

Granting Market Economy Status to China in the EU: An Economic Impact Assessment

Appendix¹

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1 Data

To summarize existing and past practices, we rely upon the Global Antidumping Database (GAD) put together by the World Bank (Bown, 2015), completed as needed by detailed information published by the European Commission on each investigation. All antidumping investigations initiated between 1988 and the end of 2015 are taken into account. Over this period, the Global Antidumping database covers 779 European antidumping cases (one case being here the combination of one trading partner and one product as described in the Initiation notice published by the European Union). We do not consider cases against former USSR countries initiated before 1991 nor cases against countries that became members of the EU, since these cases may have been influenced by this specific background in a way we are not able to control. We finally work on 682 cases.

We report that by the end of 2015, 87 anti-dumping measures were in force in the European Union, affecting 378 tariff lines and targeting 16 trading partners. These numbers, obtained with the GAD database, are in line with those published by the European Union. They do not consider cases initiated in 2015 or before for which the preliminary decision was unknown by the end of 2015. In our statistics, we consider in addition cases initiated by December 2015 and for which preliminary decision is known in June 2016 (5 cases). We disregard cases for which investigation leading to the preliminary decision is still ongoing (8 cases). This leads to 92 active cases in 2015.

Yearly European data are taken from Eurostat. Trade data, from Comext, are at the tariff line level (8 digit Combined Nomenclature) are taken from Eurostat (Comext), for the period 1988 – 2015. To estimate initiation and gain probabilities, production and employment data are taken, respectively from Prodcom and from the Labour Force Survey (tables *lfsa_egdn22d* and *lfsa_egana2d*), for the period 1995 – 2014. Labour data are available in the NACE nomenclature and the nomenclature used in Prodcom is based on the NACE one. Based on yearly correspondence tables between Prodcom and CN available on Eurostat's metadata server, we rebuild a new correspondence grouping all the connected Prodcom and CN codes since we cannot deal with single CN codes connected to multiple Prodcom codes. Since combined Nomenclature is revised every year, data are treated in order to avoid breaks in the nomenclature over the period considered. Employment is then allocated to each PRODCOM line proportionally to the value of production.

Data are further treated to be used in the event study. In particular, trade flows smaller than 100k€ are disregarded; unit values which are 2.7 (or more) times larger (smaller) than the unit value in the preceding year and 2.7 (or more) times larger (smaller) than the unit value in following year are

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considered as outliers; trends leading to an yearly increase by more than 50% in unit values are considered as unsustainable and disregarded.

2 Theoretical framework

Our framework is a standard four-tier Armington setup. We consider that goods are differentiated by their place of production. The aggregate consumption index is

$$(1) \quad \hat{C} = \left[\sum_g \alpha_g (\hat{C}_g)^{\frac{\varepsilon-1}{\varepsilon}} + \alpha_s \hat{C}_s \right]^{\frac{\varepsilon}{\varepsilon-1}}$$

Where, for any variable X , $\hat{X} = \frac{X_t}{X_0}$ denotes a deviation in the value of X with respect to a benchmark situation. Total consumption includes goods, indexed by g , and an aggregate of all services, denoted by s . Given the calibrated share forms used (Rutherford, 2002), the weights $\alpha_g = \left(\frac{C_g P_g}{c_s + \sum_g C_g P_g} \right)_0$ are the value share of each good in the total consumption, in the benchmark situation, $\alpha_s = \left(\frac{C_s P_s}{C_s P_s + \sum_g C_g P_g} \right)_0$ is the value share of the services in total consumption, and ε is the constant elasticity of substitution between goods.

Services consumption is given by $\hat{C}_s = \hat{P}^{\varepsilon-1}$ assuming that their price is not affected by a change in antidumping duties applied on imported goods. Goods are differentiated by their domestic and foreign origin. We consider that

$$(2) \quad \hat{C}_g = \left[\alpha_g^H (\hat{C}_g^H)^{\frac{\omega-1}{\omega}} + \alpha_g^F (\hat{C}_g^F)^{\frac{\omega-1}{\omega}} \right]^{\frac{\omega}{\omega-1}}$$

Where, C_g^H denotes the consumption index of varieties of good g produced at home, C_g^F denotes the consumption aggregate of varieties of good g produced abroad, and ω is the substitution elasticity between home and foreign varieties of good g . As before, the value shares of each good in the domestic (respectively foreign) consumption are $\alpha_g^H = \left(\frac{p_g^H c_g^H}{p_g^H c_g^H + p_g^F c_g^F} \right)_0$ and $\alpha_g^F = \left(\frac{p_g^F c_g^F}{p_g^H c_g^H + p_g^F c_g^F} \right)_0$. Products are then differentiated by their country of origin and the foreign consumption index C_g^F depends on consumption from each possible source of imports j , the elasticity of substitution between these sources being σ :

$$(3) \quad \hat{C}_g^F = \left[\sum_j \alpha_g^j (\hat{c}_g^j)^{\frac{\sigma-1}{\sigma}} \right]^{\frac{\sigma}{\sigma-1}}$$

We also have $P_g^F C_g^F = \sum_j p_g^j c_g^j$. Assuming that domestic production prices do not respond to a change in antidumping duties applied to imported goods (i.e. $\hat{P}_g^H \equiv 1$), the dual price indexes of the aggregate consumption of goods within the production sector, of the consumption of good g (irrespective of its origin) and the consumption of imported goods are given by, respectively,

$$(4) \quad \hat{P} = \left[\alpha_s + \sum_g \alpha_g (\hat{P}_g)^{1-\varepsilon} \right]^{\frac{1}{1-\varepsilon}}$$

$$(5) \quad \hat{P}_g = \left[\alpha_g^H + \alpha_g^F (\hat{P}_g^F)^{1-\omega} \right]^{\frac{1}{1-\omega}}$$

$$(6) \quad \hat{P}_g^F = \left[\sum_j \alpha_g^j (\hat{p}_g^j)^{1-\sigma} \right]^{\frac{1}{1-\sigma}}$$

We further hold the total budget allocated to consumption constant ($\hat{P}\hat{C} = 1$). Under this assumption,

$$(7) \quad \hat{C}_g = \hat{P}_g^{-\varepsilon} \hat{P}^{\varepsilon-1}$$

From this demand, we can derive those of domestic and imported goods:

$$(8) \quad \hat{C}_g^H = (\hat{P})^{\varepsilon-1} (\hat{P}_g)^{\omega-\varepsilon}$$

$$(9) \quad \hat{C}_g^F = (\hat{P})^{\varepsilon-1} (\hat{P}_g)^{\omega-\varepsilon} (\hat{P}_g^F)^{-\omega}$$

Finally, the volume of imports of good g from each trading partner j is

$$(10) \quad \hat{c}_g^j = (\hat{P})^{\varepsilon-1} (\hat{P}_g)^{\omega-\varepsilon} (\hat{P}_g^F)^{\sigma-\omega} (\hat{p}_g^j)^{-\sigma}$$

Assuming mill pricing, that exporters do not respond strategically to a change in antidumping duties, and that bilateral transport costs (as well as regulations that might impact on prices) do not change over time, changes in antidumping duties t_{AD} are the only source of change in import prices, implying

$$\hat{p}_g^j = \frac{1+t_{AD}^j}{1+t_{AD}^j} \hat{p}_g^j$$

Based on this four-tier Armington setup, we first estimate the elasticities of substitution ω and σ and then conduct counterfactual simulations on the impact of a change in the antidumping duties applied by the European Union to China.

3 Estimation strategy

3.1 Elasticity of substitution between foreign providers

Denoting with j' importing countries not targeted by antidumping duties and with j the targeted countries we obtain

$$(11) \quad \frac{\hat{c}_g^j}{\hat{c}_g^{j'}} = (\hat{p}_g^j)^{-\sigma}$$

which is equivalent to

$$(12) \quad \ln \left(\frac{\hat{c}_{gt}^j}{\hat{c}_{gt}^{j'}} \right) = -\sigma_t \ln [1 + t_{AD}^j] + u_{gt}$$

Where t refers to the number of years elapsed since investigation initiation. Owing to the progressive transmission of the impact, we allow the elasticity to vary with this number of years from initiation.

3.2 Elasticity of substitution between imports and domestic products

To estimate ω , we note that

$$(13) \quad \frac{\hat{c}_g^F}{\hat{c}_g^H} = (\hat{P}_g^F)^{-\omega}$$

Taking logs, the estimable form is:

$$(14) \quad \ln\left(\frac{\hat{c}_{gt}^F}{\hat{c}_{gt}^H}\right) = -\omega_t \ln(\hat{P}_{gt}^F) + v_{gt}$$

To carry out estimations, we note that, using first-order approximations, $\hat{c}_{gt}^H = -\frac{X_{g0}}{C_{g0}^H} \hat{X}_{gt} + \left(1 - \frac{X_{g0}}{C_{g0}^H}\right) \hat{Q}_{gt}$, where Q_{gt} is the quantity of good g produced at Home in year t . Absent production data at the tariff line level, relative output growth is assumed to be equal among tariff lines included in the same elementary item of the production classification. The same assumption is made for export intensity.

Since we estimate ω using theory-based indices detailed previously, estimations depend on the value of σ . Estimation are presented for four values of σ : conservative and upper estimate are derived from econometric analyses presented in the paper and the other two are sensitivity checks. Column (5) is obtained using price and consumption indices constructed on averages and are presented for the sake of comparison.

Table 1 : Theory-based estimates of the elasticity of substitution between domestic and foreign products

	(1)	(2)	(3)	(4)	(5)
	Using theory-based indices, based on elasticity				
	1.5	2.2 (conservative estimate)	3.0 (upper estimate)	4.0	Using averages
Domestic-foreign products elasticity					
Year 1	-0.30 *** (0.12)	-0.47 *** (0.12)	-0.57 *** (0.12)	-0.65 *** (0.12)	-0.92 *** (0.13)
Year 2	-0.35 * (0.21)	-0.72 *** (0.21)	-0.93 *** (0.21)	-1.08 *** (0.21)	-1.62 *** (0.21)
Year 3	-0.73 *** (0.26)	-1.24 *** (0.26)	-1.53 *** (0.26)	-1.74 *** (0.26)	-2.47 *** (0.27)
Year 4	-1.11 *** (0.29)	-1.74 *** (0.29)	-2.09 *** (0.28)	-2.34 *** (0.28)	-3.21 *** (0.29)
R-squared	0.03	0.07	0.11	0.14	0.22
N	1390	1390	1390	1390	1390

4 Simulations

To assess the economic impact of granting China MES, we aim at comparing the observed situation at the latest year available, 2014, to a counterfactual situation where China would be granted MES.

4.1 Framework

Taking into account the possibility of facing an AD case, the expected level of imports of product g from a partner k writes as follows (omitting index k , g and t , which apply to each term here):

$$(15) \quad E(M) = E(M | AD = 0) + P(AD = 1)[E(M | AD = 1) - E(M | AD = 0)]$$

We aim at comparing two situations, with and without MES, corresponding to a different probability for each product of facing an AD duty, with a different expected level for this duty. Writing separately the equation above for these two states of nature (MES or not) and taking the difference gives:

$$(16) \quad E(M|MES) - E(M|NME) = \\ P(AD = 1|MES)[E(M | AD = 1 \& MES) - E(M|AD = 0)] \\ - P(AD = 1|NME)[E(M | AD = 1 \& NME) - E(M|AD = 0)]$$

These probabilities and expectations could be computed *a priori* based on our estimates, without considering the pattern of existing EU's AD sanctions against China. However, to the extent that a number of determinants are actually unobservable, we find it more informative to start our counterfactual simulations from the situation observed in 2014, the last year for which complete data is available to us. We thus simulate what would have been cases active in 2014 against China if China would have been granted MES at their initiation. Accordingly,

- Regarding probabilities, we assume that only Chinese products actually facing an AD duty in 2014 would be likely to face one under MES status. For these products, the probability of being so is $P(AD = 1|MES)/P(AD = 1|NME)$. Other products would remain unaffected by the MES.
- For products for which China faces an ADD in the EU, the expected value of imports conditional on NME is assumed to be the observed average, i.e. (for these products only) $E(M | AD = 1 \& NME) = E(M | NME) = M$

A hypothetical MES status for China would thus increase the expected level of imports in the following way

$$(17) \quad \frac{E(M|MES)}{M} - 1 = [P(AD = 1|MES)/P(AD = 1|NME)] \left[\frac{E(M|AD=1 \& MES)}{M} - 1 \right] \\ + [1 - P(AD = 1|MES)/P(AD = 1|NME)] \left[\frac{E(M|AD=0)}{M} - 1 \right], \quad \text{for products} \\ \text{facing an AD duty in 2014;} \\ = 0 \text{ for other products}$$

Computing this difference thus requires addressing the following two questions: (i) among Chinese products facing an AD duty in the EU in 2014, what would be the probability of this duty being removed under MES? (ii) under MES, assuming they still face an AD duty, how would imports and domestic output differ? The probability terms address the first question, the expectation terms address the second one.

4.2 Under MES, what would be the probability of existing AD duties being removed?

Given equation (17), addressing this question only requires computing the ratio of conditional AD case probabilities for products actually facing an active AD sanction in 2014. Based on our econometric analysis, though, we decompose this probability into three terms, corresponding to the probability of a case being initiated, the probability of an initiated case being won, and the duration of ensuing sanctions. Accordingly, this relative probability can be written as follows:

$$(18) \quad \frac{P(AD=1|MES)}{P(AD=1|NME)} = \frac{P(ini=1|MES)}{P(ini=1|NME)} \times \frac{P(sanction|ini=1 \& MES)}{P(sanction|ini=1 \& NME)} \times \frac{av.duration(MES)}{av.duration(NME)}$$

Consistently with the approach followed so far, we assumed in each case that probabilities conditional on the NME status are best proxied based on observed averages (which we compute as the average over the period considered in the econometric analysis, 1995 – 2014). Probabilities conditional on the MES status are then assessed by difference from these averages, based on the dummy variable assessed for China in our estimates of the probability of initiation and of winning initiated cases. We did not try estimating expected durations, considering that not enough information was available to us in order to do this in a consistent way; we thus simply use the ratio of mean durations. As a result, we compute the relative probability as follows:

$$(19) \quad \frac{P(AD=1|MES)}{P(AD=1|NME)} = \left(1 - \frac{China_{ini}}{\overline{ini}_{China}}\right) \times \left(1 - \frac{China_{win}}{\overline{win}_{China}}\right) \times \frac{av.duration(MES)}{av.duration(China)}$$

Where $China_{ini}$ (resp., $China_{win}$) refers to the value of the dummy variable for China in estimates of the probability of a case being initiated (resp., of an initiated case being won), and \overline{ini}_{China} (resp., \overline{win}_{China}) refers to the empirical average of the corresponding variable for China, i.e. the share of products for which an AD case was initiated on a given year (resp., the share of cases won). Average duration of antidumping measures is calculated on the whole GAD database as the number of year between initiation and revocation. Ignoring cases still in force leads to underestimate this duration. We then consider that cases still in force will last the average duration computed over the period 1988-2001 (only four cases initiated are still in force limiting the bias in this average lifetime). If they have already been active for more than this average, we consider that they will be revoked in 2016 (this assumption should lead to an underestimation of average lifetime). As a result, we obtain an average lifetime of 7.9 and 11.5 years for cases against MES countries and China, respectively. Then we can calculate the relative probability in (19):

$$(20) \quad \frac{P(AD=1|MES)}{P(AD=1|NME)} = \left(1 - \frac{0.33}{0.53}\right) \times \left(1 - \frac{18.5}{76}\right) \times \frac{7.9}{11.5} = 0.196$$

According to these calculations, only one in five AD cases against Chinese imports would be maintained under the MES.

4.3 How would MES change the impact of maintained cases?

The second question only needs to be addressed for products for which China faces an ADD in the EU. For these products facing an ADD in 2014, both $\frac{E(M|AD=1 \& MES)}{M}$ and $\frac{E(M|AD=0)}{M}$ can be assessed as the ceteris paribus impact of an exogenous change in the AD duty applied to China (denoted as country k below for notational convenience), t_{ADg}^k , leading to a price change $\hat{p}_g^k = \frac{1+t_{ADgt}^k}{1+t_{ADg0}^k}$. Assuming

away any strategic interaction, prices applied do not change for domestic producers ($\hat{P}_g^H = 1$), nor for other import partners ($\hat{p}_g^j = 1$). As a result,

$$(21) \quad \hat{P}_g^F = \left[(1 - \alpha_g^k) + \alpha_g^k (\hat{p}_g^k)^{1-\sigma} \right]^{\frac{1}{1-\sigma}}$$

$$(22) \quad \hat{P}_g = \left[\alpha_g^H + (1 - \alpha_g^H) (\hat{P}_g^F)^{1-\omega} \right]^{\frac{1}{1-\omega}}$$

$$(23) \quad \hat{P} = \left[(1 - \sum_g \alpha_g) + \sum_g \alpha_g (\hat{P}_g)^{1-\varepsilon} \right]^{\frac{1}{1-\varepsilon}}$$

$$(24) \quad \hat{M}_g^k = \hat{c}_g^k = (\hat{P})^{\varepsilon-1} (\hat{P}_g)^{\omega-\varepsilon} (\hat{P}_g^F)^{\sigma-\omega} (\hat{p}_g^k)^{-\sigma}$$

The same methodology can be applied to other variables, hence making it possible to assess consequences for imports from other source partners, and for domestic consumption of domestic product, relying upon the following additional implications of the model:

$$(25) \quad \hat{M}_g^j = \hat{c}_g^j = (\hat{P})^{\varepsilon-1} (\hat{P}_g)^{\omega-\varepsilon} (\hat{P}_g^F)^{\sigma-\omega}, \forall j \neq k$$

$$(26) \quad \hat{C}_g^F = (\hat{P})^{\varepsilon-1} (\hat{P}_g)^{\omega-\varepsilon} (\hat{P}_g^F)^{-\omega}$$

$$(27) \quad \hat{C}_g^H = (\hat{P})^{\varepsilon-1} (\hat{P}_g)^{\omega-\varepsilon}$$

Domestic output is sold on the domestic and export markets. Assuming exports unchanged, the proportional change in output is thus approximately:

$$(28) \quad \hat{Q}_g^H = \frac{C_{g0}^H}{Q_{g0}^H} \hat{C}_g^H + \left(1 - \frac{C_{g0}^H}{Q_{g0}^H} \right)$$

In the simulations, we measure the welfare change produced by the reduction in antidumping tariffs applied to China using the equivalent variation, EV , defined by $U(E_0 + EV, P_0) = U(E_1, P_1)$. The revenue is such as $E_1 = E_0 + \Delta TR$, where TR is the tariff revenue, which is redistributed as a lump sum to consumers. We then have

$$(29) \quad \frac{EV}{E_0} = \hat{P}^{-1} - 1 + \frac{\Delta TR}{E_0} \hat{P}^{-1}$$

5 Additional figures and tables

Figure 1: Share of trade affected by antidumping measures against Russia and Ukraine. The red vertical line indicates the year in which the MES was granted.

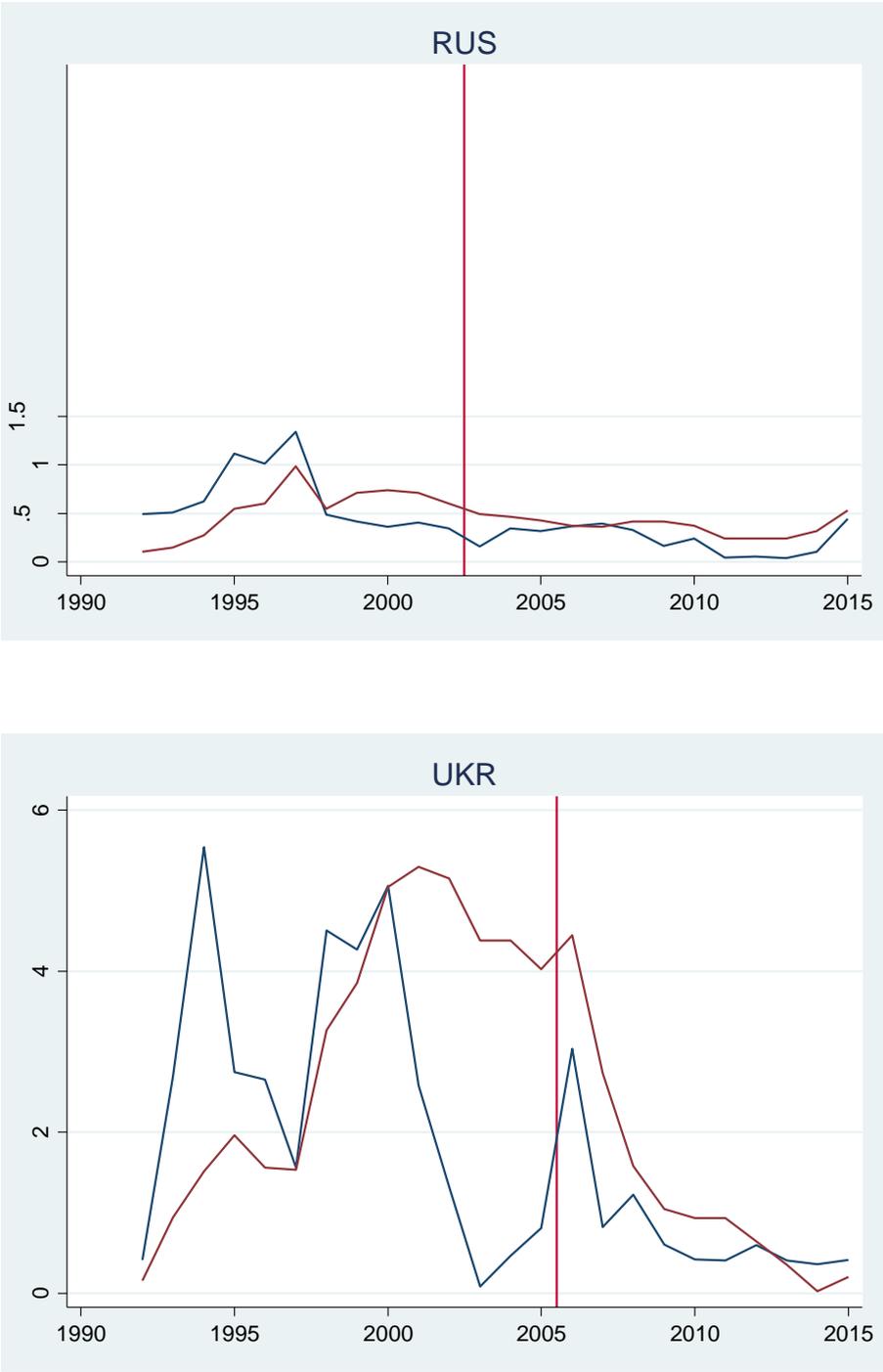


Figure 2: Average antidumping duties (%), by market economy status

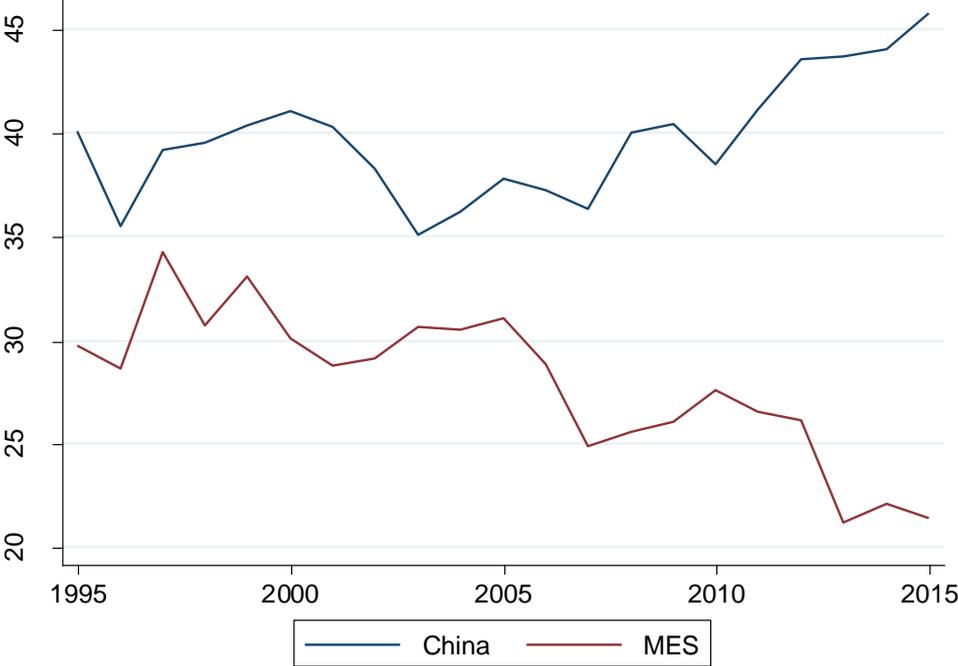


Table 1: Determinants of the probability to win an antidumping case (probability in %)

	Dependant variable: share of cases won by the plaintiff (%)			
	(5)	(6)	(7)	(8)
Share in industrial jobs (t-2)	-6.5 *** (2.19)	-7.0 *** (2.13)	-6.5 *** (2.19)	-3.5 (29.91)
Share in industrial jobs (change in t-1)	-23.3 ** (10.83)	-0.7 (6.75)	-23.8 ** (10.76)	-35.1 (54.62)
Import penetration ratio (t-2)	-1.9 (1.53)	0.6 (1.56)	-1.8 (1.52)	-2.0 (3.52)
Import penetration ratio (change in t-1)	-7.4 * (3.98)	-3.5 (3.45)	-7.3 * (3.97)	-2.1 (6.93)
Relative unit value (t-2)	-13.0 *** (4.36)	-10.9 ** (4.52)	-12.8 *** (4.38)	-13.9 (15.58)
Relative unit value (change in t-1)	-9.1 (10.54)	-1.1 (8.77)	-8.7 (10.52)	10.3 (17.04)
# past investigations in the sector (t-1)	0.9 (0.59)	-1.4 (1.19)		-3.1 (3.96)
China	18.5 *** (5.93)	11.8 ** (5.61)	18.5 *** (5.92)	11.4 (11.39)
# past investigations in the sector (t-1) (alt. definition)			1.2 (0.82)	
Year fixed effects	No	No	No	No
R-squared	0.137	0.360	0.136	0.280
N	286	286	286	286

Scope: Manufacturing products, 1995 – 2014. Partners other than China that are not granted MES are excluded from the sample, due to the insufficient number of observations for such cases. Only chapters where at least one antidumping case was raised between 1995 and 2015 are considered.

Note: estimation (6) includes sector fixed effects, (7) considers the number of past investigations in the sector over the 5 years preceding the initiation (instead of seven in specification (5)) and (8) includes (8-digit) product fixed effects.

* p<0.10, ** p<0.05, *** p<0.01

Table 2 : Estimated impact of AD cases on import volume for MES partners and additional impact for China – additional results

	(1)	(2)	(3)	(4)	(5)
	Import volume, ratio to extra-EU imports	Import volume	Detrended import volume	Import volume, ratio to extra-EU imports	Detrended import volume, ratio to extra-EU imports
Years from initiation (impact in %)					
Year 1	-17.7 *** (-4.61)	-67.6 ² (-34.72)	25.0 (0.78)	-15.9 ** (-2.58)	-21.6 ** (-2.36)
Year 2	-38.5 *** (-5.95)	-73.8 *** (-13.71)	5.6 (0.19)	-23.5 ** (-2.31)	-9.6 (-0.65)
Year 3	-39.7 *** (-5.78)	-72.3 *** (-10.70)	-4.0 (-0.13)	-3.8 (-0.26)	11.6 (0.47)
Year 4	-39.6 *** (-5.36)	-69.9 *** (-8.86)	-21.4 (-0.72)	3.8 (0.24)	-2.5 (-0.10)
Additional impact when partner is China, by year from initiation (in %)					
China, Year 1	-3.8 (-0.58)	2.3 (0.24)	13.0 (0.91)	-6.3 (-0.86)	1.9 (0.19)
China, Year 2	-3.9 (-0.34)	0.5 (0.03)	2.7 (0.14)	2.2 (0.17)	3.7 (0.19)
China, Year 3	-8.5 (-0.60)	-5.9 (-0.34)	-0.6 (-0.02)	17.0 (0.93)	37.8 (1.26)
China, Year 4	-16.7 (-1.14)	-2.2 (-0.13)	2.4 (0.09)	9.6 (0.53)	26.9 (0.86)
Elasticity wrt AD duties					
Year 1		-0.24 (-1.34)	-0.17 (-0.63)	-0.09 (-0.46)	-0.22 (-0.81)
Year 2		-0.92 *** (-2.60)	-1.09 ** (-2.36)	-0.88 ** (-2.26)	-1.65 *** (-2.85)
Year 3		-1.47 *** (-3.13)	-1.48 ** (-2.49)	-2.09 *** (-3.80)	-3.43 *** (-3.86)
Year 4		-2.09 *** (-4.16)	-1.48 ** (-2.26)	-2.60 *** (-4.52)	-3.25 *** (-3.28)
Calendar year fixed effects	No	Yes	Yes	No	No
R-squared	0.117	0.294	0.333	0.158	0.242
Observations	1,827	1,795	1,008	1,583	726

Scope: Manufacturing products. Partners other than China which are not granted MES are excluded from the sample, due to the insufficient number of observations for such cases.

Note: The dependent variable is always expressed in logarithm. For the sake of readability, impacts by year from initiation (either by default or the additional impact for China) are converted in percentage deviations from value at initiation: for instance, the first cell means that, for a partner other than China (i.e. with MES status), one year after investigation of an AD case, import volumes from the target partner are cut by 30.2% compared to their value during the year of initiation. For each year, the elasticity refers to the coefficients of the independent variable $\ln(1 + ADD)$, where ADD is the AVE of the AD duty (or, when applicable, the sum of the AD and the countervailing duty). Standard errors are clustered by individual case. Student's t-statistic in parentheses.

Table 3 : Estimated impact of AD cases on import unit values for MES partners and additional impact for China

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(9)	(8)	(10)
	Import UV	Detrended import UV	Import UV, ratio to extra-EU imports	Detrended import UV, ratio to extra-EU imports	Import UV	Detrended import UV	Import UV, ratio to extra-EU imports	Import UV, ratio to extra-EU imports	Detrended import UV, ratio to extra-EU imports	Detrended import UV, ratio to extra-EU imports
Years from initiation (impact in %)										
Year 1	6.1 (1.38)	5.7 (0.99)	3.0 ** (2.20)	4.4 ** (2.42)	3.5 (0.55)	1.3 (0.14)	1.6 (0.69)	2.1 (0.94)	6.2 * (1.87)	7.3 ** (2.25)
Year 2	9.7 * (1.96)	12.8 * (1.82)	2.0 (0.89)	3.9 (1.14)	8.8 (1.23)	7.8 (0.80)	-2.3 (-0.66)	-1.7 (-0.52)	-0.2 (-0.04)	1.4 (0.27)
Year 3	11.6 ** (2.09)	26.7 *** (3.18)	7.5 ** (2.58)	13.5 *** (2.83)	6.7 (0.86)	15.2 (1.41)	1.3 (0.29)	1.8 (0.45)	6.2 (0.85)	8.0 (1.16)
Year 4	9.7 * (1.73)	26.0 *** (3.07)	7.7 *** (2.67)	19.1 *** (3.19)	6.9 (0.82)	25.8 ** (2.12)	2.3 (0.51)	4.4 (1.00)	12.2 (1.29)	15.2 * (1.65)
Additional impact when partner is China, by year from initiation (in %)										
China, Year 1	-6.4 *** (-3.03)	-4.3 (-1.45)	3.5 (1.49)	6.3 ** (2.17)	-7.6 *** (-2.75)	-2.7 (-0.77)	2.2 (0.82)		4.1 (1.22)	
China, Year 2	-6.8 ** (-2.32)	-0.6 (-0.15)	4.0 (1.15)	9.5 * (1.96)	-8.2 ** (-2.40)	-2.2 (-0.44)	3.1 (0.78)		9.3 (1.57)	
China, Year 3	-2.1 (-0.56)	4.2 (0.74)	4.6 (1.07)	11.3 * (1.70)	-2.8 (-0.67)	0.3 (0.04)	2.7 (0.60)		9.2 (1.21)	
China, Year 4	9.2 ** (2.17)	26.9 *** (3.77)	12.1 *** (2.73)	17.6 ** (2.03)	11.7 ** (2.39)	25.8 *** (2.92)	9.7 * (1.94)		13.6 (1.37)	
Elasticity wrt AD duties										
Year 1					0.10 (1.27)	-0.03 (-0.33)	0.09 (1.20)	0.11 (1.51)	0.01 (0.10)	0.05 (0.45)
Year 2					0.07 (0.67)	0.07 (0.51)	0.15 (1.32)	0.19 (1.63)	0.13 (0.73)	0.24 (1.39)
Year 3					0.14 (1.05)	0.26 (1.35)	0.22 (1.55)	0.25 * (1.74)	0.26 (1.14)	0.37 (1.62)
Year 4					0.03 (0.22)	-0.06 (-0.29)	0.22 (1.40)	0.31 ** (1.98)	0.30 (1.02)	0.44 (1.53)
Calendar year fixed effects										
R-squared	0.133	0.297	0.049	0.086	0.140	0.325	0.050	0.049	0.086	0.084
Observations	2,106	1,788	1,827	1,507	1,703	1,422	1,583	1,583	1,296	1,296

Table 4 : Estimated impact of AD cases on import unit values for MES partners and additional impact for China – HS4 heading level

	Unit value index			Import volume index	
	Detrended	Diff wrt other partners	Detrended, diff wrt other partners	Detrended	Detrended, diff wrt other partners
Years from initiation, by partner (impact in %)					
China, Year 1	7.41 *** (3.09)	4.70 * (1.77)	4.93 * (1.86)	-2.82 (-0.50)	0.41 (0.07)
China, Year 2	12.32 *** (3.19)	5.56 (1.46)	8.80 * (1.93)	-10.30 (-1.32)	-6.23 (-0.70)
China, Year 3	21.75 *** (3.24)	8.51 (1.46)	18.80 ** (2.53)	-14.62 (-1.46)	0.45 (0.04)
China, Year 4	29.01 *** (3.66)	8.59 (1.61)	22.25 *** (2.77)	-13.53 (-1.25)	2.40 (0.17)
MES, Year 1	1.46 (0.52)	2.50 (1.12)	-0.43 (-0.17)	-3.03 (-0.82)	-1.16 (-0.24)
MES, Year 2	-0.87 (-0.22)	-0.94 (-0.28)	-3.09 (-0.78)	-10.33 (-1.49)	-7.59 (-0.84)
MES, Year 3	-1.19 (-0.20)	0.70 (0.16)	-0.44 (-0.08)	-18.99 ** (-2.35)	-9.90 (-0.96)
MES, Year 4	0.58 (0.09)	-3.58 (-0.89)	-1.44 (-0.22)	-19.74 ** (-2.05)	-11.26 (-0.90)
R-squared	0.072	0.008	0.042	0.025	-0.008
Observations	592	770	571	563	524

Sample: Antidumping cases regarding manufacturing products successfully raised in the European Union, 1988-2015. When the case covers several tariff lines, each one is considered separately (except when the definition is not spelt out at the 8-digit level). Using this definition, the sample includes 295 cases against China and 470 against MES countries. Avoiding counting several tariff lines for a given case, the sample includes 99 against China and 230 against MES partners.

Table 5 : Simulated impacts of granting China MES, details for HS Chapters containing goods targeted by ADD – MES scenario

HS Chapter	Changes in %			Changes in Mn € (2015)		
	Imports from China		Domestic output	Imports from China		Domestic output
	Value at initial prices, tax exclusive	Value at current prices, tax inclusive		Value at initial prices, tax exclusive	Value at current prices, tax inclusive	
Conservative estimates						
28	4.8	1.8	-0.04	66	24	-18
29	3.3	0.7	-0.06	278	60	-106
38	0.0	0.0	-0.01	0	0	-12
39	0.2	0.1	-0.01	19	9	-28
41	0.6	0.3	-0.01	0	0	-1
48	0.6	0.3	-0.01	13	5	-18
54	1.8	0.5	-0.11	24	7	-11
69	32.4	7.6	-0.70	508	119	-235
70	13.1	4.2	-0.23	277	90	-122
72	2.3	0.9	-0.02	104	42	-57
73	7.7	2.7	-0.08	613	215	-166
76	38.4	10.1	-0.43	1,042	273	-438
81	2.2	0.6	-0.25	20	6	-11
83	0.3	0.1	-0.01	8	3	-6
84	0.7	0.2	-0.01	508	165	-114
85	11.6	2.1	-0.19	11,509	2,045	-869
87	1.9	0.8	-0.01	120	51	-103
90	0.4	0.2	-0.01	34	15	-13
Upper estimates						
28	6.7	3.3	-0.05	92	45	-22
29	4.4	1.5	-0.08	366	126	-132
38	0.0	0.0	0.00	0	0	-11
39	0.3	0.2	-0.01	29	17	-28
41	1.1	0.5	-0.01	1	0	-1
48	0.9	0.5	-0.01	19	10	-19
54	2.4	1.0	-0.13	32	14	-13
69	44.6	15.7	-0.92	699	246	-311
70	18.0	7.7	-0.31	382	163	-161
72	3.6	1.8	-0.03	163	81	-72
73	12.1	5.3	-0.11	970	427	-231
76	52.7	19.3	-0.58	1,427	522	-581
81	3.0	1.1	-0.33	27	10	-15
83	0.4	0.2	-0.02	12	5	-7
84	1.0	0.4	-0.02	711	306	-138
85	15.5	4.5	-0.25	15,424	4,507	-1,128
87	2.8	1.5	-0.01	8	4	-116
90	0.6	0.3	-0.01	37	20	-14

Table 6 : Simulated impacts of granting China MES, details for HS Chapters containing goods targeted by ADD – MES & CHILL scenario

HS Chapter	Changes in %			Changes in Mn € (2015)		
	Imports from China		Domestic output	Imports from China		Domestic output
	Value at initial prices, tax exclusive	Value at current prices, tax inclusive		Value at initial prices, tax exclusive	Value at current prices, tax inclusive	
Conservative estimates						
28	10.3	3.9	-0.13	139	53	-62
29	9.5	3.1	-0.15	791	260	-254
38	7.5	3.4	-0.03	74	34	-62
39	6.8	2.7	-0.10	602	235	-367
41	7.8	3.4	0.00	6	2	0
48	7.5	3.1	-0.05	155	65	-99
54	6.9	2.1	-0.43	93	28	-42
69	34.9	8.4	-0.77	548	132	-259
70	17.9	5.9	-0.35	379	125	-183
72	9.4	4.0	-0.09	422	181	-238
73	13.5	4.7	-0.22	1,077	377	-447
76	42.0	11.4	-0.51	1,137	310	-510
81	5.8	0.4	-0.58	52	3	-25
83	6.0	1.8	-0.38	200	61	-140
84	7.1	2.6	-0.13	4,941	1,797	-1,115
85	16.4	3.6	-0.43	16,373	3,551	-1,962
87	8.5	3.4	-0.03	25	10	-270
90	7.4	3.1	-0.10	464	196	-180
Upper estimates						
28	31.4	15.8	-0.41	426	214	-197
29	32.7	15.9	-0.43	2,726	1,326	-711
38	35.6	20.0	-0.08	352	198	-187
39	30.3	15.2	-0.38	2,676	1,347	-1,363
41	34.8	19.0	0.03	25	14	4
48	32.0	16.6	-0.16	660	342	-318
54	25.2	11.2	-1.40	339	150	-139
69	56.0	20.9	-1.21	878	327	-405
70	39.3	17.6	-0.76	834	374	-398
72	36.1	19.2	-0.29	1,614	861	-776
73	37.8	17.3	-0.64	3,028	1,387	-1,340
76	68.7	27.3	-0.85	1,861	741	-858
81	18.4	3.5	-1.62	165	31	-71
83	25.4	10.8	-1.46	842	360	-545
84	29.7	14.4	-0.50	20,784	10,105	-4,140
85	37.3	14.2	-1.21	37,120	14,105	-5,506
87	33.0	17.0	-0.07	97	50	-676
90	33.4	17.9	-0.39	2,097	1,126	-693