibria

Following the discussion above, there are three potential types of equilibria (abstracting from interactions between firms):

- Condition 4 does not hold but 5 does: Firm i is indifferent between aligning and not aligning, and is expropriated in any case, resulting in low output.

- Condition 5 does not hold: Firm i does not align, is not expropriated, and takes the risky action, resulting in high output.
- Conditions 4 and 5 hold: Firm i aligns, is not expropriated, and does not take the risky action, resulting in moderate output.

B Additional Background

Foreign investors, who accounted for 3.7% of the total market capitalization on the Shanghai and Shenzhen exchanges in 2020,[21] have at times reacted sharply to Chinese state actions by withdrawing investments or repricing firms perceived as politically exposed. For instance, in November 2020, the U.S. government issued Executive Order 13959, which prohibited American investments in companies identified as supporting China's military-industrial complex.[22] More recently, in May 2025, U.S. lawmakers urged the Securities and Exchange Commission to delist several Chinese firms over their alleged ties to the Chinese military and involvement in human rights violations.[23]

Foreign consumers, too, have penalized firms perceived as being aligned with the Chinese government. Chinese technology firms such as Huawei and ZTE have faced sustained global backlash, including calls for consumer boycotts, due to their perceived connections to the CCP and their role in advancing state interests abroad.[24]

Domestic investors respond similarly when government policies negatively affect

[21] See https://www.elibrary.imf.org/view/journals/001/2023/026/article-A001-en.xml.
[22] See https://en.wikipedia.org/wiki/Executive_Order_13959.
[23] See https://www.ft.com/content/8d87d093-3fad-4ee0-af16-2f1e835ef286.
[24] See https://en.wikipedia.org/wiki/Boycotts_of_Chinese_products.

firm profitability. For example, China's major state-owned banks—including the Industrial and Commercial Bank of China (ICBC), the Agricultural Bank of China, and the Bank of China—have historically been regarded as relatively safe investments due to their strong state backing and reliable dividends. However, recent shifts in national policy have expanded the responsibilities of these institutions, requiring them to support struggling sectors such as real estate and to issue loans to small businesses at below-market interest rates. These policy mandates have compressed margins and led to growing concerns among investors about the long-term viability of their business models.[25]

Domestic consumers may also retaliate against firms that appear overly aligned with unpopular government initiatives or insufficiently aligned with nationalist expectations. In 2022, for instance, homebuyers across China organized a widespread mortgage boycott in protest against unfinished housing developments by major property developers, such as China Evergrande Group. These protests were motivated, in part, by the perception that these firms, closely linked to local governments, prioritized political imperatives over consumer welfare.[26]

Taken together, these examples demonstrate that the reputational risk faced by Chinese firms is not merely a function of standard financial fundamentals or corporate governance practices. Instead, it is deeply intertwined with the behavior of the state, both domestically and internationally, and with the public's perception of how closely individual firms are aligned with the regime.

[25] See https://www.ft.com/content/954135ee-f280-49d7-a7af-d5d34dbe22ac.
[26] See https://en.wikipedia.org/wiki/Chinese_mortgage_boycott.

C Data Details

C.1 CSRC (Regulatory Penalties)

We obtain data on regulatory penalties from a repository of enforcement decisions from the China Securities Regulatory Commission (CSRC). These penalties target firms or personnel for violations of securities trading regulations and cover 2001 to 2025. We obtain the universe of decisions from two sections of the CSRC's official website, "Administrative Penalties Decisions" and "Supervision Measures." [27] The former category involves more severe penalties such as fines and trading bans, while the latter includes softer measures like warnings and consultations. We identify and eliminate duplicate listings and obtain a final sample of 1,809 unique cases.

We match CSRC data to the set of listed firms by searching for each firm's full and abbreviated names within all decision texts. If a firm's name is found, ChatGPT 4o-mini reads the decision text to determine whether the penalty concerns the company itself, its management, or its majority shareholders. Cases unrelated to these three stakeholder groups are excluded. For further analysis, we then collapse the universe of cases to the firm-year level, the level of other firm observables.

C.2 SAMR (Antitrust Investigations)

We obtain data on anti-trust decisions from the State Administration for Market Regulation (SAMR) from 2013 to 2025. The dataset is sourced the SAMR's official website[28] and contains the title and full text of all decisions. In nearly all cases, the

[27] http://www.csrc.gov.cn/csrc/c101971/zfxxgk_zdgk.shtml
[28] https://www.samr.gov.cn/fldes/tzgg/xzcf/index.html

decisions include the date the anti-trust investigation was first initiated and the date the final decision was issued. When the initiation date is not separately reported, we use ChatGPT 4o-mini to identify the initiation date from the text. If this process does not yield an initiation date, we use the issuance date as a proxy. We omit twenty listings that announced investigation terminations. This process yields 410 unique anti-trust cases.

We match the SAMR data with our firm data by searching for each firm's full and abbreviated name within the decision text. We then use ChatGPT 4o-mini to verify whether the penalty pertains directly to the firm, its management, or its majority shareholders. Cases not relevant to these groups are omitted from the analysis. We aggregate the data to a firm-year level for subsequent analysis.

D Measurement

D.1 Abnormal Returns

We calculate firms' weekly stock returns and cumulative abnormal returns using weekly stock market data. Our sample covers Chinese A-share firms, 2015–2022.

We calculate abnormal returns with this equation:

$$AR_{it} = R_{it} - E(R_{it}|X_t),$$

where i indexes the given stock and t the time period (week). R_{it} is the stock's

realized return in week t,[29] and $E(R_{it}|X_t)$ is the expected return in week t.

We follow the index model of MacKinlay (1997), where the expected return is assumed to have a linear relationship with the market return:

$$AR_{it} = R_{it} - (\alpha_i + \beta_i R_{mt}).$$

R_{mt} is the market return for A-shares Chinese firms in week t.

For each stock i, α_i and β_i are determined by regressing R_{it} on R_{mt} using stock returns at least four weeks before the event took place. AR_{it} is calculated for all firms from the first to the last week in the sample. Using the abnormal returns calculated, we then compute the cumulative abnormal returns for each stock 1 week before and after the event:

$$\text{CAR}[1] = \sum_{t=-1}^{T=1} AR_{it}.$$

[29] $R_i t = \frac{P_{end} - P_{start}}{P_{start}}$, where P_{start} is the stock's opening price on the first trading day of the week and P_{end} is the stock's closing price on the last trading day of the week.

Appendix Tables and Figures

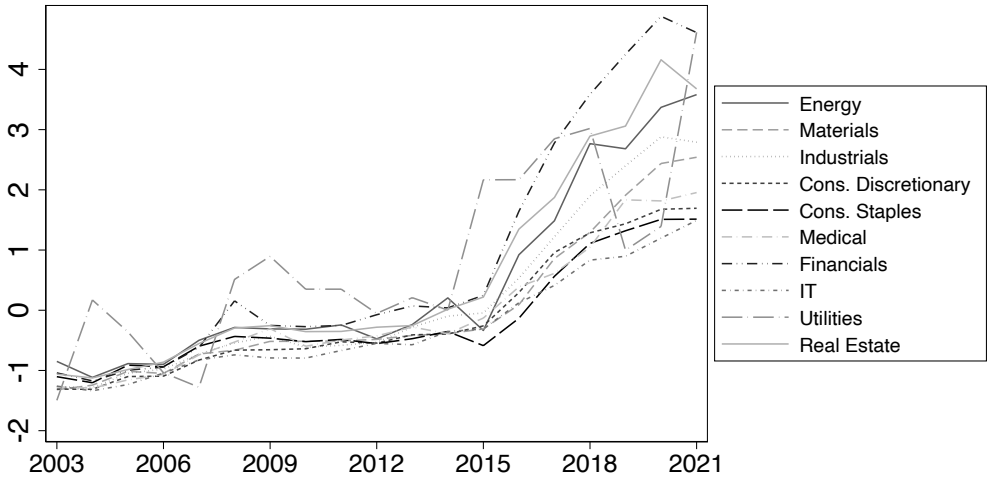
Table A.1: Machine-Picked Phrases

Phrase	English Translation	TF-IDF Diff $\times 10^3$	Phrase	English Translation	TF-IDF Diff $\times 10^3$
贯彻落实	Implementation	9.678	建立健全	Establish and improve	6.526
习近平	Xi Jinping	8.994	各族人民	People of all ethnic groups	6.470
重要讲话	Important Speech	8.164	党的建设	Party Building	6.341
总书记	General Secretary	8.100	主持会议	Host a meeting	6.266
党中央	Party Central Committee	8.016	充分肯定	Fully affirm	6.062
深化改革	Deepening reform	7.466	宏观调控	Macroeconomic Control	5.987
发展观	Development Outlook	7.444	中共中央	CPC Central Committee	5.980
全体会议	Plenary Session	7.421	相结合	Combined	5.944
充分发挥	Give full play to	7.294	管理体制	Management System	5.886
三个代表	Three Represents	7.281	伟大旗帜	Great Banner	5.814
改革开放	Reform and Opening Up	7.274	全党全国	All Party and Nation	5.797
负责同志	Responsible person	7.204	社会保障	Social Security	5.780
中央委员	Central Committee Member	7.201	党的领导	Party leadership	5.671
中央纪律检查委员会	Central Commission for Discipline Inspection	7.144	讨论稿	Discussion Draft	5.598
体制改革	Institutional Reform	7.068	公共服务	Public Services	5.583
中央政治局	Political Bureau	7.043	中央书记处	Central Secretariat	5.557
中央委员会	Central Committee	6.948	中央军事委员会	Central Military Commission	5.504
经济社会	Economy and Society	6.886	认真贯彻	Seriously implement	5.470
列席会议	Attend the meeting	6.875	积极性	Positivity	5.467
邓小平理论	Deng Xiaoping Theory	6.862	直属机构	Directly affiliated institutions	5.413
党和国家	Party and State	6.816	各部委	Ministries	5.412
常务委员会	Standing Committee	6.810	姓氏笔画	Surname strokes	5.363
小康社会	Well-off Society	6.807	坚定不移	Unwavering	5.293
进一步	Further	6.740	现代化	Modernization	5.269
胡锦涛	Hu Jintao	6.561	各项事业	Various undertakings	5.263

Notes: This table shows the 50 phrases with the highest Final tf-idf scores from our corpus of Party documents. Scores are calculated by averaging tf-idf values across three document types and subtracting baseline Mandarin frequency to identify Party-specific terminology. Higher scores indicate phrases that are frequent in Party documents but rare in standard Chinese usage.

Figure A.1: Machine-Picked PCA by Industry and Ownership

(a) SOE



(b) Private

