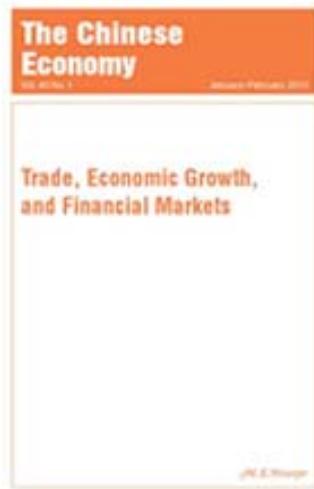


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China and the WTO: Will the Market Economy Status Make Any Difference after 2016?

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China and the WTO: Will the Market Economy Status Make Any Difference after 2016?

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China's Protocol of Accession to the World Trade Organization, signed on December 2001, allowed other country members to consider China as a Non-Market Economy (NME) until the end of 2016. The aim of this article is to answer the following question: Can the Market Economy Status (MES) Recognition be measured in its compliance? The proxy used for that compliance was the number of antidumping investigations initiated per country. The expectation is that countries recognizing Chinese MES would initiate fewer antidumping investigations than countries still treating China as a NME. This would explain why the Chinese government has been campaigning vigorously since 2001 to gain MES among its economic partners. Using count-models, we demonstrate that MES had a positive impact in reducing the number of antidumping investigations against Chinese products.

INTRODUCTION

On September 2001, during the eighteenth session of the Working Party on China—and a few weeks before China's accession to the World Trade Organization (WTO) became official—Long Yongtu, the Head of the Chinese delegation, said

Just as President Jiang Zemin pointed out recently WTO accession is a strategic decision made by the Chinese Government under economic globalization and is in line with China's reform and opening-up policy and the goal of establishing a socialist market economic system. (World Trade Organization 2013)

“Socialist market economy system” remains a complex concept as it is conceptually inherently contradictory. Within the WTO, transition economies are given Non-Market Economy (NME) status. Prior to China's accession, ten such transition economies joined the WTO (Qin 2003). In the case of China, its Protocol of Accession, signed in December 2001, allowed other country members to consider China as a NME until the end of 2016.

Even though WTO members can still treat China as a NME, some countries have already recognized China's Market Economy Status (MES). It is thus possible to compare those that

have already recognized it with those that have not in order to study that effect on trade relations. The political-economic implications of this recognition and what will change after 2016 in relation to China are two questions that this article attempts to answer. The objective of the article is to test the compliance of the recognition of China as a market economy on the number of antidumping investigations against Chinese products.

Do antidumping investigations increase or decrease, or do neither? If there is an effect, then policy implies that this effect will be extended to all WTO members after 2016. The expectation is that, because of a more transparent method for calculating normal values, countries would initiate fewer investigations than countries that recognized China's MES. That is, it is expected that countries will comply with the recognition.

Brown (2010) demonstrates that there is no *prima facie* evidence that WTO membership since 2001 has limited the incidence of China exporters facing new investigations of dumping behavior. However, there is no work up-to-date on the effect of the MES recognition on the investigations for dumping. While the entry into the WTO might have had no effect, the MES did. This is the main contribution of this article. The reason why antidumping investigations and NME are connected is found in Article VI of the General Agreement on Tariffs and Trade (GATT) and in the way dumping is calculated for NME. Without MES, calculations of Chinese products are based on the market prices of a "substitute country"—often with much higher production costs than China—as the benchmark instead of its real costs, making Chinese companies vulnerable to antidumping investigations (Shambaugh and Murphy 2013, 320).

Nonetheless, the concept of NME is disconnected from the economic system adopted by a country, and this is reflected by the fact that some NMEs are members of the WTO (Cuba, for example); some Market Economies are still nonmembers of the WTO (Monaco, for example), and some members have not been qualified as either Market Economies or NME, and, therefore, have an unclear legal status (Cattaneo and Braga 2009). The decision remains mostly political. The best example is China: it has NME status with some WTO members and, simultaneously, a MES with others.

By 2013, more than 30 countries had recognized China's Market Economy Status, including New Zealand, Nigeria, Russia, Pakistan, Venezuela, Chile, Brazil, Argentina, Australia, Peru, Antigua and Barbuda, Benin, Costa Rica, Djibouti, South Africa, Togo, Ukraine, Guyana, Armenia, Kyrgyzstan and the ten member countries of the Association of Southeast Asian Nations (ASEAN). However, neither the European Union¹ nor the United States has granted MES to China yet.

The memorandums of recognition of Chinese MES are nonregulated agreements, which lack controlling institutions and depend on the goodwill of the parties. The risk of cheating is high because punishment is inexistence. Theoretically, the deeper an agreement is, the greater the punishments required to maintain compliance in mixed motive games (Downs, Rocke, and Barsboom 1996). However, as Keohane mentions, "among international organizations, the WTO stands out as having quite authoritative and precise rules and a relatively good record of eventual compliance with those rules by governments. So far, through diplomatic finesse and compromise the WTO has avoided outright refusals" (2002, 227).

Furthermore, China, in regard to the WTO since 2001, bolsters legitimacy to the memorandums because they are based on China's Protocol of Accession to the organization. Recognizing

China as a market economy within the WTO would act as a seal of approval. Institutions can create regularized expectations of members' future behavior and, therefore, promote more stable patterns of behavior among members (Prime 2006; Gray 2009). To expect a measurable effect in the compliance of the MES recognition is then possible through the antidumping investigations.

The structure of this article is as follows: First, a concise justification of the study is offered before moving into the literature discussion where the paper makes its contribution. The review of the literature is divided into two areas: that which studies China-WTO negotiations before 2001, and that which studies the content of China's Accession Protocol and the MES within the WTO. Following, the article addresses what a NME is and what it implies to be a NME within the WTO. From this discussion, the main hypotheses of the paper arise. Subsequently, the model's definition and the methodology employed to measure the recognition of China as a market economy on the antidumping investigations are presented. Then, the results are presented and the cases of Argentina and Brazil are highlighted as outliers in the findings. Finally, some concluding remarks are provided.

CHINA'S ENTRY INTO THE WTO AND ITS MES

The literature on China's entry into the WTO is extensive and has generated more than 20,000 scholarly contributions (Cattaneo and Braga 2009). It can be divided into two areas: one that addresses the historical evolution of the relationship between the GATT and WTO with China, and one that analyzes the content of China's Accession Protocol and the MES within the WTO. The latter area is the most relevant for this article and where it makes its contribution. This section will briefly review both subsections before delving into the MES implications for the Chinese economy.

Historical Evolution of the Relationship Between GATT and the WTO with China

The 15 years of negotiations between China and the WTO have been studied in depth, and there is a rich literature about this period. It is also necessary to mention that the history of China's WTO has its background in the GATT, of which it was a founding member (Cross 2004). Bhala (1999) and Cross (2004) point out that it is necessary to go back to 1948 to understand truly this complex history during which profound changes happened within the bosom of China.

Table 1 summarizes the main historical facts discussed by the authors. China was a contracting party of GATT in 1948, but left the agreement two years later due to the Communist Revolution. Together with Taiwan's split, the Chinese Revolution was the main historical reason why this complex process took so many years. Furthermore, we can identify two more reasons for this complex process.

The second reason concerns the different positions existing within domestic politics in China. The Communist Party has no choice but to assume certain obligations and make specific commitments in order to become part of the GATT-WTO regime, which led to heated negotiations among its members. The Chinese transition from a communist to a market economy and

TABLE 1
Historical Evolution of the Relationship Between GATT and WTO with China

<i>Year</i>	<i>Event</i>
1948	GATT goes into effect (China is a contracting party)
1950	China withdraws from GATT
1965	Taiwan joins GATT as a nonvoting observer
1971	China becomes a full member of the General Assembly and permanent member of the Security Council GATT revokes Taiwan's observer status
1982	China granted observer status in GATT
1986	China notifies GATT of intent to renegotiate terms of membership Hong Kong becomes a GATT contracting party
1987	Working party on China's membership to GATT established
1989	Discussions of China's membership suspended until 1992 due to Tiananmen crisis
1992	Working party on Taiwan's accession established
1994	Uruguay round of trade negotiations completed (China is signatory)
1995	WTO enters into force; China applies for accession to WTO
1999	United States and China sign bilateral agreement on China's Accession
2000	U.S. Congress passes Permanent Normal Trade Relations (PNTR) legislation EU and China sign a bilateral agreement on China's accession
2001	China's accession to WTO becomes effective (Taiwan joins shortly thereafter)

Source: Bhala (1999) and Halverson (2004).

the—often repeated—oxymoronic declaration by the elder leaders of the Communist Party that China was a “socialist market economy” complicated the entry process.

The third reason that complicated the negotiations was whether China would gain admission as a developing or developed country. The United States insisted that China join the WTO as a developed country, which implicated heavier concessions from China. After 15 years of negotiations, by the end of the millennium the proaccession forces in the Chinese government gained the domestic battle by arguing that the advantages of membership would outweigh the disadvantages (Yinqing and Gang 2000). The bilateral agreement with the United States and the European Union in 1999 and 2000, respectively, routed the long awaited entry of China into the WTO, which was finalized in December 2001.

The literature emphasizes that the history of China's accession into the WTO is marked by comings and goings (Bhala 1999; Halverson 2004; Cattaneo and Braga 2009; Brown 2010). As Bhala (1999) put it, the story itself is an epic saga, and no country seeking WTO membership—not even Saudi Arabia (which acceded in December 2005 after ten years of negotiations), Iran (which submitted its application in July 1996 and has not acceded yet), and Russia (which acceded in August 2012 after 19 years of negotiations)—could possibly raise a more complex array of issues than China.²

Similarly, Cattaneo and Braga (2009) point out that it took China more than fifteen years to complete the process, compared to less than three years for the Kyrgyz Republic, which is also a NME. The China accession protocol consisted of a main text of 11 pages and 143 paragraphs incorporated by reference from the 77 pages Working Party Report, compared to a main text of no more than 2 pages of standardized provisions for accession protocols of some other countries.

Content of China's Accession Protocol and the Market Economy Status within the WTO

As mentioned before, this second area of the literature is the most relevant to this work. These articles, which deal with the accession protocol, study in detail the treatment of China as a NME and the provisions regarding the use of antidumping measures against Chinese products. Within the literature in this area Qin (2003), Cattaneo and Braga (2009), Zang (2011), and Tietje and Nowrot (2011) stand out.

China's Protocol of Accession to the WTO, signed in December 2001, permitted other country members to consider China as a NME until the end of 2016. By the beginning of 2013, more than 30 countries had recognized China's MES, but neither the European Union nor the United States has granted MES to China yet, and both apply the so-called surrogate or analogue country method to establish dumping, relying on price or production data from third countries (Zang 2011). Unlike any other WTO protocol of accession, "the China Protocol is not a standardized document. Instead, it contains a large number of special provisions that elaborate, expand, modify or derivate from the existing WTO agreements" (Qin 2003, 489).

Qin (2003) focuses on a set of special provisions of the China Protocol: those that prescribe obligations exceeding the existing requirements of the WTO agreements, which she calls "WTO-plus" obligations. The major WTO-plus obligations undertaken by the Chinese government concern the following areas:

1. transparency,
2. judicial review,
3. uniform administration,
4. national treatment,
5. foreign investment,
6. market economy, and
7. transitional review.

The most significant of these include the obligation to let market forces determine prices in China, obligations not to influence state-owned and state-invested enterprises, and obligations to liberalize foreign the trade regime.

Section 9 of the China Protocol prescribes an overall market economy obligation for China: the obligation to "allow prices for traded goods and services in *every sector* to be determined by market forces except for those specified in Annex 4 of the Protocol (emphasis added)" (Qin 2003, 505). It has been historically a major challenge for the system to integrate centrally planned economies as the multilateral trading system is constructed with market economy assumptions. "The problem of integrating NMEs into the system has been largely abated in the post-cold war era when most of the former centrally planned economies began transforming into market economies" (Qin 2003, 504).

The problem, according to the literature, lies in how to incorporate NMEs in respect to market principles of WTO treaties. Cattaneo and Braga (2009) argue that the accession process has created a "two-tier" membership or a "second class" of WTO citizens, and the interpretation of accession protocols has created a whole new branch of WTO law and jurisprudence. As Zang (2011) explains, China argued that Section 15 of the Accession Protocol does not contain

“an official recognition by China” that it is an NME, but only a temporary and limited derogation from the rules in the Anti-Dumping Agreement on the determination of normal value in antidumping investigations initiated with respect to imports from China. When going through the body of the Anti-Dumping Agreement it is clear that Section 15 of the Accession Protocol is the major WTO authority for the special treatment toward China in the antidumping proceedings. Indeed, the Appellate Body of the WTO interpreted Section 15 of China’s Accession Protocol to clarify a contention with the European Union affirming that Section 15 does not authorize WTO members to treat China differently from other members except for the determination of price comparability in respect to domestic prices and costs in China, which relates to the determination of normal value (Zang 2011, 877).

Paragraphs 15(a) and (d) exclusively concern the determination of normal value. While paragraph (a) contains special rules of determination of normal value in the antidumping investigation involving China, paragraph 15(d), in turn, establishes that these special rules will expire in 2016 and sets out certain conditions that may lead to early termination of these rules before 2016. For lawyers and governmental officials dealing with antidumping laws and practices, December 11, 2016, is certainly not a myth—it is reality.

From that date onward, it will be almost impossible—at least from the perspective of WTO law—to make a determination of the normal value of products targeted by an antidumping proceeding on the bases of analogous third country methodology (Tietje and Nowrot 2011). This method is “extremely unfavorable for Chinese exports because the choice of a surrogate country is often perceived as arbitrary or inappropriate, and the resulting antidumping duties tend to be exceedingly high” (International Bar Association 2010, 5). As a consequence, the Chinese government has been campaigning vigorously among its trading partners to gain MES before 2016.

NME STATUS AND ITS IMPACT ON ANTIDUMPING INVESTIGATIONS

The general issue of the NME status has been addressed substantially by Polouektov (2002), Qin (2003), and Shao (2008). Furthermore, Alford (1987), Zhao and Wang (2009), Cattaneo and Braga (2009), Brown (2010), and Tietje and Nowrot (2011) have addressed the particular case of Chinese NME status.

Polouektov addresses the case of Poland for being the first *orthodox* centrally planned economy to become a GATT contracting party in 1967, followed by Romania in 1971 and Hungary in 1973. After the collapse of the Soviet Union in 1991, former satellites moved from centrally planned to market economies, formally becoming transition economies. In the immediate years after the WTO came into being, ten more transition economies became members recognizing special treatment in their protocols of accession³ (Polouektov 2002; Cattaneo and Braga 2009).

How are the concepts of NME and antidumping investigations connected? The NME issue has its roots in paragraph 1 of the antidumping Article VI of GATT 1994:

It is recognized that, in the case of imports from a country which has a complete or substantially complete monopoly of its trade and where all domestic prices are fixed by the State, special difficulties may exist in determining price comparability for the purposes of paragraph 1, and in such cases importing contracting parties may find it necessary to take into account the possibility

that a strict comparison with domestic prices in such a country may not always be appropriate. (Article VI of GATT 1994)

Through this provision, WTO members explicitly recognize that NME countries may need to be treated differently than market economies in antidumping cases.

The Anti-Dumping Agreement narrows the range of possible options for calculating whether a particular product is being dumped (World Trade Organization 2012) providing three methods to calculate a product's "normal value" (Article VI of GATT 1994.)

1. The main method is based on the price in the exporter's domestic market. When it cannot be used (this is the case for NMEs), two alternatives are available:
2. the price charged by the exporter in another country or
3. a calculation based on the combination of the exporter's production costs, other expenses, and normal profit margins.

Thus, the consequences of not being granted MES would have a big impact on the investigation for dumping. For example, if China is accused of dumping car tires, the basic approach is to consider the price of car tires in China against the price of Chinese car tires in Europe. Because China does not have MES, Chinese domestic prices cannot be used as a reference. Instead, the initiator would use an analogue market: one that does have market economy status and is similar enough to China. The United States is a popular analogue market, and for China sometimes Brazil and Mexico are also used. In this case, the price of car tires in the United States is regarded as the substitute for the price of car tires in China, which, of course, is detrimental to China where the cost of labor is much lower.

China has allowed, through its protocol of accession, that WTO members may pursue a NME approach to the calculation of normal value and dumping margins, and of course, this method would not be used any longer if China was considered a market economy. It can be expected, thus, that recognizing Chinese MES would reduce the amount of antidumping measures initiated against this country.

This article asks whether the recognition of Chinese MES by some countries has had any effect in new investigations of dumping behavior, using the latter as a *proxy* of the compliance with this recognition. To date, there is no work that has answered this question. The main hypothesis of this work (**H₁**) is that, even though the WTO accession by China has not led to a reduction in the use of antidumping measures (Brown 2010), recognition of market economy itself has had a positive effect in reducing measures against China.

Messerlin (2004) and Brown (2010) highlight that most of antidumping investigations and measures imposed are initiated by the so-called four major traditional users (Australia, Canada, EU, and U.S.) and from six new intensive antidumping users, which are developing economies (Argentina, Brazil, India, Mexico, South Africa, and Turkey). Both authors conclude that China is targeted much more by developing economies than by industrial countries. The ten most intensive antidumping users contributed 83 percent of the new investigations and 68 percent of the new measures imposed even as the total antidumping use by WTO members continues to grow, especially with the emergence of China itself as a major new user (Brown 2010, 8). Comparing the aggregated data of antidumping use against China during its preaccession (1995–2001) versus postaccession (2002–2006) period, Brown (2010) concludes that there is no *prima facie* evidence that WTO membership has thus far limited the incidences of China exporters facing new investigations of dumping behavior.

According to Polouektov, differential treatment generates contradictions of the principle of nondiscrimination in the WTO. The preservation in the present circumstances of the long-outdated NME concept constitutes an intentional disregard for world realities, which risks bringing back a second class membership and further erosion of the fundamentals of the multilateral trade framework. In contravention of the obligations under the WTO, a number of members retained (were *grandfathered* into) or adopted a new NME concept, thus deviating from the language of the Uruguay Round Anti-Dumping Agreement (Polouektov 2002, 3).

EMPIRICAL ANALYSES

This article tests the hypothesis that the recognition of China as a market economy had a negative impact on the number of antidumping investigations initiated against Chinese products by countries that had previously recognized China. To control the effect of the MES recognition on the use of antidumping investigations in the statistical model, it tests two additional hypotheses: (**H₂**) The higher the share of Chinese imports in local market, the better the chances of initiating an antidumping investigation against a Chinese product; and (**H₃**) the more open to trade a country is, the worse the chances of using antidumping measures. Table 2 presents the three hypotheses tested and the expected effect of the variable chosen to operationalize each hypothesis. The three independent variables to test the three hypotheses are

1. Recognition of Chinese MES,
2. Share of Chinese imports to total imports, and
3. Trade openness.

Data Sources

The statistic data used to build the three independent variables were taken from four databases:

1. Global Antidumping Database (GAD), which is part of the Temporary Trade Barriers Database (TTBD) World Bank and led by Chad P. Brown (2007);
2. UNCTAD Trade Map-International Trade Centre UNCTAD/WTO (ITC);

TABLE 2
Hypotheses and Independent Variables in the Model

<i>Independent variables</i>	<i>Type</i>	<i>Expected effect on the dependent variable</i>	<i>Hypotheses</i>
Recognition of Chinese market economy status	Dummy (0, 1)	Negative (-)	H₁ : Recognizing China as a market economy has a negative impact on the number of AD investigations initiated against Chinese products.
Share of Chinese imports to total imports _(t-1)	Continuous [0 - 1]	Positive (+)	H₂ : The higher the share of Chinese imports in local market, the better the chances of initiating an AD measure against a chinese product.
Openness index	Continuous [0 - ∞)	Negative (-)	H₃ : The more open a country is, the worse the chances of using antidumping measures.

Source: Elaborated by the authors.

3. UN Comtrade; and
4. World Bank World Development Indicators.

GAD has been freely and publicly available since 2005. It hosts detailed data on more than thirty different national governments' use of policies such as antidumping, global safeguards, China-specific transitional safeguard measures, and countervailing duties. The authors considered the 31 countries available in the GAD Database, using all the antidumping measures initiated by China per year. As can be seen in Table 3, not every country in the database recognizes Chinese MES.

The UN Comtrade database was used to build the share of Chinese imports on total imports. The index was calculated with a lag of one year to take into account the assumption that a country will have a greater propensity to protect its domestic market using antidumping measures when in previous years imports from China increased considerably.

TABLE 3
Countries Considered in this Article

<i>Country</i>	<i>Available data</i>	<i># of AD investigations against China</i>	<i>Recognized Chinese MES (year)</i>
Argentina	1993–2011	79	2004
Australia	1989–2011	29	2005
Brazil	1988–2011	59	2004
Canada	1985–2011	35	–
Chile	1995–2011	1	2002
Colombia	1991–2011	27	–
Costa Rica	1996–2011	–	2008
European UNION	1978–2011	143	–
India	1992–2011	147	–
Indonesia	1996–2011	12	2004
Israel	1991–2011	7	–
Jamaica	2000–2011	1	2005
Japan	1991–2011	2	–
Malaysia	1995–2011	1	2004
Mexico	1987–2011	52	–
New Zealand	1995–2011	8	2004
Pakistan	2002–2011	10	2004
Paraguay	1999–2011	–	–
Peru	1992–2011	56	2004
Philippines	1994–2011	3	2004
Poland ¹	1995–2011	2	–
South Africa	1992–2011	46	2004
South Korea	1986–2011	27	2005
Taiwan	1984–2011	6	–
Thailand	1996–2011	14	2004
Trinidad and Tobago	1997–2011	2	–
Turkey	1989–2011	28	–
Ukraine	1995–2011	6	–
United States	1980–2011	165	–
Uruguay	1997–2011	–	–
Venezuela	1992–2011	3	2004

Source: Elaborated by the authors. ¹Poland is also included in the European Union after 2004.

Three units of analysis deserve a special note. Data for Taiwan is not available in the UN Comtrade; thus, Trademap was used instead. Data for South Africa was not complete; the index was built using data from its Department of Trade and Industry. Finally, data from the European Union was built in accordance to its expansions in 1981, 1986, 1990, 1995, 2004, and 2007. Therefore, Poland is considered as a unit before 2004. WTO statistics were used to take data on EU imports from the world.

World Bank development indicators provided information on trade openness, which is calculated as the sum of exports and imports of goods and services measured as a share of gross domestic product. Behind this variable is the assumption that more open countries tend to be less protective of their domestic industries.

The baseline model of this work can be summarized as

$$\begin{aligned} \#AD \text{ investigations against China} = & \beta_0 + \beta_1 \text{MES Recognition} \\ & + \beta_2^{\text{Imports from China/Total Imports}(t-1)} + \beta_3 \text{Trade (\% of GDP)} + \varepsilon_i \end{aligned}$$

Data Analysis and Model Specification

This section analyzes the data and afterward tests which regression model best fits the research problem. The base model is simple and has only three independent variables to avoid overly confusing results and collinearity among explanatory factors. As the relationship between the dependent and independent variables is nonlinear, an OLS model does not seem to be the best alternative. Another problem has to do with the assumption of homoscedasticity within the model. The best model would be the one that considers how many times our dependent variable happened so a count model will fit the model better than OLS.

Gary King (1989) recognized that most empirical analyses in international relations are based on event count variables. Unfortunately, with few exceptions, scholars in international relations have neither designed nor exploited such methods. The most frequently used statistical model in this area, linear regression, makes the incorrect assumption that underlying continuous processes generate observations that are also continuous (King 1989, 124).

In a previous paper, (King 1988) explains these caveats:

[T]here are several serious problems in using event count data with the OLS model. First, OLS assumes a linear relationship, $E(y | X) = \alpha_0 + \alpha_1 X_1 + \alpha_2 X_2 + \dots$. This is an implausible functional form for two reasons: (1) it often results in predicted event counts that are less than zero and therefore meaningless. Moreover, a “truncated linear” model, where negative fitted values are forced to zero, makes unrealistic assumptions at and near the cutoff point. Furthermore, (2) it makes the unrealistic assumption that the difference between zero and one event occurring in a particular time interval is the same as the difference between, say, 20 and 21 events. Thus, the true relationship is not linear, and a linear approximation would not in most cases even be a reasonable working assumption. (King 1988, 845)

Since this work deals with a cross-sectional instead of a times-series method, it is working under the assumption that each year of the sample is independent from the others. The principle of independence holds that “the probability of an event occurring at time $t + 1$, given what has occurred up to time t , is independent of all previous history within a single observation period” (King 1989, 127). Under the independence principle, antidumping investigations are not

contagious, that is, the occurrence of an antidumping measure does not increase the probability of future antidumping investigations. As they are initiated by private actors (companies, or chambers) it is not a mistake to retain this assumption.

Most of the years had one antidumping investigation against a Chinese product. The database omits years when there were no measures, so the database has no zeros. A useful place to begin is comparing predicted and observed values (Long 1997). The listed values in Table 4 are the observed and predicted probabilities for observing a country with zero through nine antidumping investigations in a given year.

The probabilities above show that the fitted Poisson distribution overpredicts 0s and underpredicts count 1. This pattern of over- and underprediction is characteristic of fitting a count model that does not take into account *heterogeneity* among sample members in their rate μ (Long and Freese 2006). In order to choose the best fit count model, two questions need to be answered: 1) How is the outcome variable distributed? (How does the variance compare to the mean?) and (2) Does the outcome variable contain zeroes? If not, why?

Count variables indicate how many times something has happened. Poisson Regression (PRM), the most common count model, works with a very strong assumption that the conditional variance equals the conditional mean. If this is not the case, the Negative Binomial Regression (NBRM) can be used for overdispersed count data, that is, when the conditional variance exceeds the conditional mean. If the data generating process does not allow for any zeroes, then a zero-truncated model (ZTPM) may be more appropriate.

It is necessary to test dispersion in the sample to observe whether Poisson Regression or NBRM is a better fit. As the database omits all the zeros—that is, it has no information when there are no antidumping investigations against a Chinese product—a truncated model probably is the best model to be used. Table 5 summarizes the count models tested in this section. Whether to know either if PRM or NBRM works better, several tests were run.

First, the observed variable together with PRM and NBRM was plotted. As a second test, the model residuals for PRM and NBRM were compared. Third, the Pearson Chi-Square statistics for both PRM and NBRM were compared. The three tests have offered strong evidence for preferring NBRM over a PRM.

Table 6 is a summary of the regression results for all the possible models. As can be seen, all of them have similar coefficients (except for OLS, which was included to show its bias), and high statistical significance. Zero-truncated Negative Binomial Regression (ZTNBM) is the count model that shows the higher coefficients and the lower z values. Among the four count models, ZTNBM showed the best fit.

The graphical representation of the fitted values against each of the control variables shows that countries that recognized China as MES reduced the number of antidumping

TABLE 4
Observed and Predicted Probabilities

Value	0	1	2	3	4	5	6	7	8	9
Observed	0	0.375	0.1654	0.1213	0.0772	0.0625	0.0588	0.0257	0.022	0.0183
Predicted	0.5311	0.129	0.1819	0.1891	0.1594	0.1153	0.0743	0.0441	0.0246	0.0133

Source: Elaborated by the authors.

TABLE 5
 Characteristics of the Count Models Considered in the Statistical Test

Poisson regression	It has a very strong assumption, that is, the conditional variance equals the conditional mean. Data appropriate for the Poisson regression do not occur very often. Nevertheless, the Poisson regression is often used as a starting point for modeling count data, and the Poisson regression has many extensions.
Negative binomial regression	Negative binomial regression can be used for overdispersed count data, that is when the conditional variance exceeds the conditional mean. It can be considered as a generalization of the Poisson regression since it has the same mean structure as the Poisson regression and it has an extra parameter to model the overdispersion.
Zero-truncated Poisson regression	If the data generating process does not allow for any zeroes, then a zero-truncated model may be more appropriate.
Zero-truncated negative binomial regression	A zero-truncated negative binomial regression is used to model count data for which the value zero cannot occur and for which the conditional means are not equal to the conditional variances. That is, the data exhibit overdispersion.

Source: (UCLA, 2012b).

investigations, as can be observed in Figure 1 showing the fitted values against each of the control variables.

The observed values for the countries that have recognized China as a Market Economy show that they have remained below five annual investigations, with the exception of Argentina and Brazil during two years each. Figure 2 shows this finding. The explanation for such behavior is discussed in the next section.

In order to proceed to interpreting the coefficients of the independent variables, a percentage change in the expected count is used. The percent change coefficients for MES

TABLE 6
 Regression Results

<i>Dependent variable: number of AD investigations per year</i>	(1)	(2)	(3)	(4)	(5)
	<i>OLS</i>	<i>PRM</i>	<i>NBRM</i>	<i>ZTPRM</i>	<i>ZTNBM</i>
<i>Independent variables</i>	<i>Coefficient t-statistic</i>	<i>Coefficient t-statistic</i>	<i>Coefficient t-statistic</i>	<i>Coefficient [t-statistic]</i>	<i>Coefficient t-statistic</i>
Recognition of Chinese Market Economy Status	-2.12*** (-3.66)	-0.59*** (-6.14)	-0.58*** (-4.09)	-0.68*** (-6.38)	-0.86*** (-3.59)
Share of imports from China to total imports (t-1)	19.92*** -4.07	5.02*** -7.35	5.33*** -4.58	5.59*** -7.86	8.30*** -3.95
Openness index	-0.03*** (-4.13)	-0.01*** (-7.36)	-0.01*** (-5.18)	-0.01*** (-7.90)	-0.02*** (-4.95)
Constant	4.22*** -8.74	1.54*** -18.94	1.50*** -12.61	1.58*** -17.91	1.16*** -4.84
Lalpha Constant			-1.03*** (-7.04)		0.43 -1.33
Number of observations	272	272	272	272	272

Source: Elaborated by the authors.

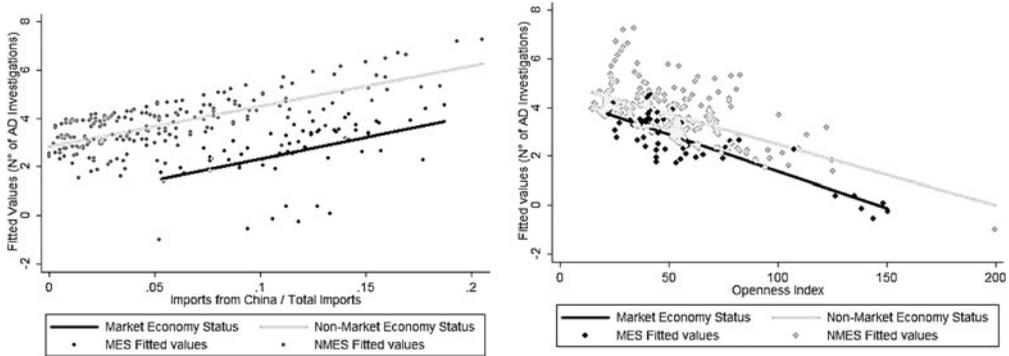


FIGURE 1 Fitted values (N° of AD investigations) for countries that recognized China’s MES

recognition, the share of imports from China to total imports, and the Openness Index can be read as

1. Being a country that recognized China’s MES decreases the expected number of antidumping investigations initiated per year by 57.8 percent, holding all other variables constant. Excluding Argentina and Brazil in the analysis, the percent is 78.5 percent.
2. For a standard deviation increase in the relative weight of imports from China over world imports, a country’s number of antidumping investigations initiated against Chinese products increases by 51 percent, holding all other variables constant.
3. For a standard deviation increase in the Openness Index, a country’s number of antidumping investigations initiated against Chinese products decreases by 38.4 percent, holding all other variables constant.

Table 7 summarizes the effect found on the independent variables over the dependent variable, contrasted with the expected effect predicted by the hypotheses.

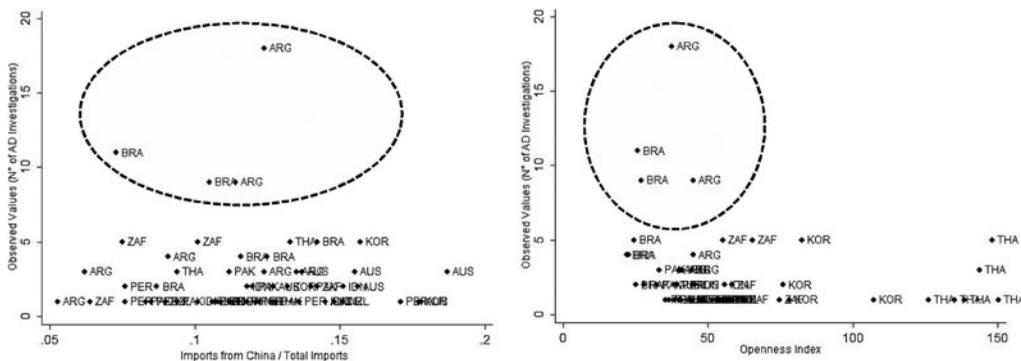


FIGURE 2 Observed antidumping investigations for countries that recognize China’s MES

TABLE 7
Comparison of the Observed Effects and the Expected Effects

Variable	Observed effect	Expected effect
Recognition of Chinese Market Economy status	Negative (–)	Negative (–)
Share of imports from China to total imports $_{(t-1)}$	Positive (+)	Positive (+)
Openness index	Negative (–)	Negative (–)

Source: Elaborated by the authors.

CASE STUDIES: ARGENTINA AND BRAZIL

During Hu Jintao's visit to South America in 2004, Argentina and China signed a Memorandum of Understanding—*Memorando de entendimiento entre la República Argentina y la República Popular China sobre cooperación en materia de comercio e inversiones*—that recognized China as a Market Economy in its first article. Brazil did the same in a very similar Memorandum—*Memorando de entendimiento entre a República Federativa do Brasil e a República Popular da China sobre cooperação em matéria de comércio e investimento*—three days later.

Argentina and Brazil, which are among the top ten antidumping users in the world, together have applied 88 investigations against Chinese products between 2001 and 2010. Their antidumping investigations did not decrease after signing the Memorandums of Understanding, as can be seen in Figure 3.

Deepening discussions into these two cases exceed this article's objective. However, speculative reasons can be considered. A first possible reason for this noncompliance is related to the role played by their national congresses. Brazil never actually declared China to be a Market Economy in its domestic law, as it did with the Ukraine in 2007 and a number of Central and Eastern European and Baltic countries in 2008 (International Bar Association 2010, 26). The same situation arises in Argentina, where the National Congress never ratified this agreement. In antidumping proceedings, China is still treated as an NME for domestic law.

A second possible reason is related to the role played by powerful interest groups. Domestic industrial groups—the Federation of Industries of São Paulo (FIESP) in Brazil and the

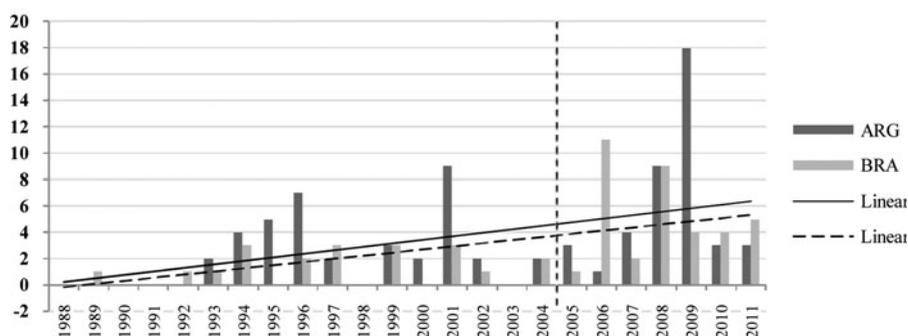


FIGURE 3 Number of antidumping investigations initiated per year against Chinese products. Source: Elaborated by the authors with data from the Global Antidumping Database

Argentine Industrial Union (UIA) in Argentina—strongly opposed the recognition of the Chinese MES because of the fear of an *invasion* of Chinese products. Domestic actors can sometimes limit the state's capacity. Theoretically, the entanglement of internal factors and international factors is well established by the theory of James Rosenau (1997) and developed previously by Robert Putnam's theory (1988). How do internal factors influence the decision of foreign policy and vice versa? What is the link between national and international affairs? These questions were answered using the concept of intermestic processes.

Furthermore, the antidumping measures by industry correspond with some of the most vulnerable sectors in each of the countries, in terms of their Revealed Comparative Advantages. Between 2000 and 2011, Brazil initiated 16 out of 35 antidumping investigations on the manufacturing sector. Argentina initiated 27 out of 51 antidumping investigations on the IT sector and in the manufacturing sector.⁴

It is possible that the key to understanding the noncompliance of the memorandums is related to the local industry fear of a perceived *invasion* of Chinese products. Numerous articles consider China either a huge opportunity or a scary threat for Latin American countries, but most of them assume that China is both a huge opportunity and a big threat (Freitas Barbosa 2011; Manríquez 2006; Blázquez-Lidoy and Rodríguez 2006; and Mesquita Moreira 2006). This is the case for Argentina and Brazil, which benefit from exporting to the huge Chinese market, but feel threatened by the Chinese imports that result.

A thorough comparative analysis needs to be done on these two particular cases. They will be a matter of future research, focusing on empirical studies of the speculative arguments here provided and comparing them with countries that have reduced their antidumping investigations after recognizing the MES.

CONCLUSION

The aim of this article was to answer the following question: Can the Market Economy Status (MES) Recognition be measured in its compliance? The *proxy* used for that compliance was the number of antidumping investigations initiated per country. The expectation was that, because of a more transparent method for calculating normal values, countries recognizing Chinese MES would initiate fewer antidumping investigations than countries still treating China as a NME. This would explain why the Chinese government has been campaigning vigorously since 2001 to gain MES among its economic partners.

This article showed that 14 out of 16 countries in the sample that recognized Chinese MES have reduced their antidumping investigations thereafter. Being a country that recognized China's MES decreases the expected number of antidumping investigations initiated per year by 57.8 percent, holding all other variables constant. Excluding Argentina and Brazil in the analysis, the percent is 78.5 percent. The model controlled for the relevance that China has in each country's imports and for the economic openness of each country.

The implications of China's entry into the WTO have been widely studied (see, for example, Yinqing and Gang 2000; Yanfen 2000; Rong 2001; and Fung, Pei, and Zhang 2006). However, the effect of the MES recognition has been put aside by the academic community. The policy implications of this article are relevant for three main reasons.

First, since 2009, China has emerged as the largest exporting nation in the world. It is expected to surpass the United States as the largest importer by 2014, which will turn it into the single most important global trading actor.

Second, China is the largest target of antidumping investigations in the world. The fact that China is the largest exporter is highly correlated with this fact. However, in our model, we have controlled for each country's share of imports from China to total imports. We still found a positive bias to initiate antidumping investigations against Chinese products. We demonstrate that there is a differentiated treatment between those countries that treat China as a NME and those who does not. This finding suggests that China's NME status is highly correlated to larger antidumping investigations. Thus, as the deadline of the Protocol of Accession to WTO for recognizing the Chinese Market Status is December 2016, we expect a gradual decrease in the antidumping investigations against Chinese products from 2017 onwards.

Third, the Argentina and Brazil cases demonstrated that there can be noncompliance of the MES even after 2016, and the Chinese government seems to be aware of this situation. The Chinese government has repeatedly expressed its concern in several MOFCOM Foreign Market Access Reports.⁵ For example, in its 2010 version it expressed that

Argentina officially recognized China's status of market economy, announcing the end of discriminatory measures against Chinese import. However, Argentina fails to live up to its announcement in its practice by continuing to use the surrogate price of a third country in determining values, which greatly frustrated Chinese exporters. (MOFCOM 2010a)

Furthermore

Brazil still treats China as a non-market economy according to Decree No. 1602 issued in 1995, and uses the export price of a third country as the basis to determine the normal price of Chinese products. Brazil has not amended its relevant laws and regulations regarding China's MES, neither has Brazil rectified its mistakes in imposing anti-dumping measures against China, all of which has led to material injury to the legitimate interests of Chinese exporters. (MOFCOM 2010b).

This is the first article that analyzes any policy implication of the MES recognition within the WTO. Future works will delve more deeply into the cases of those countries that have not complied with the memorandums of MES recognition to explore the role of domestic actors, such as industrial lobbies. Furthermore, the econometric model should be improved in future articles, including the temporal dimension to work with panel models and adding more countries to the sample. Due to missing data, this article offers a first approach to the matter. It sets an agenda to follow closely the antidumping investigations initiated by countries that have recognized China's MES. Interesting results will be derived after 2016 when we expect to measure the effect of the deadline of the Protocol of Accession in further research articles.

NOTES

1. Shambaugh and Murphy (2013) mention that "So anxious is Beijing to win MES from the European Union that Premier Wen Jiabao argued during a visit to Europe in September 2011 that China's willingness to buy European debt to help stabilize European economies mired in the sovereign debt crisis was contingent on China being granted MES by the EU" (320).

2. For an interesting comparison of the Chinese and the Russian cases, see Yin (2009).
3. Mongolia, Bulgaria, the Kyrgyz Republic, Latvia, Estonia, Albania, Croatia, Georgia, Lithuania, and Moldova.
4. Based on available data from the Global Antidumping Database.
5. Available at <http://english.mofcom.gov.cn>

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