# The Politics of Rejection: Explaining Chinese Import Refusals

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## Abstract

Health and safety standards offer a convenient means by which governments can credibly claim to be protecting the population, even while pursuing less publicly-oriented goals. In the realm of international trade, such regulatory standards have most often been studied as a method of veiled protectionism that can help nations privilege domestic industry while skirting World Trade Organization requirements of openness. Yet precisely because health and safety standards create ambiguity about their intent and are therefore difficult to punish, nations may be incentivized to use them for goals that extend well beyond protecting domestic industry. In particular, we theorize that governments will, at times, use regulatory barriers as a means of political retribution. In order to show this, we collect and translate detailed, original data on import refusals by Chinese border inspectors between 2011 and 2019. Though ostensibly intended to keep dangerous products out of the hands of Chinese consumers, we demonstrate that import rejections have systematically been used by the Chinese government as a way to punish states that act against China's interest.

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# 1 Introduction

Health and safety standards are an important tool for governments seeking to protect the population from dangerous imports. Yet these measures can also be abused, leveraged by policymakers to deliberately impede trade under the guise of protecting the public interest. The potential for health and safety regulations to act as a form of protectionism in disguise has long led scholars to pursue explanations for these barriers that focus on the role of domestic industries, which stand to benefit from the reduced competition that trade impediments bring (Gulotty, 2020; Kono, 2006; Perlman, 2020, 2023). This paper investigates a less explored explanation for regulatory barriers, showing that governments may use health and safety measures as a means of punishing or potentially coercing their trading partners. Specifically, we theorize that some of the same characteristics that make health and safety standards attractive to governments as a form of protectionism for industry – particularly the ambiguity surrounding their intent – also make these measures attractive as a way to retaliate against foreign nations.

In order to evaluate our theory we look at the case of Chinese import refusals. An import refusal is the rejection of an imported product at a country's border ostensibly because the product fails to comply with the regulatory standards of the destination market. The result is that the offending product is sent back to the originating country or destroyed. Although import refusals can serve a genuine public interest by allowing governments to keep problematic products off of the market, we also expect these refusals to serve as a potential form of economic leverage, providing governments with a readily available means of punishing their trading partners while allowing them to claim they are merely protecting the population.

Our findings offer several important contributions to the literature. First, we introduce an under-explored driver of regulatory barriers to trade. As mentioned previously, schol-

ars have tended to focus their explanations for regulatory barriers on industry, typically viewing these measures as substitutes (Marvel and Ray, 1983; Bhagwati, 1988; Mansfield and Busch, 1995) or complements (Ray, 1981) to taxes at the border. By contrast, we demonstrate that regulatory standards are also used in pursuit of non-economic goals, as a means of coercing and/or punishing foreign governments.

Second, we contribute to the substantial literature analyzing whether cross-national political tensions harm economic relations. Scholars investigating this question have arrived at divergent conclusions, with some analyses suggesting that in an age of globalization, political disputes do little to dampen trade (Davis and Meunier, 2011), while others offer evidence to the contrary (Davis, Fuchs, and Johnson, 2019; Fuchs and Klann, 2013; Du et al., 2017; Heilmann, 2016; Pandya and Venkatesan, 2016). Our focus on import refusals allows us to approach this question from a new angle, looking at whether political tensions lead to a deliberate, government-led trade-based response. This helps us separate out governments' reactions to political tensions from that of firms or other actors. Whereas trade may respond to political tensions for any number of reasons, including consumer boycotts, disrupted supply chains, or the redirecting of exports, our focus on import refusals helps us tease out one of the ways that governments themselves may intentionally bring political tensions into the realm of economic relations.

Third, by showing that regulatory barriers increase in times of political tensions, we can also help speak to the literature on when countries might remove or otherwise ease barriers to trade. Understandably, literature on the reduction of regulatory barriers has largely evaluated barrier easing in the context of the WTO, asking, for example, the conditions under which the WTO dispute settlement system has proven effective at encouraging countries to remove barriers (Peritz, 2020; Kucik and Peritz, 2021; Davey, 2005; Wilson, 2007; Busch and Reinhardt, 2006). By demonstrating that regulatory barriers tend to spike in the wake of political disputes, we can concomitantly understand why such

barriers subsequently diminish, as political disputes are resolved or ameliorated.

Finally, through our focus on import refusals, we highlight the importance for scholars of international political economy of focusing not only on how regulatory barriers are instituted by law but also how they are interpreted by bureaucrats. Although much of the writing on regulatory barriers to trade has emphasized the ways in which rules are written so as to disadvantage foreign producers (Gulotty, 2020; Perlman, 2020, 2023; Kono, 2006), low-level bureaucrats tasked with inspecting imports can play a substantial role in determining how the written rules are or are not enforced. This can have major implications for the regulatory winners and losers both across time and space. By investigating rule enforcement as opposed to just rule writing, our paper demonstrates how a given set of standards can be differentially applied in ways that serve broader and evolving foreign policy goals.

The rest of the paper proceeds as follows. In the next section, we first discuss existing explanations for regulatory barriers and then introduce our theory, laying out why we expect regulatory barriers generally and import refusals specifically to act as an appealing means of punishing or otherwise coercing foreign governments. Having explicated the theory, we take up the case of China's use of import refusals. We begin with two case studies that offer suggestive evidence that China has indeed leveraged import refusals in response to political tensions. We then introduce our primary analysis. Using data on import refusals that we collected and translated from original Chinese sources, combined with data on political tensions, we show that, controlling for other relevant factors, when China experiences political tensions with a trading partner, specifically tensions that involve a military actor, China increases the number of import refusals of that partner's products. We conclude with a brief discussion of the broader implications, while also suggesting avenues for future research.

## 2 Regulatory Barriers as a Response to Political Tension

International trade agreements, spearheaded by the WTO, have proven remarkably successful at encouraging nations to reduce tariff barriers to trade. Yet this has not prevented nations from seeking alternative means of impeding trade, ones which can be far more subtle than tariffs and hence more difficult to identify (Kim, 2016; Kono and Rickard, 2014; Kim, 2018). Among such barriers, regulatory impediments have proven to be some of the most challenging to address, due to their significant potential to undermine trade and the general ambiguity surrounding their intent. For example, when European countries banned the use of hormones in cattle, resulting in a substantial drop in beef imports while bolstering the fortunes of domestic producers who had already eschewed the banned hormones, it was difficult to know whether the hormone ban was truly meant to protect consumers or whether it was instead meant as a handout to local beef producers. Similarly, the EU's moratorium on approving genetically modified organisms (GMOs), which operated between June 1999 and August 2003, was seen by many foreign agricultural producers as an unscientific attempt to keep out their agricultural products while catering to domestic growers. The EU, however, maintained that the moratorium was merely a reflection of the precautionary principle at work.

The ambiguity surrounding the intent of regulatory measures makes regulations an attractive alternative to tariffs, particularly in democratic regimes that may want to protect local industry but also have reasons to feign an open trading posture and avoid running afoul of their international agreements (Kono, 2006). In fact, so challenging can it be to differentiate regulatory measures intended to protect public health or safety from those intended to impede trade that some scholars have advocated that continued attempts to eliminate these measures may prove counterproductive (Rodrik, 2018).

In the same way that regulatory barriers can be used as a subtle means of protecting

domestic industry, so too can these measures be used as a subtle method of punishing or even coercing foreign nations, while minimizing the likelihood that this will result in repercussions. To expand on this point, it is well-understood that governments, at times, deploy economic tools in pursuit of geopolitical goals. A substantial literature, for example, has observed how nations might take advantage of trade dependencies in order to coerce their partners (Drezner, 2021; Farrell and Newman, 2019; Drezner, 2009; Abdelal and Kirshner, 1999; Carnegie, 2014; Hirschman, 1980; Keohane and Nye Jr, 1973). The most commonly discussed economic tools, in this regard, are sanctions, though scholars have also found that tariffs can be deployed not only as protectionist devices but also as geopolitical weapons (Kim and Margalit, 2021). At the same time, sanctions represent a significant escalation that, like tariffs, are liable to encourage retaliation under WTO rules (Davis and Meunier, 2011). By contrast, a more subtle regulatory response for which it is difficult to definitively determine whether the intent was to protect the population or punish a foreign government can send a signal to relevant policymakers in the target country, while at the same time making it harder for them to respond in kind without running afoul of the WTO. We believe this could make health and safety regulations serve as an attractive form of economic punishment or coercion.

So what might this look like in practice? While regulatory laws and standards can certainly be written so as to disadvantage individual foreign exporters, official rules also have a number of drawbacks as a means of responding to international affronts. First, it may be hard to consistently write rules in ways that solely impact the target nation. Second, many governments may struggle to implement laws with the necessary speed to ensure they follow quickly on the heels of the offending act. Third, even to the extent that certain governments, such as autocracies, may be better able to deploy laws quickly (Tsebelis, 1995), the government in question would also want the ability to rescind the law just as speedily, once its aims had been met or tensions had cooled. Yet frequent ap-

plications and removals of rules would likely raise suspicions among foreign audiences, while also potentially creating confusion for domestic firms, bureaucrats, and the public. For these reasons, a far more attractive cudgel is likely to be variation in how the rules are enforced rather than in how they are officially written. In particular, we expect that, to the extent that governments use health and safety regulations as a means of economic punishment or coercion, they will do so by engaging in stricter enforcement of their existing regulations at particular times, in ways that economically harm the offending nation.

## 3  Evaluating Evidence of Regulatory Coercion

In order to evaluate whether health and safety regulations are in fact enforced against foreign producers in ways that are meant to harm nations with which the home government is experiencing political tensions, we focus on the case of China. China is a particularly relevant case for a number of reasons. First, because China is the second largest importer in the world, after the United States, if it is using health and safety standards for geopolitical ends, this could have major implications for the trade prospects of numerous other countries globally. As such, understanding whether China is indeed engaging in such behavior has substantial real-world implications.

China's economic heft also ties into a second reason it is worthy of study in this context. To the extent that the goal of using regulatory measures in response to political tensions is to impose economic pain and thereby win concessions, this is far more likely to be effective if it is utilized by a nation that is an important destination market for the target country. This holds for obvious reasons and is consistent with the broader literature on economic statecraft (Hirschman, 1980; Abdelal and Kirshner, 1999; Keohane and Nye Jr, 1973). If a nation that comprises only a tiny fraction of its partner's export market implements regulatory barriers, this is likely to have only a very limited impact on its partner's economic fortunes, making such an action symbolic at best and potentially en-

tirely unnoticed. By contrast, if an important destination market suddenly puts in place policies that significantly undermine trading partners' exports, the impacted nations may face substantial harm to their economy, alongside a potentially influential outcry from those exporters who are directly harmed. Given China's economic importance, any use of regulatory restrictions has the potential to be extremely impactful on a wide variety of countries, potentially increasing the attractiveness of such a strategy and making it more likely we would identify systematic patterns across trading partners.

Third, China's accession into the WTO means that, on paper at least, it is bound by international law to avoid using its trade policy as a means of discrimination against foreign governments or producers. This suggests that, in accordance with the theory, China may have incentives to dissemble in its use of economic levers for political ends so as to prevent its trading partners from being able to justify repercussions. Indeed, China has already experienced the WTO's bite in some of its previous, overt attempts to leverage its trading power against foreign nations. For example, in 2010, following a series of maritime disputes with Japan, China explicitly halted shipments of rare earths to its East Asian rival, in a move with the potential to significantly harm Japan's production of everything from car batteries to military equipment (Bradsher, 2010). In response, Japan, together with the European Union and the United States, successfully challenged China's trade restrictions in the WTO, winning a ruling against China in 2014. Some have suggested that experiences such as this one have made their mark on China, encouraging it to respond in more subtle ways in the course of subsequent disputes with Japan (Harrell, Rosenberg, and Saravalle, 2018). Along the same lines, a recognition that more overt methods of economic statecraft are likely to be challenged in international fora could encourage China to view regulatory measures as an attractive alternative avenue for wielding transnational political influence.

Within the Chinese state, our analysis focuses on import refusals, which not only

clearly map onto our theory, but the study of which also offers a variety of empirical advantages. As mentioned in the introduction, an import refusal is when an importing country rejects a foreign product at the point of market entry, denying the foreign seller the ability to sell the good domestically. Ostensibly, such refusals result from the seller's failure to abide by health, safety, or environmental requirements. For example, a product might be refused because it contains a banned chemical or a dangerous pathogen. Or a product could be refused because it does not comply with labeling requirements. Such refusals are a regular occurrence across importing countries[1] making it challenging to say for any given refusal whether the product truly posed a problem or whether it was rejected for other reasons. This gives the rejecting country a fair bit of cover under WTO law should they choose to use refusals for political ends. Indeed, some scholars have found evidence that patterns of refusals seem to suggest a degree of hidden protectionism (Baylis, Martens, and Nogueira, 2009; Grundke and Moser, 2019). Of course, in some cases the reason for a refusal could fall somewhere in between safety and politics: since inspectors can't possibly inspect all products, a decision by regulators to suddenly start increasing the number of inspections of one country's imports could itself increase the odds of finding a true violation. In other words, an individual refusal of an imported product might be for safety reasons, but a government might deliberately increase the odds of finding a product to legitimately refuse by increasing inspections of that country's goods for political reasons.

The ambiguity surrounding a refusal's intent, combined with the fact that import refusals can be deployed quickly and narrowly to target an individual country, ought to make import refusals an attractive candidate should a country seek to use regulatory barriers as a means of punishment or coercion. Import refusals are also an attractive case for

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[1]In the United States, for example, the Food and Drug Administration, in combination with the Department of Agriculture, refused nearly 13,000 food, livestock, and poultry shipments during the course of 2021 (U.S. Department of Agriculture, 2023; U.S. Food and Drug Administration, 2023).

our purposes precisely because they happen frequently. This means that import refusals offer a rich source of data that can be analyzed systematically using statistical, as opposed to purely qualitative, methods. Likewise, though the reason for any given refusal may be ambiguous, a refusal's impact on a particular trade partner is not, meaning that refusals can be easily coded as harming a specific country at a specific time.

In order to evaluate whether China has indeed been weaponizing import refusals, we begin with two case studies. The cases help illuminate what a strategy of leveraging import refusals for political ends might look like in practice. At the same time, these cases highlight the difficulty that scholars and policymakers face, even for seemingly flagrant examples, of definitively tying import refusals back to punitive or coercive intent. This justifies the need to move beyond cases and anecdotes to a more systematic study, which is what we provide in the sections following.

## 3.1    Bad Bananas and the South China Sea

On March 25th, China's state-affiliated newspaper, the People's Daily, tweeted out several images of individuals in white hazmat suits alongside large quantities of bananas. The text of the tweet read, "35 tonnes of Philippine bananas worth $33k are destroyed in S China's Shenzhen border Fri for high pesticide residue." The tweet is notable for several reasons. First, while the destruction of contaminated imports may not be uncommon, the decision to publicize that destruction is. Second, by publishing the tweet in English, the newspaper ensured it would be seen by a broader international audience. Third, the destruction of bananas in 2016 occurred against the backdrop of an ongoing dispute between China and the Philippines in the South China Sea. Finally, the destruction seemed to be part of a pattern of China rejecting Philippine fruit, particularly bananas, during times of heightened territorial tensions.

The earliest notable instance of rejected bananas occurred in March of 2012, this time with accusations by China of the existence of pests rather than pesticides. In the weeks

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and months that followed, banana rejections accelerated, joined by rejections of other valuable fruit shipments from the Philippines, all for supposed sanitary reasons. Despite Chinese claims that the rejections purely reflected quality issues, much of the news reporting at the time highlighted suspicions from Philippine fruit growers and others that there was more to the story. A Washington Post headline, for example, stated unequivocally "In Philippines, banana growers feel effect of South China Sea dispute" (Higgins, 2012). Likewise, an Australia Network News story ran with the headline "Banana crisis blamed on Philippines-China dispute" (West, 2012), while another publication dubbed the situation "The China-Philippine Banana War" (Correspondent, 2012).

The larger South China Sea dispute referenced in these articles centered on a set of islands known as Scarborough Shoal, which despite their far closer proximity to the Philippines have long been said by China to be part of its territory. The dispute over Scarborough Shoal came to a head in 2012, following a confrontation between Chinese fishing boats and a Philippine warship. Notably, this standoff occurred a few weeks after an initial banana shipment rejection by China. The subsequent increase in shipment rejections, right as the territorial dispute was ratcheting up, led many to see a connection.

At the same time, not all agreed that the fruit rejections were related to the territory squabbles. As the Washington Post article, cited previously, observed in its own reporting, "The government in Manila, eager to end a tug of war with China that it has little chance of winning, has not publicly disputed Beijing's assertion that the collapse of banana exports to China is due to health concerns, not politics" (Higgins, 2012). Furthermore, the timing of the first rejection, occurring as it did just prior to the naval confrontation, muddied the water, making it more plausible (as China claimed) that the timing was coincidental. The result is that China was able to retain plausible deniability, while scoring a political win: with banana growers convinced of a connection between their export woes and the territorial dispute, they undoubtedly put pressure on their home govern-

ment to move towards a resolution. At the same time, China sent a clear reminder of just how easy it was for them to cause significant economic pain.

Nevertheless, as noted, the Philippines case leaves room for uncertainty regarding whether China's aim in refusing imports was safety or sanctions. It is therefore instructive to look to other cases as well, in order to ascertain whether these refusals are part of a larger pattern.

## 3.2 Unqualified Cosmetics and THAAD

In July 2016, South Korea decided to deploy a US terminal high altitude area defense (THAAD) missile system in response to North Korean missile threats. With China perceiving the system as a threat to its own security, this decision brought the bilateral relationship between South Korea and China to an unprecedented diplomatic stalemate. While the overall trade flows between the two countries remained largely unaffected, despite the conflicts, South Korean firms and industries reported significant disruptions to their trade or investment relations with China. Lim and Ferguson (2022) identify a series of economic measures taken by China against South Korea, including the closure of a Korean supermarket chain, the halt of group tourism to South Korea, and the denial of government subsidies to South Korean electric vehicle batteries.

At the same time, there was a marked increase in Chinese refusals of Korean cosmetics and food products. While Lim and Ferguson (2022) note that there is considerably less evidence linking the cosmetics and food refusals to bilateral tensions than there is linking the tensions to some of the other economic consequences mentioned previously, Korean cosmetic exporters at the time repeatedly raised concerns over the sudden difficulties in clearing Chinese customs. Reflecting the concerns of the cosmetics industry, in January 2017, it was widely reported in the Korean news media that China had banned imports of 19 Korean cosmetic products, including shampoo, body wash, and lotion. Although China's stated reasons for refusals varied from changes in ingredients to labeling and

packaging violations, the rejection was generally interpreted by the Korean news media as "part of economic retaliation by China" amid tensions over Korea's decision to deploy THAAD (Yoon, 2017). The Chinese government, meanwhile, opted to avoid any official response to the accusations, though one of the Chinese state-owned news media companies, *the Global Times*, published an article suggesting that South Korea media outlets "might be too sensitive over trade issues with China by connecting a simple decision from China to deny entry for some unqualified South Korean cosmetics products to the deployment of a U.S. missile defense system in South Korea" (Global Times, 2017).

Around the same time that Korean cosmetic producers were suddenly finding their exports to China impeded, Korean agricultural and food producers also experienced a surge of imports refusals. The Ministry of Agriculture, Food and Rural Affairs and the Korea Agro-Fisheries and Food Trade Corporation jointly published a report observing that the number of food imports refusals cases increased by 280% in March-April of 2017 compared to the same period of the previous year. The majority of food products that were rejected at the border were cited for violating labelling and packaging rules, but there were also cases of supposed pesticide residues that exceeded legally permissible levels and incorrect export-related documents. Officially, of course, China's food regulations remained unchanged from what they had been in the past. The increase in import refusals thus reflected higher numbers of inspections, stricter enforcement of regulations, arbitrary application of the rules, or some combination thereof. A local business source noted at the time, "In the past, minor labeling issues only required slight changes before they were allowed through, which is not the case at present" (The Korea Herald, 2017).

Our own data (which we will elaborate below) confirm that South Korean cosmetics and food products did in fact experience a surge of import refusals during the dispute. Figure 1 displays the monthly count of import refusals of food (upper panel) and cosmetic (lower panel) products from 2011 to 2019. While China rejected South Korean cosmetics

Figure 1: Monthly Cases of Food and Cosmetics Imports Refusals, 2011-2019.
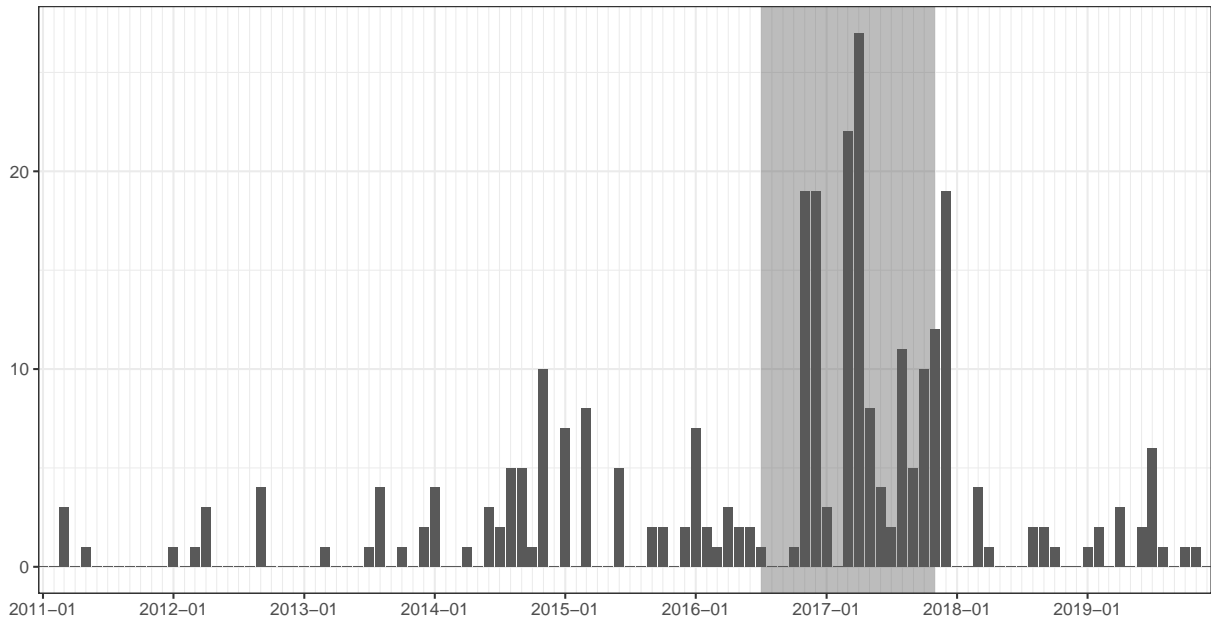


(a) Rejections of Cosmetics Imports, 2011-2019
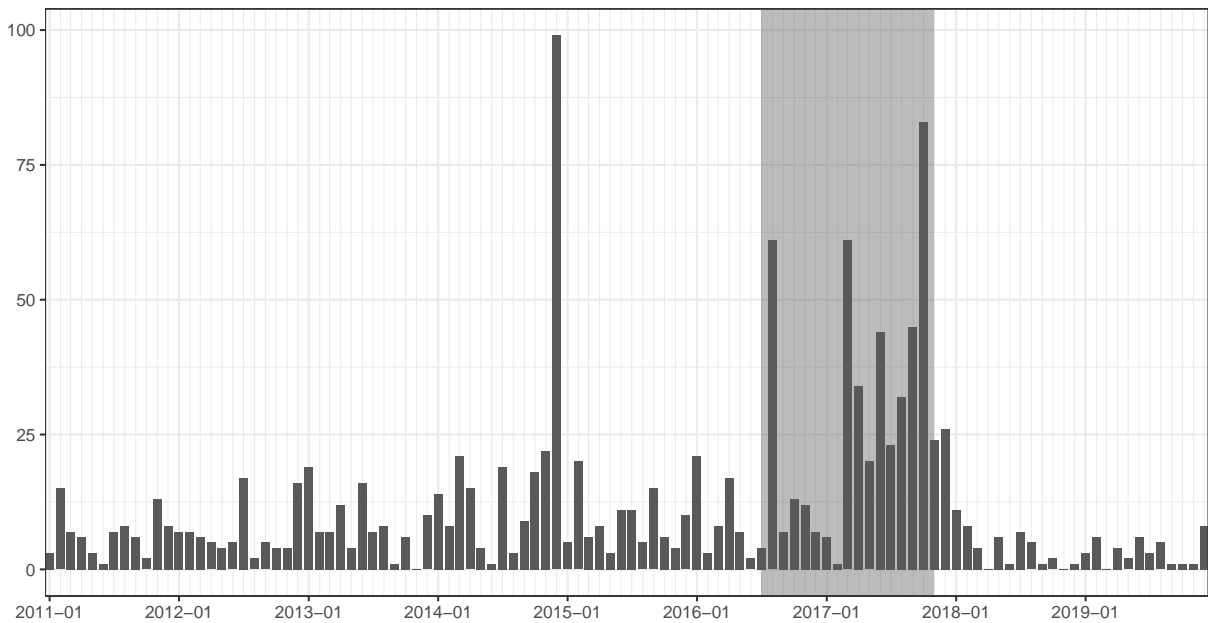


(b) Rejection of Food Imports, 2011-2019

Note: The shaded area indicates the period from July 2016 to October 2017. China and South Korea experienced political tensions over Seoul's decision to deploy the THAAD system announced in July 2016. While the dispute over THAAD is still ongoing as of 2022, the foreign ministries of the two countries called for normalization of ties in October 2017.

even before the dispute, the upper panel clearly shows a sharp increase in cosmetics rejections from mid-2016 to 2017 immediately following South Korea's decision to deploy a THAAD missile system (upper panel). Similarly, we also observe a systematically higher count of rejections of food products during this period (lower panel).[2]

The problem is that even while many suspect that these instances of import refusals reflect (un)diplomatic politics, rather than concerns about domestic safety, and even as policy writers have attempted to piece together other actions that appear to fit a pattern of economic coercion (Harrell, Rosenberg, and Saravalle, 2018; Zhang, 2019; Hanson, Currey, and Beattie, 2020), without systematic evidence, China can benefit from the ambiguity around any given refusal or even sets of refusals to claim that the refusals were legitimate, in pursuit of safety. This paper is an attempt to break through that ambiguity in order to determine whether these cases fit a larger, systematic pattern. In pursuit of that, the next section describes the data that we use in order to evaluate whether Chinese import refusals follow patterns consistent with the theory: increasing in response to bilateral political tensions.

### 3.3 Refusals Data

In order to study the relationship between political tension and import refusals more systematically, we compiled monthly reports of import refusals published by China's border inspectors from 2011 to 2019.[3] These records together contain a total of 27,504 batches of

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[2]Notably, the huge spike in food refusals in November 2014 came on the heels of an incident in which a Chinese fisherman was killed in a clash with Korean coastguards (*Chinese captain dead in fishing clash in S Korea*, 2014).

[3]We begin our time period in 2011 in part because this was the first full year for which we were able to collect the original data, due to the data availability issues discussed later in this section. In addition, this start date coincides with the coming into force of a major revision to China's food safety and inspection regulations (Gale, 2021). These new rules not only would be expected to have important impacts on the source and number of refusals, but these impacts plausibly could differ across countries in ways that our controls would not be able to adequately capture. As for the end date, although more recent data was available, the beginning of the COVID-19 pandemic not only significantly disrupted international trade, but it led numerous governments to begin rejecting shipments for supposed COVID contamination reasons. Given all of this and, especially, China's role at the center of the pandemic, including years that overlap with

refused shipments from 138 different trading partners and include broad food categories spanning the Harmonized System (HS) chapters 02 to 32.[4] Although the General Administration of Customs (GAC) – and formerly the Administration of Quality Supervision, Inspection, and Quarantine (AQSIQ) – is also responsible for inspecting and refusing cosmetics, our analysis in the body of this paper is restricted to food refusals. Food refusals make up a great majority (92.53%) of all refusals in our data. Unlike in the case of food, only a small subset of countries export cosmetics to China in any appreciable quantities.[5] Given that cosmetics refusals may follow a fundamentally different pattern than food refusals, including cosmetics alongside food is potentially problematic. Nevertheless, we do show in the Appendix that our results hold even when we include cosmetics refusals. Each refusal record contains detailed information about the refused product, including product name, exporting country, name of the foreign manufacturer, HS code, and the reason(s) for rejection. We began by translating the original refusal records from Chinese to English. Figure 2 shows a screenshot of the first few entries of the June 2019 refusals report in order to offer a clear sense of what the raw data looks like.

Table 1 lists the countries with the greatest number of total food refusals from 2011 to 2019. While countries that export more food products to China appear to have experienced more imports rejections at the border, we also find wide variation in the number of food imports refusals across time and trade partners. As we show in Table A1 in the appendix, the monthly count of food imports refusals ranges from 0 to 242 with the mean value of 1.66 and the standard deviation of 7.25. The distribution of this variable is

the COVID-19 outbreak seems fundamentally problematic.

[4]These include processed meat, fish, dairy, edible vegetable and fruit products, beverages, and so on. Our dataset does not include bulk and unprocessed animal and plant products, which are subject to a different set of safety, inspection, and quarantine laws and processes according to China's food safety laws. This means our dataset does not contain refusals of live animals, grain, fresh fruit, tobacco leaves, animal feeds, or plant seeds. Each refusal record contains product-level information at the ten-digit Harmonized System (HS10).

[5]Our data include cosmetics refusals from only 41 different countries, of which only 20 countries have more than 10 refusals over the time period.

right-skewed with 78.8% of observations zero. To better demonstrate the distribution of monthly imports refusals across countries, Figure 3 presents the monthly counts of import refusals from 2011 to 2019 across countries with the greatest number of refusals during the period. While the figure shows that there is a great deal of variation in the frequency and the intensity of food import refusals across countries, there is also a clear over-time variation within countries. For instance, Japan did not have any food imports refusals in most of the periods but it experienced a sharp increase in refusals in the fall of 2010 and in 2017. Given the substantial within-country variation, as we discuss below in the estimation strategy, we are able to estimate the models with country fixed effects to control for time-invariant sources as well as month fixed effects to address any time-specific variation.

Table 1: List of countries with the most food refusals, 2011-2019

| Country | Total food refusals |
|---|---|
| Taiwan | 4252 |
| United States | 2088 |
| Japan | 1964 |
| France | 1391 |
| Korea | 1242 |
| Italy | 1168 |
| Malaysia | 1148 |
| Australia | 1011 |
| Germany | 1001 |
| Thailand | 900 |

Figure 2: Original refusals report published by China's General Administration of Customs, June 2019



| HS编码 | 检验检疫编号 | 产品名称 | 产地 | 生产企业信息 | 进口商信息 | 进口商备案号 | 重量（千克） | 未准入境的事实 | 进境口岸 |
|---|---|---|---|---|---|---|---|---|---|
| 0202200090 | 119000003852575-1 | 带骨冷冻牛肋排（3肋） | 澳大利亚 | YOLARNO PTY LTD | 青岛新协航国际物流有限公司 | 3701614323 | 651 | 货证不符 | 上海 |
| 0202300090 | 119000001202089-3 | 冻去骨牛后腱 | 阿根廷 | COTO CENTRO INTEGAL DE COMERCIALIZACION SOCIEDAD ANONIMA | 天津港保税区隆鑫诚国际贸易有限公司 | 1212000048 | 700 | 货证不符 | 天津 |
| 0203290090 | 119000001568431-1 | 冻猪前腿肉，去骨去皮 | 德国 | Danish Crown A/S | 上海瞻煜国际贸易有限公司 | 3116001822 | 23718.4 | 污秽腐败 | 上海 |
| 0203290090 | 119000003340998-1 | 冻猪小排 | 加拿大 | Maple Leaf Foods Inc EST/7 | 上海其知国际贸易有限公司 | 3116001242 | 25000 | 货证不符 | 天津 |

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Figure 3: Monthly counts of food imports refusals of countries with the greatest number of food imports refusals, 2011-2019.
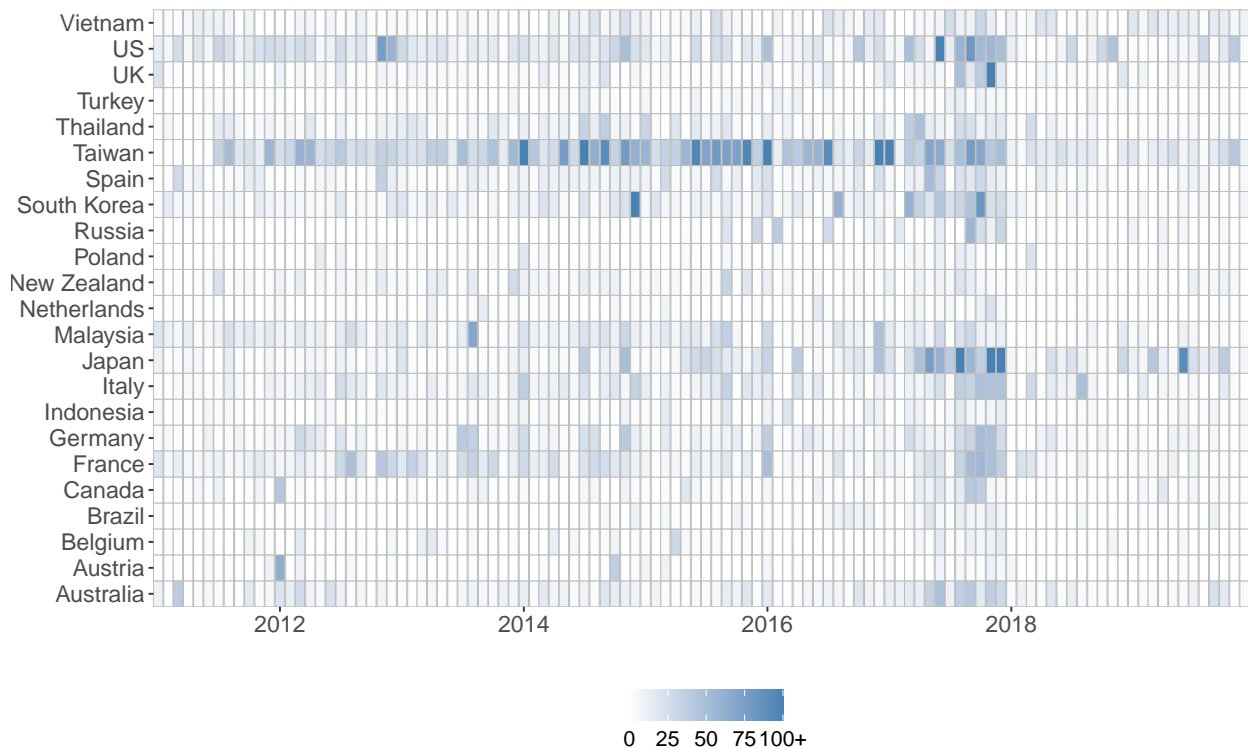


The procedures and requirements for importing food into China are similar to those in the United States and the European Union. China's Bureau of Import and Export Food Safety (a government agency within China's Customs) and its predecessor, the Administration of Quality Supervision, Inspection, and Quarantine (AQSIQ), are tasked with reviewing import requests, issuing import licenses, and inspecting food imports.

To export a food product to China, an exporter first needs to register with China's customs and submit detailed information about the product. Entities that meet China's domestic food safety and quality requirements are issued a certificate that allows export to China.

Once a product reaches a port of entry, customs officials are authorized to conduct various inspection activities, broadly categorized into three types: on-site hygiene and sensory inspection; label, packaging, and certificate inspection; and laboratory tests. On-

site hygiene and sensory inspections involve the evaluation of food products by trained individuals. These officials are charged with determining whether the food contains contaminants or shows sign of decay. Customs officials also evaluate whether product labeling and packaging comply with China's requirements, and they may seek to verify that registration details are consistent with the documentation that had been submitted to customs. Customs officials are further authorized to sample imported products according to, in theory, risk-based criteria for further inspections and lab tests. Non-compliant shipments are not allowed to enter the country and are returned to the exporting country or destroyed.

The top five reasons for refusal in our dataset are, in order of frequency, labeling or certification issues, product expiration, excessive bacteria, packaging issues, and excessive food additives. Similar to the Import Refusals Report (IRR) in the United States and the Rapid Alert System for Food and Feed (RASFF) in the European Union, China's Customs tracks import refusals and publishes food import refusals reports monthly on their official website.

Unfortunately, from a data collection perspective, China recently underwent a government reorganization that lasted from late 2017 to early 2018. During this period, import control activities that used to be conducted by the AQSIQ were transferred to the GAC. This posed a challenge to our data collection, because refusals reports published on the AQSIQ website prior to the reorganization were no longer accessible following its March 2018 merger with the GAC. In order to recover a larger swath of the official refusals reports, we first collected and consolidated all import refusals published by the GAC since the government reorganization in March 2018. We were then able to recover refusals data prior to March 2018 by searching for each refusals report individually. To do this, we took advantage of two patterns we uncovered in China's customs refusals reporting: The first was that each refusals report was titled, in Chinese, "Information on unqualified

imported food and cosmetics in MM YYYY." The second was that refusals reports published before December 2017 were in an Excel format, while those published later were in a PDF format. We thus Googled the complete Chinese title of each report and focused on the results with an Excel (until December 2017) or PDF (since December 2017) attachment. Using these methods, we were able to track down reports in PDF or excel format for every missing month from January 2011 to February 2018 on various websites, including those of China's state media, relevant government agencies (such as the Ministry of Agriculture), and private entities specializing in China's food import and safety.[6]

According to the GAC,[7] the data on refusals should include all refusals for food and cosmetics products over the time period studied. Nevertheless, there are obvious concerns about data reliability and transparency for autocratic regimes, and China is no exception here. With that in mind, we have taken a number of steps to ensure the validity of our data, while also ensuring that it represents a comprehensive account of border refusals by China. First, for each month, we cross-verified the refusals data against concurrent news reports on import refusals published by public and private media sources inside China. We found no inconsistency regarding the numbers or categories of refusals between the official refusals reports and public or private Chinese news articles published around the same time.

While Kim (2018) has shown that non-government owned newspapers in China are far less likely to exhibit the sort of bias expected in government-owned or operated sources, thereby justifying the use of such newspapers to verify our data, we still might be worried that private news sources in China are influenced by the central government. Therefore, we also checked our data against known cases of Chinese food refusals from reputable international sources. One particular concern is that China's Customs, potentially wary

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[6]For a full list of sources we use to recover refusals data, see appendix.
[7]See, for example, http://www.customs.gov.cn/spj/zwgk75/2706876/index.html

of repercussions from exploiting import refusals as a form of economic reprisal, might selectively eliminate politically driven refusals from its official records. To alleviate this concern, we checked our data against cases of (seemingly) politically driven refusals publicized by the international media. In addition to the aforementioned cases of China banning Filipino bananas and Korean cosmetics during episodes of political tension, it has been reported that China refused Norwegian salmon after Norway awarded the Nobel Peace Prize to a Chinese political dissident in 2010[8] and blocked Canadian canola oil and pork shipments after Canada arrested the Huawei CFO amid fraud charges in early 2019.[9] Our refusals data contain refusals records corresponding to both of these cases and other relevant incidents, lending confidence that our data provide a comprehensive, unbiased, report of China's actual border refusals.

A third verification step that we took concerned refusals issued prior to March 2018. Because these were recovered from a range of government and non-government websites (since the AQSIQ website that had published these reports was no longer accessible after the government reorganization), we were especially cognizant of potential reliability concerns. Therefore, for all of these earlier refusals we triangulated refusals data each month by comparing news articles from multiple websites in order to ensure the original source we had found was reliable. Whenever possible, we compared news articles from different types of websites as well. In August 2017, for example, three different types of websites – China's state media, Xinhua; China Chamber of Commerce of Import & Export of Foodstuffs, Native Produce and Animal By-Products; and a private technology and news company, Sina – all reported that China refused 783 batches of food and 32 batches of cosmetics. We found consistent reporting and recording of refusals data for

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[8]See, for example, https://www.independent.co.uk/news/world/europe/norway-s-salmon-rot-as-china-takes-revenge-for-dissident-s-nobel-prize-2366167.html

[9]See, for example, https://www.reuters.com/technology/key-events-huawei-cfo-meng-wanzhous-extradition-case-2021-08-11/

each month.

## 3.4 Political Tensions Data

Our main independent variable of interest is the level of political tension between China and its trading partners. In order to capture this, we use the Global Data on Events, Location and Tone (GDELT) from Leetaru and Schrodt (2013). Event data are obtained from machine-coded, automatically classified news articles. Due to its ability to continuously capture bilateral relations for a broad range of actors and event types, this event data has been used by numerous scholars to study the effects of political tensions in a variety of contexts (King and Lowe, 2003; Christensen and Garfias, 2018; Armand et al., 2020; Davis, Fuchs, and Johnson, 2019). Beyond the fact that GDELT is a well-established means of measuring political tensions in the literature, it also has a number of features that make it particularly attractive for our purposes. Specifically, it is highly granular (updated as frequently as every 15 minutes), covers a comprehensive set of countries by including non-English and regional sources, and is available from 1979 to the present. By contrast, alternative datasets tend to cover a significantly shorter time period,[10] or use a much smaller range of sources, which leads to omissions of smaller-scale tensions among non-Western parties.[11]

The GDELT dataset contains information on a variety of politically relevant events. Each recorded event is accompanied by key information, including the date and time

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[10]For example, the correlates of war's militarized interstate dispute dataset only extends to 2014, while the King and Lowe (2008) data only goes to 2004.

[11]For example, the Phoenix database (Althaus et al., 2019), an alternative dataset of political tensions, relies solely on the New York Times and the BBC Monitoring's Summary of World Broadcasts during the time period under study. As a result, we have found that this dataset omits many highly relevant events that can be found in the GDELT dataset and that we might expect to relate directly to our theory. This includes, for example, an incident in which Japan accused China of violating its airspace in response to China flying military planes over the Miyako Strait. See `https://www.india.com/news/world/get-used-to-it-says-china-after-being-accused-by-japan-of-violating-airspace-2321184/`. Another incident, captured by GDELT but missing from alternative sources, is an event in which Chinese Coast Guard vessels entered Japanese waters near the Senkaku/Diaoyu islands along with drone-like objects, which was reported in local sources in Japan. See `https://www.japantimes.co.jp/news/2017/05/18/national/drone-joins-four-chinese-ships-latest-senkaku-intrusion/`.

that the event took place, the identities of the actors, and the type of event that occurred, coded according to the Conflict and Mediation Event Observations (CAMEO) Codebook (Gerner, Schrodt, and Yilmaz, 2008). Each event is categorized as conflict or cooperation, with more disaggregated event codes indicating more detailed event categories. For example, the event "the Bush administration declared Tuesday that China must drop barriers to U.S. exports or face tariff penalties for maintaining unfair trade practices" is broadly categorized as a conflict between the United States and China, and more precisely coded as "Demand economic cooperation"(Schrodt, 2012). Each event is additionally weighted by a "Goldstein score," which is a value between $-10$ and $10$ that captures the intensity of the event based on its type (Goldstein, 1992). Conflict events have negative Goldstein scores, and cooperation events have positive ones. More severe conflict events have more negative scores.

To construct a measure of political tension, we first subsetted the event data to only include conflict events between China and another country. These are all the events with a negative Goldstein score and with China as either the source or the target actor (but not both). Since China highly values its economic performance, we expect that China is most likely to use import refusals, which might backfire economically, in cases in which it has a core interest at stake. The two case studies also support the expectation that China uses import refusals in response to political tensions involving significant military or territorial stakes. Because of this, we focused on conflict events involving military actors on either side.[12] It should be noted that because the definition of a "military actor" in the CAMEO Codebook includes a broad range of entities, from troops and soldiers to all

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[12]To study China's potential use of regulatory measures in response to political tensions more broadly, we also examined the effects of all conflict events and those involving government actors. While we don't find systematic results, this should not suggest that China never resorts to import refusals in response to these other types of tensions. With a menu of coercive economic measures to choose from, China might not use import refusals specifically or frequently enough in these other instances to capture a systematic trend. See the appendix for results of all political tensions and those involving government actors.

state-military personnel and equipment, our focus on political conflicts involving military actors includes a wide variety of event types, including many episodes far short of actual war. While as expected, China's maritime disputes with the Philippines in 2012 and its tension with Korea over the latter's decision to deploy the THAAD missile defense system are included using our operationalization, other smaller-scale tiffs are also present. Our measure of bilateral tension captures, for example, the strained relationships in late 2018 when Canada arrested the CFO of Huawei, a key actor in China's 5G development; in 2018 when Australia passed foreign interference laws potentially to curb Chinese influence; and in 2017 when Japan accused China of violating its airspace during a military drill. Theoretically, these are the very types of events that we expect are most likely to lead to Chinese retaliation.

For each country-month, we constructed a measure of political tension, *Goldstein Conflict Score*, by summing the absolute values of Goldstein scores of conflict events.[13] Figure 4 presents the over-time variation of GDELT conflict scores for four countries that had the worst political relations with China according to the GDELT scores during this period. Consistent with the literature, we exclude events related to trade, business, and economics to avoid endogeneity (Li et al., 2021).

## 3.5 Estimation Strategy

Utilizing the import refusals data outlined above, we examine whether China is more likely to refuse imported products in the wake of heightened political tensions with foreign governments. With country and month as the unit of analysis, we examine the following linear regression model:

$$Y_{it} = \alpha + \beta \log(\text{Conflict Score})_{it-1} + \theta Z_{it-1} + \lambda_i + \gamma_t + \epsilon_{it} \tag{1}$$

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[13]Since we take the absolute values of Goldstein scores of conflict events, which are originally negative, the resulting conflict measures are positive. We do so to facilitate the interpretation of regression coefficients.

Figure 4: GDELT Conflict Scores Involving Military Actors, 2011-2019.
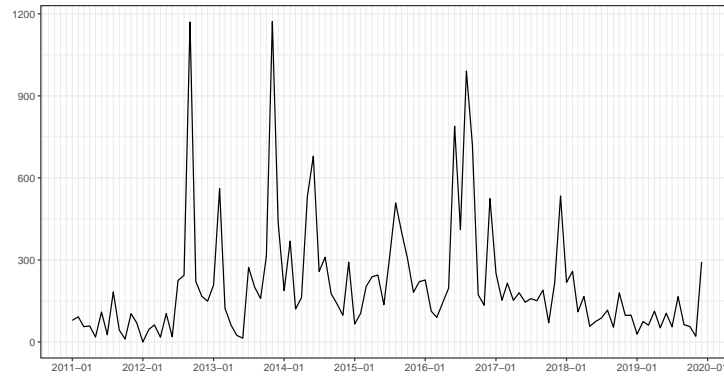


(a) GDELT Conflict Scores, Japan
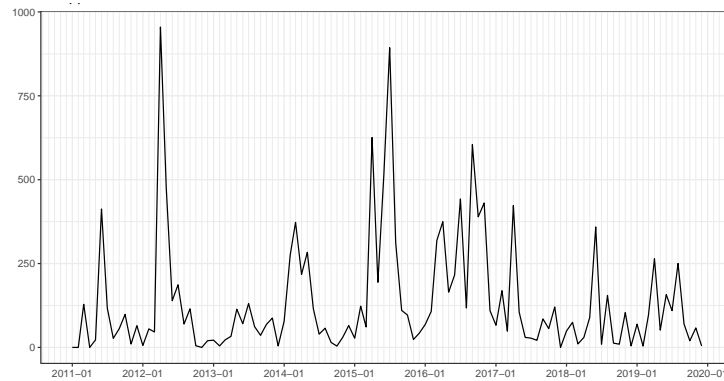


(b) GDELT Conflict Score, Philippines



(c) GDELT Conflict Score, Taiwan



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(d) GDELT Conflict Score, United States

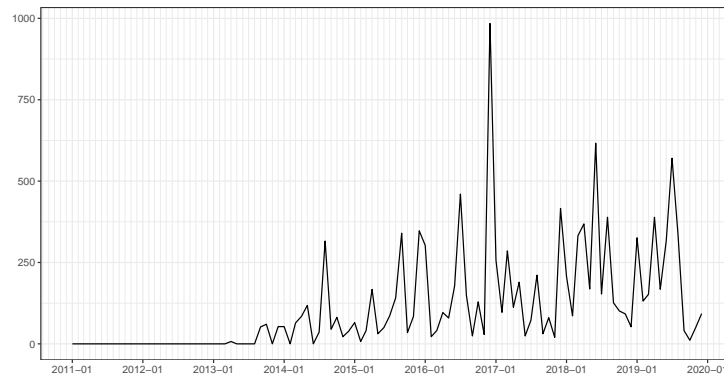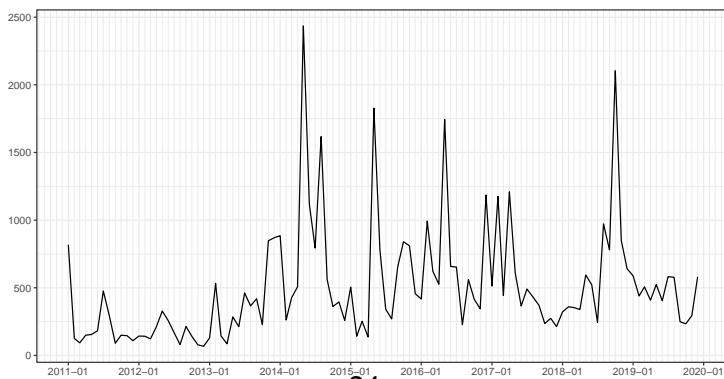where the dependent variable $Y_{it}$ is the number of food import refusals from a foreign country $i$ in month $t$. We are primarily interested in $\beta_1$, the coefficient on *Conflict Score*, which we expect to be positive and statistically significant if China punishes a foreign country with serious political tensions by increasing import refusals. To recall, our measure of *Conflict Score* is the monthly sum of Goldstein scores over all negative events involving military actors of China or a foreign country. As the distribution of this measure is highly skewed, we take the log to smooth the distribution. We also lag this measure by one month to account for a possible time lag in responding to heightened political tensions and to mitigate potential concerns about endogeneity.

We add a series of control variables denoted as vector $Z$ in the equation. First, the model controls for the logged count of animal disease cases and susceptible animals in a foreign country $i$ because this may help drive any increase in China's import refusals. Given that many of the products being refused in our dataset are animal products, the existence of animal disease outbreaks in the exporting country is a particularly relevant control. Although not all animal diseases present a risk to humans, particularly when the diseased animals are not exported live but are instead slaughtered and processed in the originating state, countries regularly try to limit meat exports of potentially diseased animals. This suggests that a plausible reason for any increase in Chinese import refusals could be the existence of an animal disease outbreak in the exporting state. In order to account for this possibility, we control for outbreaks of a subset of animal diseases that seem to play a prominent role in either import refusals or import bans. In particular, we control for outbreaks of African swine fever, classical swine fever, foot and mouth disease, high pathogenic avian influenza, American foulbrood, and Bovine Spongiform Encephalopathy (BSE). These diseases were chosen because they come up again and again as justifications for import refusals or bans in WTO forums. We also deliberately selected diseases which China itself had mentioned to justify import refusals or bans, effectively

giving China the benefit of the doubt and seeking, if anything, to over-control for the effect of animal diseases on refusals rather than under-control for them. Data on animal diseases was downloaded from the website of the World Organization for Animal Health (OIE), which is charged with collecting and disseminating information on animal disease outbreaks around the world. As the animal disease measure is only available for each semester, we use the logged counts of animal disease cases for the previous semester.

As the number of food import refusal cases is also undoubtedly correlated with the volume of food imports from a foreign country, we also account for the volume of food imports from country $i$. Due to the sparseness of monthly product-level imports volume data, we control for the logged volume of annual food imports of the previous year using the annual data. The model also includes fixed effects for country and month to account for unobserved country-level and monthly-level characteristics. In addition, because we expect that refusals might increase in specific time periods and vary substantially between countries, most of our models include both country and time fixed effects.

In addition to the linear regression model specified above, we estimate fixed effects Poisson models, two-part models and linear regression models with log-transformed outcome variables. For non-negative outcome variables with right-skewed distributions and a significant share of zeros, Mullahy and Norton (2022) demonstrate that linear regression models on the untransformed outcome variable, Poisson regression, and two-part models yield correct marginal effects. The fixed effects Poisson regression with robust standard errors gives the fully robust estimator of the conditional mean parameters (Wooldridge, 1999).[14] Two-part models allow separately estimating the extensive margin (zero versus non-zero outcomes) and the intensive margin (the variation among non-zero outcomes).

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[14]Despite a potential concern about the problem with overdispersion in the data, fixed effects Poisson regression estimators with robust standard errors are not vulnerable to overdispersion. Fixed effects negative binomial regression, a possible alternative to the use of Poisson models, may induce an incidental parameters problems (Cameron and Trivedi, 2013; Wooldridge, 1999, 2010).

We estimate the extensive margin via the probit models and the intensive margin (the intensity of food imports refusals) via the linear regression models. We also show results from linear regression models with a logged outcome variable, as well as various other robustness checks in the supplementary appendix.

## 4 Results

The main results, presented in Table 2, are consistent with our theoretical expectation. We present the results from the linear regression models with country fixed effects in Models (1)-(3). We begin with a simple linear regression model with country fixed effects with the logged number of animal disease cases as a control variable in Model (1). We then add fixed effects for month to account for an unobserved temporal factor that may account for the variation in China's use of imports refusals in Model (2). We add an additional control of the logged value of annual food imports in Model (3). We present the results from fixed effects Poisson models in Models (4)-(6).

Table 2: Political Conflicts and Food Imports Refusals

| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
|---|---|---|---|---|---|---|---|---|
| | | | OLS | | | | Poisson | |
| Goldstein Conflict Score | 0.347* | 0.192* | 0.162* | 0.167* | 0.052** | 0.046* | 0.041** | 0.036* |
| | (0.161) | (0.076) | (0.069) | (0.069) | (0.011) | (0.018) | (0.015) | (0.017) |
| Animal Disease Outbreak | 0.113$^{+}$ | 0.136* | 0.096* | 0.096* | 0.035 | 0.050** | 0.009 | 0.009 |
| | (0.058) | (0.054) | (0.042) | (0.042) | (0.022) | (0.016) | (0.012) | (0.012) |
| Food Imports | | 0.036 | 0.018 | 0.018 | | 0.240** | 0.305** | 0.304** |
| | | (0.024) | (0.030) | (0.030) | | (0.071) | (0.097) | (0.097) |
| Country FE | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Year-Quarter FE | No | No | Yes | No | No | No | Yes | No |
| Year-Month FE | No | No | No | Yes | No | No | No | Yes |
| Observations | 12852 | 12744 | 12744 | 12744 | 12636 | 12528 | 12528 | 12528 |

*Dependent Variable*: Food Imports Refusal

Note: $^{+}p < 0.10$, $^{*}p < 0.05$, $^{**}p < 0.01$. Robust standard errors clustered on country.

Across the estimated models, we consistently find that China becomes more likely to reject imported food products of a foreign country at the border following an increase in political tension with the country. Given that the Goldstein conflict score is log-transformed, it can be interpreted that a 100% increase in the Goldstein conflict score

is associated with an increase of food import refusals by 0.11-0.24 according to Models (1)-(4). This accounts for about 6.6%-14.5% increase from the average count of food import refusals, holding all others constant. As we account for time-invariant unobserved country characteristics, our result captures a within-country variation in refusals.

In addition, we estimate two-part models, which separately estimate the effects of the covariates on the extensive margin (zero versus non-zero outcomes) via the probit models and on the intensive margin (the intensity of import refusals) via the linear regression models (Belotti et al., 2015). This helps us determine whether political tensions contribute to import refusals relative to no import refusals (any versus none) or whether political tensions, instead, drive the number of import refusals that occur. Results are presented in Table 3. Interestingly, we find that political tensions are not a statistically significant determinant of whether China refuses imports at all. Rather, on the extensive margin of imported food refusals (zero versus non-zero outcomes), we find that the volume of food imports from a trading partner is the key variable that accounts for the outcome. This suggests that some baseline level of Chinese import refusals are likely just responding to a need to ensure imports are in fact safe: The more products coming in from a given country, the more likely that at least some of those products are problematic. Yet when it comes to the intensive margin – the number of products refused conditional on any products being refused – we find that political tensions are a statistically significant predictor. While the amount of trade continues to be a central driver of the level of refusals, now political tensions also come into play, such that a change in the degree of political tensions is statistically significantly associated with the intensity of import refusals.

To ensure that our findings are not sensitive to model specifications, we also estimate the linear regression models using the logged outcome variable as presented in Table A2 in the supplementary appendix. As the results show, we still find a positive and statistically significant association between the degree of conflict scores involving military

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Table 3: Food Refusals: Two-Part Model

| | Dependent Variable: Food Imports Refusal | | | |
|---|---|---|---|---|
| | (1) | (2) | (3) | (4) |
| **probit** | | | | |
| Goldstein Conflict Score | 0.035 | 0.022 | 0.015 | 0.015 |
| | (0.024) | (0.023) | (0.022) | (0.022) |
| Animal Disease Outbreak | 0.016* | 0.014+ | 0.008 | 0.008 |
| | (0.007) | (0.007) | (0.008) | (0.008) |
| Food Imports | | 0.102** | 0.098* | 0.102* |
| | | (0.038) | (0.046) | (0.048) |
| **regress** | | | | |
| Goldstein Conflict Score | 0.493** | 0.328* | 0.260* | 0.271* |
| | (0.161) | (0.127) | (0.122) | (0.133) |
| Animal Disease Outbreak | 0.353+ | 0.459** | 0.292* | 0.292* |
| | (0.204) | (0.166) | (0.115) | (0.118) |
| Food Imports | | 0.861* | 0.756 | 0.778 |
| | | (0.350) | (0.490) | (0.499) |
| Country FE | Yes | Yes | Yes | Yes |
| Year-Quarter FE | No | No | Yes | No |
| Year-Month FE | No | No | No | Yes |
| Observations | 12636 | 12528 | 12528 | 12528 |

*Note:* $^{+}p < 0.10$, $^{*}p < 0.05$, $^{**}p < 0.01$. *Robust standard errors clustered on country.*

actors and China's use of import refusals.

## 5 Discussion

Our results offer the first systematic evidence documenting China's use of import refusals in response to political tensions. These findings not only offer a new explanation for regulatory barriers, but they additionally help shed light on one of the potential mechanisms behind previous findings demonstrating that political tensions can lead to reduced trade (Davis, Fuchs, and Johnson, 2019; Fuchs and Klann, 2013; Du et al., 2017; Heilmann, 2016; Pandya and Venkatesan, 2016). At the same time, our findings raise some important questions.

Perhaps first and foremost, we might want to know whether China is unique in using import refusals in this way. On this question, there does appear to be some evidence that China is not an anomaly. An August 2014 report in the Washington Post, for exam-

ple, noted that in the wake of international sanctions against Russia in response to its invasion of Crimea earlier that year, Russian regulators began to uncover a suspicious number of contaminated food imports from sanctioning countries. Suddenly inspectors uncovered "harmful levels of antibiotics in U.S. poultry, contaminants in Ukrainian dairy, pests in European produce and bacteria in U.S. fast food" (Demirjian, 2014). As was the case when China banned Philippine bananas and Korean cosmetics, Russia in this case claimed the timing of the contamination discoveries was purely coincidental. Although this has done little to allay skepticism on the part of American poultry producers, one of whom was quoted accusing Russia of "using foreign trade as a political football" (Polansek and Plume, 2014), the ambiguity regarding whether the products in question might truly have failed to meet Russian safety standards gives Russia some cover to avoid a trade dispute. In other words, this case shows close parallels to the Chinese cases discussed in previous sections, suggesting that the leveraging of import refusals for high politics purposes is likely a phenomenon that extends beyond China.

As to how extensive the use of import refusals as a means of political retribution may be across countries, that is, unfortunately, a question that we cannot answer with our existing data. Nevertheless, we do have some reasons to expect this behavior to be particularly prominent in autocratic regimes. This relates to the fact that when it comes to bureaucrats, autocracies are more likely to prioritize loyalty over competence (Egorov and Sonin, 2011), making it more likely that bureaucratic agents would be willing to enforce the law in a way that reflected the executive's wishes, rather than health and safety requirements in an autocracy. Autocrats are also better able than democratically elected officials to reward bureaucrats with corruption rents (Hollyer and Wantchekon, 2012), which again ought to make bureaucratic border inspectors more responsive to autocrats' preferences, even when those preferences deviate from how the bureaucrat is meant to be acting, according to the written law. Finally, given that there is likely to be disagree-

ment among elected officials over whether the surreptitious use of regulatory measures is the appropriate response to a given political spat, there may be reduced unified pressure on the bureaucracy in democracies to respond in times of tension through the selective enforcement of border inspections. By contrast, particularly in consolidated autocracies, it is reasonable to expect more unified influence over the bureaucracy that should leave less room for uncertainty about whether the "discovery" of health violations in a certain country's exports might be appreciated.

Beyond wondering about the scope conditions of the findings, we also might be curious about whether import refusals are an effective strategy. In order to answer this, we first need to know what the primary goal of these refusals might be. Given how highly China values economic growth, and operating under the assumption that China is a rational actor, it seems unlikely that China is employing these measures purely out of spite. Rather, China likely uses import refusals as a way to compel the targeted nation to stop the behavior that prompted the refusals, to apologize for having engaged in the undesirable behavior in the first place,[15] and/or to think twice before engaging in such behavior in the future. On the one hand, it is certainly the case that Chinese import refusals can be extremely damaging to the sectors impacted. A recent study found that a 1% increase in Chinese import refusals leads to a 4.51% decrease in the value of import growth (Sun et al., 2021). Therefore, certainly China's refusals are likely to cause significant economic pain within those sectors affected. At the same time, having a financial impact and having a political impact are two different things, and scholars have frequently questioned

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[15]In a number of cases, China requested formal apologies, public statements of contrition, or other public deference in exchange for easing or terminating coercive economic measures (Harrell, Rosenberg, and Saravalle, 2018; Hanson, Currey, and Beattie, 2020). For example, after Norway awarded the 2010 Nobel Peace Prize to Chinese dissident Liu Xiaobo, China blocked Norwegian salmon imports, alongside other retaliatory measures, and demanded a strongly worded official apology in order to restore ties (Sverdrup-Thygeson, 2017). Similarly, after Mongolia hosted Dalai Lama in November 2016, China rejected Mongolian beef and mutton imports and ratcheted up other forms of economic pressure on Mongolia. In an official statement, Chinese Foreign Minister said that Mongolia should "take this lesson to heart" and "scrupulously abide by its promise" not to invite the Dalai Lama again (Shepherd, 2017).

whether even particularly devastating economic costs, in the form of sanctions, are actually effective geopolitical tools (Pape, 1997, 1998; Jones, 2015; Drezner, 2011). Given our findings that China is using import refusals, at least in part, in response to tensions involving military actors, it seems likely that China is not generally relying on refusals alone to coerce or dissuade military action. Instead, refusals seem to be one tool in an arsenal of more traditional means of persuasion. As such, refusals are perhaps best viewed as a means of attempting to broaden the coalition in the targeted country that might oppose whatever action that nation is taking (or considering taking in the future) that China wants to prevent. In addition, refusals may be a way of reminding the targeted country that thanks to its large market, China is very capable of significantly harming its target economically. As such, the actual harm done by the refusals may be less relevant than the signaling of the potential for much greater harm to come.

Taken together, our findings add to a small but growing literature demonstrating how China leverages trade barriers for political ends (Kim and Margalit, 2021; Fetzer and Schwarz, 2021). While this prior work has tended to focus on tariffs, we turn our attention to regulations. Unlike tariffs, regulatory barriers afford nations far more cover to hide their intent. Such cover, we suggest, not only makes these barriers an attractive means of catering to industry (Kono, 2006; Gulotty, 2020), but it also makes these measures useful for exerting international political pressure, without incurring significant costs. Future work should continue to explore the extent to which geopolitics and regulatory decision-making go hand-in-hand.

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# Supplementary Appendix

## A1 Data Description

- Table A1 shows the summary statistics.

Table A1: Summary Statistics

|  | count | mean | sd | min | max |
|---|---|---|---|---|---|
| Food Imports Refusals | 15012 | 1.66 | 7.25 | 0.00 | 242.00 |
| Food Imports Refusals (Logged) | 15012 | 0.35 | 0.80 | 0.00 | 5.49 |
| Goldstein Conflict Score (Logged) | 14364 | 0.50 | 1.30 | 0.00 | 8.11 |
| Animal Disease Outbreak | 13284 | 5.14 | 4.71 | 0.00 | 18.11 |
| Food Imports | 14784 | 16.62 | 3.80 | 0.00 | 24.20 |
| Observations | 15012 |  |  |  |  |

## A2 Additional Tests

- Table A2 presents the results from the linear regression models with the logged counts of food import refusals as the dependent variable. The substantive findings are similar to the main results presented in Table 2.

- Tables A3, A4 and A5 present the results with the cases of food and cosmetics imports refusals as the dependent variables. While our main analysis focuses on the cases of food imports refusals, our substantive findings hold when we examine refusals of food and cosmetics imports together.

Table A2: Food Refusals: OLS with Log-Transformed Outcome Variable

| | Dependent Variable: Food Imports Refusal (Log) | | | |
|---|---|---|---|---|
| | (1) | (2) | (3) | (4) |
| Goldstein Conflict Score | $0.024^*$ | $0.020^+$ | $0.016^+$ | $0.016^+$ |
| | (0.010) | (0.010) | (0.009) | (0.009) |
| Animal Disease Outbreak | $0.010^{**}$ | $0.010^{**}$ | $0.007^*$ | $0.007^*$ |
| | (0.003) | (0.003) | (0.003) | (0.003) |
| Food Imports | | $0.008^*$ | 0.006 | 0.006 |
| | | (0.004) | (0.004) | (0.004) |
| Country FE | Yes | Yes | Yes | Yes |
| Year-Quarter FE | No | No | Yes | No |
| Year-Month FE | No | No | No | Yes |
| Observations | 12852 | 12744 | 12744 | 12744 |

*Note: $^+p < 0.10$, * $p < 0.05$, ** $p < 0.01$. Robust standard errors clustered on country.*

A-3

Table A3: Food & Cosmetics Refusals: OLS & Poisson

| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
|---|---|---|---|---|---|---|---|---|
| | | | | *Dependent Variable*: | | | | |
| | | | Food & Cosmetics Imports Refusal | | | | | |
| | | | OLS | | | | Poisson | |
| main | | | | | | | | |
| Goldstein Conflict Score | 0.377* | 0.216* | 0.182* | 0.191* | 0.052** | 0.047* | 0.044** | 0.040* |
| | (0.173) | (0.094) | (0.088) | (0.087) | (0.012) | (0.019) | (0.017) | (0.018) |
| Animal Disease Outbreak | 0.142* | 0.168* | 0.121* | 0.121* | 0.040$^+$ | 0.057** | 0.011 | 0.010 |
| | (0.069) | (0.065) | (0.051) | (0.051) | (0.022) | (0.018) | (0.012) | (0.012) |
| Relevant Imports | | 0.033 | 0.007 | 0.008 | | 0.194** | 0.289** | 0.289** |
| | | (0.033) | (0.041) | (0.041) | | (0.070) | (0.100) | (0.099) |
| Country FE | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Year-Quarter FE | No | No | Yes | No | No | No | Yes | No |
| Year-Month FE | No | No | No | Yes | No | No | No | Yes |
| Observations | 12852 | 12744 | 12744 | 12744 | 12636 | 12528 | 12528 | 12528 |

*Note*: $^+p < 0.10$, * $p < 0.05$, ** $p < 0.01$. Robust standard errors clustered on country.

Table A4: Food & Cosmetics Refusals: OLS with Log-Transformed Outcome Variable

| | *Dependent Variable*: | | | |
| | Food & Cosmetics Imports Refusal (Log) | | | |
| | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| Goldstein Conflict Score | 0.023* | 0.020$^+$ | 0.015 | 0.015 |
| | (0.011) | (0.011) | (0.010) | (0.010) |
| Animal Disease Outbreak | 0.010** | 0.011** | 0.007* | 0.007* |
| | (0.003) | (0.003) | (0.003) | (0.003) |
| Relevant Imports | | 0.009$^+$ | 0.006 | 0.006 |
| | | (0.005) | (0.005) | (0.005) |
| Country FE | Yes | Yes | Yes | Yes |
| Year-Quarter FE | No | No | Yes | No |
| Year-Month FE | No | No | No | Yes |
| Observations | 12852 | 12744 | 12744 | 12744 |

*Note*: $^+p < 0.10$, * $p < 0.05$, ** $p < 0.01$. Robust standard errors clustered on country.

## Table A5: Food & Cosmetics Refusals: Two-Part Model

| | *Dependent Variable:* | | | |
| | Food & Cosmetics Imports Refusal | | | |
| | (1) | (2) | (3) | (4) |
| --- | --- | --- | --- | --- |
| probit | | | | |
| Goldstein Conflict Score | 0.033 | 0.020 | 0.012 | 0.012 |
| | (0.025) | (0.024) | (0.023) | (0.023) |
| Animal Disease Outbreak | 0.015* | 0.013[+] | 0.006 | 0.007 |
| | (0.007) | (0.007) | (0.008) | (0.008) |
| Relevant Imports | | 0.104** | 0.098* | 0.102* |
| | | (0.040) | (0.050) | (0.051) |
| regress | | | | |
| Goldstein Conflict Score | 0.553** | 0.399* | 0.328* | 0.346* |
| | (0.175) | (0.156) | (0.155) | (0.165) |
| Animal Disease Outbreak | 0.449[+] | 0.574** | 0.358* | 0.358* |
| | (0.234) | (0.199) | (0.143) | (0.146) |
| Relevant Imports | | 0.697[+] | 0.587 | 0.637 |
| | | (0.384) | (0.564) | (0.582) |
| Country FE | Yes | Yes | Yes | Yes |
| Year-Quarter FE | No | No | Yes | No |
| Year-Month FE | No | No | No | Yes |
| Observations | 12636 | 12528 | 12528 | 12528 |

*Note: [+]p < 0.10, * p < 0.05, ** p < 0.01. Robust standard errors clustered on country.*

## A3   Additional Information on the Data Collection Process

- Below is a full list of sources we rely on to collect China's import refusals data.

  1. Government (or government-affiliated) entities: `customs.gov.cn/spj`, `cqn.com.cn`

  2. China's state media: `xinhuanet.com`, `jjckb.xinhuanet.com`, `politics.people.com.cn`, `news.cctv.com`

  3. Private entities: `cccfna.org.cn`, `antion.net`, `reach24h.com`, `cirs-group.com`, `m.shagarova.com`, `inews.ifeng.com`, `hn.rednet.cn/c`, `m.antpedia.com`, `m.thepaper.cn`, `ppfocus.com`, `kknews.cc`, `cocukyurdu.com`, `thepaper.cn`, `anytesting.com`, `finance.ce.cn`