

The Art of Exceptions: Sensitive Products in the Doha Negotiation

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Agricultural trade liberalization and exceptions

- 1 Agricultural modalities:
 - A lot of exceptions,
 - 2/3 of global welfare gains (Brockmaier and Pelikan, 2008; Martin and Anderson, 2006).
- 2 Sensitive products at WTO negotiations (Anderson et al., 2006; Bouet et al., 2007):
 - Identification of sensitive products at the HS6 level,
 - Scenario implementation through an aggregated AVE.
- 3 Tariff-rate quotas (TRQs) modeling (Grant et al., 2009):
 - Interaction between bilateral and multilateral TRQ opening.
 - Source of inspiration for our approach.



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Objective of our work

- Do exceptions strongly reduce DDA's ambitions?
- Are the different alternatives for sensitive products equivalent?

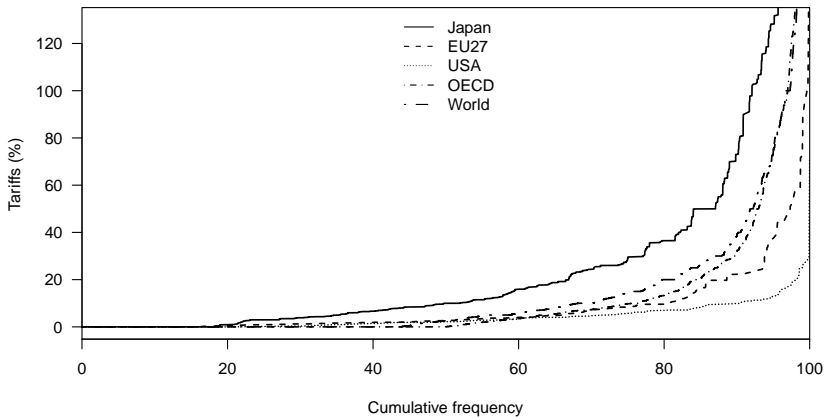


- Application to the European and Japanese agricultural market access
- CGE model (Mirage) at the HS6 level for trade and trade policy
- Trade policy instruments modeled in their original form



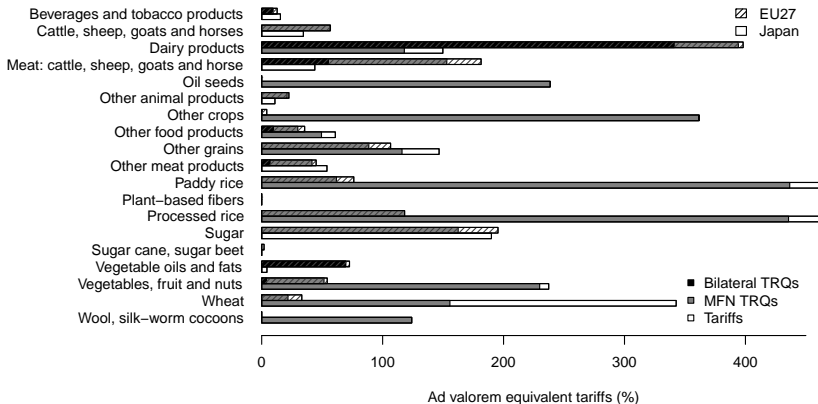
EU and Japan protection

Tariffs cumulative frequency for agricultural products, 2004



EU and Japan protection

Average and type of protection by agricultural sector, 2004



Multilateral Negotiations: Agricultural Modalities

- Tiered Formula with four bands
 - [0 – 20%) → 50% of tariff cut
 - [20 – 50%) → 57% of tariff cut
 - [50 – 75%) → 64% of tariff cut
 - $\geq 75\%$ → 70% of tariff cut
- Sensitive products
 - 4% of tariff lines
 - Deviations from the main formula
 - 1/3, 1/2 or 2/3
 - New TRQs of at least 3%, 3.5% or 4% of domestic consumption
 - TRQ expansion depending on the current degree of market access compared to domestic consumption.
 - Limited flexibility clause of 'minimum average cut' on final bound tariffs.



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General assumptions for the model

- MIRAGE model: A multi-sectoral and multi-regional CGE model
- Comparative static and perfect competition (for simplicity)
- Macroeconomic closure: fixed shares of each region in global current accounts imbalance at the initial level.
- Calibrated on GTAP 7 database
- 25 regions (main agri-exporters and regions according to EU trade preferences)– 23 sectors (20 Agri-food)
- Trade flows at the HS6 level from BACI (2004)
- Protection data from MAcMapsHS6 (2004) and MFN TRQs from MAcMapsHS6's sources.



An alternative for trade flows

GTAP

57 sectors
(20 Agri-food)



HS6

5103 products
(684 Agri-food)

Our solution

- Integrate a HS6-level trade flows inside a CGE model
- With an explicit modelling of all trade policies



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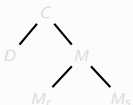
Trade flows modelling at the product level

Mirage Model at the HS6 level

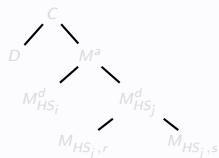
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- Aggregated Imports \rightarrow disaggregated at the HS6 level using a CES function.

Traditional Armington

modelling



Our modelling at the HS6 level



Trade policies

- Bilateral TRQs
- Multilateral TRQs
- simple tariffs (ad valorem and specific) as a AVE.



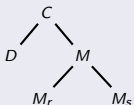
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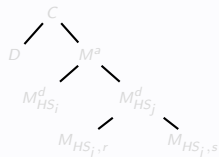
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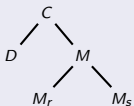
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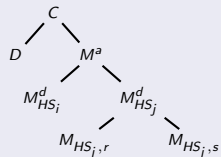
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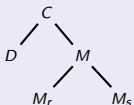
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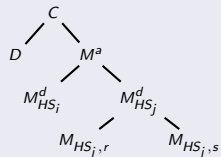
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Modeling of Trade Policies

- Simple AVE tariffs

$$P_{h,r,s}^{CIF} (1 + \tau_{h,r,s}) - P_{h,r,s}^M \geq 0 \quad \perp \quad M_{h,r,s}^T \geq 0 \quad (1)$$

- TRQs under bilateral preferences

$$P_{h,r,s}^{CIF} \left(1 + \tau_{h,r,s}^{Q^{I}Bil} + \tau_{h,r,s}^{Q^{pr}Bil} \right) - P_{h,r,s}^M \geq 0 \quad \perp \quad M_{h,r,s}^{Q^{I}Bil} \geq 0 \quad (2)$$

$$\bar{Q}_{h,r,s}^{Bil} - M_{h,r,s}^{Q^{I}Bil} \geq 0 \quad \perp \quad \tau_{h,r,s}^{Q^{pr}Bil} \geq 0 \quad (3)$$

$$P_{h,r,s}^{CIF} \left(1 + \tau_{h,r,s}^{Q^O_{Bil}} \right) - P_{h,r,s}^M \geq 0 \quad \perp \quad M_{h,r,s}^{Q^O_{Bil}} \geq 0 \quad (4)$$

- Multilateral TRQs

$$P_{h,r,s}^{CIF} \left(1 + \tau_{h,s}^{Q^{I}MFN} + \tau_{h,s}^{Q^{pr}MFN} \right) - P_{h,r,s}^M \geq 0 \quad \perp \quad M_{h,r,s}^{Q^{I}MFN} \geq 0 \quad (5)$$

$$\bar{Q}_{h,s}^{MFN} - \sum_r M_{h,r,s}^{Q^{I}MFN} \geq 0 \quad \perp \quad \tau_{h,s}^{Q^{pr}MFN} \geq 0 \quad (6)$$

$$P_{h,r,s}^{CIF} \left(1 + \tau_{h,s}^{Q^O_{MFN}} \right) - P_{h,r,s}^M \geq 0 \quad \perp \quad M_{h,r,s}^{Q^O_{MFN}} \geq 0 \quad (7)$$

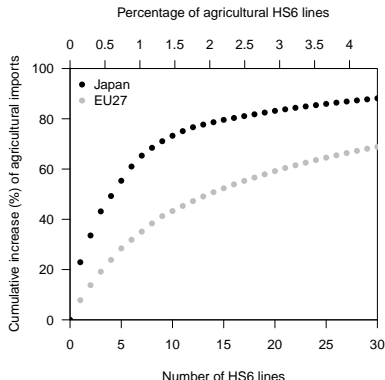


Limitations of the modeling approach

- The lack of explicit representation of production and consumption at the detailed level (no available data)
↔ imputing demand thanks to import shares (Grant et al., 2009).
- Inability to consider the extensive margin of trade with CES.
- MFN quota allocation according to the Armington assumption (crude approximation to the various administration methods).



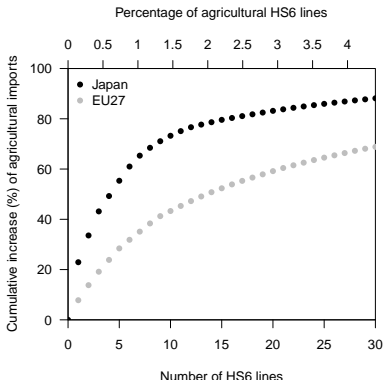
Gains very concentrated on a few products



- the first 30 products = 69% and 88% of potential import increase in EU and Japan
- 33% of the cumulative trade increase = trade flows under MFN TRQs
- Sectors mainly concerned: rice (4 lines) and meat cattle and other meat in Japan; meat and dairy products (8 ft. lines for each) in the EU; sugar in both



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The smaller the tariff cut, the smaller the gains

	Full market access liberalization	Doha			
		D*	D _{2/3}	D _{1/2}	D _{1/3}
Welfare	0.129	0.065	0.044	0.035	0.028
Import	8.847	2.789	2.058	1.809	1.626

- No aggregate trade-off between expanding quotas and reducing tariffs
- None of the Doha scenarios are equivalent in terms of welfare and aggregate trade gains
- Results depends on the active TRQ regime (effective protection) at the initial situation (out-of quota tariffs)



Japan and EU: Strategic choice of sensitive tariff lines

Sector	European Union		Japan	
	D _{2/3}	D _{1/3}	D _{2/3}	D _{1/3}
Wheat	-0.03	-0.03	0.4	0.18
Vegetables, fruit and nuts	0.12	0.11	0.13	0.15
Cattle, sheep, goats and horses	-0.11	-0.09	0.01	0.02
Meat: cattle, sheep, goats and horse	2.66	2	0.9	0.54
Other meat products	0.93	0.73	2.38	1.46
Vegetable oils and fats	0.24	0.25	0.02	0.04
Dairy products	0.31	0.26	0.49	0.47
Processed rice	0.2	0.29	0.85	0.27
Sugar	0.03	0.13	0.35	0.17
Other food products	1.99	1.97	0.65	0.94
Beverages and tobacco products	0.15	0.15	0.29	0.26

- No optimization of the protection level for an strategic choice of DDA alternatives.
- However, we can distinguish when
 - a *quota enlargement* improves market access: veg. oils & fats, processed rice and sugar (EU); veg. & fruits, cattle, veg. oils & fats and other food products (Japan).
 - only a **tariff cut** is relevant for opening agri-markets: meat, meat products and dairy products (both); wheat, processed rice, sugar and beverages & tobacco (Japan).



Conclusion

- Full liberalization
 - Everything hangs on a few products
- Doha Round
 - Doha without sensitive products: 1/2 of the welfare gains from FL would be reaped
 - Introducing sensitive products substantially reduces those gains
- Doha round: different alternatives to liberalize sensitive products
 - There is no aggregate trade-off between decreasing tariffs and increasing/opening TRQs
 - Traditional conclusion: the smaller the tariff cuts, the smaller the gains



Thank you for your attention

