

Weapons of the Weak: How Merchants Defend Their Nation

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Abstract

How do weak states organize national defense against external threats? We find that profit-driven merchants, an organized social force, can substitute for state power. We analyze China's response to the Mukden Incident in 1931, an unexpected Japanese invasion occupying over 247 million acres in China within three months. With a Difference-in-Differences design within a 30-day window around the Incident, we find that Sino-Japanese market competition—a proxy for the business incentive to expel Japanese competitors—led to more boycotts of Japanese imports. The result remains after controlling for the influence of governments, students, laborers, and consumers. Our analysis suggests that the boycotts were sustained by a combination of industry-specific selective incentives—the strategic anticipation and realization of market expansion—and the organizational capacity of business associations to monitor compliance. Finally, we find that boycotts led to a 55.5% drop in Japanese exports to China and potentially enhanced military mobilization.

Keywords: Boycott, Collective Action, Conflict, Protectionism, Trade

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1 Introduction

Nowadays, we take for granted that national defense is a fundamental duty of the states. Yet, weak states frequently prove incapable of organizing effective military or economic protection, especially during periods of frequent geopolitical conflicts. In such contexts, it is not uncommon to observe that the provision of defense falls to non-state actors. From grassroots guerrilla resistance against Napoleon in Spain during the 1810s to the Indian anti-colonial boycott of British goods (the Swadeshi Movement) in 1905, private societal forces have repeatedly fueled national defense in a weak state (Carey and Mitchell, 2017; Hufbauer and Jung, 2020; Edsaile, 2005; Patel, 2024).

Merchants, however, are often viewed as an unlikely source of national protection due to their profit-driven motives (Olson Jr, 1971, Cowen and Sutter, 1999, Sechrest, 1999). For example, when Thomas Jefferson's administration embargoed British goods during the War of 1812, some American merchants whose benefits depended on Anglo-American trade continued their businesses covertly with the enemy. Jefferson famously concluded that "merchants have no country," suggesting their profit-driven nature above all (Jefferson and Spafford, 1814). This view—that merchants lack the incentive to contribute to national defense—has long persisted, yet causal evidence regarding their actual role in conflict remains scarce.

In this paper, we challenge Jefferson's assertion by demonstrating that when the private interests of merchants align with the public interest of national defense, merchants can contribute to economic defense. During wartime, merchants can take advantage of the rise of patriotic or even nationalist sentiment to boycott the enemy's goods. While boycotts serve the private interest of domestic merchants by acting as a de facto non-tariff trade barrier, they also simultaneously serve the public function of depleting the adversary's fiscal capacity by cutting off export revenues¹. We illustrate this insight using the Mukden Incident—a Sino-Japanese military conflict in 1931 as a testing ground.

¹Unlike a government-initiated sanction that shifts, a boycott movement imposes social cost while purchasing the enemy's goods, resulting in a decline in trade value as an economic weapon.

We show that, following the unexpected Japanese invasion of China on September 18, 1931, prefectures and industries where Chinese merchants had greater private business interests—specifically the incentive to drive out foreign competitors and gain market power—experienced more self-organized boycotts of Japanese imports. Consistent with Mancur Olson’s theory of collective action, we present qualitative and quantitative evidence that the boycott movement was sustained by monitoring with business communities and selective incentives. We further show that this merchant-led boycott successfully harmed the Japanese economy in the short term and potentially encouraged Chinese military recruitment, though it proved unsustainable once the state signaled its capacity to impose top-down sanctions.

Our research setting has three advantages that enable us to elucidate the role of merchants in national defense. First, unlike many modern cases characterized by strong state capacity to organize military or economic defense, the Chinese Nationalist government was militarily ineffective and economically constrained by the Sino-Japanese Tariff Agreement to keep low tariffs, creating a vacuum for societal actors (e.g. merchants) to take a leading role in national defense. Second, while conflicts are often endogenous, raising concerns of reverse causality or anticipation effects, the Mukden Incident of September 18 in 1931, however, was launched by a Japanese Colonel and a Japanese Lieutenant Colonel without prior notice or authorization from the Japanese authorities (Coble, 2020, Ferrell, 1955). Third, the Mukden Incident was a major military invasion that triggered a massive social backlash, as Japan occupied over 247 million acres of Chinese territory in its aftermath, leading toward the Second Sino-Japanese War (1937–1945).

To make our case, we first draw on extensive qualitative accounts from historical archives documenting Chinese boycotts from the 1910s to the 1930s. These records indicate that merchants, as one of the wealthiest and most organized social forces in modern China, played a central role in translating nationalist sentiment into collective actions. In particular, Chinese domestic goods producers and dealers who competed directly with boycotted imports stood to benefit the most from boycotts and were among the most active participants.

Meanwhile, business communities, including chambers of commerce and industrial guilds, to maintain the exclusive benefit, effectively reinforced boycotts against free-riders from the other industries.

For our quantitative analysis, we construct a dataset on daily boycott occurrences and business motives at the prefecture and industry level. We manually collected more than 1,000 boycotts between 1927 to 1937 by screening over 30,000 news articles from the *Chinese Periodical full-text image database, 1911-1949*. From these reports, we identify and digitize boycotts' location, date, relevant industry, and scale. We also combine Chinese industrial surveys and customs data at the product level, and quantify Sino-Japanese industrial competition as a proxy for business motives. Intuitively, domestic merchants facing stronger business competition with the adversary's imports had greater incentives to expel their rivals through organizing boycotts.

We first leverage a Difference-in-Difference framework to identify the effect of business interests—defined as the gain of market power by driving out the enemy's business competitors—on the occurrence of the boycotts, using the Mukden incident as a military invasion shock. We find that prefectures facing higher Sino-Japanese commercial competition experienced significantly more boycotts following the Mukden Incident. This result remains robust after controlling for a range of confounders, including the exposure to Japanese imports, population, local economic conditions, and the intensity of historical patriotic movements.

We further discuss the role of alternative drivers of the movements and potential media bias. To isolate the impact of merchants from that of local governments or students, we conduct a cross-industry Diff-in-Diff analysis in Shanghai. This allows us to nonparametrically control for regional variation in local government's policy and student activism. Even within this restricted sample, business interests remain a significant driver of boycott activity. Furthermore, we find that business interests have an insignificant effect on labor strikes, suggesting that the boycotts were not merely a byproduct of labor unrest. We

also address the possibility that our results reflect the impact of Japanese imports' substitutability on consumer-led boycotts instead of a merchant-led action. Notably, compared to consumer-goods industries, the effect of Sino-Japanese commercial competition remains equally potent in producer-goods industries, where consumers' preferences are less relevant; moreover, substitutability with imports from non-Japanese nations did not enhance boycott activity, suggesting that the consumerism is not a leading role for boycott occurrence. Finally, to account for potential media bias in our newspaper-sourced data, we restrict our analysis to large-scale boycotts and those reported by independent and foreign outlets. Our estimates remain consistent across these specifications.

Turning to the mechanism, we examine the conditions that facilitate successful boycotts against potential free-riding problems. We focus on two key factors identified in the literature on collective action: selective rewards for participation and organizational capacity for monitoring. First, we identify industry-specific market expansion as a potent selective incentive. Our results show that industries with higher boycott frequency in 1931 is associated with significantly greater domestic firm entry over the following six years. Crucially, this realized economic gain was strategically anticipated: firms launched “buycott” advertisements promoting their products as domestic substitutes within just 15 days of the Mukden Incident—well before any actual market shift. This ex-ante anticipated market expansion selectively rewards industries with more boycotts, which encourages boycott participation and prevents cross-industry free-riding. Second, we show that these economic interests only translated into collective actions through organizational coordination. Using a Triple-Difference strategy, we find that business interests only drive boycotts in the presence of a chamber of commerce or industrial guild, with the effect scaling by the age and size of these organizations. Further evidence indicates that business communities that have access to communication networks can enhance boycott activity.

Finally, we provide suggestive evidence on the impacts and limitations of these boycotts. Regarding the scope of protection, we find that boycotts occurred significantly more in

industries receiving special tariff protection from Japan, but not more in sectors of strategic importance to China's national defense. This suggests that while attacking Japanese imports aligned with merchants' private interests, protecting military sectors without direct profit motives did not. Using historical international trade data, we find that China's boycott movement led to a decline in Japanese imports to China by approximately 55.6% per year relative to other countries, before preceding government sanctions. This decline accounts for roughly 2.2% of Japanese annual GDP, which was substantial enough to have triggered Japan's strong appeal to end the boycotts. Furthermore, suggestive evidence indicates that boycotts enhanced soldier recruitment in the Sino-Japanese War from 1937 to 1945. However, this bottom-up sanction proved short-lived: as participants increasingly sought top-down state intervention, the self-organized boycotts ceased once the government signaled a future increase in tariffs. The merchants, having achieved their goal of shifting the burden of defense back to the state, saw their private incentives to organize vanish.

Our research contributes to three strands of research. First, our study adds to the large literature on conflicts, particularly on the role of the private sector amid conflicts. Most existing studies analyze how private-sector businesses can be passively affected by conflicts (Fisman, Hamao, et al., 2014, Camacho and Rodriguez, 2013, Korovkin and Makarin, 2023). Some studies hinted that businesses can (or possess the incentive to) undermine the efforts of national defense or prolong a conflict (Della Vigna and La Ferrara, 2010, Guidolin and La Ferrara, 2007, Fisman, Marcolongo, et al., 2025). By contrast, our study highlights that private-sector businesses can actively contribute to national defense by organizing boycotts, especially for weak states, which constitute a powerful socioeconomic countermeasure that is generally understudied in the conflict-resolution literature (Drezner, 2024, Davis and Engerman, 2003). This also aligns with the broader literature on how private-sector businesses can provide public goods, and we highlight that these public goods even include national defense, which is typically considered as the duty of governments (Méndez and Van Patten, 2022).

Second, our paper contributes to the literature on collective action. Regarding boycotts as a type of collective action, while the existing works predominantly analyze consumer participation motives (Pandya and Venkatesan, 2016, Abdul-Talib and Mohd Adnan, 2017, John and Klein, 2003), our study shifts the focus to the often-neglected “supply-side” of boycotts by revealing the organizational role of merchants. Regarding the collective actions of firms and merchants, the “protection-for-sale” literature focuses on how businesses self-organize to “buy” favorable trade policies from government through lobbying or political donations (Grossman and Helpman, 1994, Levy, 1999, Reynolds, 2006), assuming the state is capable of supplying these policies. In contrast, we examine an often-neglected scenario where such state capacity is absent, showing that the private sector can self-organize collective actions as bottom-up protectionism when top-down sanctions are infeasible.

Finally, we speak to the burgeoning literature on social forces and state capacity. The “war-makes-the-state” thesis (Tilly, 1985, Dincecco, 2017, Besley and Persson, 2009, Besley and Persson, 2010) predicts that external threats drive the development of state capacity. Our paper enriches the understanding about its dynamics by showing that when the state is too weak (or constrained) to respond, societal actors step in to provide a substitute for national defense through self-organized collective action. By focusing on business communities, we extend the study of commercial organizations from their economic impacts to their political influence (Mokyr, 2016; Zhou and Zhao, 2024; De la Croix et al., 2018; Olson Jr, 1971; Bennett, 1995). Furthermore, we discuss the withdrawal of social forces at the first sign of government intervention, contributing to the study of dynamic state-society relations (Acemoglu and Robinson, 2019, Acemoglu and Robinson, 2023).

The paper is organized as follows: Section 2 briefly introduces the history of Chinese boycott movements, Section 3 describes the data we use, Section 4 provides empirical evidence on the role of business interests in motivating boycotts, coordination tools to bypass coordination failures, and the consequences and limitations of boycotts, and Section 5 concludes.

2 Historical Background: Chinese Boycott Movements

In this section, we draw on extensive qualitative accounts from historical archives that document the detailed course of actions of the Chinese boycott movement in the 1930s. We aim at providing details on the organization of boycotts, the participation of merchants, the means to reinforce collective actions, and the attitudes of government authorities. The two most important sources for reference are C.F.Remer's *A Study of Chinese Boycotts*(Remer, 1933) and Zhiguo Wu's *A Study of Boycotts in Modern China*(Wu, 2009). Besides, we also refer to the rich material provided by Toru Kubo (Kubo, 2005) and Xiaocai Feng (Feng, 2006)

2.1 Why Boycotts?

When militarily invaded, weak states commonly resort to boycotts as a form of collective action to defend their national interests (Kam and Deichert, 2020; Fuchs and Klann, 2013; Heilmann, 2016; Weiss et al., 2023). Since the Boxer Rebellion in 1899–1900, the Chinese society has realized that directly confronting foreign powers through armed force was infeasible due to military disparities². Among all non-violent resistances, boycotts enjoy the highest benefit-cost ratio. Student strikes primarily pressure the domestic government without directly harming Japanese interests. Labor strikes result in the cessation of industrial production, inflicting losses on Chinese factories and leaving workers without wages. Market suspensions hurt all businesses equally and thus may even trigger collective backlash and retaliation by all trading partners. In contrast, a targeted boycott allowed the domestic economy to function while focusing economic damage exclusively on the aggressor.

²The Boxer Rebellion, a violent grassroots movement against foreign interference and colonialism, proved that violent anti-foreign resistance only invited devastating joint military reprisals from the “Great Powers”, which ultimately brought immense calamity to the nation. By the Mukden Incident, the disparity in military capability between China and countries trading with China had remained large, making non-violent resistance the mostly (if not the only) leveraged approach.

2.2 The Machinery of Boycotts

As a form of collective action, boycotts face classic free-rider problems: individual buyers bear the welfare loss of boycotting while the “public good” of national defense is shared by all. Historical accounts indicate that the Chinese movement overcame these challenges through mechanisms highly consistent with Olson’s theory: a small, organized group, driven by special interests, mobilized the movement via effective monitoring and selective incentives.

Merchants as the “Special Interests Group”

Olson (Olson Jr, 1971) posits that “the narrow ‘special interests’ of the small group tend to triumph over the (often unorganized and inactive) interests of the people.” Here, special interests refer to benefits gained by a specific group beyond the public interest shared by all. In our context, merchants served as a “special interest group”; they were far fewer in number than consumers and were thus much easier to coordinate in collective action.

Crucially, domestic merchants held a private special interest beyond national defense: capturing market share from Japanese competitors. Historical evidence confirms that domestic firms flourished during waves of anti-imperialist boycotts. For example, during the 1925 movement, while the British-American Tobacco Company (BAT) saw a near-total collapse in sales, the Nanyang Brothers Tobacco Company—a Chinese competitor—doubled its sales in established markets and seized the opportunity to expand into the untapped Upper Yangtze region³. As the son of Nanyang’s founder reflected:

“After every anti-imperialist movement, our business flourished. Time and again, these boycotts rescued us from crisis.⁴”

As primary beneficiaries, domestic goods merchants were the movement’s most active

³See Sherman Cochran’s *Big Business in China* for details provided by the British consular reports.

⁴Further cases indicate that domestic goods merchants benefited significantly. The Chinese Sanbei Steamship Company expanded operations during the 1919 and 1925 boycotts. The Shanghai Hengfeng Cotton Mill reported 1919—the year it severed ties with Japanese merchants—as its most profitable year. Similarly, while British firms Jardine and Swire and Japan’s Nissin saw business collapse in Zhejiang in 1925, the China Merchants Steam Navigation Company flourished.

participants. During the 1925 boycott, the Nanyang Brothers Tobacco Company donated one thousand dollars daily to the Shanghai Student Union and dispatched personnel to assist students, on the condition that they promote Nanyang products while boycotting foreign brands.⁵

Throughout the movements leading up to the 1930s, it is not uncommon to observe that domestic merchants leveraged business organizations—most notably chambers of commerce and industrial guilds—to enforce collective action. These organizations were not always monoliths; if a chamber was dominated by Japanese goods dealers, domestic merchants could revolted to shift its stance. For example, national goods traders in Taiyuan allied with twelve guilds to denounce a pro-import chamber and establish a rival, domestic-focused organization. In addition to the pressure from domestic goods merchants, merchants rallied around business communities also to avoid an outside threat: the harsher, often physical or even lethal punishments imposed by student unions. By leading the movement, business organizations could substitute these outside threats with more predictable reputational or financial penalties. Some associations used vague statements, such as “the noncompliant will be severely punished,” without specifying the method. This strategic lenience made participation more palatable for the broader merchant class.

Business Communities as Organizers

Local chambers of commerce and industrial guilds performed at least four critical functions: formulating embargo lists, conducting inspections, verifying product origins, and sanctioning non-compliant members. By the 1930s, Japanese imports were so deeply embedded in the Chinese economy that a full-scale embargo would have paralyzed the society. Embargo lists were thus necessary to balance the stakes of all firms, ensuring that essential Japanese imports lacking viable substitutes were exempt. For example, the Hangzhou Chamber of Commerce decided that Japanese sugar and yarns should be exempted from the boycott in

⁵Nanyang personnel assisted students in causing disturbances against BAT's small distributors and retailers, even monitoring BAT warehouses to guide boycott teams to seal detected shipments.

1925 due to their low substitutability and critical role in the local economy.

Once the list was settled, business associations performed regular physical inspections on stock and new purchases. During the anti-Japanese boycott from 1931 on, the Anti-Japanese National Salvation Association formally mandated that each guild should appoint dedicated inspectors by October 1931 to carry out duties in coordination.

Another essential task of business associations is the verification of whether a product fell under the embargo list. It is surprisingly challenging, as Japanese merchants labeled their products with counterfeit Chinese trademarks, skillfully disguising them as “authentic national goods.” Chambers of commerce from the product’s place of origin served as notary authorities, with their *national network* for cross-regional certification. For instance, when doubts arose in 1931 regarding the origin of textiles shipped from Tianjin to Shanghai, the Tianjin Chamber provided formal certification to its Shanghai counterpart. This verification system allowed the Shanghai Chamber to instruct its inspection teams to avoid “misunderstandings” and protect the interests of domestic producers.

Finally, business communities ensured compliance through targeted sanctions. In Shanghai, for instance, the Chamber of Commerce coordinated financial exclusion by urging banks to sever ties with non-compliant firms. Similarly, the Tianjin Sea Products Association imposed monetary fines and expelled members found trading in Japanese goods. In another example, Shanghai business associations mandated that merchants print “No Japanese Goods Used” on all business stationery, where any breach of the boycott led to severe reputational ruin. These enforcement mechanisms functioned as the negative selective incentives described by Olson Jr, 1971—by internalizing the costs of defection, associations effectively neutralized the free-rider problem.

2.3 The Mukden Incident and the Inactive Chinese Government

The Mukden Incident was a significant military aggression that marks a turning point in Sino-Japanese relations. On September 18, 1931, a small explosion damaged a section

of the Japanese-controlled South Manchuria railway near Mukden (now Shenyang, Liaoning Province). Japanese Kwantung Army officers immediately blamed Chinese saboteurs and, without waiting for authorization from Tokyo, launched military operations to occupy key Manchurian cities. Despite China's appeals to the League of Nations, Japan's forces rapidly consolidated control over Manchuria, China's industrial heartland, occupying more than 14 percent of the entire Chinese territory.

Unlike many other conflicts arising from gradual planning or mutual provocations, the Mukden Incident was a calculated surprise. Believing that a conflict in Manchuria served Japan's interests, Kwantung Army Colonel Seishirō Itagaki and Lieutenant Colonel Kanji Ishiwara, independently devised this explosion without authorization. Although General Shigeru Honjō, Commander-in-Chief of the Kwantung Army, initially disapproved this action, the prospect of immense territorial expansion ultimately secured his endorsement. The civilian government, led by Prime Minister Wakatsuki Reijiro, was caught off guard and attempted to enforce a non-expansion policy⁶. However, they lacked the authority to restrain the Kwantung Army's advance, which rapidly occupied large parts of Manchuria.

The failure of top-down protectionism left a policy vacuum that could only be filled by spontaneous, grassroots collective action. Responding to the Mukden Incident, the Chiang Kai-shek Kuomintang government (i.e., central government of the Republic of China) adopted a non-resistance policy, ordering the Chinese Northeast Army to withdraw without resistance while appealing to international mediation⁷. Moreover, the economic toolkit for

⁶According to a document from the Modern Japan in Archives of the National Diet Library, “Harada Kumao, private secretary to the Genro Saionji Kinmochi, left in his diary a scrupulous account of Prime Minister Wakatsuki Reijiro’s *agitation upon* learning of the Manchurian Incident, as well as the subsequent actions of the Cabinet and the Imperial Court. The Cabinet immediately laid down a non-expansionary policy, but the Kwangtung Army continued carrying out its expansion into Manchuria.” This suggests that the Japanese government, lacking control of the Kwantung Army, was unaware of the Mukden Incident. This document also mentioned the divergent views on this military incident in the Japanese Cabinet and the political struggles to prevent further expansions, suggesting that the Japanese government was caught off guard.

⁷Chiang Kai-shek was the highest leader of the Republic of China, and prioritized internal pacification before external resistance. His strategy was to concede Manchuria to buy time against the Communist Party of China. On Sep 20, 1931, Chiang wrote in his diaries that he would “temporarily endure humiliation to await international justice” (original in Chinese: “暫取逆來順受態度，以待國際公理之判斷”).

deterring Japan was also limited, and there is virtually no room to use tariff hikes as an economic countermeasure. In May 1930, China and Japan had signed the Sino-Japanese Tariff Agreement, which mandated low import duties for up to three years on several major trade sectors⁸. Although the Chiang government ordered a sharp escalation of tariff rates when this agreement expired in 1933, the new tariffs were suspended due to intense opposition from Japan, despite significant domestic support. Ultimately, a modified version was implemented in July 1934 that granted even greater advantages to Japanese imports, sparking a massive backlash from Chinese society.

The government offered very limited support for the boycotts in the 1930s and even adopted a repressive stance in the initial phase. This non-supportive approach was driven by two primary concerns: the fear that the Chinese Communist Party might seize the collective action to expand its influence, and the diplomatic and military pressure exerted by Japan to end the boycotts⁹. Despite issuing explicit decrees to constrain boycott activities, the government's repressive measures proved largely ineffective in stifling popular sentiment¹⁰. In response to the diplomatic pressure, the Chinese authorities maintained that they could not interfere with a spontaneous and popular refusal to purchase Japanese goods, gradually shifting toward a posture of tacit acquiescence. Overall, government backing for the boycotts remained very limited. In response to the counter-argument that the movement was substantially directed by the state, Remer (Remer, 1933) wrote:

“...to argue that [the Kuomintang government] was responsible for initiating the boycott or that it was necessary for the party to coerce students and workmen

⁸China had fully lost tariff autonomy since the Opium Wars ended in 1842. After the establishment of Nanking National Government, China first attempted to retrieve tariff autonomy in 1928. China's attempt was strongly repelled by Japan, as China was the second largest export destination of Japanese goods. In 1928, China's purchase represented 26% of the total value of Japanese exports, right next to the United States, which absorbed 41.2%. The Sino-Japanese Tariff Agreement was a result of Japan's denial on China's tariff autonomy.

⁹For detailed description on Japanese response, please check the first section of the Appendix.

¹⁰For example, pressured by the Japanese government, the Chinese government issued an order suppressing all anti-Japanese associations and putting an end to the boycott on May 6, 1932. Still, as Remer noticed, anti-Japanese associations “decided to continue the boycotts in the middle of May, and boycotts kept rising in Tianjin, Nanking, Hankow, and Hong Kong” (Figure 5b shows no decline in boycott from May, 1932 on).

into taking part is not justified by an impartial investigation of the facts... Although some evidence can be found of official encouragement and even official participation, the boycott is certainly not the Chinese state in action.”

The minimal official participation allows for a clearer assessment of the role of merchants.

3 Data and Measurements

Data

To quantify boycott intensity, we manually collect over 30,000 newspaper articles from the *Chinese Periodical Full-Text Image Database (1911–1949)*, identifying more than 10,000 boycotts. For each action, we extracted the date, industry, location, and tactics used, such as parades and sabotage (see an example in Figure A1). We also gather data on related collective actions, including labor strikes and “buycott” advertisements.

The main variable of interest is the commercial competition between China’s domestic goods and Japanese imports, which proxies the business incentives to participate in boycotts. To construct this measure, we combine the data of Chinese industrial structure from the *Survey of Industrial Enterprises in the Republic of China* and the Chinese customs data. The former covers 1,206 factories of 169 products across 17 provinces, while the latter records the annual value of imports by 47 ports and 534 product categories. To the best of our knowledge, these two datasets provide the most comprehensive and detailed coverage of domestic production and international trade in 1930s China, which are used in other economic research (Keller and Shiue, 2020). To link ports with cities, we obtain inland circulation records of imported goods from *the Historical Statistics of China’s Customs: 1859–1948*. A city is connected to a port if that port served as the entry point for imports circulating in the city in 1919¹¹.

¹¹After 1920, the modern customs ceased reporting information on trade flows between ports and inland areas. Data from the modern customs indicates that the proportion of trade between each port and various inland regions remained stable from the 1920s to the 1930s.

To examine mechanisms and outcomes, we incorporated several additional datasets. We obtain the firm entry data from *the 1928-1937 List of Firm Establishment* by Xuncheng Du. Data on business organizations is sourced from the *Table of Agricultural and Commercial Statistics* and the *Committees of Shanghai Industrial and Commercial Organizations*, which allow us to track the chambers' year of establishment, number of board directors, and guilds' number and member counts. We obtain the martyr data from *the Compilation of Materials on Martyrs in the Sino-Japanese War* (published in 2012) and its sequel, extracting county-level birthplace of martyrs from the 1937–1945 Sino-Japanese War. We gather the historical bilateral trade data from *the Historical data 1900-1960 – UN Statistics Division*. Finally, we draw on various historical documents to control for regional characteristics such as population, infrastructure, distance from Mukden, and historical patriotic or religious movements, as detailed in Appendix Table A1.

Measurements

The primary variable of interest, CoI_c , captures the business incentives of domestic merchants in city c to participate in anti-Japanese boycotts. We proxy this incentive by the level of commercial competition between domestic products manufactured in city c and Japanese imports, as expressed in Equation 1:

$$CoI_c = \sum_{i \in \mathbb{I}_c^{overlap}} \sum_{p \in \mathbb{P}} \frac{\text{importJPN}_{p,i}}{\text{distance}_{c,p}} \times \frac{\text{output}_{c,i}}{\text{totaloutput}_c} \quad (1)$$

where c , p , and i represent prefecture-level cities, ports, and industries, respectively. \mathbb{P} denotes the set of ports that are linked to city c in the sense that foreign goods flew to the province of city c in 1919 via port p . Crucially, $\mathbb{I}_c^{overlap}$ represents the set of Sino-Japanese “overlapping” industries—those in which products were imported from Japan while simultaneously being produced by Chinese firms in city c (Appendix Figure A2 illustrates these overlaps across eight broad industrial categories).

The first term, $\frac{\text{importJPN}_{p,i}}{\text{distance}_{c,p}}$, proxies city c 's exposure to Japanese imports in industry

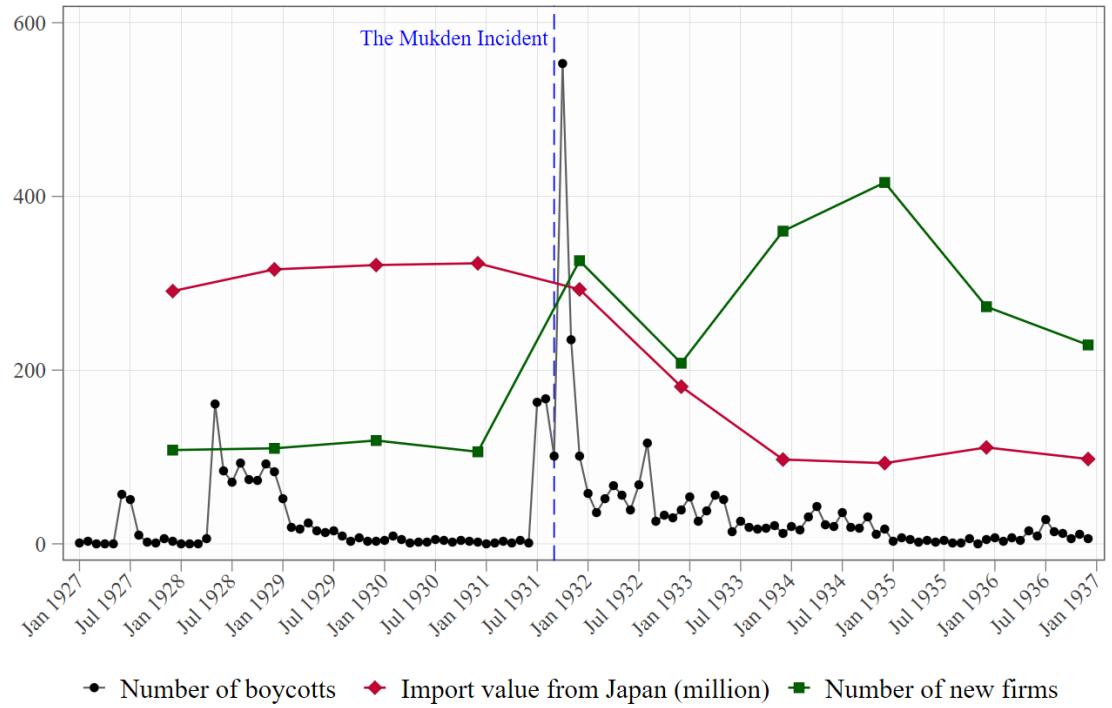
i entering through port p . $importJPN_{p,i}$ represents the total import value of category i through port p , provided that category i contains Japanese imports at the national level. We deliberately avoid using port-specific Japanese import volumes for two reasons. First, historical records do not consistently report the country-of-origin for imports at the individual port level. Second, using national-level product categories addresses endogeneity concerns: it prevents our measure from being contaminated by local idiosyncratic demand for Japanese goods, which could be correlated with a city's underlying propensity to boycott. By utilizing the distance-weighted sum, we compensate for the lack of prefecture-industry level consumption data; the closer a city is to a major import hub, the higher its exposure to Japanese competition. The second term, $\frac{output_{c,i}}{totaloutput_c}$, captures the relative scale of domestic production in industry i within city c . We apply a logarithmic transformation to both import and output values to mitigate the influence of extreme values and outliers.

To address the alternative explanation that higher exposure to Japanese goods can mechanically inflict more boycotts regardless of domestic business interests, we also construct a measure of general exposure, as shown in Equation 2. Unlike CoI_c , this proxy is not restricted to overlapping industries or city c 's industry structure:

$$ExposureJPN_c = \sum_{p \in \mathbb{P}} \frac{importJPN_p}{distance_{c,p}} \quad (2)$$

Figure 1 illustrates the trends and spatial distribution of CoI_c , boycott frequency, and economic outcomes. Panel 1a highlights the watershed nature of the Mukden Incident: following the event, boycotts skyrocketed to nearly 600 cases in the subsequent month. This surge is synchronically associated with a sharp decline in Japanese exports to China and a corresponding rise in Chinese domestic firm entries. This pattern is consistent with the anecdotal evidence that domestic merchants expanded their business during waves of nationalist boycotts in early 20th century of China. Panels 1b and 1c further reveal a strong spatial correlation, suggesting that cities facing the most intense business competition from

Japan were indeed the primary sites of boycott activity in 1931.



(a) Time Trends of Boycotts, Japanese Exports to China, and Domestic Firm Entrance

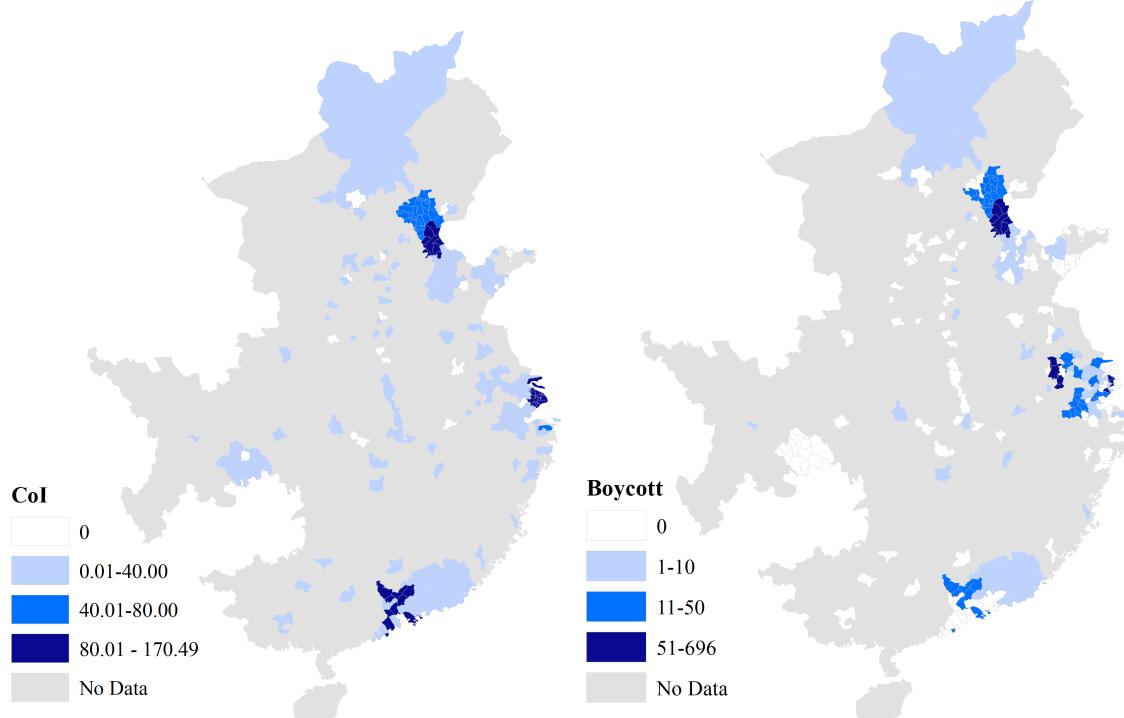


Figure 1: Temporal/Spatial Distribution of Boycotts, Sino-Japanese Commercial Competition, and Economic Outcomes

Notes: In figure (a), we plot the monthly count of boycotts against Japanese goods from 1927 to 1936, the annual import value of products from Japan to China during the same period (in million customs taels of silver), and the number of newly established firms each year. Figures (b) and (c) illustrate the spatial distribution of the CoI (Commercial Competition Index) and the frequency of boycotts against Japanese goods in 1931, respectively.

4 Empirical Evidence

4.1 Baseline Analysis: Effect of Business Interests on Boycotts

We employ a prefecture-day panel within a narrow 31-day window surrounding the Mukden Incident. This allows us to address bias caused by a potentially anticipated occurrence of the war. Using a Difference-in-Differences (DiD) framework, we test whether cities with higher potential conflicts of interest (CoI_c) responded more intensely to the rise of nationalist sentiment triggered by the Mukden Incident. We estimate the following specification:

$$Boycott_{ct} = \beta(CoI_c \times Mukden_t) + \mathbf{X}'_{ct}\Gamma + \alpha_c + \gamma_t + \epsilon_{ct} \quad (3)$$

, where $Boycott_{ct}$ is the logarithm of the daily number of boycotts plus 0.1. $Mukden_t$ is an indicator for the period following September 20, 1931, when the general public first learned the Mukden Incident from mass media. Given that our dependent variable is derived from newspaper reports, we control for the number of periodicals in circulation exactly one month prior to the observation date to account for variations in media coverage. We also include interactions between time-invariant regional characteristics and the post-Mukden indicator. Such regional characteristics include population (Population Density), patriotic movements during the 1919 May Fourth (Student Movement and Assembly), and economic development (Open and Investment).

Table 1 presents the baseline results. Column (1) confirms that regions with greater business incentives experienced significantly more boycotts following the incident. To address the alternative explanation that higher exposure to Japanese imports mechanically leads to more boycotts, Column (2) includes an interaction between the post-Mukden indicator and general Japanese import exposure ($ExposureJPN_c$). The coefficient β remains positive and statistically significant with minimal change in magnitude. In Columns (3) through (7), the effect of business incentives remains robust to the inclusion of various controls, while the

effect of general import exposure becomes statistically insignificant. In Column (7), with all control variables, according to our estimate, a one-standard-deviation increase in our measure of business incentives leads to a 15.46% increase in the frequency of boycotts.

Figure 2 displays the event study plots for daily and quarterly samples separately, based on the baseline setting without any control variables. Using daily data with 31-day window and quarterly data with two-year window, we observe clear parallel trends in the pre-event period. Furthermore, the treatment effect is not merely a short-term reaction; it persists for at least two quarters following the Mukden Incident.

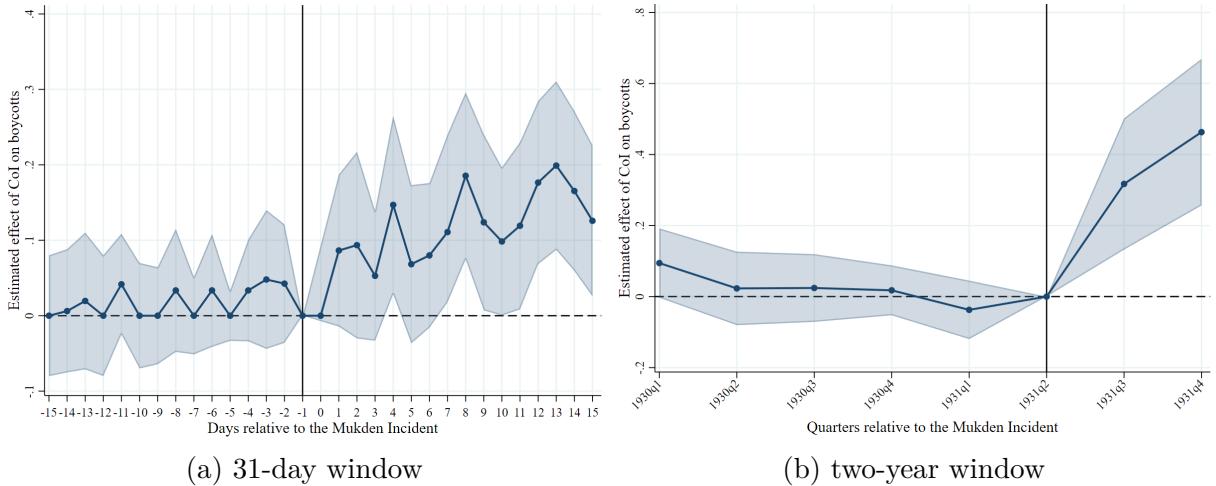


Figure 2: Event Study: the Dynamic Impact of Sino-Japanese Commercial Competition on Boycotts

Notes: This figure shows the dynamic treatment effect of Sino-Japanese commercial competition on boycotts, with prefecture-day sample (left) and prefecture-quarterly sample (right). We show the 95% confidence interval. The standard errors are adjusted for spatial and temporal correlations (Colella et al., 2019).

We proceed to examine the robustness of results to measurement errors. First, to address the issues due to the logarithm of the count-based dependent variable (J. Chen and Roth, 2024), we re-estimate the model using: i) inverse hyperbolic sine transformation (Cao and S. Chen, 2022); ii) the raw count of boycotts; and iii) a binary indicator for the occurrence of a boycott. Second, we address potential measurement error in CoI_c by discretizing the variable into treatment and control groups based on various percentile thresholds. As shown in Table A3 and Table A4, the baseline estimate remains positive and significant at the 5%

Table 1: The Impact of Sino-Japanese Commercial Competition on Boycotts: DD Estimates
 (Sample: Prefecture-Day, 1931-9-5 to 1931-10-5)

| | Boycott | | | | | | |
|-----------------------------|---------------------|--------------------|---------------------|---------------------|--------------------|---------------------|---------------------|
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| Col × Mukden | 0.097*** (0.032) | 0.094** (0.032) | 0.094*** (0.032) | 0.092*** (0.031) | 0.074** (0.029) | 0.058*** (0.022) | 0.055*** (0.020) |
| ExposureJPN × Mukden | | 0.009** (0.004) | 0.009** (0.004) | 0.006 (0.005) | 0.006 (0.006) | 0.006 (0.006) | 0.007 (0.006) |
| Media | | | -0.029 (0.102) | -0.030 (0.102) | -0.008 (0.101) | -0.064 (0.109) | -0.071 (0.110) |
| Population Density × Mukden | | | | 0.046 (0.053) | -0.012 (0.042) | -0.012 (0.048) | -0.021 (0.046) |
| Student Movement × Mukden | | | | | 0.084** (0.042) | 0.008 (0.063) | 0.006 (0.063) |
| Assembly × Mukden | | | | | 0.122 (0.097) | 0.185 (0.115) | 0.192* (0.116) |
| Open × Mukden | | | | | | 0.048** (0.021) | 0.047** (0.021) |
| Investment × Mukden | | | | | | | 0.070** (0.032) |
| Prefecture FE | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Year-Month-Day FE | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Observations | 4,309 | 4,309 | 4,309 | 4,309 | 4,309 | 4,309 | 4,309 |
| R-squared | 0.035 | 0.036 | 0.036 | 0.037 | 0.047 | 0.059 | 0.062 |

Notes: ***p<0.01, **p<0.05, *p<0.1. Standard errors in parentheses are adjusted for spatial and temporal correlations (Colella et al., 2019). For spatial correlation: we assume cities within 200 km exhibit spatial dependence, with correlation decreasing as distance increases. For temporal correlation: we assume temporal autocorrelation exists in anti-Japanese boycotts within the same city for up to 10 days. In robustness checks, we test different spatial distance thresholds and temporal correlation thresholds (see Figure A3 in the Appendix). All regressions include city and day fixed effects. Column (1) shows the baseline results without control variables. Column (2) adds regional exposure to Japanese goods. Column (3) controls for the weekly variety of newspaper publications with a one-month lag at the city level to control for media development across regions. Column (4) includes population density (1918 population (in thousands) divided by administrative area (in square kilometers)). Column (5) adds regional variations in past patriotic movements. Column (6) includes the duration of port openness for each region as of 1931. Column (7) further controls for the presence of investments in military enterprises from the Westernization Movement.

or 1% level across all above alterations. Additionally, our results are also robust to including other potential confounders (Table A5).

4.2 Robustness Checks: Alternative Explanations

While our baseline results are consistent with the hypothesis that merchants' business interests drive boycotts, we acknowledge three potential alternative drivers: (i) local government mobilization, (ii) student union activity, and (iii) labor union activity. These factors might influence boycott intensity in ways that correlate with merchant incentives, potentially biasing our estimates. Furthermore, since our dependent variable is derived from newspaper reports, the data could be skewed if media outlets selectively report only significant movements or slant their coverage toward specific industries or regions, possibly due to sponsorship or personal connections. To deal with the concerns mentioned above, we provide robust checks below.

Cross-industry Analysis within Shanghai

To control for the influence from local government and student union, we isolate the role of merchant incentives from city-level confounders, and conduct a within-city, cross-industry analysis focusing on Shanghai. This approach nonparametrically holds constant the influence of local government and student unions, as these entities generally lack the incentive to favor one specific industry over another when organizing broad nationalist collective actions. Shanghai serves as an ideal subsample for this test, as it provides the most granular data on the specific industries involved in boycott activities. We estimate the following specification:

$$Boycott_{it} = \beta(CoI_i \times Mukden_t) + \mathbf{X}'_{it}\Gamma + \alpha_i + \gamma_t + \epsilon_{it} \quad (4)$$

, where i denotes the industry and t denotes the day within the 31-day window or the 12 months in 1931. The key variable, CoI_i , represents industry-specific conflict of interest, defined as:

$$CoI_i = importJPN_i \times \frac{output_{i,SH}}{totaloutput_{SH}} \quad (5)$$

The first term captures industry-level exposure to Japanese imports (which entered through the port of Songjiang for the Shanghai market), and the second term captures the relative importance of industry i to Shanghai's total domestic production.

Columns (1) and (2) of Table 2 present the estimates. Using both daily and monthly Shanghai data, we find that industries facing higher competition from Japanese imports experienced significantly more boycotts, consistent with the baseline results. Figure A4a confirms the parallel trends using monthly data. Since no boycotts were recorded in the immediate pre-event period in the daily panel, we provide a scatter plot in Figure A4b illustrating the correlation between post-Mukden boycott frequency and industrial-level competition.

Consumer Substitution vs. Industrial Interests

One might argue that our key variable CoI is inherently a proxy for product substitutability, because where domestic production exists, consumers face a lower opportunity cost to boycott.

To disentangle whether the effect is driven by consumer choice or merchant mobilization, we distinguish between consumer and producer (intermediate) goods. First, using the Shanghai subsample, we compare boycott intensity across industries producing consumer versus producer goods.¹² As shown in Column (3) of Table 2, industries producing consumer goods do not experience significantly more boycotts than those producing producer goods. Second, we categorize all products in the customs database into consumer or industrial goods and then calculate the prefecture-level Sino-Japanese competition in producer-goods industries and consumer-goods industries respectively¹³. Columns (4)–(6) show that Sino-Japanese competition in both sectors significantly contributes to boycott activity, suggesting that the effect is not confined to the consumer market.

¹²Among the 16 product categories in the Shanghai data, 10 are classified as consumer goods (e.g., textiles, food, and tobacco), while the remainder are classified as producer/intermediate goods (e.g., raw materials and industrial components).

¹³To do so, we categorize all products into consumer goods and industrial goods based on product characteristics in the customs database. The division principle largely follows our categorization of the 16 product types in Shanghai, which is specified in the previous footnote.

Furthermore, we examine whether the availability of substitutes from other foreign importers facilitates boycotts by lowering the opportunity cost for consumers. Using the import records from various countries at the product level, we first construct a Herfindahl-Hirschman Index (HHI) for port-level product competition, and then aggregate to city-level using the inverse of distance. This city-level HHI captures the substitutability of Japanese goods with imports from the rest of the world. If consumer substitution were the primary driver, we would expect higher competition (lower HHI) to amplify boycotts. However, Column (7) reveals an insignificant coefficient for the interaction $HHI \times Mukden$, while our key interaction $CoI \times Mukden$ remains positive and significant. Finally, the triple interaction $CoI \times HHI \times Mukden$ is insignificant (Column 8), indicating that higher substitutability does not enhance the effect of industrial competition. Collectively, these results suggest that although consumer-side substitution can be a driver of boycotts, the role of domestic producers remains robustly significant.

Labor Union Activity

We further investigate whether labor unions, rather than merchant groups, served as the primary organizers of the boycotts. If labor unions were the driving force, we would expect to see a surge in labor-related strikes in industries with higher Sino-Japanese competition. To test this, we utilize industry-month level data for Shanghai, regressing three distinct labor-related outcomes on our CoI measure. As shown in Columns (9)–(11) of Table 2, industrial competition does not significantly predict the number of strikes, changes in wages, or the loss of working hours due to labor disputes. This lack of a “strike response” in high-competition industries suggests that laborers’ force is unlikely the major driving force of boycotts.

Media Bias

A potential concern is that the reporting of boycotts can be slanted by the political leanings of local governments, the interests of business sponsors, or the perceived “newsworthiness” of specific events. Before diving into the details, it is worth noting that China’s newspapers in

the 1930s were largely independent of local governments' control (Mittler, 2004). Moreover, none of the popular newspapers used in our data collection had Japanese ownership or capital, making it unlikely that the coverage is biased in favor of Japan.

To consolidate our analysis, we re-estimate our baseline model with two alterations. First, following Depetris-Chauvin et al., 2020, we restrict our baseline analysis to more newsworthy boycotts. Columns (12) through (14) of Table 2 report the effect of CoI_c on (i) prefecture-level boycotts involving violence, (ii) industry-level boycotts advocating for embargoes or penalties, and (iii) industry-level boycotts actively implementing such measures. The coefficients remain largely comparable to our baseline estimates, implying that the baseline result is robust to the media bias toward more newsworthy events.

Second, we re-measure boycott frequency in Shanghai using newspapers circulated within Shanghai's foreign concessions (Column 15) and *the North China Herald*, an English-language newspaper in Shanghai (Column 16)¹⁴. These newspapers were operated more independently from political and commercial biases than the domestic Chinese press. Columns (15)-(16) of Table 2 show that the estimates remain comparable and significant to the baseline estimates. This suggests that our findings are robust to potential media slant.

4.3 How Merchants Overcame Collective Action Problems

As a form of collective action, the Chinese boycotts in the 1930s faced the classic free-riding problem. Naturally, this is because while the benefits of national defense is shared by all, the cost of participation is borne by individuals. The collective action literature, most prominently Olson's theory, identifies several conditions under which such coordination failures can be overcome: (i) a small special interest group; (ii) incentives that tie private rewards to participation; and (iii) organizational capacity to coordinate and monitor compliance. Having established that merchants constituted a motivated "small group" in

¹⁴As one of the first and the most populous English newspapers circulated in China, the *North China Herald* reports the famous anti-Japanese Defense of Sihang Warehouse in 1937. This implies that this newspaper is unlikely pro-Japanese.

Table 2: Robustness Check: Alternative Explanations

| Sample: | Baseline Shanghai Dep Var: Boycotts | | | Consumers' Influence Dep Var: Boycotts | | | | |
|--|--|---------------------|---------------------|---|-----------------------|---------------------------|---------------------|--------------------|
| | (1) SH | (2) SH | (3) SH | (4) Full | (5) Full | (6) Full | (7) Full | (8) Full |
| CoI × Mukden | 0.031*** (0.006) | 0.130*** (0.026) | 0.021*** (0.008) | | | | 0.053*** (0.020) | 0.069** (0.029) |
| CoI × Mukden × Consumer | | | 0.017 (0.012) | | | | | |
| Mukden × Consumer | | | -0.151 (0.117) | | | | | |
| $CoI_{Consumer} \times$ Mukden | | | | 0.051*** (0.019) | | 0.040*** (0.013) | | |
| $CoI_{Producer} \times$ Mukden | | | | | 0.063** (0.031) | 0.048* (0.027) | | |
| HHI × Mukden | | | | | | | 0.076 (0.047) | 0.152* (0.080) |
| CoI × Mukden × HHI | | | | | | | | -0.038 (0.049) |
| Sample Frequency: <i>Fixed Effects:</i> | Day | Month | Day | Day | Day | Day | Day | Day |
| Industry FE | Yes | Yes | Yes | No | No | No | No | No |
| Year-Month FE | No | Yes | No | No | No | No | No | No |
| Day FE | Yes | No | Yes | Yes | Yes | Yes | Yes | Yes |
| City/Prefecture FE | N/A | N/A | No | Yes | Yes | Yes | Yes | Yes |
| Observations | 496 | 192 | 496 | 4,309 | 4,309 | 4,309 | 4,309 | 4,309 |
| R-squared | 0.181 | 0.714 | 0.180 | 0.062 | 0.062 | 0.066 | 0.063 | 0.064 |
| Laborers' Influence | | | | | | | | |
| Sample: | Dep Var: Labor Strikes' Freq | | | Dep Var: Boycotts that are Violent | | | | |
| | Wage Loss | Hour Loss | Full | Pro- Penalties | Imposing Penalties | Covered by Concessions | Media in English | |
| | (9) SH | (10) SH | (11) SH | (12) Full | (13) SH | (14) SH | (15) SH | (16) Full |
| CoI × Mukden | -0.026 (0.029) | -0.069 (0.076) | -0.076 (0.082) | 0.025** (0.011) | 0.134*** (0.022) | 0.104*** (0.020) | 0.014** (0.007) | 0.014* (0.007) |
| Sample Frequency: <i>Fixed Effects:</i> | Month | Month | Month | Day | Month | Month | Day | Day |
| Industry FE | Yes | Yes | Yes | No | Yes | Yes | Yes | No |
| Year-Month FE | Yes | Yes | Yes | No | Yes | Yes | No | No |
| Day FE | No | No | No | Yes | No | No | Yes | Yes |
| City/Prefecture FE | No | No | No | Yes | No | No | No | Yes |
| Observations | 192 | 192 | 192 | 4,309 | 192 | 192 | 496 | 4,309 |
| R-squared | 0.371 | 0.286 | 0.294 | 0.022 | 0.630 | 0.555 | 0.171 | 0.021 |

Notes: ***p<0.01, **p<0.05, *p<0.1. Columns (1) and (2) show the cross-industry analysis using the Shanghai daily and monthly subsample. Column (3) compares the response of consumer goods industries and producer goods industries using the Shanghai by-industry subsample. Columns (4)-(5) divide all products into consumer goods and industrial goods based on product characteristics in the customs database, and then construct the CoI indicators separately. Column (6) includes both indicators simultaneously. Columns (7)-(8) shows how competition between Japanese goods and other imports can stimulate boycotts. HHI is constructed at the product level and then aggregated to the port level using each product's import weights. Columns (9)-(11) show the effect on strikes – the dependent variables in columns are as follows: number of strikes ($\log(\#Strike+0.1)$), wage loss due to strikes ($\log(\#wage+1)$), and man-hours lost due to strikes ($\log(\#hour+1)$). Column (12) uses the frequency of anti-Japanese boycotts involving violent tactics as the dependent variable. Columns (13)-(14) sequentially exclude lenient boycotts. Column (15)-(16) uses the reported number of boycotts by industry in Shanghai-based concession newspapers and the number of reported nationwide boycott movements covered by *The North-China Herald and Supreme Court & Consular Gazette (1870-1941)*.

the preceding sections, we now confirm the remaining conditions that sustained collective action.

Industry-Specific Business Interests: Market Expansion

We first test whether the boycotts generated tangible business opportunities that served as a “carrot” for participation. We estimate Equation 6:

$$Entry_{it} = \beta Boycott_i \times Mudken_t + \Gamma_{i,t} + \alpha_i + \gamma_t + \epsilon_{it} \quad (6)$$

, where $Entry_{it}$ represents the logged number of newly entered Chinese firms and $Boycott_i$ represents the logged total number of reported boycotts in 1931. Figure 3 shows prefectures (Figure 3a) and industries (Figure 3b) with more boycotts established significantly more new Chinese firms, an effect that persisted for years. Our estimates indicate that doubling boycotts increases firm entrance by 18.1% at prefecture level and 38.1% at industry level in the subsequent 6 years (Column 2 and 3 in Table A6). While the baseline shows that the business interest to capture competitors’ market share motivated boycotts, the above result further confirms that boycotts successfully achieved market expansion.

Crucially, the above economic gains are not economy-wide: they accrue primarily to industries where collective action was frequent enough to effectively displace Japanese rivals. Anticipation of these participation-contingent economic rewards incentivized merchants to contribute to boycotts in ex ante. In this sense, expected market expansion functioned as a selective incentive at the industry level, helping to deter cross-industry free-riding.

We provide further evidence of this ex-ante anticipation by examining “buycott” advertisements within the 30-day window around the Mukden Incident. Buycott advertisements express businesses’ resolution to produce better domestic substitutes for Japanese imports and meanwhile encourage consumers to purchase their goods out of patriotism¹⁵. Con-

¹⁵Buycott ads largely resemble the patriotic marketing strategy as documented in the literature (Sun et al., 2021; Hendel et al., 2017).

ceptually, firm entry captures *realized* market expansion, whereas *instantaneous* “buycott” advertisements reflect the *expected* market expansion before it is realized. As shown in Figure 3, buycotts are positively correlated with boycotts even within 15 days after the Mukden Incident. Column (1) of Table A6 also shows that greater Sino-Japanese commercial competition predicts more buycott advertisements. Because firm entry is infeasible within such a short time frame, this early marketing strategy suggests that merchants anticipated a market vacuum following collective action, which incentivized merchants to contribute to boycotts.

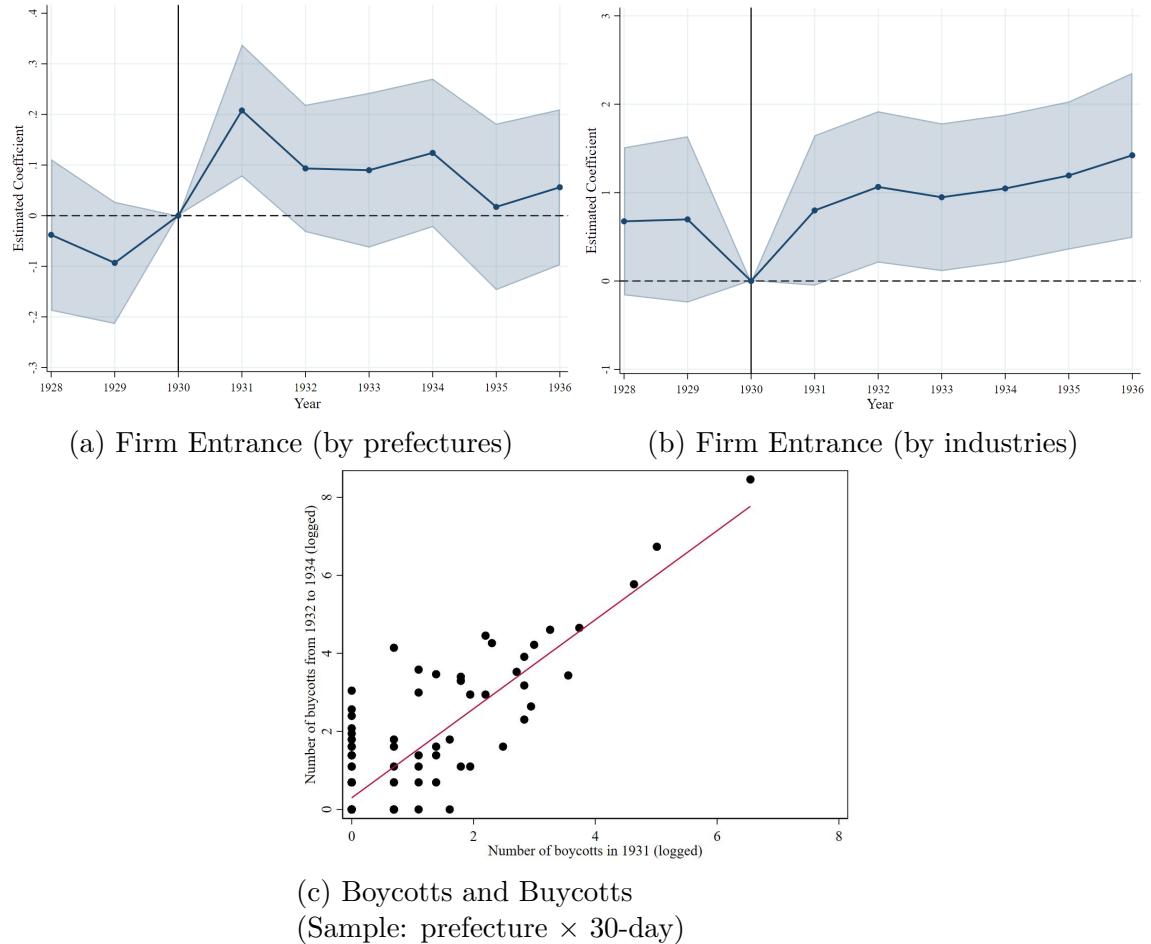


Figure 3: Firm Entry and Buycotts

Notes: Figure (a) plots the dynamic effects of boycotting Japanese goods on firm entry at the prefecture-year level, while Figure (b) illustrates the corresponding dynamic effects at the industry-year level within Shanghai Prefecture. Both analyses use 1930 as the baseline, with confidence intervals set at 95%. Figure (c) presents a scatter plot between the frequency of boycotts in 1931 and the frequency of promoting domestic goods (buycotts) during 1932-1934.

Organizational Capacity

We now proceed to test the role of business associations for organizing the boycotts—specifically municipal chambers of commerce and industrial guilds. We employ a triple-differences analysis by interacting our baseline terms with a variable, *Commerce*, representing the presence, scale, or age of these organizations. As shown in Column (1) and (5) of Table A6, Panel A, our baseline effect is concentrated entirely in cities or industries with established chambers or guilds. Our results in Panel A show that the magnitude of the effect increases with the size and longevity of the business community, supporting that organizational capacity of the business community is a prerequisite for boycott mobilization.

Crucially, the negative coefficient of $Commerce \times Post$ indicates that organizational capacity alone does not lead to more boycotts, if not less. A potential threat to our identification strategy is that a city's or an industry's exposure to Sino-Japanese market competition (*CoI*) might merely proxy for the material basis to organize boycotts, rather than just its profit incentives. To the extent that such cities and industries are also likely to have large commercial associations, we find that organizational capacity alone leads to significantly less boycott when the incentive is absent. (In the appendix section C, we provide more evidence to distinguish profit incentives from industrial resources.)

We further test the role of business network for monitoring compliance. Successful boycotts require the ability to monitor compliance and punish “traitors.” We hypothesize that modern communication and transport infrastructure lowered these monitoring costs. We interact our baseline term with a dummy variable, *Network_c*, indicating access to steamships, railways, telegraphs, or telephones¹⁶. As Table A6 Panel B shows, business interests only stimulate boycotts in prefectures with access to these networks. We further aggregate the four networks into a variable by summing the four indicators, and naturally, access to more types of networks can enhance the merchant-led boycotts (Column 5). Crucially, Column (6) presents a quadruple-difference estimate interacting the baseline DD term, network access,

¹⁶We obtain this data from the county gazetteers for the 139 cities in our baseline analysis.

and chamber presence. We find that chambers of commerce and networks act as complements: organizations rely on infrastructure to coordinate, while networks are only effective when an organization exists to leverage them.

Table 3: Business Community and Communication Networks

| Panel A: Business Communities (DDD Estimates) | | | | | | |
|---|-----------------------|----------------------|----------------------|---------------------|-------------------------|----------------------|
| Dep Var: Boycotts | | | | | | |
| | Prefecture-Day Sample | | | | Shanghai Ind-Day Sample | |
| | HasChamber (1) | Age (2) | #Directors (3) | #Members (4) | #Guilds (5) | #Members (6) |
| Commerce×CoI×1(Mukden=1) | 0.084*** (0.025) | 0.038*** (0.013) | 0.074*** (0.028) | 0.015** (0.008) | 0.049*** (0.014) | 0.035*** (0.010) |
| CoI×1(Mukden=1) | -0.023 (0.016) | -0.826*** (0.294) | -0.176** (0.071) | -0.027 (0.027) | -0.003 (0.008) | -0.138*** (0.010) |
| Commerce×1(Mukden=1) | -0.146*** (0.047) | -0.057*** (0.021) | -0.138*** (0.054) | -0.040** (0.017) | -0.609*** (0.205) | -0.422*** (0.148) |
| Controls | Yes | Yes | Yes | Yes | No | No |
| Prefecture FE | Yes | Yes | Yes | Yes | No | No |
| Year-Month-Day FE | Yes | Yes | Yes | Yes | Yes | Yes |
| Industry FE | No | No | No | No | Yes | Yes |
| Observations | 4,309 | 3,937 | 4,309 | 4,309 | 496 | 496 |
| R-squared | 0.063 | 0.109 | 0.080 | 0.065 | 0.203 | 0.204 |

| Panel B: Business Communities and Communication Networks | | | | | | |
|--|---------------------|---------------------|-------------------|--------------------|------------------------|---------------------|
| Dep Var: Boycotts | | | | | | |
| Sample: Prefecture-Day | | | | | | |
| | Ship | Railroad | Telegraph | Telephone | Access to #Networks | Has Chamber |
| CoI×Mukden ×Network | 0.115*** (0.037) | 0.095*** (0.036) | 0.056* (0.032) | 0.078** (0.035) | 0.049*** (0.018) | 0.005 (0.011) |
| CoI×Mukden ×Commerce | | | | | | -0.072* (0.038) |
| CoI×Mukden× Commerce×Network | | | | | | 0.046*** (0.016) |
| CoI×1(Mukden=1) | -0.011* (0.006) | -0.011 (0.010) | 0.009 (0.017) | -0.002 (0.013) | -0.085*** (0.033) | -0.016 (0.022) |
| Controls | Yes | Yes | Yes | Yes | Yes | Yes |
| Prefecture FE | Yes | Yes | Yes | Yes | Yes | Yes |
| Year-Month-Day FE | Yes | Yes | Yes | Yes | Yes | Yes |
| Observations | 4,309 | 4,309 | 4,309 | 4,309 | 4,309 | 4,309 |
| R-squared | 0.072 | 0.068 | 0.063 | 0.065 | 0.072 | 0.074 |

Notes: ***p<0.01, **p<0.05, *p<0.1. Standard errors are reported in parentheses. Panel A Columns (1) to (4) present evidence at the prefecture-day level. Commerce in Column (1) is a dummy variable indicating whether each city established a chamber of commerce. In Column (2) Commerce represents the number of years since the chamber's establishment as of 1931; in Column (3) and (4) Commerce is the logarithm of the number of directors/members in the chamber. Panel A Columns (5) to (6) provide evidence at the Shanghai industry-day level. Column (5) shows the logarithm of the number of trade associations established in each industry; Column (6) presents the logarithm of the total membership count across all trade associations established in each industry. In Panel B, $Network_c$ represents the commercial information network, specifically indicating whether each city had shipping routes, railways, telegraph services, and telephone services by 1931. $Network_c$ in Column (1) - (4) is a dummy variable. Column (5)-(6) aggregate the four dummies by summing them up, making $Network_c$ an integer from 0 to 4, which is treated as a continuous variable in the regression.

4.4 Efficacy and Limitations: Did Merchants Defend Their Nation?

This section examines whether this bottom-up boycotts defended the nation. We explore the answers to the following sequential questions: (i) Did the scope of the boycott align with strategic national defense needs? (ii) Did the movement inflict economic damage on Japan? (iii) Did boycotts' influence extend beyond the economic sphere to mobilize military defense? (iv) Did the boycott continue when the state regained its capacity to act?

Selective Scope of Protection

We first examine whether the boycotts targeted industries critical to national defense — specifically, industries essential to Japan's economy and those vital for China's future military production. Protecting the former can achieve an instant economic attack, creating economic pressure to force a withdrawal of military aggression; protecting the latter can enhance self-sufficiency in weapon production, preparing for future military defense.

To label industries essential to Japan's economy, we utilize the 1930 Sino-Japanese Tariff Settlement, which froze China's tariffs on 46 specific items, and define industries producing these 46 tax items as “essential to Japan's economy” ($Target_i$). We estimate Equation 7 using Shanghai industry-month panel:

$$Boycott_{it} = \beta Target_i \times Mudken_t + \alpha_i + \gamma_t + \epsilon_{it} \quad (7)$$

As shown in Column (1) of Table 4, these industries were significantly more likely to be targeted in the movement. This suggests that the boycotts successfully focused on sectors where they could inflict substantial economic pain on Japan. Intuitively, $Target_i$ is highly correlated with our measure of commercial competition (Col_i) as the Japanese government tended to protect those specific industries that competed most directly with Chinese products.

In contrast, we find no such targeting for industries vital for China’s military production. We define these industries as those later relocated inland by the Nationalist government to ensure the continued protection of weapons and materials during the Second Sino-Japanese War¹⁷. Column (2) reveals that these strategic sectors were not disproportionately boycotted, despite facing substantial Japanese competition¹⁸.

This result supports the Olsonian logic: merchants lacked the incentive to incur the high costs of mobilization for broad national concerns that did not offer direct private returns. Thus, while societal sanctions can “attack” the enemy, they remain an imperfect tool for protecting nascent industries of purely strategic importance. More generally, our results reveal a finite scope of protection when sanctions were “delegated” to *society* — while the public interests that align with the private interests of collective action organizers can be well addressed, there is no guarantee that misaligned public interests could be satisfied.

Table 4: Scope of Protection: Did Boycotts Occur in Targeted Industries

| | Boycotts in Shanghai | |
|-------------------|---|---|
| | Target: Industries Protected by the 1930 Sino-Japanese Tariff Agreement (1) | Target: Industries Relevant to Military Defense (2) |
| Target × Mukden | 0.564*** (0.118) | 0.126 (0.092) |
| Industry FE | Yes | Yes |
| Year-Month-Day FE | Yes | Yes |
| Observations | 496 | 496 |
| R-squared | 0.220 | 0.164 |

Notes: ***p<0.01, **p<0.05, *p<0.1. Column (1) investigates whether industries under Japan’s special protection by the Sino-Japanese Tariff Agreement experienced more boycotts. Column (2) investigates whether industries relevant to military defense experienced more boycotts.

¹⁷This data is extracted from the Economic History of China (Volume II) by Bokang Zhu and Zhengkan Shi, 2005, P633. Among these relocated industries, machinery and materials, coal mining equipment, iron and steel industry equipment, mechanical engineering, power and electrical industries, textile manufacturing, and chemical production collectively accounted for 97.18%

¹⁸Many relocated industries, such as metals and cotton, fall under categories with high Sino-Japanese competition (CoI_i).

Economic Efficacy: Quantifying the Damage to Japanese Exports

Our preceding analysis showed that boycotts were concentrated in industries essential to Japanese economy; this section statistically infers the loss of Japan. Using the Chinese customs data and a synthetic control design, we compare China's import of Japanese goods with a counterfactual constructed from other trading partners. As Figure 4a shows, from 1931 to 1932, the value of Japanese imports to China dropped by around 55.53%. Crucially, because formal top-down sanctions did not begin until May 1933 (and even then remained largely on paper), this entire effect through 1932 should be largely (if not completely) attributable to societal collective action¹⁹. Considering that China absorbed around 30% of Japan's total export by 1929, and that exports contributed 13.6% to Japanese GDP²⁰, we estimate that the Chinese boycott induced a roughly 2.3% decline in Japan's total GDP.

To ensure that the 55.53% drop in trade was actually caused by the boycott rather than a decline in Japan's own production capacity, we conduct another synthetic control analysis, comparing Japan's exports to the rest of the world (excluding China) against a control group of other major exporters²¹. If the decline were driven by a supply-side shock, we would expect to see a similar collapse in Japan's exports to other global markets. As Figure 4b shows, Japan's exports to other destinations from 1931 to 1932 followed a trend parallel to the control group, suggesting that the drop is unlikely driven by a weaker Japanese supply. Interestingly, Japan's value of exports to other countries is slightly higher than the control group during 1930-1931, suggesting that its economic loss from China was limitedly compensated by sales to other trading destinations.

¹⁹Given that the other exporters who sell to China were also indirectly treated, technically, the effect we observe can only be interpreted as a gap between Japan's and other nations' export to China, which is greater than the real effect.

²⁰This statistic is obtained from Table 1 of Bairoch and Kozul-Wright, 1998.

²¹We subtract the exports to China from the customs-based data from the countries-to-world exports from *the Historical data 1900-1960 - UN Statistics Division*. We follow Zhang and Yang, 2025 to translate the trade values in customs data into dollar value.

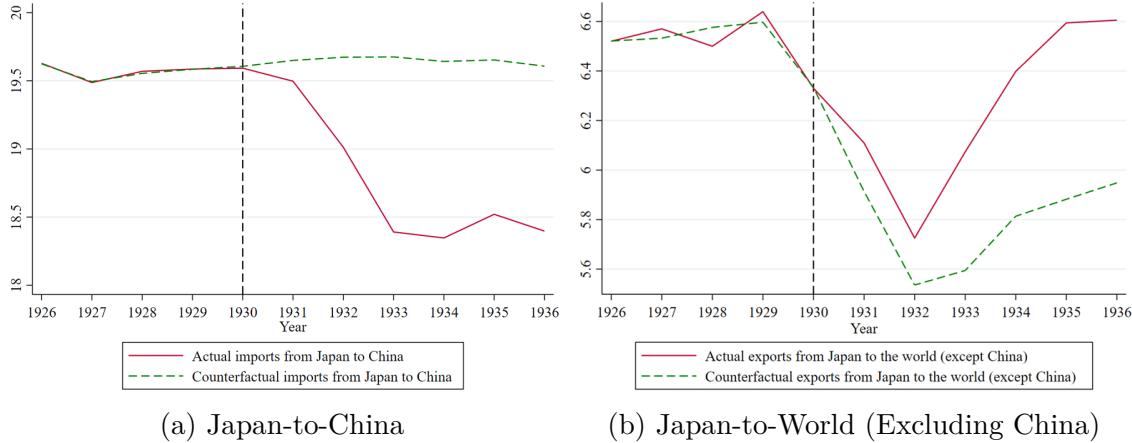


Figure 4: Japanese Exports Compared to Other Countries

Notes: In panel (a), we construct a counterfactual for Japan's exports to China using exports to China from 32 other countries. In panel (b), we construct a counterfactual for Japan's exports to the rest of the world (excluding China) using worldwide exports (excluding China) from 19 other countries. In both panels, the solid red line represents the (log) actual trade value, and the dashed green line represents the (log) synthetic counterfactual trade value.

The economic impact was large enough to serve as China's significant diplomatic leverage. As Remer summarized, in a series of discussions regarding the Sino-Japanese dispute on Manchuria problems, China held the "position that the boycott constituted a means of self defense and a peaceful weapon", which "China vigorously maintained her right and her intention to continue use [as a leverage]."

Beyond Economic Efficacy: Boycotts and Military Mobilization

Although boycotts failed to occur more in industries vital to military production, they may have generated unexpected long-term influence. Historical evidence suggests that the anti-Japanese boycotts served as a critical psychological and institutional bridge to military service in a fragmented state.

First, the boycott movement functioned as a primary vehicle for mass mobilization, such as “nationalizing consumerism” (Gerth, 2020). In the absence of a powerful central authority, by framing the rejection of Japanese goods as a defense of the state, the movement concretized the abstract concept of “nation” for the populace, defining the enemy and significantly lowering the cognitive barrier to subsequent military participation.

Second, the post-Mukden boycotts rapidly evolved from passive resistance into “quasi-militarized” action . As the movement escalated, some enforcement groups transformed into paramilitary units, and served as direct recruiting grounds for the Volunteer Armies (Yiyongjun). Participants in boycott associations often received basic military drills and discipline training, turning the enforcement of economic sanctions into a rehearsal for armed conflict (Remer, 1933, Kikuchi, 1966).

Empirically, we provide supportive evidence showing the positive correlation between 1931 boycott movement and anti-Japanese conscription in the 1937–1945 Sino-Japanese War. Since comprehensive conscription records are unavailable, we follow Bai et al., 2023 and use county-level martyr data as a proxy for soldier recruitment.

We argue this proxy is particularly appropriate for our study. The boycott movements in 1931 were media-intensive as many of the merchants were highly motivated to advertise their boycotts (and also their domestic substitutes) on newspaper, which well targeted the literate minority. Thus the educated youth formed the “first wave” of voluntary mobilization. Our database includes 67,692 literate martyrs from 424 counties. To assess the coverage of this data, we note that while total martyrs nationwide are estimated between 1.3 and 1.7 million (Jiang Yongjing, 1995; Liu Tinghua, 2012), the subpopulation of educated youth sacrifices is estimated only between 0.13 and 0.34 million since the Republic of China era was a nation with a very high illiteracy rate. Based on the 1918 population distribution, a sample of 424 counties should statistically yield between 32,000 and 85,000 educated martyrs. The fact that our database contains 67,692 records suggests that it likely provides a comprehensive coverage of the literate soldier population for these specific counties.

Table 5 shows the estimated correlation between boycotts in 1931 and martyrs. In Column (1), at the prefecture level, higher boycott frequency is associated with more martyrs during the Sino-Japanese war in 1937 to 1945. While this correlation can be explained by the possibility that both soldier recruitment and boycotts were motivated by patriotism, we control for patriotic movements during the May Fourth Movement in 1919 and other potential

confounders. We find that the estimated correlation in Column (2) is similar to that without control variables in Column (1). Finally, as shown in Column (3), the relationship holds even when we exclude the post-1941 period of forced conscription.

Table 5: Military Mobilization: Boycotts and Martyrs in the Sino-Japanese War (1937-1945)

| | Martyrs (1937-1945) | | Martyrs (1937-1941) |
|-------------|---------------------|--------------------|---------------------|
| | (1) | (2) | (3) |
| Boycott | 0.378*** (0.069) | 0.499** (0.135) | 0.545** (0.171) |
| Controls | No | Yes | Yes |
| Province FE | Yes | Yes | Yes |
| Year FE | Yes | Yes | Yes |
| Observation | 414 | 414 | 230 |
| R-squared | 0.505 | 0.551 | 0.508 |

Notes: ***p<0.01, **p<0.05, *p<0.1. At the prefecture level, the control variables include exposure to Japanese goods, population density, whether student protested during the May Fourth Movement, whether a National Congress was convened during the May Fourth Movement, the logarithm of the duration of open-port trade, and whether there was investment from the Westernization Movement. Provincial and year fixed effects are controlled, with standard errors clustered at the city level, shown in the parenthesis.

Top-down Sanctions Substituted Bottom-up Boycotts

What happened when the state signaled its capacity to act? Between 1931 and 1932, as the 1930 Sino-Japanese Tariff Agreement neared its 1933 expiration, merchants petitioned the government for protective tariffs. Interestingly, while most merchants wished for a rise in tariffs, a few asked for a decrease. The merchants who support tariff reduction are primarily importers of Japanese intermediate goods, and lack comparable domestic substitutes. Their support for lowering tariffs once again confirms their profit-oriented logic. As shown in Figure 5a, industries with more boycotts also petitioned more for higher tariffs on Japanese imports. This implies that relative to organizing boycotts, merchants possibly prefer a top-down sanction.

When the government proposed aggressive anti-Japan tariffs in May 1933, boycott incidents immediately halved, even though this new tariff schedule was never implemented.

Subsequent tariff policies in July 1934 actually softened sanctions, yet boycotts failed to resurge despite public outrage (Figure 5b). This demonstrates a critical limitation of societal collective action: merchants would not sustain costly boycotts once the state signaled its willingness to take over the burden of national defense. In other words, this social force would back off when state force advances in²².

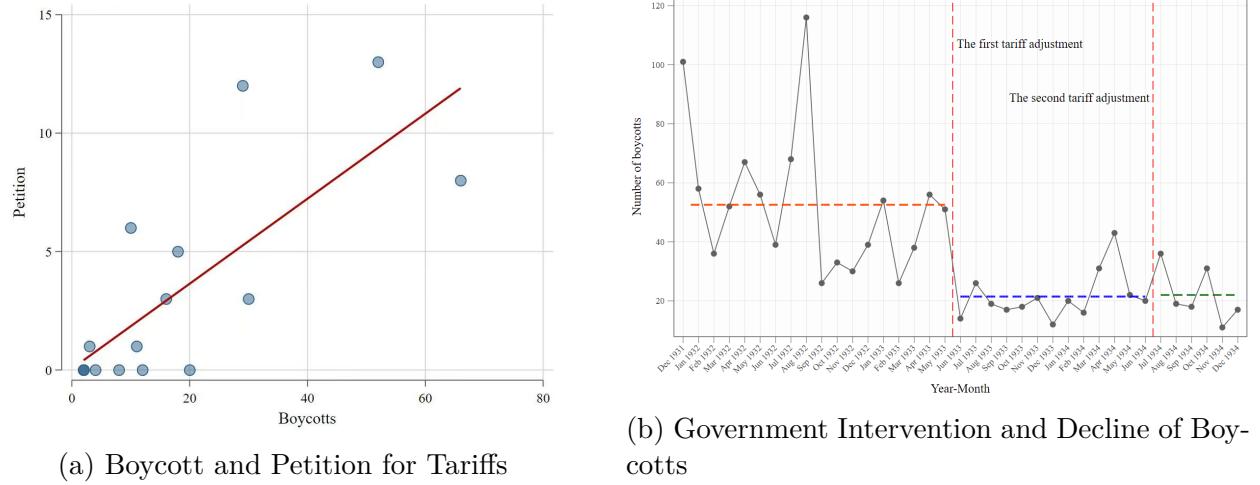


Figure 5: Government Intervention Decreases Boycotts

Notes: We use the petitions advocating for a rise of tariffs on Japanese imports that occurred during 1931 to 1933. The mean frequency of anti-Japanese boycotts was 52.56 prior to the first tariff adjustment, decreasing to 21.46 following the first adjustment, and remaining relatively stable at 22.00 after the second adjustment.

5 Conclusion

In this paper, we highlight the power of social forces, particularly the private sectors, in weak states facing geopolitical conflicts. We draw upon an unexpected invasion of China by Japan—the Mukden Incident in 1931—to answer the general question of whether merchants can facilitate national defense when the state is weak. Using a unique dataset, we document how merchants organized boycotts through business associations to successfully pressure Japan economically and likely foster later military mobilization. This self-organized

²²The process of Modern China’s boycott movements was in line with the literature on “protection for sale”. Once the first-best option to buy protectionism from the government became available, the second-best option to self-organize boycotts were immediately abandoned.

boycott largely compensated for the government's inactivity in 1931. Our paper showcases the possibility that private actors can defend their nations when their commercial interests align with the national interests, despite certain limitations compared to state-initiated sanctions policies.

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Appendix - for online publication

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A Historical Background – Supplementary Details

Japanese Response on the Chinese Boycott

The economic damage inflicted by the Chinese boycott movement was severe enough to compel a series of response from the Japanese authorities. Following an official statement against “all organized movements that interfere with freedom of trade and stir up international hatred”, the Japanese government wielded multiple measures to end the boycott in China. Such measures include an appeal to the League of Nations, diplomatic pressure through local consulates²³, and threats to blockade Chinese ports or even initiate further military invasion²⁴.

However, none of the above means were effective. When Japan demanded in Geneva that the Chinese government curb the anti-Japanese sentiment, the China’s delegation insisted that “the anti-Japanese feeling in China is a direct, natural, and inevitable result of the action of the Japanese army in Manchuria, and will die down rapidly as soon as the cause of hostility is removed.” It was not only a weapon leveraged to force a withdrawl of Japanese army in Manchuria, but also true in that the movement was out of the control of Chinese government.

In parallel, Japanese traders petitioned their government for economic, diplomatic, and even military interventions. Besides, as Liu et al. (working paper) documents, some merchants also resorted to covert measures, such as disguising their products as Chinese brands.

²³In January 1932, after several Japanese monks were attacked in Shanghai, the Consul-General demanded the Mayor suppress anti-Japanese agitation and dissolve boycott associations.

²⁴A senior Japanese official hinted in early 1932 at a potential blockade of major ports to end the boycott.

B Data Description

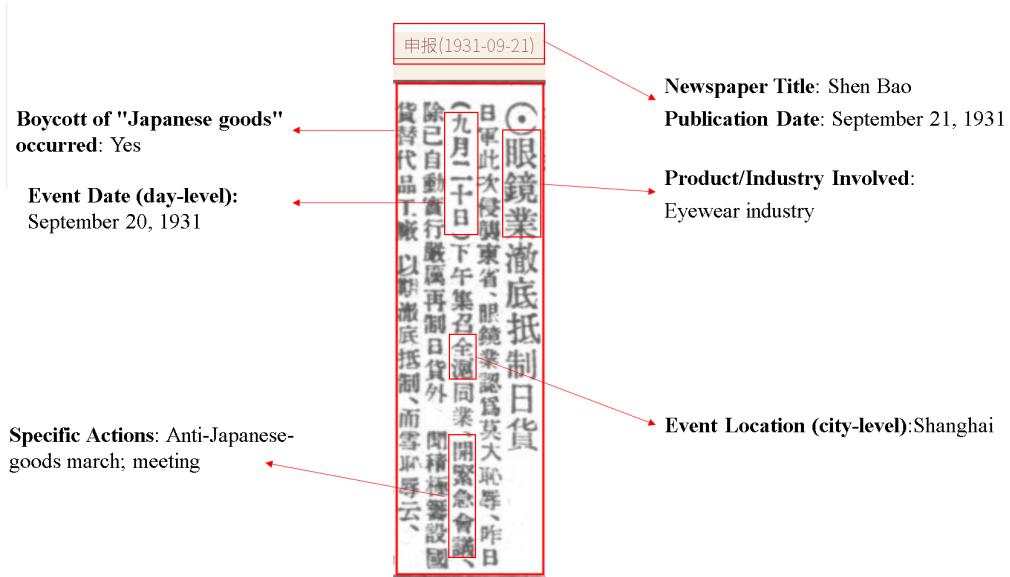


Figure A1: Example Boycott Report

Notes: Figure shows a collective boycott resolution from the Shanghai optical industry, published in *Shen Bao* (Shun Pao) on September 21, 1931.

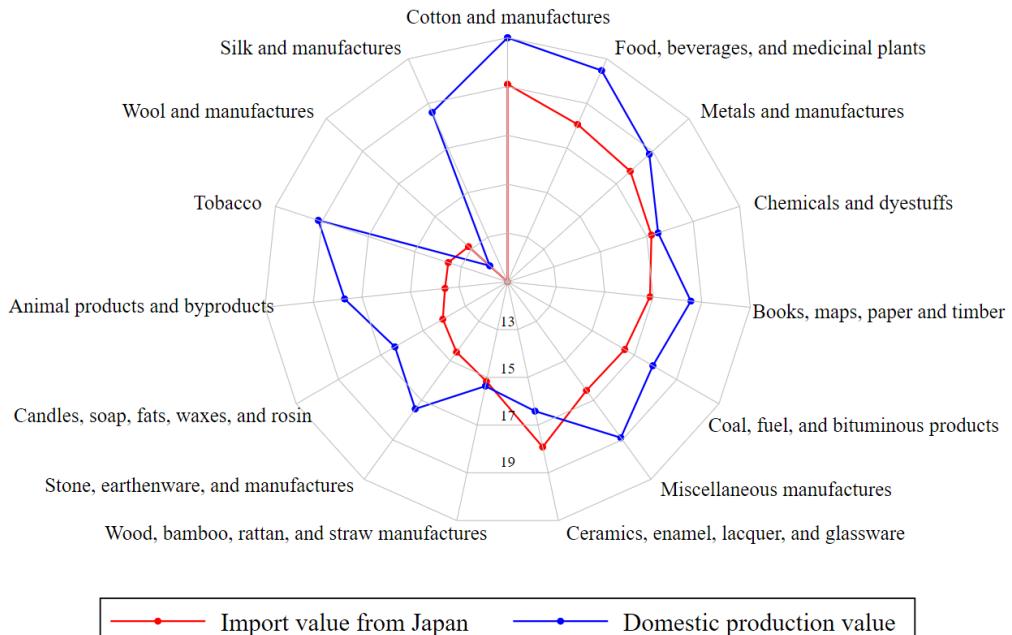


Figure A2: The Industrial Distribution of Domestic Production and Japanese Imports

Notes: The red points represent the logarithm of the import value of products from Japan across various Chinese industries in 1930; the blue points represent the logarithm of the gross domestic output of the corresponding domestic industries in China in the same year.

Table A1: Definitions of Variables and Data Sources

| Variables | Variable Description | Data Sources |
|--------------------|---|---|
| Boycotts | Reported frequency, date, city and industry, and associated tactics of boycotts | The Chinese Periodical Full-Text Image Database 1911-1949, the North-China Herald and Supreme Court & Consular Gazette(1870-1941) |
| Buycotts, Petition | Reported frequency, date, city and industry of other collective actions | The Chinese Periodical Full-Text Image Database 1911-1949 |
| Media | One-month-lagged newspaper & periodicals circulation by City | The Chinese Periodical Full-Text Image Database 1911-1949 |
| Population Density | 1918 Population Size per Administrative Division Area (km^2) | 1901-1920 Chinese Christian Survey Data, Qing Dynasty Vector Maps |
| Student Movement | Whether student movements occurred during the May Fourth Movement | “Materials on the Patriotic May Fourth Movement”, 1959, compiled by the Institute of Modern History, Third Research Institute of Chinese Academy of Sciences, Science Press |
| Assembly | Whether a National Assembly was convened | Bo et al., 2023 |
| Investment | Presence of westernization movement-era military-industrial enterprise investment | |
| Open | Years as treaty ports (up to 1931) | China's Foreign Trade and Industrial Development (1840-1948), by Zheng Youkui, 1984 |
| Strikes | Number of labor strikes, loss of wage and hours due to strikes | Strikes and Lock-outs in Shanghai during the Past Fifteen Years |
| Commerce | Establishment year of the chamber of commerce, number of directors, and number of members in each city; number of industrial guilds in Shanghai and their number of members | Agricultural and Commercial Statistics for the First Year of the Republic of China, Compendium of Shanghai Industrial and Commercial Associations |
| Entry | New establishments of firms by region and industry | <i>the 1928-1937 List of Firm Establishment</i> by Xuncheng Du. |

Table A2: Summary Statistics

| Variable | | Observation | Mean | Min | Max |
|--|----|-------------|---------|--------|---------|
| City-day level | | | | | |
| Boycotts | | 4,309 | 0.034 | 0 | 11 |
| Violent Boycotts | | 4,309 | 0.014 | 0 | 5 |
| Boycotts Foreign Products | | 4,309 | 0.001 | 0 | 1 |
| Buycotts | | 4,309 | 0.016 | 0 | 15 |
| Media | | 4,309 | 1.498 | 0 | 136 |
| City level | | | | | |
| Col | | 139 | 12.617 | 0 | 170.482 |
| ExposureJPN | | 139 | 8.443 | 4.754 | 12.299 |
| HasChamber | | 139 | 0.914 | 0 | 1 |
| Age | | 127 | 23.071 | 15 | 29 |
| #Directors | | 139 | 26.201 | 0 | 80 |
| #Members | | 139 | 395.683 | 0 | 5238 |
| Access to Steamships | | 139 | 0.547 | 0 | 1 |
| Access to Railway | | 139 | 0.705 | 0 | 1 |
| Availability of Telephone | | 139 | 0.799 | 0 | 1 |
| Availability of Telegram | | 139 | 0.784 | 0 | 3 |
| Population | | 139 | 0.383 | 0.001 | 2.183 |
| HistoricalStrikes | | 139 | 0.302 | 0 | 1 |
| Assembly | | 139 | 0.129 | 0 | 1 |
| Open | | 139 | 10.36 | 0 | 89 |
| Investment | | 139 | 0.345 | 0 | 1 |
| DistanceToMukden (logged) | | 139 | 13.976 | 13.068 | 14.736 |
| LeasedTerritory | | 139 | 0.108 | 0 | 1 |
| StudyInJapan | | 139 | 8.101 | 0 | 61 |
| Anti-Religion | | 139 | 128.432 | 28 | 333 |
| industry-day Level | | | | | |
| Boycotts | | 496 | 0.058 | 0 | 1 |
| industry-month Level | | | | | |
| #Strikes | | 192 | 0.654 | 0 | 5 |
| #LossWage (logged) | | 192 | 2.334 | 0 | 11.48 |
| #LossHours (logged) | | 192 | 2.254 | 0 | 12.463 |
| #Boycotts claiming punishments | | 192 | 0.911 | 0 | 12 |
| #Boycotts with actual punishments | | 192 | 0.505 | 0 | 7 |
| #MassStrikes (Loss of hours > 30 hrs) | | 192 | 0.370 | 0 | 5 |
| #MassStrikes (Loss of hours > 300 hrs) | | 192 | 0.276 | 0 | 3 |
| Industry level | | | | | |
| Col (logged) | | 16 | 12.641 | 0 | 17.101 |
| #Member | | 16 | 5.938 | 1 | 27 |
| #Guilds | | 16 | 715 | 37 | 4046 |
| #Petition | | 16 | 3.25 | 0 | 13 |
| Target (Protected by Japan) | A5 | 16 | 0.313 | 0 | 1 |
| Target (Military Production) | | 16 | 0.438 | 0 | 1 |

C Robustness Checks to Measurement Errors

Table A3: Test Robustness to Alternative Independent and Dependent Vars

| | Boycott Japanese Imports | | Boycott Other Imports |
|-------------------|--------------------------|--------------------|-----------------------|
| | 50% | 45% | |
| | (1) | (2) | (3) |
| Treat × Mukden | 0.040*** (0.015) | 0.037** (0.016) | -0.006* (0.003) |
| Controls | Yes | Yes | Yes |
| Prefecture FE | Yes | Yes | Yes |
| Year-Month-Day FE | Yes | Yes | Yes |
| Observations | 4,309 | 3,844 | 4,309 |
| R-squared | 0.055 | 0.056 | 0.015 |

Notes: For Columns (1)-(2), cities are assigned to treatment and control groups based on whether their business interest *CoI* index ranks above or below the percentiles 50% and 45%. To address the misclassification concerns due to small *CoI* differences, we exclude cities within the 45th–55th and 40th–60th percentile ranges before redefining the groups. Column (3) replaces the dependent variable to be the boycott of other foreign imports.

Table A4: Robustness Checks – Log-like Transformation of Boycotts Occurrence

| | IHS | | Raw Count | | Indicator Var | |
|-------------------|---------------------|--------------------|---------------------|---------------------|---------------------|---------------------|
| | (1) | (2) | (3) | (4) | (5) | (6) |
| Col × Mukden | 0.050*** (0.019) | 0.030** (0.012) | 0.105*** (0.046) | 0.065*** (0.030) | 0.028*** (0.008) | 0.016*** (0.005) |
| Controls | No | Yes | No | Yes | No | Yes |
| Prefecture FE | Yes | Yes | Yes | Yes | Yes | Yes |
| Year-Month-Day FE | Yes | Yes | Yes | Yes | Yes | Yes |
| Observations | 4,309 | 4,309 | 4,309 | 4,309 | 4,309 | 4,309 |
| R-squared | 0.042 | 0.075 | 0.039 | 0.078 | 0.027 | 0.045 |

Notes: To address the problem as discussed in J. Chen and Roth, 2024: Column (1)-(2) performs an arcsin transformation of boycotts; Column (3)-(4) show results using the raw count of boycotts; Column (5)-(6) replace the dependent variable with a dummy variable that equals one if a Japanese goods boycott occurred on day t and zero otherwise.

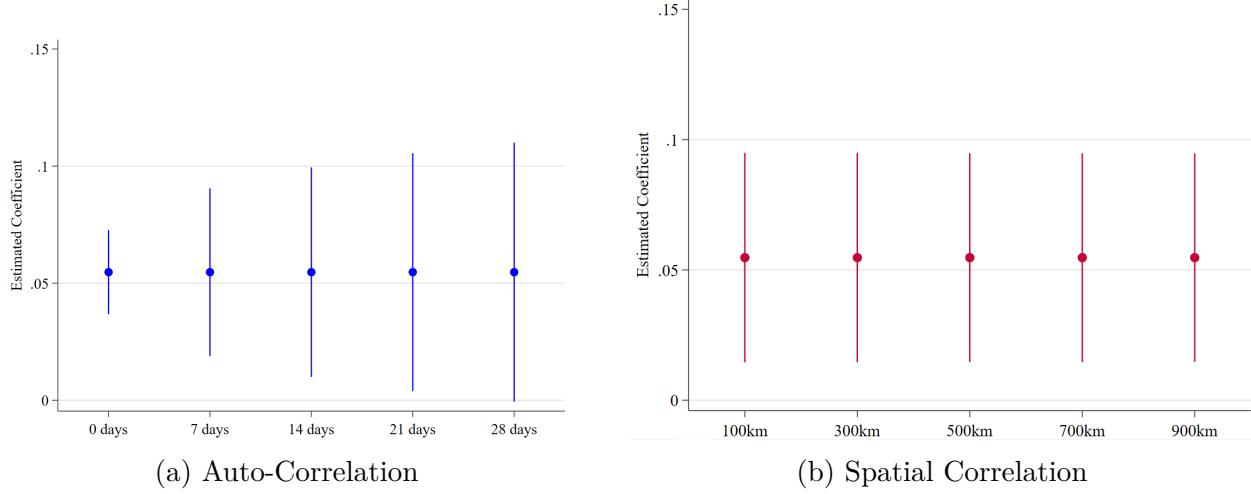


Figure A3: Test Robustness to Most Populous Municipalities

Notes: Figure (a) displays the corresponding estimation results based on Equation 3, with the temporal correlation threshold successively replaced by 0 days, 7 days, 14 days, 21 days, and 28 days. Figure (b) similarly presents the estimation results based on Equation 3, with the spatial correlation threshold successively replaced by 100 km, 300 km, 500 km, 700 km, and 900 km. All confidence intervals are at the 95% level.

Table A5: Test Robustness to Other Potential Confounders

| | Boycott | | | |
|---------------------------|---------------------|---------------------|---------------------------|----------------------|
| | Distance to Mukden | Leased Territory | Students Studied in Japan | Anti-Religion |
| | (1) | (2) | (3) | (4) |
| Col × Mukden | 0.054*** (0.020) | 0.053*** (0.020) | 0.048*** (0.018) | 0.057*** (0.020) |
| DistanceToMukden × Mukden | -0.060* (0.031) | -0.056* (0.030) | -0.065** (0.032) | -0.157*** (0.052) |
| LeasedTerritory × Mukden | | 0.135 (0.120) | 0.112 (0.115) | 0.110 (0.114) |
| StudyInJapan × Mukden | | | 0.041** (0.016) | 0.036** (0.015) |
| Anti-religion × Mukden | | | | -0.101*** (0.031) |
| Controls | Yes | Yes | Yes | Yes |
| Prefecture FE | Yes | Yes | Yes | Yes |
| Year-Month-Day FE | Yes | Yes | Yes | Yes |
| Observations | 4,309 | 4,309 | 4,309 | 4,309 |
| R-squared | 0.063 | 0.065 | 0.069 | 0.077 |

Notes: i) After the September 18 Incident, Japan occupied Northeast China, forcing students from the region to flee to various parts of the country. To eliminate the potential impact of these displaced students on the boycott of Japanese goods, this paper controls for the logarithmic spatial distance from each city to Shenyang, with the estimation results shown in column (1). (ii) The establishment of foreign concessions could either provoke a rise in nationalist sentiment or provide organizational shelter for anti-Japanese boycott activities. Therefore, the variable indicating whether a city had a foreign concession was added, with results presented in column (2). Data on foreign concessions are also sourced from China's Foreign Trade and Industrial Development (1840–1948) by Zheng Youkui, 1984. (iii) The influence of the number of elites who studied in Japan (logarithmic value) in each city is controlled. Data are sourced from: Biographical Dictionary of Republican China by Xu Youchun, 2007; Dictionary of Chinese Overseas Students by Zhou Mian, 1999; Directory of Contemporary Chinese Celebrities, 1931; Record of Chinese Influential Figures Studying in Japan, 1942; Directory of Modern Chinese Figures, 1928, among others. (iv) Regional nationalist tendencies are controlled. Mattingly and Chen (2022) found that missionary activities fueled nationalist sentiment and spurred the rise of anti-missionary movements. Thus, this paper includes the total number of anti-missionary movements (logarithmic value) that occurred in each city's province between 1842 and 1911, with results shown in column (4). Data are sourced from Zhao Shuhao, Missionary Cases and Late Qing Society, China Federation of Literary and Art Circles Publishing House, 2001.

Distinguishing Profit Incentives from Industrial Resources

A potential threat to our identification strategy is that an industry's exposure to Sino-Japanese market competition (*CoI*) might merely proxy for the industries with the material basis to organize, rather than just its profit incentives. In Republican China, industries with large financial reserves and operational scales often confronted checks from more extensive labor union activity, but possessed greater financial resources [Cite Chesneaux,1968; Hou,1965; Perry,1993]. Thus, if industrial resources were the primary driver, we would expect our exposure measure to predict labor activism or show disproportionate effects in sectors with higher revenue.

However, our empirical results suggest that industrial resources play a minor role. First, Columns 9–11 of Table 2 show that our measure of business interest (*CoI*) has no statistically significant effect on labor strikes. This implies that boycotts were not just a byproduct of the resource advantage. Second, in Column 3 of Table 2, the interaction term between *CoI* and the consumer goods indicator is statistically insignificant, indicating that the boycott effect is not driven by the advantages of consumer goods industries—such as higher revenues or marketing resources. Additionally, the robustness of our results in independent and foreign media (Table 2, Columns 15–16) mitigates concerns that industries with deep pockets simply manipulated the media coverage.

D Supplementary Tables and Figures

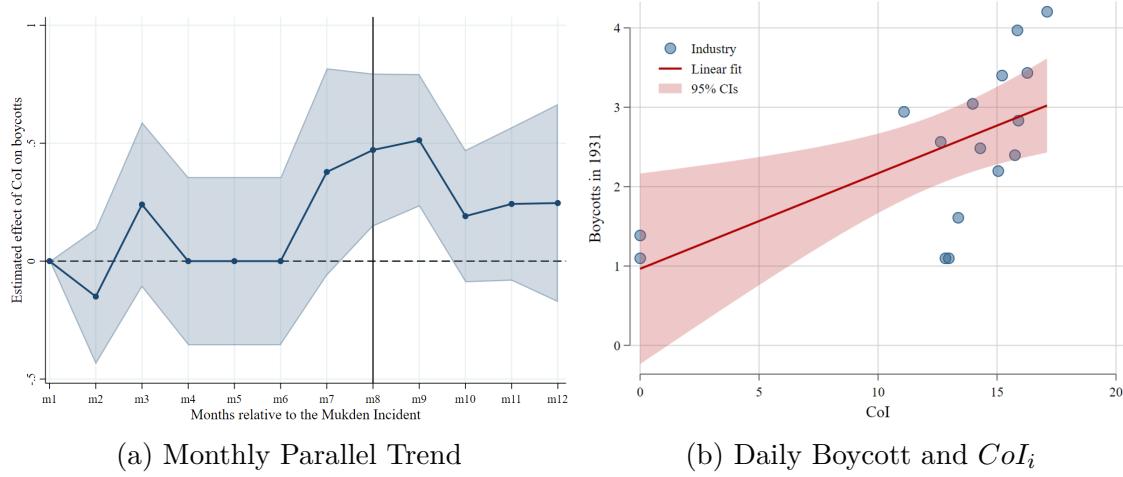


Figure A4: CoI_i and Industry-level Number of Boycotts in Shanghai

Notes: Panel (a) presents the dynamic effects of the CoI (Commercial Competition Index) on boycotts against Japanese goods at the Shanghai industry-month level in 1931. The baseline period is January 1931, with 95% confidence intervals. Panel (b) plots a scatter diagram of the CoI against the frequency of boycotts across industries in Shanghai for 1931, where each point represents one industry.

Table A6: Mechanism II: Industry-level Selective Incentives – Boycott and Market Share

| | Buycott | | Firm Entrance | |
|---------------------------|-------------------|-----------------|---------------------|---------------------|
| | (1) | | (2) | |
| | Prefecture-Day | Prefecture-Year | Industry-Year | |
| Boycott \times Post1931 | | | 0.142*** (0.049) | 0.435*** (0.133) |
| CoI \times Mukden | 0.016* (0.009) | | | |
| Prefecture FE | Yes | | Yes | No |
| Industry FE | No | | No | Yes |
| Year FE | No | | Yes | Yes |
| Day FE | Yes | | No | No |
| Observations | 4,309 | | 621 | 86 |
| R-squared | 0.015 | | 0.611 | 0.781 |

Notes: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Column (1) uses prefecture-day sample within the 31-day window around the Mukden Incident. Column (2) presents the regression results using nationwide prefectural data, while column (3) shows the estimation results by industry within Shanghai.