Public vs. Private Enforcement of Trade Agreements

Evidence from Chinese Trade

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Abstract

What accounts for governments’ choice among different mechanisms to enforce international economic agreements? This paper investigates this question with a focus on the Chinese government’s choice of enforcement mechanisms for export restraint agreements with the United States, Japan, and South Korea since 1995. Contrary to the conventional wisdom that a government chooses an enforcement mechanism that maximizes political gains or minimizes retaliation risks, this paper demonstrates that the Chinese government’s choices are driven by a different motive—to deter collusion between politically powerful industries and local-level governments. The government is more likely to use a transparent and private enforcement mechanism (i.e., the open quota bidding system) for politically powerful industries, and a discretionary and public enforcement mechanism for industries with little political influence. To test this argument, the paper introduces a new commodity-level dataset that records the government’s choice of enforcement mechanisms since 1995. The results lend strong support to the argument about deterring domestic collusion.

9498 Words (including tables, appendix, and bibliography)
Introduction

What accounts for governments’ choice across different enforcement mechanisms for international economic agreements? Increasing numbers of multilateral, bilateral, and regional agreements regulate cross-border movements of goods, capital, and labor today. Yet these differ considerably in how the specifics of the agreements are enforced by governments.¹ In the realm of trade agreements, the enforcement could be done legally by establishing punishment for breach of obligations ex ante (e.g., the anti-dumping duty specified under WTO), or, informally via bilateral diplomacy, threat of retaliation, or close monitoring.² Some agreements, moreover, grant private actors—such as firms—rights to bring complaints before an adjudicative body (“private enforcement”), while others only allow governments to be the agents of enforcement (“public enforcement”).³

Among major international trade agreements, for instance, the EC treaty at European Union allows private firms to bring violation cases to the courts of member states, while the WTO only allows governments to be the agents of enforcement.⁴ While theoretical progress has been made to understand the role of enforcement in international negotiations and agreements,⁵ systematic empirical research has lagged far behind theories due to the identification issues inherent in the study of enforcement: in most cases, we can only know the level of enforcement by the frequency or levels of violations, but the levels of violations are often highly endogenous to the enforcement efforts.⁶

¹ Rosendorff 1996; Sykes 2005.
³ Sykes 2005
⁴ Sykes 2005:7. Of course, this does not mean that industries and firms do not have any influence on the government’s enforcement decision. They may influence the enforcement decisions via lobbying the government. See Dai 2005.
⁶ Ehrlich and Brower 1987; Simmons 1998; Young 1979. Another methodological issue in the study of enforcement concerns selection effects which will be addressed later. Simmons 2000, Von Stein 2005.
Rather than addressing this identification issue with various quantitative techniques (Simmons 2000, 2005; Von Stein 2005), this paper takes a step back by analyzing a more direct proxy for a government’s incentives for enforcement—a choice across different enforcement instruments. These instruments differ in (i) who bears the costs of enforcement and ex post punishment and (ii) the extent to which an enforcement process generates political gains. These variations provide an opportunity to understand how a government weighs political gains, enforcement costs, and retaliation risks in its enforcement decisions.

This paper investigates this question with a focus on the Chinese government’s choice of enforcement mechanisms for export restraint agreements with the United States, Japan, and South Korea since 1995. Since opening its economy in 1979, the Chinese government has been involved in numerous trade conflicts in which agreements were made to restrain its exports. In some cases, such as textile disputes with the United States in 2006, the Chinese government bilaterally agreed to restrain export and enforced it successfully by using an open quota bidding system in which firms competitively bid for export quotas and were obligated to commit to the assigned quantity and price. In other cases, such as the honey dispute with the U.S. during 2000-2001, the Chinese government agreed to restrain exports, yet did not enforce the agreement—which eventually led the U.S. to adopt an anti-dumping duty.

China’s choice of enforcement mechanism also varies for the same commodity vis-à-vis different countries. During garlic disputes with South Korea and Japan, the

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7 AUTHOR 2007.
8 Rosendorff 1996. These failed VER cases were likely to escalate into the use of WTO rules by China’s trading partners—such as anti-dumping or escape clause actions—which eventually led to reduction in Chinese export. I will address how such sequential decision-making by governments could generate a selection effect in my data.
Chinese government used a quota bidding system to enforce the voluntary export restraint (VER) agreement with South Korea, but not with Japan. Why did the Chinese government use a private enforcement mechanism, which subjects Chinese exporters to export quota bidding, in the South Korean case, but not in the Japanese case? What accounts for the Chinese government’s decision to engage in bilateral, informal agreements to restrain exports in some cases, but not others?

Contrary to the conventional wisdom that a government chooses an enforcement mechanism to maximize political gains or minimize retaliation risk, this paper demonstrates that the Chinese government’s choices are driven by a different motive—to deter collusion between politically powerful industries and local-level governments. The government is more likely to use a transparent and private enforcement mechanism (i.e., the open quota bidding system) for politically powerful industries, and a discretiona ional and public enforcement mechanism for industries with little political influence. To test this argument, the paper introduces a new commodity-level dataset that records the government’s choice of enforcement mechanisms since 1995 along a combination of two dimensions: (i) multilateral vs. bilateral and (ii) public vs. private enforcement mechanisms (i.e., a government enforces the agreement vs. private firms participate in the enforcement process via open quota bidding). The results lend strong support to the argument that the Chinese government chooses a transparent and market-driven enforcement mechanism to deter collusion between politically powerful industries and local-level officials.

This paper aims to make three contributions. First, the literature on trade agreements tends to analyze either how agreements are made or the effect of agreements

on political and economic outcomes. The politics after the agreements are made—battles over enforcement—is generally missing from the literature.

Second, an emerging literature on enforcement of international agreements tends to theorize governments’ enforcement decisions as a function of inter-state bargaining, political regime types and institutions, or, domestic distributive politics. This paper brings in one of the domestic institutional elements that has been understudied in the enforcement literature—multi-layered enforcement authorities in federations—as a key to understanding the Chinese government’s enforcement decisions. When the central government anticipates that local governments will collude with politically powerful industries and breach the agreement, it attempts to preempt this by using an instrument of enforcement that allows it to expose violators (i.e., firms and local governments) to the public and foreign governments.

Third, this paper demonstrates a motivation that has not been discussed in the past for an authoritarian government to increase transparency in the economic policy-making process: to counter-act powerful private actors and to hold them accountable for the breach of international agreements. This paper leverages the case of China—one of the cases most well-known for inconsistent enforcement of international agreements—to demonstrate this. The findings also suggest that the government strategically chooses whether and how to enforce agreements. This finding contributes to the debates

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10 Mansfield, Milner and Rosendorff 2003; Davis 2004.
13 Simmons 1994; Dai 2005.
concerning whether China lacks the will or the capacity to enforce international agreements.\textsuperscript{14}

\textbf{Section 1: The Puzzle}

Developing countries today face various external pressures to restrain exports. China is the most targeted emerging economy in this sense. Since its economic opening in 1979, 34 countries and regions launched a total of 665 antidumping duty, counterveiling duty, and safeguard investigations against Chinese products at the GATT and WTO. Outside of multilateral arenas, moreover, China was involved in numerous bilateral negotiations for VERs with countries such as the United States, Europe, and Japan, to name but a few.

The ways in which these trade conflicts were settled, however, substantially differ across cases. Some of these conflicts were settled by bilateral VERs, while others escalated to the use of GATT/WTO-legal anti-dumping and safeguard measures by China's trading partners. Even when bilateral VERs were made, Chinese government enforced the agreements with the use of open quota bidding system in some cases, but not in others. In addition to the variations in the enforcement choice described above, the introduction of open quota bidding system in 1994 itself poses several puzzles.

\textit{The Open Quota Bidding System}

Before 1994, the decision-making process for setting and allocating export quotas to exporters in China was centralized and controlled by the central government's agency, the Ministry of Foreign Economic Relations and Trade (MOFERT). The MOFERT

\footnote{Weiss and Jacobson 1998; Mertha 2005.}
discretely allocated quotas to exporting firms in consultation with provincial officials. The quota allocation system became more open and institutionalized during the 1990s. In particular, the open quota bidding system was introduced in 1994 by the MOFERT’s successor, Chinese Ministry of Commerce. The open quota bidding system was introduced, according to the Ministry’s officials, in order to address two issues: the over-competition among Chinese exporters, which led to price undercutting and, subsequently, anti-dumping suits by foreign governments and the power imbalance between producers and exporters.\textsuperscript{15} These rationales appear consistent with the literature that emphasizes the role of retaliation risks and domestic distributive demands as explanations for government enforcement decisions.\textsuperscript{16} Yet as I demonstrate later, a systematic empirical test lends only partial support to these arguments.

The quota bidding is an open and transparent process in which the Chinese Ministry of Commerce announces a minimum bidding price and the quantity of exports that are subject to bidding. Foreign Trade Corporations (FTCs) that will participate in the bidding must submit their past record of export revenues and quantity. Information regarding bidding schedules, procedures, participants, minimum bidding prices, and outcomes is made available to the public on the website of the Ministry of Commerce. The bidding and its enforcement process is decentralized in that locally-owned FTCs submit applications to local governments (i.e., local branches of the Ministry of Commerce), while centrally-managed corporations apply directly to the central headquarter of the Ministry.

\textsuperscript{15} Thomas Moore 2002:15, \textit{China in the World Market}, points to diffusion of successful practices as a major reason why Chinese government officials—although reluctantly—adopted the quota bidding system. Another rationale that was reported in the media was to increase revenues for Ministry of Commerce.
\textsuperscript{16} Fearon 1998; Gawande and Hansen 1996; Dai 2005.
The government’s introduction of the open quota bidding system is puzzling in three respects. First, compared to the previous discretionary allocation system, the open quota bidding system is a more democratic, transparent, and market-driven mechanism for determining the recipients of quotas. Why did the Chinese government give up the discretionary policy instrument that allowed it to manipulate rents and replace it with a more transparent and market-driven instrument (Krueger 1974)? Second, the open quota bidding system also exposes information to foreign governments and foreign firms regarding which firms are allocated what quantity and price. Why did the Chinese government voluntarily lower the information costs for foreign governments so that they can more easily identify violations such as over-exporting or price dumping? Finally, why does the Chinese government choose the open quota bidding for some commodities, but not for others?

**Section 2: Incentives to Enforce vs. Breach—the Role of Decentralization**

This paper argues that China’s enforcement choice is driven by the central government’s motive to deter collusion between powerful industries and local-level officials. By replacing the discretionary instrument with a more transparent and market-driven mechanism (*i.e.*, open quota bidding), the central government seeks to deter local-level authorities from colluding with powerful industries to breach the agreement *ex ante* and expose violations to the public and foreign governments for punishment *ex post*.

I develop the logic of this argument in three steps and derive testable hypotheses. First, seminal works in trade economics have shown that the central government, local governments and exporters are all better off committing to and enforcing the VERs than provoking foreign governments’ retaliation (*e.g.*, the use of anti-dumping, counter-veiling
duty, or safeguard measures). This is so because VERs create rents through the allocation of export quotas and licenses to exporting firms. VERs also represents a more temporal form of export regulation than tariffs. Third, VERs give exporters an opportunity to collude with importing companies abroad by setting the price higher than before the VERs. Finally, governments generally prefer bilateral diplomacy to multilateralism because the former allows governments to link trade policy with other diplomatic goals and claim credit for the policy outcome. Thus, the central and local-level governments and exporters are all better off by enforcing the bilateral VER agreement with trading partners.

Second, although all the actors are collectively better off by enforcing the VER agreement, under a fiscally and politically decentralized system in which local governments compete for higher export share, local officials face strong incentives to breach the agreement. Specifically, the local-level officials’ incentives to breach the agreement result from fiscal and political decentralization reforms that have expanded the function of local government and thus have generated perverse incentives.

Local Governments as Agents and Bosses

China’s export administration has undergone a series of decentralization reforms, which encourage local governments to compete for higher export share and, in effect, to breach the agreement. These reforms grant provinces and municipalities authority to promote and regulate exports in three areas: (i) the ownership and management structure

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18 Bhagwati 1963; Krueger 1974
19 Hillman and Urpsprung 1988
20 This is of course not the case when the policy outcome is unpopular among the public. For instance, Milner (2007) shows that governments will prefer to delegate decisions to allocate foreign aid to multilateral institutions when the public support for aid is low.
of foreign trade corporations (FTCs), (ii) the fiscal system in which localities and central government share gains from foreign trade, and (iii) the decision-making and enforcement process of export quota and licensing.

First, the ownership structure of foreign trade corporations (FTCs) has become decentralized. Before China’s open policy was adopted in 1978, only a dozen nationally-owned FTCs monopolized foreign trade. Within a decade, the number of local FTCs increased dramatically to approximately six thousand. Yet until 1985, the central government’s agency, MOFERT, regulated trade composition and flows by issuing export licenses and subsidizing exporters’ activities. Under centralized control by the national government, FTCs had a strong incentive to comply with assigned quotas because the central government was the source of subsidies and permission to engage in foreign trade. In 1985, local FTCs were granted autonomy to engage in foreign trade and came under the control of provincial and municipal governments. As a result, FTCs have weaker incentive to comply with the central government since the reform.

Second, a decentralized fiscal contracting system was adopted between 1980 and 1994 under which provincial governments could retain tax revenues from local enterprises. The foreign exchange contract system (waihui baogan) also gave an incentive to local governments to promote exports because they could retain up to 80 percent of such earnings under the assigned quota system. As a result, local governments play a dual role. In addition to being agents of the central government that enforce the export restraints, they are independent actors that seek to maximize gains from foreign trade. Local FTCs owned by provincial and municipal governments also face the same

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21 An increasing number of local FTCs also entered into joint ventures with foreign companies.
22 Wang, 1997: 2001
dilemma. They are encouraged to compete against one another to win export contracts with producers but once the government agrees to VERs they need to restrict their exports under the assigned quota.

Finally, reform was also adopted at the enforcement stages with the decentralization of authority over two major policy instruments for export regulation: export licensing and export quotas. The authority to issue export licenses to FTCs was extended from the central government to branches of various provinces, autonomous regions, and municipalities in 1996. The export quota system has been the subject of decentralization reforms as well. The quota bidding and its enforcement process are decentralized in that local governments decide quota allocation and enforce the agreement.

In sum, under the decentralized system, the local-level officials have to play a dual role of promoting export as a boss of the local economy and enforcing the VER agreement as an agent of the central government. The question, then, is under what conditions local governments are more likely to breach than enforce, and how the central government chooses an enforcement mechanism to prevent the breach from occurring. I test two conditions that are associated with higher probability of local governments’ collusion with industries: the size of political clout of a given industry and the strength of local officials’ political connection with the central government. I expect that the greater the political clout a given industry has and less political connection local government officials have with the center (Huang 1997), the more likely that an industry will collude with local government officials. Anticipating this, the central government will use a

23 In 2001, the central office of the Ministry of Commerce issued approximately 15 percent of the newly-licensed export commodities, while local authorities issued approximately 85 percent.
transparent and market-driven mechanism of enforcement, the open quota bidding system, to preempt the collusion. The open quota bidding system lowers information costs and allows both Chinese and foreign governments to identify who violates the assigned quota and price and to hold firms and local government officials, rather than the central government, accountable for breaching the agreement. This discussion leads to the following proposition and hypotheses.

Proposition 1: Chinese government is more likely to use bilateral and private enforcement mechanism (i.e., open quota bidding system) when an industry has higher probability of colluding with local officials.

H1: The government is more likely to use bilateral and private enforcement mechanism when an industry is characterized by large employment, a high degree of geographic concentration, and less political connection with the central government.

H2: The government is more likely to use bilateral and public enforcement mechanism when an industry is characterized by small employment, a low degree of geographic concentration and stronger political connection with the central government.

If the government’s choice between public and private enforcement mechanisms is driven by a motive to deter collusion between industries and local-level officials, what accounts for its choice between entering a bilateral VER agreement and letting a dispute case escalate to the use of WTO-contingent protection measures by a foreign government? There are two possibilities that are consistent with the logic of my argument; either a dispute case is impossible to solve with VERs due to the enforcement difficulty, or, the size of China’s export sector that will be harmed by the contingent protection is small and, thus, the Chinese government simply shifts the costs of enforcing the VER agreement to foreign governments.

H3: The government is less likely to enter bilateral VERs agreement when an exporting industry is diffused across different provinces (low geographic concentration) or the export market for a given commodity is small (low Export Share).
The next section will discuss the data and methods used to test these hypotheses.

**Section 3: Data and Methods**

*Identifying the Universe of Cases: Addressing the Selection Effects*

While the question of enforcement seems only relevant when the bilateral agreements are made, we need to consider selection effects in identifying the universe of cases.24 Chart 1 in the appendix describes possible enforcement outcomes and a potential sequence of governments’ decisions during a trade conflict. It suggests that there may be selection effects such that only in potentially enforceable cases would the government enter bilateral agreements. Other cases without enforcement potential will result in the use of GATT/WTO-legal measures by China’s trading partners. There are many cases, for instance, in which China’s trading partner resorted to GATT/WTO-legal measures after the VER enforcement failed. There are also cases in which governments used GATT/WTO-legal protection measures before attempting to make bilateral agreements with China in anticipation that the agreement would not be enforced. While the decision not to enter the bilateral agreement is difficult to observe, I infer that China’s trading partners’ decisions to use GATT/WTO-legal measures (anti-dumping, safeguard, and counter-veiling duties) encompass the cases of the failed VER enforcement and the cases in which governments anticipated that China’s VER enforcement would fail. Thus, the universe of cases analyzed in this paper includes all the dispute cases that ended with bilateral agreements as well as the cases that ended with China’s trading partners’ use of GATT/WTO-legal protection measures.

I gathered information on all the trade conflicts between China and the U.S.,

Japan, or South Korea since 1995 in which China was positioned as an exporter. I focus on these three dyads instead of the entire universe of China’s trade partners for two reasons. First, informal, bilateral VERs are generally not recorded in official documents or GATT/WTO publications. Hence, this paper uses newspaper archives and industry reports to identify these informal cases. Such information is prohibitively time-consuming and costly to collect for the entire universe of China’s trade partners. Second, these three dyads give sufficient variation across two important variables to test alternative hypotheses regarding China’s enforcement choice and retaliation risks. The size of China’s export market (i.e., expected retaliation damages for Chinese exporters) varies across the three countries, which allows us to test the effect of expected retaliation damages on China’s enforcement choice. The three dyads also differ in their propensity to use GATT/WTO-legal measures to protect domestic industries in the past.25 This variation allows us to test the relative validity of my argument vis-à-vis the retaliation risk argument. Finally, a few scholars have argued that Asian governments are more likely to use informal, bilateral agreements to solve trade disputes. The three dyads allow us to test this claim systematically as well.

Data Sources

I used English, Chinese, and Japanese-language newspaper archives; government memoranda and publications; and industry reports to identify all the bilateral agreements including government-to-government and firm-to-firm agreements made to restrain China’s exports since 1995. The fact that member governments’ involvement in bilateral VER negotiations or agreements is prohibited under a new WTO rule since 1995

25 AUTHOR 2007
complicates the data collection. This suggests that some of the bilateral agreements may not be reported in the news, or, some of the agreements were initiated and enforced by industries rather than governments. Despite the new WTO rule, indeed, newspaper articles and memoranda issued by governments have revealed at least 24 cases where VER agreements were made since 1995. This gives us a total of 70 disputes which involve around 50 commodities since 1995. Then I used official data available from the WTO’s database and Chad Bown’s anti-dumping database to identify all dispute cases that ended with China’s trading partners using GATT/WTO-legal measures to protect domestic industries (anti-dumping, safeguard, and counter-veiling duties).

The Dependent Variable: Coding the Choice of Enforcement Mechanism

Next I coded the outcome of each dispute as one of four possible outcomes along two dimensions: (i) whether it ended with bilateral agreements or with the use of WTO rules by foreign governments, and (ii) whether or not the Chinese government used the open quota bidding system to enforce the VER. When the government’s decisions are sequential, (i.e., the failed attempt to enforce a bilateral agreement led to China’s trading partner’s use of GATT/WTO-legal measures), I count them as separate cases. When a dispute lasts for multiple years with an identical choice of enforcement mechanism, I take the first year if the dispute as the data point. Table 1 presents the distribution of the cases across the four outcomes and examples of actual cases are described in parentheses.

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26 There is one case that fits this pattern (the honey case with the U.S.) and another case in which the reverse has happened (the garlic case with South Korea).
Table 1: The Choice of Enforcement Mechanisms, 1995-2006

<table>
<thead>
<tr>
<th>Open Quota Bidding</th>
<th>Bilateral</th>
<th>GATT/WTO-rules</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Private Enforcement)</td>
<td>9</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>(textile w/U.S., garlic w/S.Korea)</td>
<td>(rush w/Japan)</td>
</tr>
<tr>
<td>No Open Quota Bidding</td>
<td>15</td>
<td>45</td>
</tr>
<tr>
<td>(Public Enforcement)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(garlic, eel, seaweed w/Japan)</td>
<td>(honey w/U.S., steel w/U.S.)</td>
</tr>
</tbody>
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Modeling the Nested Enforcement Choices

I use a nested logit framework to estimate the probability of the Chinese government’s choice of enforcement mechanism (McFadden 1978; Hansen 1990). Nested logit is appropriate for the data as the Chinese government’s choice to use an open quota bidding system is conditional on its first-stage decision to enter a bilateral agreement as discussed in the previous section. It is also appropriate because it allows for dependence among the attributes of enforcement choices.\(^{27}\) In particular, a government’s enforcement decision is considered as two-stage decision-making process. Stage 1 is the Chinese government’s decision either to enter a bilateral agreement or to let a trading partner use WTO-contingent protection measures (such as AD, SG). Stage 2 is the Chinese government’s decision to enforce the agreement either by using an open quota bidding system (“private enforcement”) or discretionary public enforcement mechanism. Chart 1 in appendix illustrates the structure of the model for enforcement choices and Appendix summarizes the results of Hausman test that justify the use of nested logit model.

\(^{27}\) That is, the three enforcement choices (multilateral, bilateral-discretionary, bilateral-bidding) are not independent of each other and hence the data violates the independence of the irrelevant alternatives (I.I.A.) assumption of the multinomial logit model.
Proxies for Political Clout in an Authoritarian Context

In the context of democracies, three measurements are commonly used to proxy the political influence of industries: size of employment, geographic concentration, and size of campaign donations.\textsuperscript{28} Finding proxies of political influence for an authoritarian regime without democratic elections is not an exact task. I use three measures that capture the likelihood that an industry has political influence over local-level officials. 

*Employment Size* is a variable that records the size of the workforce in a given industry \(i\) in year \(t\). The logic is straightforward—even without democratic elections, Chinese local government officials should care more about industries with larger employment than those with a smaller workforce as higher levels of unemployment can cause social and economic instability.

*Geo Con* is the export share of the province with the highest export values as a percentage of total national exports of a given commodity \(i\) in year \(t\).\textsuperscript{29} Even without democratic elections, the geographic concentration of industry should affect its collective action capacity vis-à-vis the local officials and, hence, influence local officials’ decisions to stall the central government’s effort to enforce the export restraint agreements.\textsuperscript{30} I expect that the higher the level of geographic concentration is, the more likely that the Chinese government uses an open quota bidding system.

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\textsuperscript{28} Alt et al. 1999, Busch and Reinhardt 2003, Broz 2005.
\textsuperscript{29} When provincial-level export data is not available for a given commodity, I use production data instead.
\textsuperscript{30} If the level of export competition among localities affects local-level officials’ incentive to breach the agreement, then industries with high geographic concentration may be the ones that comply with the agreement more. This is because the degree of geographic concentration is an inverse proxy for the level of export competition among the provinces. The more diffuse an industry’s export activities are across different provinces (i.e., the low *Geo Con*), the higher export competition among the local governments and, hence, the stronger the incentives of local government officials to breach the agreement (i.e., over-export). The results discussed later, however, do not lend support to this argument.
Province CCM is the number of the Central Committee Members of the Chinese Communist Party who have held high positions in the province with the highest share of export of a commodity \( i \) in year \( t \). I expect that the higher Province CCM is, the stronger political connection a province has with the central government. The stronger political connection means that local officials have stronger incentives to enforce the VER agreement to demonstrate their loyalty to the center, which is consistent with Huang’s (1999) finding on the politics of inflation in China.\(^{31}\)

**Alternative Hypotheses and Controls**

In order to demonstrate the relative validity of my argument, this paper tests two alternative hypotheses. First, the Chinese government’s decision to use open quota bidding may not be to deter “local collusion,” but rather to avoid provoking retaliation by a foreign government. To address this possibility, Retaliation Risk is a percentage variable capturing the size of the export market to a given trading partner per China’s total export in year \( t \).

The second alternative hypothesis is that the government’s decision to enforce agreements or not is consistent with a larger pattern of distributive politics.\(^{32}\) Rather than deterring local collusion, it may be that the central government plays favorites by rigorously restricting export from some provinces or industries but not others (Shirk 1994). In order to test this possibility, I include a variable Net Transfer PC which is a deviation of the national mean of net transfer per capita from the central government to province \( i \) in year \( t \). If the government’s decision to enforce an agreement is consistent with a larger pattern of distributive politics in China, I expect this variable to have a

\(^{31}\) Huang 1999.

\(^{32}\) Dai 2005.
statistically significant, positive effect on the government’s choice of enforcement mechanisms.\textsuperscript{33}

I also include a battery of controls. The government’s enforcement choice may simply be a function of characteristics specific to industries or trading countries. To address the first possibility, three dummy variables Textile, Chemical, and Agriculture are assigned to each commodity case \(i\). These dummy variables take a value of one if a commodity \(i\) falls into a category and zero otherwise. I include a country dummy, US\_dummy which takes a value of one when dispute cases involved the U.S. and zero otherwise. Other country dummies are not included as Retaliation Risk varies significantly across the U.S., Japan, and South Korea.

**Section 5: Results**

Table 2 presents descriptive statistics and Table 3 shows the results of the nested logit analysis. The results lend strong support to my argument. Most importantly, domestic political considerations, rather than retaliation risks, dominate the Chinese government's enforcement choices. Retaliation risk is not systematically associated with the Chinese government's decision to rigorously enforce the agreement using an open quota bidding system. Instead, the Chinese government uses bilateral and private enforcement mechanisms for politically powerful industries that are likely to collude with local officials and breach the agreement. The government is likely to use an open quota bidding system when industries are geographically concentrated, employment is large, and an exporting province is less politically-connected with the central government.

\textsuperscript{33} The two policy instruments, the transfer allocation and quota allocation could also be substitutive. If this is the case, I expect to see a statistically significant and negative effect of Net Transfer PC on the government's enforcement choice.
The two alternative hypotheses find only partial and moderate support. There is no systematic evidence to suggest that a higher Retaliation Risk is associated with a lower probability of multilateral settlements such as the use of anti-dumping measure by a foreign government. Similarly, the Chinese government’s enforcement choices do not differ systematically between trade conflicts with the United States vs. other countries.

The larger pattern of distributive politics, operationalized as the central government’s net transfer per capita to provinces (deviation from the national mean), is negatively associated with Chinese government’s choice to use the open quota bidding system. When provinces are more dependent on the central government's transfers, the central government is less likely to use the open quota bidding system as provincial officials have more incentive to comply with the central government (Huang 1999). This finding is consistent with the influence of politically powerful constituents on the government's enforcement decisions found in democracies (Dai 2005; 2007), yet suggests that the opposite mechanism might operate in authoritarian regimes: an enforcement agency (i.e., central government) might more rigorously enforce the international agreement with politically powerful industries to preempt their collusion with the local-level officials.

Most of the control variables do not prove to have systematic effects. Two findings are worth discussing, however. Trade conflicts that involve textile or agricultural commodities are more likely to be settled bilaterally and enforced discretionally by governments without the use of open quota bidding system. This finding begs another question: Do textile and agricultural sectors have a larger political clout than other industries? The trade literature on the U.S. has shown that agriculture
and textile industries enjoy large political influence and, hence, high levels of protection (Ray 1981; Goldstein 1989; Grossman and Helpman 1994). If this pattern also exists in China, then my findings remain inconclusive: the central government uses both a transparent and market-driven mechanism and a discrestional instrument for politically powerful industries.

While proxies for voting power and campaign contribution do not exist in China, I address this concern by examining the outcome-based measures of political influence—such as the difference between the world and domestic price (Rogowski and Kayser 2002; Kasara 2006). The results presented in the appendix confirm that agriculture and textiles are among the least politically influential industries in China and, thus, suggest that the findings are consistent with my argument: the central government uses a transparent and market-driven mechanism for industries with greater political clout.

**Conclusion**

This paper has demonstrated that a key to understanding the Chinese government’s choice of enforcement mechanism is the multi-level enforcement authority in federations. The government’s enforcement choice is not driven by distributive concerns or retaliation risks, but rather by a motive to deter collusion between the powerful industries and local-level officials to breach the agreement ex ante and to expose violators to the Chinese and foreign governments ex post. The open quota bidding system introduced in 1994 also holds private actors and local-level officials accountable for breaching agreements.

To what extent are the findings discussed in this paper generalizable beyond the Chinese case? At least three conditions are necessary in order for my argument to hold:
one is the existence of multi-layered enforcement authority in federations and the second is misalignment of incentives across different levels of enforcement authority. Coexistence of the two conditions makes enforcement of international agreements harder for the central government. Finally, the central government must be less political and more insulated from industry groups than local-level officials.

Second, the findings of this paper suggest that governments’ use of WTO-legal safeguard and anti-dumping measures may better be understood as failed cases of bilateral VER enforcement. While the existing literature has modeled governments’ use of contingent protection measures as a domestic political battle or inter-state bargaining over trade policy outcome (i.e., free trade vs. protectionism), this paper has shown that the probability of the target state’s bilateral enforcement (in this context, China) looms large in the government’s decision to use WTO rules. This perspective provides a novel interpretation for the empirical observation that federal states tend to be more aggressive users of contingent protection measures at GATT and WTO. The findings also suggest that we need to pay more attention to domestic institutions and the politics of the target—in particular, its enforcement capability and instrument choices—when analyzing governments’ use of contingent protection at the GATT/WTO.  

Third, this paper has shown a motive for an authoritarian government to increase transparency in the economic policy making process that has not been discussed in the past: to hold powerful private actors and local-level officials accountable for the international agreement and to lower the information costs of identifying violators for domestic and foreign governments. While the finding is generally consistent with the literature that emphasizes the role of globalization and international organizations in

---

pressuring authoritarian governments to increase transparency,\textsuperscript{35} this paper has shown that the source of this pressure may in fact come from the authoritarian government itself in an effort to enforce international agreements and to deter breaches in the face of powerful private actors. Fragmented enforcement authorities in federations also play an important role in the government’s decision to increase transparency.

Finally, the findings of this paper speak to an important and unsettled debate concerning whether China lacks the will or the capacity to enforce international agreements. The analysis of this paper suggests that China strategically chooses whether and how to enforce agreements, which suggests the importance of analyzing the strategic calculus of an authoritarian government.\textsuperscript{36}

\textsuperscript{35} Mitchell 1998; Rosendorff and Vreeland 2006.
\textsuperscript{36} Weiss and Jacobson 1998; Mertha 2005.
Charts and Tables

Chart 1: Nested Logit Model of Enrollment Choice

![Chart 1: Nested Logit Model of Enrollment Choice](image-url)
Table 2: Descriptive Statistics

<table>
<thead>
<tr>
<th>Variable</th>
<th>Obs</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>chosen</td>
<td>210</td>
<td>.3285714</td>
<td>.4708161</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>bidding*geocon</td>
<td>210</td>
<td>.1041343</td>
<td>.169759</td>
<td>0</td>
<td>.826</td>
</tr>
<tr>
<td>bidding*ccm</td>
<td>210</td>
<td>1.980952</td>
<td>3.137917</td>
<td>0</td>
<td>14</td>
</tr>
<tr>
<td>bidding*agricultur</td>
<td>210</td>
<td>.052381</td>
<td>.2233264</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>bidding*textile</td>
<td>210</td>
<td>.0619048</td>
<td>.2415583</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>bidding*chemical</td>
<td>210</td>
<td>.0857143</td>
<td>.2806106</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>bidding*transfer</td>
<td>210</td>
<td>-.0127313</td>
<td>.0306091</td>
<td>-.096</td>
<td>.175</td>
</tr>
<tr>
<td>bidding*employment</td>
<td>210</td>
<td>4.648274</td>
<td>6.74415</td>
<td>0</td>
<td>19.59894</td>
</tr>
<tr>
<td>multi*transfer</td>
<td>210</td>
<td>-.0127313</td>
<td>.0306091</td>
<td>-.096</td>
<td>.175</td>
</tr>
<tr>
<td>multi*exportshare</td>
<td>210</td>
<td>8.976238</td>
<td>20.22205</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>multi*us</td>
<td>210</td>
<td>.2285714</td>
<td>.4209159</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

Note: The data unit is 70 commodity-instrument choices (N=70*3=210) where each commodity case has three observations for the instrument choice (0-1). The independent variables are interacted with one of the three instrument choices to see how case-specific and instrument-specific characteristics interact to shape the instrument choice. See Hansen (1990) and Alvarez and Nagler (1998) for further discussion.
### Table 3: Nested Logit Model of Enforcement Choice

(Y=PR(1): Choice to Use Open Quota Bidding)

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Political Clout</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Geo Con</td>
<td>5.948</td>
<td>5.891</td>
<td>4.175</td>
</tr>
<tr>
<td></td>
<td>(2.05)*</td>
<td>(2.85)**</td>
<td>(0.89)</td>
</tr>
<tr>
<td>Employment</td>
<td>0.162</td>
<td>0.152</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(2.38)*</td>
<td>(2.08)*</td>
<td></td>
</tr>
<tr>
<td><strong>Distributive Politics</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provincial CCM</td>
<td>-0.350</td>
<td>-0.327</td>
<td>-0.415</td>
</tr>
<tr>
<td></td>
<td>(4.41)**</td>
<td>(4.16)**</td>
<td>(2.63)**</td>
</tr>
<tr>
<td>Net PC Transfer</td>
<td>-11.069</td>
<td>-10.690</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(2.98)**</td>
<td>(2.93)**</td>
<td></td>
</tr>
<tr>
<td>Geocon*CCM</td>
<td></td>
<td></td>
<td>0.321</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(0.51)</td>
</tr>
<tr>
<td><strong>Controls</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agriculture</td>
<td>-3.092</td>
<td>-2.972</td>
<td>-3.160</td>
</tr>
<tr>
<td></td>
<td>(3.55)**</td>
<td>(3.21)**</td>
<td>(3.48)**</td>
</tr>
<tr>
<td>Textile</td>
<td>-4.482</td>
<td>-3.965</td>
<td>-4.327</td>
</tr>
<tr>
<td></td>
<td>(4.21)**</td>
<td>(3.93)**</td>
<td>(4.21)**</td>
</tr>
<tr>
<td>Chemical</td>
<td>1.637</td>
<td>1.604</td>
<td>2.281</td>
</tr>
<tr>
<td></td>
<td>(1.09)</td>
<td>(1.45)</td>
<td>(0.97)</td>
</tr>
</tbody>
</table>

**First-Stage Selection: Multilateral vs. Bilateral Enforcement**

|                                | (1)          | (2)          | (3)          |
| Export Share                   | -1.120       | -1.897       | -1.387       |
| (Retaliation)                  | (1.11)       | (0.98)       | (1.05)       |
| U.S.                           | 13.663       | 22.695       | 17.667       |
|                                | (1.03)       | (0.95)       | (0.97)       |
| Geo Con                        |              |              | -10.016      |
|                                |              |              | (0.52)       |
| **ICVP**                       |              |              |              |
|                                | (1.06)       | (1.07)       | (1.16)       |
| Obs                            | 207          | 207          | 207          |
| LR chi2(10)                    | 127.59       | 128.35       | 127.83       |
| Prob > chi2                    | 0.000        | 0.000        | 0.000        |
| Log likelihood                 | -12.007      | -11.627      | -11.888      |

Note: INCV accounts for the Chinese government's perception of how likely local-level officials are to enforce VER agreements given the characteristics of a particular industry and province. If the coefficients of INCV are close to zero, substantively this means that the Chinese government chooses between the enforcement alternatives by comparing the utility of not entering the bilateral agreement (i.e., let the trading partner use anti-dumping or safeguard measure, A1) with the maximum expected utility that the government can derive from enforcing the agreement (A3). See Hansen (1990) for detailed discussion on this.
Appendix: The Size of Political Clout of Agriculture and Textile Industries

I. Hausman Test for Independent Irrelevant Alternatives (I.I.A.) Assumption

In order to justify the use of the nested logit model, I conducted the Hausman test on whether the Chinese government's choice to use open quota bidding is independent from its decisions to use other instruments (such as a discretional instrument). When the I.I.A. assumption holds with the data, then, a standard multinomial logit model can be used.

The table below summarizes the results of the Hausman test. The full model is multinomial logit estimates of the government's choice across all the three instruments (where a discretional instrument is the base category), while the partial model is the same estimate of the choice between the two instruments – open quota bidding and multilateral instruments. The test suggests that the null hypothesis (Ho=difference in coefficients are not systematic, and hence the I.I.A. assumption holds) is rejected and justifies the use of nested logit model.

<table>
<thead>
<tr>
<th></th>
<th>partial</th>
<th>all</th>
<th>Difference</th>
<th>S.E.</th>
</tr>
</thead>
<tbody>
<tr>
<td>province_ccm</td>
<td>.424431</td>
<td>-.0359765</td>
<td>.4604074</td>
<td></td>
</tr>
<tr>
<td>geocon_ccm</td>
<td>-1.013656</td>
<td>18.19064</td>
<td>-19.2043</td>
<td></td>
</tr>
<tr>
<td>ln_employment</td>
<td>.1141974</td>
<td>-5.467555</td>
<td>5.581752</td>
<td></td>
</tr>
<tr>
<td>chemical</td>
<td>.5471706</td>
<td>-46.21317</td>
<td>46.76034</td>
<td></td>
</tr>
<tr>
<td>textile</td>
<td>70.06455</td>
<td>-150.5312</td>
<td>220.5957</td>
<td></td>
</tr>
<tr>
<td>agriculture</td>
<td>-.0689269</td>
<td>-113.9692</td>
<td>113.9902</td>
<td></td>
</tr>
<tr>
<td>export share</td>
<td>1.486175</td>
<td>2.770642</td>
<td>-1.284467</td>
<td>6.27e+07</td>
</tr>
<tr>
<td>us_dummy</td>
<td>43.05419</td>
<td>-30.85656</td>
<td>73.91075</td>
<td>1.04e+09</td>
</tr>
</tbody>
</table>

\[
\text{b = consistent under Ho and Ha; obtained from mlogit}
\]

\[
\text{B = inconsistent under Ha, efficient under Ho; obtained from mlogit}
\]

Test: Ho: difference in coefficients not systematic

\[
\text{chi2}(8) = (b-B)'[(V_b-V_B)^{-1}](b-B) = 0.00
\]

Prob>chi2 = 1.0000

(V_b-V_B is not positive definite)
II. Correlations among “Political Clout” Variables and Agricultural and Textile Sector Dummies

The table below shows the pair-wise correlations among geographic concentration, employment size, provincial backgrounds of central committee members, agriculture, textile, and chemical sector dummies. The political clout variables and the two sector dummies do not correlate very highly (the highest correlation is agriculture and logged employment size at .47). Therefore, we can safely say that multi-collinearity is not a serious concern and that agriculture and textile sectors are not politically powerful industries if simply judged by their underlying economic characteristics (Ray 1981; Reinhardt and Busch 2003).

Table A-1  Pair-wise Correlations

<table>
<thead>
<tr>
<th></th>
<th>employment</th>
<th>geocon</th>
<th>province_CCM</th>
<th>Nettransfer</th>
<th>agriculture</th>
<th>textile</th>
<th>chemical</th>
</tr>
</thead>
<tbody>
<tr>
<td>employment</td>
<td>1.0000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>geocon</td>
<td>0.2848</td>
<td>1.0000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>province_CCM</td>
<td>0.1851</td>
<td>-0.0012</td>
<td>1.0000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NetPCtransfer</td>
<td>0.2349</td>
<td>0.0793</td>
<td>0.2179</td>
<td>1.0000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agriculture</td>
<td>0.4676</td>
<td>0.3266</td>
<td>-0.0310</td>
<td>0.2909</td>
<td>1.0000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>textile</td>
<td>0.0002</td>
<td>-0.1105</td>
<td>-0.1450</td>
<td>-0.3012</td>
<td>-0.2203</td>
<td>1.0000</td>
<td></td>
</tr>
<tr>
<td>chemical</td>
<td>0.0362</td>
<td>-0.0695</td>
<td>0.0727</td>
<td>-0.0273</td>
<td>-0.2710</td>
<td>-0.2710</td>
<td>1.0000</td>
</tr>
</tbody>
</table>

While assessing political power by underlying economic characteristics has its analytical advantages (e.g., it infers political power from measures that are independent from policy outcomes), we should also ask whether agriculture and textile industries are politically powerful industries due to their strategic importance for the national economy and/or security. For instance, China only exports a small fraction of its agricultural production due to the necessity to feed 1.3 billion people at home. I turn to this question below by examining “outcome” based measures of political influence.

III. Nominal and Real Protection Rates

Tariff rates are not the ideal proxies for the political clout of a given sector, because they provide only a partial picture of the levels of protection for import-competing commodities which do not take into account non-tariff barriers (Huang et al. 2008). Furthermore, the focus of this paper is not on the levels of protection for import-competing industries, but on the levels of government’s support (or “political influence”) for export-oriented commodities.37

Thus I examine nominal and real protection rates which take into account the difference between the international and domestic price (Krueger 1991; Nico van Leeuwen 2001; Kasara 2007).38

Table A-2 below shows nominal and real protection rates for various sectors in China in 1997.

37 In 1998, among 13 sectors, textiles have the highest simple average applied tariff rate while agriculture has the third highest. In 2000, agriculture has the highest tariff rate among 13 sectors while textile has the fourth (see Table 3 in Huang et al. 2008). Judging from the simple average applied tariff rates alone, thus, it is fair to say that agriculture and textiles are two of the most protected sectors in China.

38 In her study of patronage in Africa, Kasara (2007) uses a crop-level tax rates which is defined as 1 minus the Nominal Protection Coefficients (NPC) which is the ratio of the producer price to the border price adjusted for marketing and transportation costs. I tried to locate similar data for China, yet, had no luck thus far.
Positive values mean that the government supports a given sector, while negative values mean that the government taxes a given sector. Among 19 sectors, measured by the effective protection rates, agriculture has the eleventh highest level of government’s support, while textile has the ninth highest. These rank orders do not change much for the nominal protection rates. Thus, we could safely say that after mid-1990s, agricultural and textile sectors do not have a larger political influence compared to other industrial sectors such as chemical, transport equipments, and machineries.\(^{39}\) In sum, the outcome-based measures of political clout—nominal and real protection rates—suggest that agriculture and textile industries are taxed more than other sectors.

<table>
<thead>
<tr>
<th>Sector</th>
<th>Nominal</th>
<th>Effective</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>11.1</td>
<td>6.8</td>
</tr>
<tr>
<td>Coal</td>
<td>0.7</td>
<td>-16.4</td>
</tr>
<tr>
<td>Gas</td>
<td>0</td>
<td>-11.7</td>
</tr>
<tr>
<td>Oil</td>
<td>2.5</td>
<td>-7.4</td>
</tr>
<tr>
<td>Other minerals</td>
<td>8.1</td>
<td>-5.2</td>
</tr>
<tr>
<td>Food</td>
<td>31.9</td>
<td>81.5</td>
</tr>
<tr>
<td>Textiles</td>
<td>14.9</td>
<td>16</td>
</tr>
<tr>
<td>Non Metallic Minerals</td>
<td>16.6</td>
<td>19.3</td>
</tr>
<tr>
<td>Other Manufacturing</td>
<td>9</td>
<td>-7.3</td>
</tr>
<tr>
<td>Petroleum and</td>
<td>28.2</td>
<td>90.9</td>
</tr>
<tr>
<td>Chemical, Rubber, &amp; Plastic</td>
<td>34.1</td>
<td>64.6</td>
</tr>
<tr>
<td>Metals</td>
<td>26.7</td>
<td>48.9</td>
</tr>
<tr>
<td>Fabricated Metal Products</td>
<td>12.8</td>
<td>-5.8</td>
</tr>
<tr>
<td>Machinery and Equipment</td>
<td>25.2</td>
<td>33.5</td>
</tr>
<tr>
<td>Electronic Equipment</td>
<td>19.8</td>
<td>24</td>
</tr>
<tr>
<td>Transport Equipment</td>
<td>91.7</td>
<td>184.4</td>
</tr>
<tr>
<td>Transport &amp; Communication</td>
<td>0.2</td>
<td>-17.1</td>
</tr>
<tr>
<td>Trade Services</td>
<td>0</td>
<td>-16.6</td>
</tr>
<tr>
<td>Other Services</td>
<td>4.8</td>
<td>-8.4</td>
</tr>
<tr>
<td>Total</td>
<td>18.4</td>
<td>18.4</td>
</tr>
</tbody>
</table>

Source: Nico van Leeuwen (2001), Table 3.2, page 10.

\(^{39}\) Ianchovichina (2004) has demonstrated that duty drawback schemes, which are duty exemptions and rebates on imports used for the production of export commodities, are usually not taken into account for the level of government support for industries.
## Variable Descriptions

<table>
<thead>
<tr>
<th>Variable Name</th>
<th>Description</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>A dummy variable (1) for agricultural commodities, (0) otherwise</td>
<td>Author’s own dataset.</td>
</tr>
<tr>
<td>Chemical</td>
<td>A dummy variable (1) for agricultural commodities, (0) otherwise</td>
<td>Author’s own dataset.</td>
</tr>
<tr>
<td>Chosen</td>
<td>A dummy variable (1) for a chosen instrument, (0) otherwise for each of the three instruments</td>
<td>Author’s own dataset, Chad Bown’s antidumping data, and WTO’s official reports, various years.</td>
</tr>
<tr>
<td>Export share (%)</td>
<td>% of export share of a country $i$ per China’s total export values in year $t$</td>
<td><em>World Development Indicators (WDI)</em>, World Bank, Various Years.</td>
</tr>
<tr>
<td>Geo Con (%)</td>
<td>Provincial-level % variable of highest share of production or export activities for a given commodity $i$</td>
<td>Various sectoral or industry-specific statistical yearbooks in China (see the list below)</td>
</tr>
<tr>
<td>Ln_employment</td>
<td>Natural logarithm of number of employment in a sector $i$</td>
<td>Various sectoral or industry-specific statistical yearbooks in China (see the list below)</td>
</tr>
<tr>
<td>Province_CCM</td>
<td>The number of Central Committee members who established past career (past two positions) in a given province (points ranging from 3 to 14)</td>
<td>See Author (2006), Chapter 7, for details.</td>
</tr>
<tr>
<td>Textile</td>
<td>A dummy variable (1) for textile commodities, (0) otherwise</td>
<td>Author’s own dataset.</td>
</tr>
<tr>
<td>Net PC Transfer</td>
<td>Yearly data on the standard deviation from the national mean of net transfer per capita allocated from the central government to provinces</td>
<td><em>China Statistical Yearbook</em>, Various Years. Net transfer per capita is calculated as fiscal revenue minus fiscal expenditures</td>
</tr>
<tr>
<td>Us_dummy</td>
<td>A dummy variable (1) for cases involving the United States and (0) otherwise.</td>
<td>Author’s own dataset.</td>
</tr>
</tbody>
</table>
Source List for Commodity-level Data

I. Agricultural and Food Products

Statistical Yearbook of Agriculture (中国農業統計資料), various years: http://www.agri.gov.cn/sjzl/2001/34.htm

Database at National Bureau of Statistics of China:

ISI Emerging Markets Database and Industry Reports: http://site.securities.com/

Statistical Yearbook of Chinese Food Products (中国食品工業年鑑), various years.

II. Chemical Products

Statistical database of the China Chamber of Commerce of Metals Minerals and Chemicals Importers and Exporters (CCCMC):
http://cccmc.mofcom.gov.cn/aarticle/tongjiziliao/200511/20051100808786.html

ISI Emerging Markets Database and Industry Reports: http://site.securities.com/

III. Textile and Apparel, Metal & Steel, Machinery, and Other Light Manufacturing

Database at National Bureau of Statistics of China:

ISI Emerging Markets Database and Industry Reports: http://site.securities.com/
References


Ministry of Commerce (2001a) “Year 2001: List of Commodities That Are Managed by Export License (chukou xuke zheng guanli shangpin mulu).”


—— (2001c) “Method of Managing Export Commodity Quota”, 12th Order.


People’s Daily (2004) “China suffers the most in anti-dumping disputes for nine consecutive years”, People’s Daily, 26 October.


Economics.


----- (1994b) Agreement on Safeguards, Article 8: Level of Concessions and Other Obligations.


Young, O. (1979) Compliance with Public Authority. Baltimore, MD: Johns Hopkins University
