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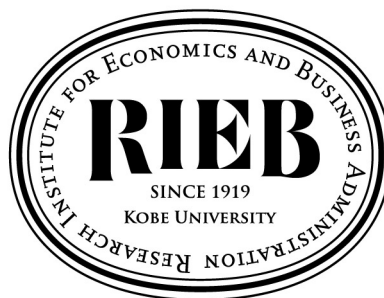
DP2021-01

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Bilateral Trade: Firm-Level
Evidence from China***

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January 6, 2021

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How Political Conflicts Distort Bilateral Trade: Firm-Level Evidence from China*

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December 31, 2020

Abstract

We examine how political conflicts affect trade, using both the Goldstein score that scales all political conflicts daily worldwide and the firm-country-product level data of Chinese imports. We find that political conflicts reduce Chinese imports in general. Specifically, (i) the imports of State-owned enterprises (SOEs) are most reduced, and the effects mostly fall on imports for intermediate goods while not so much on capital goods; (ii) foreign-invested enterprises (FIEs) are less negatively affected, because most of their trade is processing, which is less negatively affected by political conflict than ordinary trade. These results are obtained via mechanisms in the mode of trade (processing vs. ordinary), variations in broad economic categories (BEC) and import boycotts and export controls.

JEL: F1, F51

Keywords: Political conflicts; trade; State-owned enterprises; Goldstein score

*The paper has been financially supported by the Natural Science Foundation of China (#71363016, #71503110, #71672051, #71863010, #71972063 and #72073005), JSPS grants (#16H02016, #18H00851, #19H00594 and #19H01484) and Shanghai Institute of International Finance & Economics. We are extremely grateful to two anonymous referees, Mi Dai, Suqin Ge, Jiandong Ju, Seung Hoon Lee, Zhiyuan Li, Nori Nakanishi, Larry Qiu, Sudipta Sarangi, Bin Sheng, Jianwei Xu, Xiaopeng Yin, Eden Yu, Miaojie Yu, Yifan Zhang, Hongjun Zhao, Zhong Zhao, Lianming Zhu and participants at the JEBO conference in May 2019, PKU, for their insightful comments and suggestions. Any remaining errors are our own.

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1 Introduction

Political conflicts are the series of conflict events initiated by one country (usually government) towards another which can destroy the stability of political relationships¹. Conflicts may lead to serious consequences in international trade and cooperation in various ways such as raising trade and production cost, increasing trade uncertainty and generating trade diversion. In this paper, we investigate the effects of political conflicts on Chinese imports from its trading partners, particularly focusing on the heterogeneous impacts across firm ownership, trade modes and product categories. We attempt to uncover the possible mechanisms behind from the perspectives of import boycotts and export controls, by using both the Goldstein score data and customs trade data. The Goldstein data records all political conflicts daily on a global scale including those initiated by either China or its trading partners. The trade dataset, compiled at highly disaggregated firm-product-country level, could help mitigate the potential reversal effect of trade on political conflicts, and convey comprehensive information from multiple dimensions.

We find that political conflicts reduce Chinese imports in general. Specifically, State-owned enterprises (SOEs) are more negatively affected than non-SOEs, consistent with Du et al. (2017) and Davis et al. (2019), and we further show that the effects are reflected more in intermediate goods rather than capital goods. The rationale is, SOEs and capital goods are more likely to be harmed by foreign sanctions because capital goods imports are necessary for the construction and maintenance of lifeline industries such as railways, highways, airlines, oil, and gas in which SOEs are dominant. This dominance hurts SOEs because the imported capital goods are difficult to be substituted, due to a lack of technology to produce them domestically. Also, on the side of importers, SOEs are more subjective to the political duty of boycotts in response to conflicts, since the top managers of SOEs are usually appointed by the government. These together could well explain the significant reduction of imports on intermediate goods rather than capital

¹Kastner (2007) defines an international political conflict as the extent to which the political goals or interests of two countries diverge.

goods. Moreover, we find that compared with domestic private invested enterprises (PIEs) and SOEs, the imports of foreign-invested enterprises (FIEs) are less negatively affected by political conflicts, because most FIEs conduct processing trade, which is embedded in the global value chain. Finally, we find that the impacts of political conflicts vary across different trading partners.

To deal with the endogeneity that might arise from measurement errors, omitted variables or reverse causality, we make a number of efforts. First we use micro based, firm-country-product-year level observations which mitigates the reverse causality of trade on aggregate national level political conflicts; second we exclude trade-, business- and economic-related conflict events from our political conflicts data; third we conduct instrumental variable (IV) tests and use multiple fixed effects to control for the idiosyncratic shocks, and finally we also test the results using different measures of conflicts all of which yield consistent results. These experiments shed light to the mechanisms as to how aggregate conflicts pass on to individual firms, namely, through firm ownership and product categories.

Several studies in the literature are closely related to us. A government may take measures to punish the nations in conflict, using trade sanctions, embargoes, import quotas and foreign exchange regulations (Stein, 2003; Kastner, 2007). National security reasons could lead a country to decrease trade with an adversary for fear that the adversary's real income gains from trade could be put into military uses, or it could fear increased dependence on trade with the adversary (Gowa and Mansfield, 1993). Chavis and Leslie (2009) find that American boycotts decrease the sales of French wine in the U.S. Michaels and Zhi (2010) show that worsening consumer attitudes caused by the deterioration of relations between the U.S. and France reduce French-U.S. bilateral trade by about 9% during 2002-2003. Finally, pressures from the government and consumers could change a firm's trade decision. For instance, Martin et al. (2008) argue that conflicts increase trade cost by affecting transportation and infrastructure, and Li and Sacko (2002) and Handley and

Limao (2017) find that policy uncertainty caused by governments and consumer boycotts increase the risk of foreign trade a firm faces.

In contrast, the Chinese economy is markedly different from that of any other developing country in the past. It not only is large in scale, but also keeps different firm ownerships and different modes for trade, based on which the government may even apply different policies. As such, the present paper examines the effects of political conflicts by different ownerships and trade modes. Heilman (2106) highlights the impact of import boycotts, and Davis et al. (2019) find that SOEs are greatly affected by political conflicts. In contrast, we examine the possible mechanisms from two different perspectives: import boycotts and export controls, and uncover different impacts of political conflicts in intermediate, capital and consumer goods, as well as in trade modes.

Elsewhere, the relationship between political conflicts and international trade has also attracted substantial interest (Berger et al., 2013). Most of the literature focuses on the effects of *specific* political events, such as, the Japanese invasion of China before World War II (Che et al., 2015), the Dalai Lama visits (Fuch and Klann, 2013), the Diaoyu/Senkaku Island disputes in 2012 between China and Japan (Heilmann, 2016), the Gaza conflict in 2014 between Turkey and Israel (Heilmann, 2016), and the relationship between China and several major powers (Du et al., 2017)².

While the study of specific events is important, the conclusions from specific events can be biased. Table A3 in the Appendix lists the severest conflict events (Goldstein score ≤ -9) between China and other trading partners during 2000-2006. Many countries are on the list, such as the Kyrgyz Republic, the United States, the Great Britain, Syria, Pakistan, Norway, Afghanistan, and Iraq. Yet, a typical Chinese national would think that Japan is the No. 1 enemy at all times, even though there are no -10 scores with

²More specifically, Fuch and Klann (2013) find countries that receive the Dalai Lama experience a significant reduction in exports to China. Che et al. (2015) find a long-term impact of the 2nd Sino-Japanese war on cross-border trade and investment. By examining four incidents of politically motivated boycotts, Heilmann (2016) shows an aggravating effect of conflict on trade through boycotts in consumer goods. Du et al. (2017) examine the political relations between China and several major powers and find a temporal aggregation effect of worsening political relations on trade.

Japan in this period. Would Chinese trade be more affected by the biased attitudes of the typical Chinese, or by the standard Goldstein score? Our study in this paper can shed some light.

Also, in reality, major military confrontations are not as common and may not play as big roles as one might think. In the Goldstein score, -10 represents the severest conflict. Yet in reality the media rarely reports and the general public barely notices those -10 events between China and the partner countries (see Table A3). As a matter of fact, in our dataset, major conflict events (with a score lower than -9) initiated by China against other countries are only 4.29%, and the mutually initiated major conflict events are 6.42% of the total. The majority of political conflicts exhibits in smaller events, such as demanding rights, demanding release of persons, expelling or deporting of individuals, official protest, media protest, halting negotiation, holding demonstration, recalling of diplomats, etc. However, studies on such “lower-level conflicts” have been rare. The main reason lies perhaps in that there are too many lower-level general conflict events, and it is not only hard to get the data but even harder to extract consistent hypothesis on them. Fortunately, with the revolution in information and communications technology, we are able to obtain big data, and especially with several rounds of careful investigations, we believe we have successfully dealt with this big data and numerous events and found coherent explanations.

The rest of the paper is organized as follows. Section 2 documents background studies, Section 3 deals with data treatment, conflict measurement and model specification, Section 4 presents the empirical results, and Section 5 includes conclusions and discussion. Tables, figures and appendixes are delegated to the end of the paper.

2 Background Studies

In this short section, we present some basic facts about Chinese firms and imports, which will be useful for subsequent analysis.

2.1 Firm ownership in China

As is well known, there exist three typical firm ownerships in China: SOEs, FIEs and PIEs. SOEs have a close relationship with the government. (i) Each publicly owned firm not only has a CEO as in western firms but also a Secretary of the Communist Party, and the top managers of major SOEs are appointed by the central or provincial government, which are mostly senior members of the Communist Party. In a number of cases, the CEO and Party Secretary are even the same person³. They thus have the incentive to serve the demands from the government, especially during political conflicts with foreign countries. (ii) Economically, SOEs have privileged access to more and cheaper capital and other regulatory benefits, including favorable taxation, subsidies, and preferential financing from government or State-owned commercial banks (Dewenter and Malatesta, 2001; Lu et al., 2012). Studies show that over 75 percent of the country's capital, which is largely provided by State-owned banks, flows to SOEs (Cull and Xu, 2003). Therefore, SOEs serve the political mandates of the State and align their interests with particular social, economic, or political objectives deemed necessary for the government (or national) interest. And it is hence understandable that when political conflicts arise, SOEs may follow the government's orders to reduce importing goods from countries in conflict. In contrast, FIEs and PIEs do not have a close relationship as SOEs with the government. With the onset of international conflicts, it would be interesting to see which type of firms follow government orders more closely.

Also, other countries may impose restrictions on exports to Chinese SOEs, an example of which is the Wassenaar Arrangement (WA)⁴, that aims to impose export control on

³In China, two central organizations—the Central Organization Department (COD), the head of which is a member of the Politburo, and the State-Owned Assets Supervision and Administration Commission (SASAC), with the approval of COD—have the authority to appoint the leadership of the country's 102 remaining centrally-owned SOEs.

⁴The Wassenaar Arrangement (WA) is the arrangement on export controls for conventional arms and dual-use good and technologies., See the official website: <https://www.wassenaar.org/>. The purpose is to restrict the export of strategic materials and high technology from member countries to socialist countries. Although the WA requires member States to issue export licenses for sensitive products and technologies at their own discretion, and inform other member States of the arrangement of relevant information on a voluntary basis. China, Iran and Libya are all on the list of restricted countries. But the "arrangement" is

strategic materials and high technology from member countries to socialist countries, in particular controls for conventional arms and dual-use good and technologies⁵. Under the Wassenaar Arrangement, SMIC, China's leading semiconductor-chip foundry, cannot buy the most advanced manufacturing equipment. Instead, it buys second-hand equipment from the Interuniversity Microelectronics Centre (IMEC), after 5 years of use at IMEC⁶.

In addition, non-SOE firms may be sanctioned during a political tension, especially in hi-tech. industries. For instance, after the U.S. put Huawei on the "entity list", Chip makers such as Intel, Lumentum, Qualcomm, Xilinx and Broadcom stopped supplying to Huawei⁷.

2.2 Chinese imports and firm ownership

In our sample, the shares of import value for SOEs, FIEs, and PIEs are 33.75%, 56.51%, and 6.25% respectively. That is, FIEs are the biggest importer, occupying more than half of total Chinese imports. Table 1 reports Chinese import percentage by category. It imports more intermediate and capital goods than consumption goods. The import value shares of intermediates, capital and consumption goods are 62.64%, 19.96% and 3.36% respectively. In addition, the import value shares of ordinary and processing products are 44.95% and 55.05% respectively. FIEs import more processing products than ordinary products, while SOEs and PIEs do the opposite. Specifically, SOEs import 72.69% ordinary and 27.31% processing products, whereas, FIEs import 25.15% ordinary and 74.85% processing products.

[Insert Table 1 here: Import value percentage by ownership, category and mode]

in fact completely controlled by the U.S. When a country under the WA intends to export a certain high technology to China, the U.S. often intervenes directly.

⁵Dual-use goods and technologies, covering: advanced materials, material processing, electronic devices, computers, telecommunications and information security, sensors and lasers, navigation and avionics, ships and maritime equipment, etc. There are more than ten thousand products in three categories, including military weapons and equipment, cutting-edge technology products and rare materials. Most of these items are capital goods.

⁶<https://tech.qq.com/a/20180419/000258.htm>

⁷<https://futurumresearch.com/sanctions-against-huawei-impact-us-chipmakers-and-other-tech-cos/>

3 Data Treatment, Conflict Measurement and Model Specification

The trade data are from China Customs database, which covers the transactions of every Chinese trading firm by partner country, with information on trade value, trade quantity (i.e., physical units), 8-digit Harmonized System (HS) industry classification, and ownership type. Since only the data for the period 2000-2006 provides the ownership type information, our study focuses on this period. The GDP, population, and the consumer price index in U.S. dollars (2010 as base year) which is used to deflate trade to get the real trade value (Rose, 2007), are from the World Development Indicators (WDI). The main political conflicts data are from the Global Data on Events, Location and Tone (GDELT), which is the largest online spatial-temporal database covering daily political conflicts and cooperation events recorded by worldwide broadcast, print, and web news and updated daily in over 100 languages from 1979 to the present⁸.

3.1 Political conflicts

3.1.1 Conflict measurement

The GDELT database has been used to study bilateral international conflicts (Leetaru and Schrodte, 2013; Gleditsch et al., 2014; Davis et al., 2019). It uses the Conflict and Mediation Event Observations (CAMEO) coding scheme, and each CAMEO event code is assigned a numeric Goldstein score from -10 to +10, capturing the theoretical potential impact of that type event on the stability of a country. Conflict events are measured by negative numbers from -10 to 0. Appendix A1 lists all the types of conflicts, such as business, government, education, human rights, health, etc. We select the negative events under the category of “government”, i.e., events initiated by the government of one country toward another country.

⁸The GDELT Event Database records over 300 categories of physical activities around the world, from riots and protests to peace appeals and diplomatic exchanges across the entire planet dating back to January 1, 1979 and updated daily (every 15 minutes). GDELT event records are stored in an expanded version of the dyadic CAMEO format. See <http://gdelproject.org/>.

In GDELT’s coding scheme, political conflict events usually include: use conventional military force, investigate, arrest and detain, charge with legal action, abductor hijack, take hostage, criticize or denounce, threaten, demonstrate or rally, complain officially, engage in political dissent, accuse, reject, defy norms and law, reduce relations, mobilize or increase armed forces, demonstrate military or police power, boycott, stop aid, sanctions, demand aid, demand cooperation, etc. Appendix A2 lists all the political conflict events in our sample.

We construct a variable $Conflict_{jt}$, as the sum of absolute Goldstein score of the conflict events between China and country j in year t , and divide it by 1000 to avoid small coefficients. As a preliminary step to avoid endogeneity, we exclude the conflict events related to trade, business and economics (See Table A2 in the Appendix). Appendix A3 lists the largest conflict events (with a score of -9 or lower) between China and other countries.

3.1.2 Measurement accuracy

We now explain the accuracy of the constructed variable in general. The political conflicts between China and the U.S., China and Japan are respectively shown in Figure 1, where one sees it captures really well the small as well as big events⁹.

For the conflicts between the U.S. and China, there are three peaks, in 1989, 1999, 2010-2013 respectively. Due to the Tiananmen Square events on June 4, 1989, the U.S. imposed a ban on arms shipments to China and halted high-level official talks¹⁰. In 1999, U.S. guided bombs hit the Chinese embassy in the Belgrade district of Yugoslavia, killing three Chinese reporters and outraging the Chinese public¹¹. The conflicts between China and the U.S. from 2010 to 2013 were primarily caused by a number of events, including

⁹We divide the Goldstein score by the world total conflict events number in the year.

¹⁰Web of history (2009): Congress votes new sanctions against China. <http://www.history.com/this-day-in-history/congress-votes-new-sanctions-against-china>, accessed 1 June 2018.

Andrew G. (2011): House Sanctions Post-Tiananmen China, June 29, 1989. <https://www.politico.com/story/2011/06/house-sanctions-post-tiananmen-china-june-29-1989-057928>, accessed 1 June 2018.

¹¹Wikipedia (1999). United States bombing of the Chinese embassy in Belgrade. https://en.wikipedia.org/wiki/United_States_bombing_of_the_Chinese_embassy_in_Belgrade, accessed 1 June 2018.

the U.S. policy of “rebalancing to Asia”¹², the rapid growth of U.S. arms sales to Taiwan, President Obama meeting the Dalai Lama¹³, and network security issues¹⁴.

For the conflicts initiated by China toward Japan, there are six peaks in 1982, 1985, 1996, 2005-2006, 2010 and 2012 respectively. In 1982, the Japanese government authorized the use of a history textbook that, according to critics, whitewashed Japanese war crimes of World War II. On August 15, 1985, Prime Minister Nakasone and his cabinet officially visited the Yasukuni Shrine, who was the first Japanese prime minister to visit the Shrine as a public officer after World War II. Since then, the Shrine has become an important source of conflict between China and Japan.¹⁵ In 1996, China conducted two nuclear tests, which Japan protested against. Also, a group of Japan Youth Club members landed on the Diaoyu/Senkaku islands. The conflicts around 2005-2006 were caused both by the official visit of Japanese Prime Minister Koizumi to the Yasukuni Shrine and by the Japanese government’s approval of New History Textbooks in April 2005 (Fisman et al., 2014).¹⁶ The conflicts in 2010 and 2012 arose respectively from the Diaoyu/Senkaku boat collision incident in 2010 and the Japanese nationalization of the Islands in 2012.¹⁷

[Insert Figure 1 here: Political conflicts: China vs. USA, China vs. Japan]

3.2 Trade data

We use the consumer price index in U.S. dollars to deflate trade to get the real trade value (Rose, 2007; Yu, 2015), since the trade data are recorded in current U.S. dollars.

¹²<https://warontherocks.com/2013/07/rebalancing-toward-asia-and-protecting-u-s-interests-the-devil-is-in-the-details/>

¹³Since China considers the status of Tibet as an internal affair, the meetings of the Dalai Lama with foreign officials as a leader of the Tibetan community, are seen by China as a threat the integrity of the Chinese nation (Fuchs and Klann, 2013).

¹⁴Google exited mainland China in 2011 because of network security issues.

¹⁵http://articles.latimes.com/1985-08-16/news/mn-3020_1_official-visits, accessed 1 June 2018.

¹⁶A Shinto shrine is dedicated to Japanese war deaths, including Class-A convicted war criminals in WWII.

¹⁷Wikipedia (2011). The 2010 Senkaku boat collision incident. https://en.wikipedia.org/wiki/2010_Senkaku_boat_collision_incident, accessed 1 June 2018;

CNN (2012):. How a remote rock split China and Japan. <http://edition.cnn.com/2012/09/17/world/asia/china-japan-islands-dispute-explained/index.html>, accessed 1 June 2018.

Ln_Import is the natural logarithm of the deflated import value of Chinese firms. Our sample includes 204133 firms' imports from 174 countries covering the period 2000-2006. Table 2 contains the descriptive statistics. SOEs occupy 25.9% observations; and 44.3% of the observations is ordinary trade and the rest is processing trade. Also, our regression analyses are based on the Classification by Broad Economic Categories (BEC), which is divided into capital, intermediate, and consumption goods. 69.3% observations in our sample are in intermediate goods, 20.4% and 10.1% are capital and consumption goods respectively.

[Insert Table 2 here: Descriptive statistics]

3.3 Variables and model specification

We construct the following model:

$$Ln_import_{ijpt} = \alpha + \beta_1 Conflict_{jt} + \beta_2 Conflict_{jt-1} + \eta X + \gamma_{it} + \lambda_j + \Psi_p + \epsilon_{ijpt}$$

where Ln_import_{ijpt} is the natural logarithm of the import value for firm i from country j of product p (HS6 code) in year t , $Conflict_{jt}$ is the the sum of absolute Goldstein score of the conflicts between China and country j in year t , and $Conflict_{jt-1}$ is the one-year lagged term. X includes a set of control variables. To control for the impact of industry competition on firms' imports, we add the Herfindahl-Hirschman Index, Imp_HHI_{jpt} , calculated as the sum of the squares of market shares of the importing firms from country j for product p (HS6 code) in year t . $Exchange_{jt}$ is the exchange rate of country j 's currency to Chinese RMB, $LnGDP_{jt}$ is natural logarithm of country j 's GDP, and $LnPOP_{jt}$ is the natural logarithm of country j 's population, all in year t .

In addition, we use the firm level time-varying fixed effect γ_{it} to control for firm characteristics such as productivity, and incorporate country j 's fixed effect λ_j and product p (HS6)'s fixed effect φ_p . And finally, ϵ_{ijpt} is the error term.

4 Empirical Results

4.1 Impacts on Chinese imports

Table 3 reports the impacts of political conflicts on Chinese imports. Column (1) includes the current $Conflict_{jt}$, to which column (2) adds one-year lagged conflict to consider the time delay of the impact¹⁸. The estimated coefficients for $Conflict_{jt}$ are negative and significant. These results are consistent with Fuch and Klann (2013), Heilmann (2016) and Du et al. (2017), suggesting that political conflicts reduce trade. However, the magnitude is not large. We find that with all else being equal, one standard deviation rise (0.009) in political conflicts results in 0.74 percent decrease in imports. But for the moment bear in mind that political conflicts rarely rise by a small percentage, rather, tensions could escalate abruptly and significantly, which may lead to large fluctuations in trade.

It might be the case that the results are driven by a particular large country which has both large trade volume and intensive conflicts with China¹⁹. So column (3) excludes two major countries as possible outliers, the U.S. and Japan. The decline in significance and coefficient size suggests that the two countries are indeed major friction and trading partners, so we deal with endogeneity in Table 10. Columns (4)-(6) take into account possible problems with the composition of political conflict indicators. To take a specific look at the impact of major events, we generate two alternative measures. $Conflict3_{jt}$ is constructed to include only the political events that have a value of less than -3 on the Goldstein score, and similarly, $Conflict5_{jt}$ includes only those with a value of less than -5. In addition, the conflicts initiated by China may be different from those initiated by an exporter. Hence, $Conflict_other_{jt}$ is constructed to include only the conflict events initiated by country j to China in year t . Using these conflict variables in robustness checks, our results are still in line with those in column (2).

[Insert Table 3 here: Impact of conflicts on Chinese imports]

¹⁸We have also tried other lags of political conflicts, and our results still hold.

¹⁹We thank an anonymous referee for this suggestion.

4.2 Effects by BEC categories

Two potential perspectives might help to explain the reduction effects of political conflicts on Chinese imports: import boycotts and export controls. Though we are not able to test the two channels strictly, they might be reflected through the impacts of different product categories, given capital goods, high tech products and SOE firms are the major targets of export controls. So based on Table 1, we divide our sample into intermediate, capital and consumer goods. Table 4 reports the impact of conflicts by BEC categories. Columns (1)-(3) show the regression results for intermediate, capital, and consumption goods respectively. Columns (4)-(6) report the results for the sample excluding U.S. and Japan.

The results in column (1) indicate that the impact of political conflicts on imports is mainly reflected in intermediate goods, and the negative impact is still significant after the removal of the U.S. and Japan. There are two potential reasons for this phenomenon: First, while export controls imposed by countries in conflict are generally applied to high-tech products such as capital goods, import boycotts are more likely to be applied to consumer goods and intermediate goods (Heilman, 2016). Second, the demand elasticity of capital goods is generally low (Chen et al., 2014), and substitution goods are not easy to find. Many important industries, such as high-speed railways, highways, ports, airlines, and petroleum, etc., depend on imported capital goods such as machines and machine tools. In contrast, the demand elasticity of consumer goods and intermediate goods is high (Chen et al., 2014), and hence are easy to be boycotted and substituted. The insignificant coefficients for consumer goods may be due to the fact that compared to the intermediate goods whose purchasers are firms, it is the consumers, rather than firms, who initiate the boycott on consumer goods. And consumers are usually less politically constrained and less sensitive to minor events which are the main composition of the data. Thus boycotts on consumer goods usually occur under limited extent and for shorter durations, leading to an insignificant impact. These results suggest that in general, the impact of political

conflicts on imports is more likely to be caused by import boycotts rather than export controls.

[Insert Table 4 here: Impact of political conflicts by BEC categories]

4.3 Effects by ownership

In order to further investigate the reasons for the decrease in imports of intermediate goods, we take the angle of firm ownership. On the exporters' side, export controls are more likely to be used to target SOEs, however on the importers' side, SOEs on the one hand have the political responsibility to boycott imports when facing political conflicts, on the other hand, they must undertake production activities for the development of lifeline industries, forcing them to increase imports instead, especially in capital goods.

Table 5 reports the impacts of political conflicts by different ownerships. In the first two columns, we find that SOEs are more vulnerable to political conflicts than PIEs and FIEs, and the difference between FIEs and PIEs is not significant. Columns (3)-(4) exclude two possible outliers the U.S. and Japan respectively, considering the fact that the U.S. has more export controls on China and China has more boycotts on imports from Japan. In all columns, the coefficients for the interaction term between *FIE* and *Conflict* are not significant. SOEs' imports fall more than those of the other two groups, suggesting they might be more vulnerable to export control restrictions, and they assume the political task of undertaking stronger import boycotts. Combined with Table 4, it seems the latter reason is more likely.

[Insert Table 5 here: Impact of political conflicts by different ownerships]

Next, onto the BEC categories of all SOEs. In Table 6, column (1) shows that SOEs' imports are negatively affected by political conflicts. Further, columns (2)-(4) find that intermediate goods are the most affected, consistent with Table 5. These results indicate

that on the one hand, SOEs are charged with the political task of import boycotts, and on the other hand, while there may be more restrictions placed on SOEs by exporting countries, there has not been a significant decline in the imports of capital goods, because SOEs are also responsible for the construction and maintenance of the lifeline industries, and thus the import boycotts are mainly reflected in intermediate goods rather than capital goods.

[Insert Table 6 here: Impact of political conflicts for SOEs]

Finally, we deal with the issue of zero trade that may be caused by political conflicts in certain products. Although our dependent variable is in the firm-product-country level where zero trade is usually not a major concern, we aggregate our sample to country-product (HS6)-year level, and employ Poisson Pseudo Maximum Likelihood (PPML) to exclude the possible bias generated from missing trade at an aggregated product level. Table 7 reports the results, and they show that after handling zero samples, conflict still has a significant and negative impact on Chinese imports, with SOEs being the most negatively affected, and FIEs the least affected among the three ownership types.

[Insert Table 7 here: Impact of political conflicts (industry-level) by using PPML]

4.4 Effects on ordinary and processing trade

Tables 5 and 6 suggest the imports of FIEs and PIEs are least negatively affected by political conflicts, especially FIEs. It might be attributed to the fact that many FIEs are processing trade firms or export firms, which import inputs and export final products, and processing trade accounts for a large share in China's total trade for a long period (Yu, 2015). On the one hand, these products are sold in overseas markets rather than in domestic markets, so the impact of boycotts in the Chinese domestic markets is relatively small. On the other hand, processing trade firms are more deeply embedded in global

value chains, where the supply chain of intermediate goods is more stable and less affected by export controls imposed by countries in conflicts than ordinary trading firms (Dai et al., 2016). To this end, we classify our sample into processing trade and ordinary trade. As shown in Table 8, we find that ordinary imports are negative and significantly affected by political conflicts, while processing imports are not significantly affected, consistent with our conjecture.

[Insert Table 8 here: Impact of conflicts on ordinary and processing trade]

4.5 Effects by country

Next, we disaggregate the exporter countries into democratic and non-democratic countries. The democracy data are from Polity IV, which has been extensively used to measure world democratization.²⁰ The polity scheme records changes in the institutionalized qualities of the governing authority, and measures the qualities of executive recruitment and constraints on executive authority. The polity score provided by the dataset captures political regime authority spectrum on a 21-point scale ranging from -10 (hereditary monarchy) to $+10$ (consolidated democracy). A negative polity score is treated as non-democracy, and a positive one as democracy.

Table 9 presents the regression results. The estimated coefficients for *Conflict* from democracy countries in column (1) are negative and significant, whereas the estimated coefficient *Conflict* in column (3) is insignificant. Columns (2) and (4) incorporate the interaction terms with firm ownership, supporting that compared with other types of firms, SOEs suffer more from the conflicts with democracy trading partners while little from the non-democracy countries. These suggest that conflicts reduce Chinese imports from democracy rather than non-democracy countries. The reason might lie in that, most of China’s important trading partners and providers of key intermediate goods and capital goods are democracy countries, who may discriminate against China in export and import choices in times of political conflicts (Gawarkiewicz and Tang, 2017).

²⁰For example, Yu (2010) and Peterson (2011).

[Insert Table 9 here: Effects of conflicts by different countries]

4.6 Endogeneity Issues

The potential endogeneity issues in this paper stem primarily from three sources: measurement errors, omitted variable bias and reverse causality. We make several attempts to mitigate these concerns. First, to control for the measurement error, we take several robust conflict variables as our independent variables, and as shown in Tables 3, our results still hold.

Second, our data structure implies that reverse causality is not very serious in the paper, since it is difficult for an individual firm to influence the aggregate-level political conflicts between two nations, and thus, to a typical firm, international political conflicts in the country-level are obviously exogenous. In addition, we have already excluded trade-, business- and economic-related conflict events from our political conflicts.

Third, we use multiple fixed effects to mitigate concerns about the omitted variable bias. Specifically, the firm-year fixed effects capture a set of time-varying firm characteristics, such as, ownership type, firm size, firm profit, etc. Country fixed effects capture the dyadic country characteristics between country j and China, such as, geographic distance, contiguity, and common language, etc. Product fixed effects capture the product characteristics in HS6 code. These fixed effects to some extent mitigate the bias from omitted variables.

Fourth, in addition to the above steps, we conduct a Two-Stage-Least-Squares (2SLS) analysis. To this end, we construct an IV that influences political conflicts but not trade and error terms. Our IV has two components. (1). The density of military forces that affect the probability of political conflicts between dyadic countries (Dorussen and Ward, 2010). Large countries may have more trade and military personnel at the same time. So we divide military personnel by total population to eliminate the impact of country size. Specifically, density of military personnel (*density_personnel*) is constructed as the

ratio of military personnel divided by the total population of country j in year t . The military personnel data of each country come from the Correlates of War database²¹. The countries with the highest scores are Democratic People’s Republic of Korea, Eritrea, Israel, Lebanon, Jordan, Bahrain, Syria, Oman, Qatar, Hrvatska, all of which are small countries having little trade with China; the scores for China’s main trading partners are USA 0.49%, FRA 0.44%, GBR 0.35%, and JPN 0.19%, which are all not among the top score countries. This suggests that the military density is not significantly directly correlated with country size or trade volume with China, and can serve as an exogenous instrumental variable.

(2). A historical decision of establishing diplomatic relations likely affects the political conflicts or cooperation later on, but it may not directly affect a firm’s current trade decision through other channels beyond political relations (Li et al., 2018). Thus, $Rec_Diplomat_years_{jt}$ is constructed as the reciprocal of natural log of the number of years that China’s diplomatic relations have been established with country j in year t .²² The diplomatic relations data come from the website of the Ministry of Foreign Affairs of China.

Our IV is constructed as the density of military personnel ($density_personel$) multiplied by the reciprocal of the natural log of the number of years of established diplomatic relations ($Rec_Diplomat_years$). We report the first stage regressions in Appendix Table A4, where the instrument variables are significantly positively correlated with the conflict measure. The 2SLS regression results are shown in Table 10. The Anderson-Rubin test F statistics for columns (1) and (2) are 70.85 and 69.99 respectively, rejecting the null hypothesis and implying our IV explains the political conflicts. Note that the correlation between the IV and the error term in the benchmark regression is 0.0002, suggesting the IV has little impact on imports through the channels other than conflicts. Above all, these results indicate the exogeneity and relevance of our constructed IV and justify its use as

²¹The official website of the database: <https://correlatesofwar.org/>

²²The data is from the website of China Ministry of Foreign Affairs.

an instrumental variable. These 2SLS regression results are consistent with our previous results.

[Insert Table 10 here: Instrumental variable test]

5 Conclusions and Discussion

While most existing economic literature focuses on the effects of specific international conflict events, few of them examine how political conflicts affect international trade in general. Moreover, there is a complete lack of study on the different responses of heterogeneous firm ownership to political conflicts. In this paper, by testing firm-country-product (HS6) yearly trade data, we have examined how the effects of political conflicts on trade change with firms' ownership type and product categories. Our study includes not only big and symbolic events like in the existing literature, but also more general political conflicts with big data, leading to more general and robust conclusions.

Our main findings in the paper can be summarized as follows.

First, the impact of political conflicts on trade may come from two sources: consumer boycotts in the importing countries and export controls in the exporting countries, in particular, export control for SOEs and high-tech products.²³ We find that the negative impact of political conflicts on intermediate goods importing is greater than capital goods, because capital goods, with a lower elasticity of substitution (Chen et al., 2014), usually bear intensive technology and could not be easily replaced as conflicts occur, particularly in high-tech industries and for SOEs undertaking the development of lifeline industries. This makes capital goods hard to be boycotted by importing firms while easy to be targeted by exporters. And intermediate goods may serve as a better measure to boycott since it is more subjective to production changes and are more easily replaced.

Second, we find different responses from heterogeneous firm ownerships to political conflicts. Compared with FIEs and PIEs, SOEs are more negatively affected by political

²³The Wassenaar Arrangement is a typical form of export control.

conflicts. Two potential reasons may explain the results: first, the SOEs assume a greater role in import boycotts than other type of firms (Du et al.,2017; Davis et al., 2019), reflecting the fact that the intermediates goods importing of SOEs is negatively affected by political conflicts; second, SOEs may be restricted by export control policies of countries in conflict, like the Wassenaar Arrangement often used by the U.S. to restrict the exports of high-tech products to China. The capital goods importing of SOEs has not been seriously affected, suggesting the second channel is weak.

Third, compared with SOEs and PIEs, FIEs are less affected by political conflicts. The possible reasons lie in that many FIEs are processing trade firms. We find that ordinary trade is affected by political conflicts more easily than processing trade because the final products of FIEs are mostly exported abroad, confronting less pressure of domestic boycotts, and the processing trade firms are more deeply embedded in the global value chain, hence are also less exposed to export controls.

We also find that conflicts reduce importing from democracy countries rather than non-democracies, suggesting that differences in political ideology between China and the exporters would affect trade decisions during conflicts.

The paper enriches the literature by discussing the heterogeneous impacts of political conflicts on trade across different product categories and firm ownerships. In the literature, though SOEs are found to be hampered by conflicts more seriously in some studies, the mechanism is still ambiguous. In the present paper, we have provided an insight to uncover the channels from both import boycotts and export controls through careful investigations of different product types, trade modes and ownerships. The paper sheds lights on the linkage between the impact of conflict and global value chain, as emphasized in Antràs and Gortari (2020) that trade cost transfers to firms differently according to the product location in the production chain. Still, future studies may reveal more detailed and direct evidence on the channels.

The impacts of conflicts on Chinese exports are also worth exploring, since it is uncer-

tain whether there is similar political task of export controls for SOEs or import boycotts of products made by SOEs from the trading partners. Policies such as export tax refund make the investigations more complicated but also more interesting. These interesting issues remain avenues for further research.²⁴

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²⁴We thank the referee for the suggestion.

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Table 1 Import value percentage by ownership, category and mode

	SOE	FIE	PIE	Total
Import value percentage	33.75%	56.51%	6.25%	

Panel A: BEC category

Intermediate goods	70.86%	57.13%	65.40%	62.64%
Capital goods	17.85%	21.96%	15.98%	19.96%
Consumption goods	3.01%	3.26%	6.19%	3.36%
Others ^{a)}	8.28%	17.64%	12.43%	14.03%
Total	100%	100%	100%	100%

Panel B: Ordinary and processing trade

Ordinary	72.69%	25.15%	67.04%	44.95%
Processing	27.31%	74.85%	32.96%	55.05%
Total	100%	100%	100%	100%

Note: The import value is computed based on the China Customs Data for 2000-2006. It is deflated by the U.S. deflator and normalized by import growth.

a): "Others" represents the HS codes without corresponding BEC codes or the ownership type is not identified.

Table 2 Descriptive statistics

	Observations	Mean	Std. Dev.	Min	Max
<i>Conflict</i>	14,542,684	0.003	0.009	0	0.087
<i>LnImport</i>	15,277,930	8.355	2.881	0.065	22.957
<i>SOE</i>	15,277,930	0.259	0.438	0	1
<i>FIE</i>	15,277,930	0.595	0.491	0	1
<i>Imp_HHI</i>	15,277,930	0.164	0.207	0.004	1
<i>Exchange</i>	13,079,534	33.014	142.855	0.005	3135.410
<i>LnGDP</i>	13,075,466	28.064	1.514	18.240	30.328
<i>LnPOP</i>	13,094,779	17.997	1.451	9.846	20.994
Intermediate goods	14,686,204	0.693	0.461	0	1
Capital goods	14,686,204	0.204	0.403	0	1
Consumption goods	14,686,204	0.101	0.301	0	1
Ordinary goods	15,277,930	0.443	0.497	0	1

Table 3 Impact of political conflict on Chinese imports

	(1)	(2)	(3)	(4)	(5)	(6)
		Whole	US&JPN excluded	<i>Conflict_other</i>	<i>Conflict_3</i>	<i>Conflict_5</i>
<i>Conflict</i>	-0.822*** (-2.767)	-0.906*** (-2.629)	-0.664* (-1.682)	-1.854*** (-3.005)	-1.175*** (-3.537)	-1.257*** (-3.658)
<i>Conflict(t-1)</i>		-0.582 (-1.469)	-0.596 (-1.249)	-1.970*** (-3.327)	-2.217*** (-4.115)	-2.326*** (-3.902)
<i>Firm_year FE</i>	Y	Y	Y	Y	Y	Y
<i>HS6 FE</i>	Y	Y	Y	Y	Y	Y
<i>Country FE</i>	Y	Y	Y	Y	Y	Y
Observations	12226588	12226588	7623765	7706208	7706208	7706208
Adj R2	0.373	0.373	0.403	0.390	0.390	0.390

Note: The dependent variables are the natural logarithm of the import value. This table does not report the value for control variables *Imp_HHI*, *Exchange*, *LnGDP*, and *LnPOP*. We control for firm-year fixed effects, country fixed effects, and product in HS6 fixed effects in all columns. Imports from the U.S. and Japan are excluded in column 3-6. Robust standard errors are clustered at the country level and t statistics are reported in parentheses. ***, **, and * represent the significance level at 0.01, 0.05, and 0.1 respectively.

Table 4 Impact of conflicts by BEC categories

	(1)	(2)	(3)	(4)	(5)	(6)
	Including U.S. and Japan			Excluding U.S. and Japan		
	Intermediate goods	Capital goods	Consumption goods	Intermediate goods	Capital goods	Consumption goods
<i>Conflict</i>	-0.869*** (-2.877)	-0.372 (-0.694)	-0.160 (-0.232)	-0.637* (-1.727)	-0.669 (-1.216)	0.606 (1.177)
<i>Conflict(t-1)</i>	-0.571 (-1.478)	-0.497 (-0.886)	-0.893 (-1.470)	-0.624 (-1.354)	-0.515 (-0.741)	-0.935 (-1.643)
<i>Firm_year FE</i>	Y	Y	Y	Y	Y	Y
<i>HS6 FE</i>	Y	Y	Y	Y	Y	Y
<i>Country FE</i>	Y	Y	Y	Y	Y	Y
Observations	8109666	2296022	1159446	5080326	1276947	792592
Adj R2	0.362	0.414	0.385	0.404	0.417	0.417

Note: The dependent variables are the natural logarithm of the import value. This table does not report the value for control variables *Imp_HHI*, *Exchange*, *LnGDP*, and *LnPOP*. We control for firm-year fixed effects, country fixed effects, and product in HS6 fixed effects in all columns. Robust standard errors are clustered at the country level and t statistics are reported in parentheses. ***, **, and * represent the significance level at 0.01, 0.05, and 0.1 respectively. For the conversion table between HS6 code to BEC categories and SITC groups, see website: <https://unstats.un.org/unsd/trade/classifications/correspondence-tables.asp>.

Table 5 Impact of political conflicts by different ownership

	(1)	(2)	(3)	(4)
	Whole	U.S. and Japan excluded	U.S. excluded	Japan excluded
<i>Conflict</i>	-0.273 (-0.304)	0.758 (0.729)	-0.098 (-0.107)	0.286 (0.272)
<i>Conflict(t-1)</i>	-0.531 (-1.362)	-0.561 (-1.196)	-0.645 (-1.617)	-0.457 (-0.993)
<i>Conflict*SOE</i>	-2.500*** (-4.359)	-2.650*** (-3.712)	-2.146*** (-3.718)	-2.924*** (-4.626)
<i>Conflict*FIE</i>	0.940 (0.722)	-0.536 (-0.369)	0.324 (0.253)	0.560 (0.343)
<i>Firm_year FE</i>	Y	Y	Y	Y
<i>HS6 FE</i>	Y	Y	Y	Y
<i>Country FE</i>	Y	Y	Y	Y
Observations	12226588	7623765	10650607	9198797
Adj R2	0.373	0.403	0.378	0.392

Note: The dependent variables are the natural logarithm of the import value. This table does not report the value for control variables *Imp_HHI*, *Exchange*, *LnGDP*, and *LnPOP*. We control for firm-year fixed effects, country fixed effects, and product in HS6 fixed effects in all columns. Robust standard errors are clustered at the country level and t statistics are reported in parentheses. ***, **, and * represent the significance level at 0.01, 0.05, and 0.1 respectively.

Table 6 Impact of political conflicts for SOEs

	(1)	(2)	(3)	(4)	(5)
		Including U.S. and Japan			Excluding U.S. and Japan
	SOE	SOE Intermediate goods	SOE Capital goods	SOE Consumption goods	SOE
<i>Conflict</i>	-0.804** (-2.134)	-1.000*** (-2.727)	-0.352 (-0.499)	0.559 (0.829)	-0.551 (-1.182)
<i>Conflict(t-1)</i>	-1.338** (-2.238)	-1.478** (-2.485)	-1.262 (-1.587)	-1.175 (-1.317)	-1.313** (-2.218)
<i>Firm_year FE</i>	Y	Y	Y	Y	Y
<i>HS6 FE</i>	Y	Y	Y	Y	Y
<i>Country FE</i>	Y	Y	Y	Y	Y
Observations	3420129	2182603	692432	417438	2290783
Adj R2	0.402	0.395	0.423	0.365	0.428

Note: The dependent variables are the natural logarithm of the import value. This table does not report the value for control variables *Imp_HHI*, *Exchange*, *LnGDP*, and *LnPOP*. We control for firm-year fixed effects, country fixed effects, and product in HS6 fixed effects in all columns. Robust standard errors are clustered at the country level and t statistics are reported in parentheses. ***, **, and * represent the significance level at 0.01, 0.05, and 0.1 respectively.

Table 7 Impact of political conflicts (industry-level) by using PPML

	(1)	(2)	(3)	(4)
		Whole		U.S. & JPN excluded
<i>Conflict</i>	-0.017 (-0.265)	-0.308** (-0.819)	-0.002 (-0.053)	-0.511*** (-1.340)
<i>Conflict(t-1)</i>	-0.070* (-1.156)	-0.036 (-0.618)	-0.062* (-1.678)	-0.024 (-0.412)
<i>Conflict*SOE</i>		-0.584*** (-1.843)		-0.492*** (-1.471)
<i>Conflict*FIE</i>		0.888** (2.066)		1.222*** (3.075)
<i>Year FE</i>	Y	Y	Y	Y
<i>HS6 FE</i>	Y	Y	Y	Y
<i>Country FE</i>	Y	Y	Y	Y
Observations	588576	286933	527768	239324

Note: The dependent variables are the natural logarithm of the import values. We use PPML to address the zero trade problem. This table does not report the value for control variables *Imp_HHI*, *Exchange*, *LnGDP*, and *LnPOP*. We control for year fixed effects, country fixed effects, and product in HS6 fixed effects in all columns. T statistics are based on robust standard errors and reported in parentheses. ***, **, and * represent the significance level at 0.01, 0.05, and 0.1 respectively.

Table 8 Impact of political conflicts on processing and ordinary firms

	(1)	(2)	(5)	(6)
	Whole		US&JPN excluded	
	Ordinary	Process	Ordinary	Process
<i>Conflict</i>	-1.577**	0.076	-1.255*	0.144
	(-2.477)	(0.188)	(-1.844)	(0.394)
<i>Conflict(t-1)</i>	-1.186*	0.448	-1.176*	0.378
	(-1.967)	(1.180)	(-1.714)	(0.770)
<i>Firm_year FE</i>	Y	Y	Y	Y
<i>HS6 FE</i>	Y	Y	Y	Y
<i>Country FE</i>	Y	Y	Y	Y
Observations	5846984	6311891	3573224	3997098
Adj R2	0.420	0.398	0.449	0.427

Note: The dependent variables are the natural logarithm of the import value. This table does not report the value for control variables *Imp_HHI*, *Exchange*, *LnGDP*, and *LnPOP*. We control for firm-year fixed effects, country fixed effects, and product in HS6 fixed effects in all columns. Robust standard errors are clustered at the country level and t statistics are reported in parentheses. ***, **, and * represent the significance level at 0.01, 0.05, and 0.1 respectively.

Table 9 Impact of political conflicts by country

	(1)	(2)	(3)	(4)
	Democracy		Non-Democracy	
<i>Conflict</i>	-0.926**	-0.280	-1.487	1.044
	(-2.608)	(-0.321)	(-0.576)	(0.230)
<i>Conflict(t-1)</i>	-0.574	-0.522	1.406	1.312
	(-1.416)	(-1.308)	(0.735)	(0.680)
<i>Conflict*SOE</i>		-2.475***		-6.140
		(-4.317)		(-1.657)
<i>Conflict*FIE</i>		0.902		5.915
		(0.706)		(0.584)
<i>Firm_year FE</i>	Y	Y	Y	Y
<i>HS6 FE</i>	Y	Y	Y	Y
<i>Country FE</i>	Y	Y	Y	Y
Observations	11767266	11767266	413439	413439
Adjusted R2	0.371	0.371	0.478	0.478

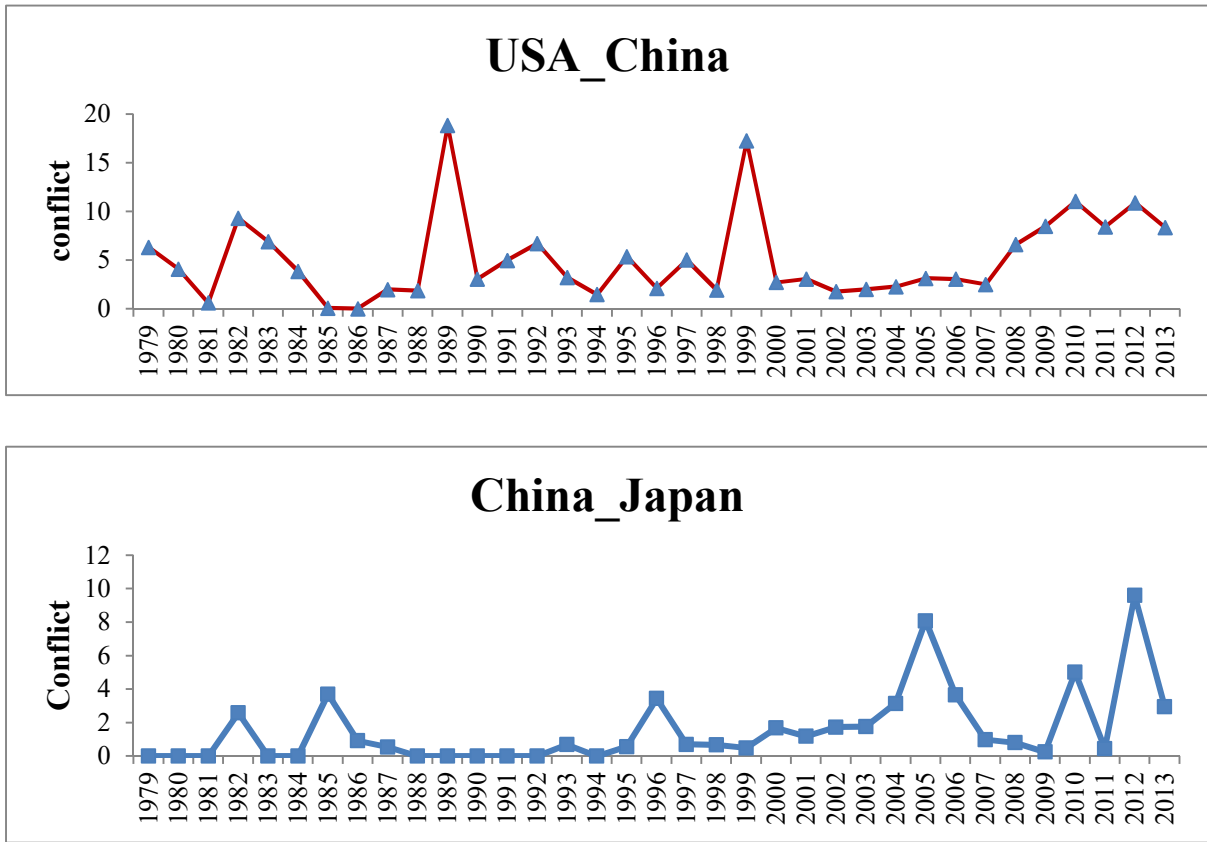
Note: The dependent variables are the natural logarithm of the import values. This table does not report the value for control variables *Imp_HHI*, *Exchange*, *LnGDP*, and *LnPOP*. We control for firm-year fixed effects, country fixed effects, and product in HS6 fixed effects in all columns. Robust standard errors are clustered at the country level and t statistics are reported in parentheses. ***, **, and * represent the significance level at 0.01, 0.05, and 0.1 respectively.

Table 10 Instrumental variable test

	(1)	(2)	(3)	(4)	(5)
	U.S &Japan included	U.S &Japan excluded			
	Whole	Whole	Intermediate	ordinary	process
<i>Conflict</i>	-3.886*** (-8.419)	-4.384*** (-8.369)	-3.302*** (-5.187)	-5.100*** (-6.393)	-3.378*** (-4.673)
<i>Conflict(t-1)</i>	-1.044*** (-7.024)	-1.370*** (-8.440)	-1.030*** (-5.081)	-2.091*** (-9.332)	-0.470* (-1.953)
<i>Firm_year FE</i>	Y	Y	Y	Y	Y
<i>HS6 FE</i>	Y	Y	Y	Y	Y
<i>Country FE</i>	Y	Y	Y	Y	Y
Observations	9853031	5741160	3732370	3054663	2640406
Adj R2	0.378	0.413	0.411	0.449	0.440
Anderson-Rubin Wald F test	70.85	69.99	26.89	40.81	21.83

Note: The dependent variables are the natural logarithm of the import values. ***, **, and * represent the significance level at 0.01, 0.05, and 0.1 respectively. This table does not report the value for control variables *Imp_HHI*, *Exchange*, *LnGDP*, and *LnPOP*. We control for firm-year fixed effects, country fixed effects, and product in HS6 fixed effects in all columns. T statistics based on robust standard errors are reported in parentheses.

Figure 1 Political conflicts: China vs. USA, China vs. Japan



Source: Calculated by the authors based on data from GDELT.

Appendix

Table A1 Different type initiating events

Agriculture	Amnesty International
Business	Civilian
Criminal	Development
Education	Elites
Environmental	Government
Greenpeace	Health
Human Rights	Insurgents
Inter-Governmental Organization	International Militarized Group
International/Transnational Generic	Judiciary
Labor	Legislature
Media	Military
Moderate	Multinational Corporation
Non-Governmental Movement	Non-Governmental Organization
Peacekeepers	Political Opposition
Radical	Rebels
Red Cross	Refugees
Separatist Rebels	Settler
State Intelligence	Unaligned Armed Forces
Unidentified State Actor	United Nations

Table A2 Description of conflict events

Panel A: Economic events		
CAMEO event code	Goldstein score	Event description
1011	-5	Demand economic cooperation
1031	-5	Demand economic aid
1054	-5	Demand easing of economic sanctions, boycott, or embargo
1244	-4	Refuse to ease economic sanctions, boycott, or embargo
127	-5	Reject plan, agreement to settle dispute
1312	-5.8	Threaten to boycott, embargo, or sanction
1621	-5.6	Reduce or stop economic assistance
163	-8	Impose embargo, boycott, or sanctions

Panel B: Non-economic events

CAMEO event code	Goldstein score	Event description
11	-0.1	Decline comment
12	-0.4	Make pessimistic comment
16	-2	Deny responsibility
24	-0.3	Appeal for political reform, not specified below
241	-0.3	Appeal for change in leadership
242	-0.3	Appeal for policy change
243	-0.3	Appeal for rights
244	-0.3	Appeal for change in institutions, regime
25	-0.3	Appeal to yield
251	-0.3	Appeal for easing of administrative sanctions
252	-0.3	Appeal for easing of popular dissent
253	-0.3	Appeal for release of persons or property
254	-0.3	Appeal for easing of economic sanctions, boycott, or embargo
255	-0.3	Appeal for target to allow international involvement (non-mediation)
256	-0.3	Appeal for de-escalation of military engagement
9	-2	INVESTIGATE
90	-2	Investigate, not specified below
91	-2	Investigate crime, corruption
92	-2	Investigate human rights abuses
93	-2	Investigate military action
94	-2	Investigate war crimes
10	-5	DEMAND
100	-5	Demand, not specified below
101	-5	Demand information, investigation

1012	-5	Demand military cooperation
1013	-5	Demand judicial cooperation
1014	-5	Demand intelligence cooperation
102	-5	Demand policy support
103	-5	Demand aid, protection, or peacekeeping
1032	-5	Demand military aid
1033	-5	Demand humanitarian aid
1034	-5	Demand military protection or peacekeeping
104	-5	Demand political reform, not specified below
1041	-5	Demand change in leadership
1042	-5	Demand policy change
1043	-5	Demand rights
1044	-5	Demand change in institutions, regime
105	-5	Demand mediation
1051	-5	Demand easing of administrative sanctions
1052	-5	Demand easing of political dissent
1053	-5	Demand release of persons or property
1055	-5	Demand that target allows international involvement (non-mediation)
1056	-5	Demand de-escalation of military engagement
106	-5	Demand withdrawal
107	-5	Demand ceasefire
108	-5	Demand meeting, negotiation
11	-2	DISAPPROVE
110	-2	Disapprove, not specified below
111	-2	Criticize or denounce
112	-2	Accuse, not specified below
1121	-2	Accuse of crime, corruption
1122	-2	Accuse of human rights abuses
1123	-2	Accuse of aggression
1124	-2	Accuse of war crimes
1125	-2	Accuse of espionage, treason
113	-2	Rally opposition against
114	-2	Complain officially
115	-2	Bring lawsuit against
116	-2	Find guilty or liable (legally)
12	-4	REJECT
120	-4	Reject, not specified below
121	-4	Reject material cooperation
1211	-4	Reject economic cooperation

1212	-4	Reject military cooperation
122	-4	Reject request or demand for material aid, not specified below
1221	-4	Reject request for economic aid
1222	-4	Reject request for military aid
1223	-4	Reject request for humanitarian aid
1224	-4	Reject request for military protection or peacekeeping
123	-4	Reject request or demand for political reform, not specified below
1231	-4	Reject request for change in leadership
1232	-4	Reject request for policy change
1233	-4	Reject request for rights
1234	-4	Reject request for change in institutions, regime
124	-4	Refuse to yield, not specified below
1241	-4	Refuse to ease administrative sanctions
1242	-4	Refuse to ease popular dissent
1243	-4	Refuse to release persons or property
1245	-4	Refuse to allow international involvement (non mediation)
1246	-4	Refuse to de-escalate military engagement
125	-5	Reject proposal to meet, discuss, or negotiate
126	-5	Reject mediation
128	-5	Defy norms, law
129	-5	Veto
13	-6	THREATEN
130	-4.4	Threaten, not specified below
131	-5.8	Threaten non-force, not specified below
1311	-5.8	Threaten to reduce or stop aid
1313	-5.8	Threaten to reduce or break relations
132	-5.8	Threaten with administrative sanctions, not specified below
1321	-5.8	Threaten to impose restrictions on political freedoms
1322	-5.8	Threaten to ban political parties or politicians
1323	-5.8	Threaten to impose curfew
1324	-5.8	Threaten to impose state of emergency or martial law
133	-5.8	Threaten political dissent, protest
134	-5.8	Threaten to halt negotiations
135	-5.8	Threaten to halt mediation
136	-7	Threaten to halt international involvement (non-mediation)
137	-7	Threaten with violent repression
138	-7	Threaten to use military force, not specified below
1381	-7	Threaten blockade
1382	-7	Threaten occupation

1383	-7	Threaten unconventional violence
1384	-7	Threaten conventional attack
1385	-7	Threaten attack with WMD
139	-7	Give ultimatum
14	-6.5	PROTEST
140	-6.5	Engage in political dissent, not specified below
141	-6.5	Demonstrate or rally
1411	-6.5	Demonstrate for leadership change
1412	-6.5	Demonstrate for policy change
1413	-6.5	Demonstrate for rights
1414	-6.5	Demonstrate for change in institutions, regime
142	-6.5	Conduct hunger strike, not specified below
1421	-6.5	Conduct hunger strike for leadership change
1422	-6.5	Conduct hunger strike for policy change
1423	-6.5	Conduct hunger strike for rights
1424	-6.5	Conduct hunger strike for change in institutions, regime
143	-6.5	Conduct strike or boycott, not specified below
1431	-6.5	Conduct strike or boycott for leadership change
1432	-6.5	Conduct strike or boycott for policy change
1433	-6.5	Conduct strike or boycott for rights
1434	-6.5	Conduct strike or boycott for change in institutions, regime
144	-7.5	Obstruct passage, block
1441	-7.5	Obstruct passage to demand leadership change
1442	-7.5	Obstruct passage to demand policy change
1443	-7.5	Obstruct passage to demand rights
1444	-7.5	Obstruct passage to demand change in institutions, regime
145	-7.5	Protest violently, riot
1451	-7.5	Engage in violent protest for leadership change
1452	-7.5	Engage in violent protest for policy change
1453	-7.5	Engage in violent protest for rights
1454	-7.5	Engage in violent protest for change in institutions, regime
15	-7.2	EXHIBIT FORCE POSTURE
150	-7.2	Demonstrate military or police power, not specified below
151	-7.2	Increase police alert status
152	-7.2	Increase military alert status
153	-7.2	Mobilize or increase police power
154	-7.2	Mobilize or increase armed forces
16	-4	REDUCE RELATIONS
160	-4	Reduce relations, not specified below

161	-4	Reduce or break diplomatic relations
162	-5.6	Reduce or stop aid, not specified below
1622	-5.6	Reduce or stop military assistance
1623	-5.6	Reduce or stop humanitarian assistance
164	-7	Halt negotiations
165	-6.5	Halt mediation
166	-7	Expel or withdraw, not specified below
1661	-7	Expel or withdraw peacekeepers
1662	-7	Expel or withdraw inspectors, observers
1663	-7	Expel or withdraw aid agencies
17	-7	COERCE
170	-7	Coerce, not specified below
171	-9.2	Seize or damage property, not specified below
1711	-9.2	Confiscate property
1712	-9.2	Destroy property
172	-5	Impose administrative sanctions, not specified below
1721	-5	Impose restrictions on political freedoms
1722	-5	Ban political parties or politicians
1723	-5	Impose curfew
1724	-5	Impose state of emergency or martial law
173	-5	Arrest, detain, or charge with legal action
174	-5	Expel or deport individuals
175	-9	Use tactics of violent repression
18	-9	ASSAULT
180	-9	Use unconventional violence, not specified below
181	-9	Abduct, hijack, or take hostage
182	-9.5	Physically assault, not specified below
1821	-9	Sexually assault
1822	-9	Torture
1823	-10	Kill by physical assault
183	-10	Conduct suicide, car, or other non-military bombing, not spec below
1831	-10	Carry out suicide bombing
1832	-10	Carry out car bombing
1833	-10	Carry out roadside bombing
184	-8	Use as human shield
185	-8	Attempt to assassinate
186	-10	Assassinate
19	-10	FIGHT
190	-10	Use conventional military force, not specified below

191	-9.5	Impose blockade, restrict movement
192	-9.5	Occupy territory
193	-10	Fight with small arms and light weapons
194	-10	Fight with artillery and tanks
195	-10	Employ aerial weapons
196	-9.5	Violate ceasefire
20	-10	USE UNCONVENTIONAL MASS VIOLENCE
200	-10	Use unconventional mass violence, not specified below
201	-9.5	Engage in mass expulsion
202	-10	Engage in mass killings
203	-10	Engage in ethnic cleansing
204	-10	Use weapons of mass destruction, not specified below
2041	-10	Use chemical, biological, or radiological weapons
2042	-10	Detonate nuclear weapons

Note: CAMEO (Conflict and Mediation Event Observations).

Table A3 Conflict events (Goldstein score<=-9) between China and other countries

Actor country	Target country	quarter	Global event id	Goldstein score
CHN	USA	2005q4	57782669	-9
CHN	USA	2005q4	57782670	-9
USA	CHN	2004q1	50633911	-10
USA	CHN	2006q3	179816118	-9.5
USA	CHN	2006q3	179816119	-9.5
CHN	JPN	2003q4	49259261	-9.5
CHN	JPN	2003q4	49259260	-9.5
CHN	JPN	2005q2	55735206	-9.5
CHN	JPN	2006q3	179193830	-9.5
JPN	CHN	2005q2	55830156	-9.5
JPN	CHN	2005q2	55748243	-9.5
JPN	CHN	2005q2	55830157	-9.5
GBR	CHN	2001q3	38656006	-10
GBR	CHN	2004q3	53587873	-10
GBR	CHN	2004q3	53587874	-10
KGZ	CHN	2002q2	42217857	-10
KGZ	CHN	2002q2	42217856	-10
KGZ	CHN	2002q3	42276352	-10
KGZ	CHN	2002q3	42276353	-10
KGZ	CHN	2002q3	42276351	-10
KGZ	CHN	2002q3	42229175	-10
KGZ	CHN	2002q3	42276354	-10
KGZ	CHN	2002q3	42229176	-10
CHN	SYR	2006q3	179822529	-9.5
CHN	SYR	2006q3	179795965	-10
SYR	CHN	2006q3	179812840	-9.5
SYR	CHN	2006q3	179812841	-9.5
CAN	CHN	2004q3	53737544	-9.2
CHN	CAN	2004q3	53725209	-9.5
PAK	CHN	2005q2	55705280	-10
CHN	PAK	2001q4	39482681	-10
CHN	RUS	2005q3	57057742	-9
RUS	CHN	2005q3	57063577	-9
CHN	PHL	2001q2	36396603	-9
CHN	PHL	2001q3	38321438	-9
CHN	PHL	2001q3	38321439	-9
NOR	CHN	2000q4	35065779	-10

IRQ	CHN	2003q1	45920128	-10
AFG	CHN	2004q3	53043990	-10
CHN	KOR	2004q3	53515418	-9.5
IND	CHN	2000q4	34212884	-9.5
ISR	CHN	2003q1	44632740	-9.5
VUT	CHN	2004q4	54477988	-9
VUT	CHN	2004q4	54477987	-9

Table A4 First stage results of 2SLS regression

	(1)	(2)	(3)	(4)	(5)
	U.S &Japan included	U.S &Japan excluded			
	Whole	Whole	Intermediate	Ordinary	Process
<i>IV</i>	10.798*** (402.72)	10.891*** (317.85)	11.153*** (269.49)	9.669*** (204.01)	11.748*** (238.30)
<i>Conflict(t-1)</i>	-0.208*** (-393.45)	-0.184*** (-314.88)	-0.191*** (-264.32)	-0.166*** (-198.62)	-0.205*** (-239.95)
<i>Firm_year FE</i>	Y	Y	Y	Y	Y
<i>HS6 FE</i>	Y	Y	Y	Y	Y
<i>Country FE</i>	Y	Y	Y	Y	Y
Observations	9853031	5741160	3732370	3054663	2640406

Note: The dependent variables are the natural logarithm of the import values. ***, **, and * represent the significance level at 0.01, 0.05, and 0.1 respectively. This table does not report the value for control variables *Imp_HHI*, *Exchange*, *LnGDP*, and *LnPOP*. We control for firm-year fixed effects, country fixed effects, and product (HS6) fixed effects in all columns. T statistics based on robust standard errors are reported in parentheses.