

Multilateral Trade Liberalization: Scenarios for the New Round and Assessment

Lionel Fontagné - Jean-Louis Guérin - Sébastien Jean
(CEPII, Paris)

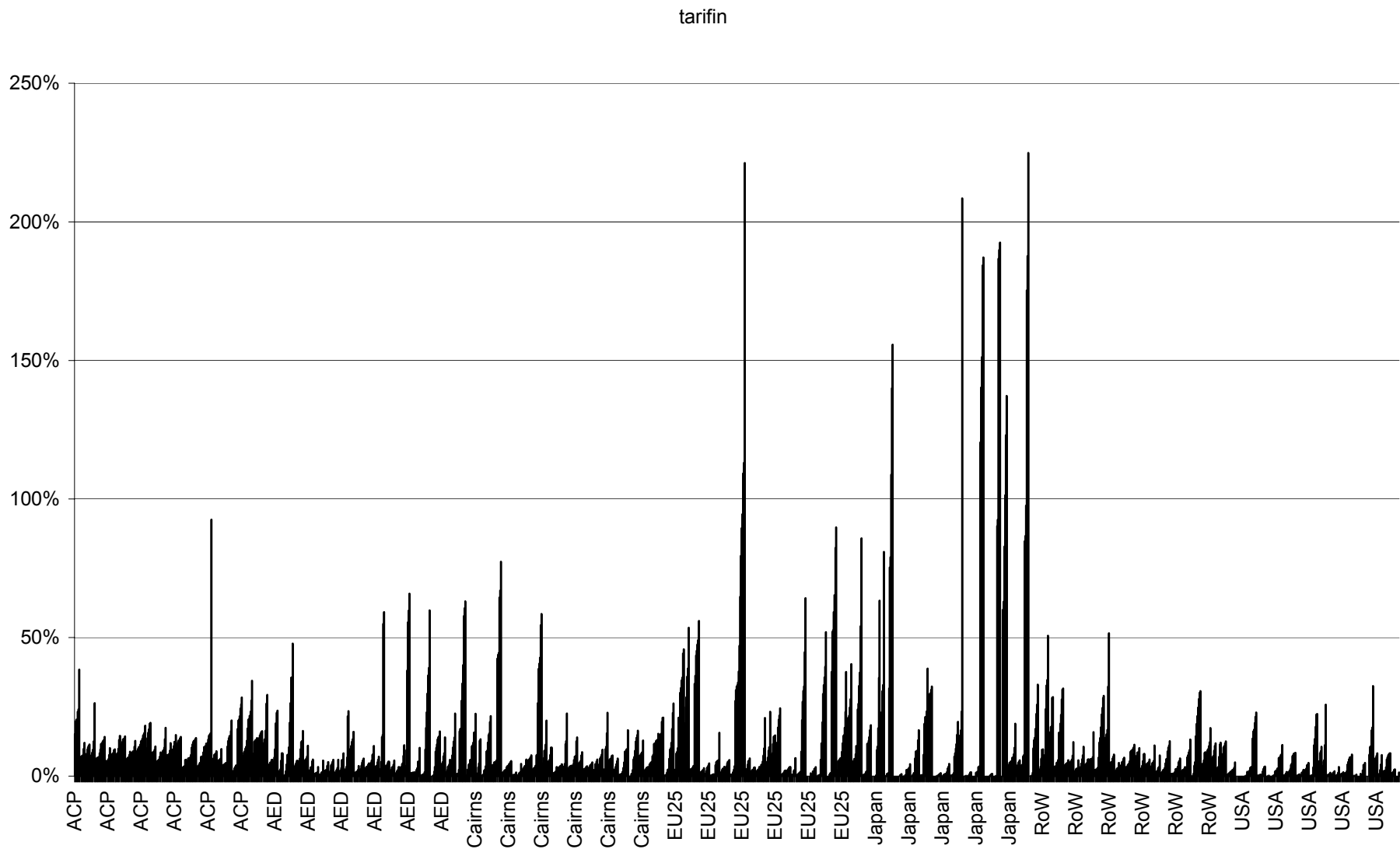
Motivation

- The Doha Ministerial has succeeded in launching a new round
- Not possible to run a Round in a similar manner as before Seattle
- Not only protests by the civil society:
 - raising concerns about openness strategies in developing countries: specific treatment
 - to some extent Marrakech was a *trompe l'œil* (tariff peaks - complexity of tariff schedules - discrimination - anti-dumping duties...)

- Agriculture: domestic support has been partially greened, while US farm bill has shed light on a consensus over farm support. Thus, negotiations should stick on tariffs and export subsidies.
- Manufactures: three categories of tariffs have to be distinguished
 - nuisance tariffs: transaction cost rather than protection
 - moderate tariffs: they protect industries, since the price elasticity of demand can be high
 - tariff peaks: highly distortive, but no guarantee that an agreement will be found
- Services: lack of reliable data, will be neglected here.

- GTAP community to be mobilized in order:
 - to run reproducible and systematic exercises;
 - on the basis of a common set of scenarios;
 - defined at the level of the product lines
- On the basis of **MAcMaps**, we formulate detailed scenarios of liberalization that are translated in protection variations, using tariff equivalents of all instruments (bilateral basis 137 countries)
- The impact of these scenarios is then assessed using **MIRAGE**, after aggregat^o in **GTAP** classif^o
- Work in progress: huge database, large model

Distribution of tariff equivalents of all instruments at base year.



Tariff equivalents [50%, 99%] by importing and exporting region and sector (base year)

Wheat	Japan	USA	98%	Cattle, sheep, goase	Japan	AED	63%
Meat: cattle, sheep, goat	EU25	ACP	95%	Wheat	AED	RoW	63%
Paddy rice	ACP	Japan	93%	Sugar	Japan	EU25	63%
Processed rice	Japan	AED	93%	Wheat	AED	Cairns	61%
Processed rice	Japan	EU25	90%	Sugar	Japan	USA	60%
Sugar	EU25	AED	90%	Paddy rice	AED	Cairns	60%
Meat: cattle, sheep, goat	EU25	Japan	90%	Processed rice	AED	RoW	60%
Wheat	Japan	EU25	87%	Sugar	EU25	Cairns	59%
Wheat	Japan	Cairns	85%	Oil seeds	AED	USA	59%
Sugar	Japan	AED	83%	Meat products nec	Cairns	AED	59%
Sugar	EU25	RoW	82%	Wheat	AED	USA	58%
Cereal grains nec	Japan	RoW	81%	Dairy products	EU25	Cairns	56%
Dairy products	Japan	Cairns	79%	Paddy rice	AED	USA	56%
Dairy products	Cairns	EU25	77%	Oil seeds	AED	Cairns	55%
Dairy products	Japan	EU25	75%	Meat products nec	Cairns	Cairns	54%
Dairy products	Cairns	Japan	67%	Wheat	EU25	AED	54%
Paddy rice	AED	RoW	66%	Sugar	EU25	ACP	53%
Sugar	EU25	USA	65%	Processed rice	EU25	USA	52%
Meat: cattle, sheep, goat	EU25	Cairns	65%	Meat: cattle, sheep, goat	RoW	RoW	52%
Dairy products	Cairns	Cairns	64%	Cattle, sheep, goase	RoW	AED	51%
Paddy rice	EU25	USA	64%				

Source: MAcMaps

Building scenarios

- HS-6 products; bilateral protection quasi-exhaustive coverage of countries
- AVE of ad-valorem tariffs, specific duties, tariff quotas, prohibitions, anti-dumping duties
- AVE reduced by $x\%$ at the HS_6 level; then aggregation (41 sectors, 7 regions)
- Systematic evolution rule of this AVE tariff, conditional to its initial level
- Tariff peaks : $>15\%$ in manuftrg, $>85\%$ in agric.
- Protection in service sectors is not considered

The scenarios

6 years for dev'd countries, 10 years for dev'g countries

Removal of nuisance tariffs (AVE <2%)

- (a) Uniform: 35% lowering
- (b) Uniform, except peaks: 35% lowering, except tariff peaks
- (c) Evening out ("truncated Swiss formula"):
"non-peak products": 35% lowering ,
peaks: Swiss formula, $t_{\text{final}} = a t_{\text{ini}} / (a + t_{\text{ini}})$
- (d) Evening out, smoother for developing countries:
developed countries: idem (c)
developing countries: same principle, but lowering of 20%
for non peaks, and lower a for peaks

Trade-weighted average (across partners) AVE tariff, examples

Region	Description	Initial	Scenario			
			(a)	(b)	(c)	(d)
Japan	Paddy rice	1.56	1.02	1.56	0.61	0.61
EU-25	Cattle	0.53	0.34	0.42	0.33	0.33
USA	Dairy products	0.30	0.20	0.20	0.20	0.20
Dg Asia	Paddy rice	0.89	0.58	0.88	0.51	0.66
ACP	Motor veh. & parts	0.14	0.09	0.12	0.08	0.10
Cairns	Wearing apparel	0.19	0.12	0.18	0.10	0.11
EU-25	Electronic equip't	0.03	0.02	0.02	0.02	0.02
USA	Chem., rubber	0.04	0.02	0.03	0.02	0.02

(a) Uniform

(b) Uniform except peaks

(c) Evening out

(d) Evening out smoother for dvp'g

Unweighted std-dev of AVE tariffs across partners, examples

Region	Description	Initial	Scenario			
			(a)	(b)	(c)	(d)
Japan	Paddy rice	0.97	1.20	0.97	1.56	1.56
EU-25	Cattle	0.19	0.26	0.22	0.28	0.28
USA	Dairy products	0.05	0.11	0.11	0.11	0.11
Dg Asia	Paddy rice	0.37	0.43	0.37	0.45	0.40
ACP	Motor veh. & parts	0.01	0.05	0.02	0.06	0.04
Cairns	Wearing apparel	0.02	0.07	0.02	0.09	0.08
EU-25	Electronic equip't	0.01	0.01	0.01	0.01	0.01
USA	Chem., rubber	0.01	0.02	0.02	0.02	0.02

(a) Uniform

(b) Uniform except peaks

(c) Evening out

(d) Evening out smoother for dvp'g

The AGE model MIRAGE:

Main Features

- Imperfect competition *à la* Cournot
- Product differentiation at quality (N/S), country and variety levels
- Agriculture: CRS
- Capital and skilled labour *vs* other factors
- Immobility of installed capital; international capital mobility
- Sequential dynamic setting: profits and numbers of firms evolutions; factor accumulation
- Entry/exits: inertia

Aggregation Choices

- 7 regions: USA, Japan, EU25, Cairns, ACP, ADE, RoW.
- All GTAP5 agricultural and industrial sectors plus two service sectors
- Use of GTAP5 database, with the exception of tariffs (MAcMaps simulations)
- 15 years

Scenario (a) results ("Uniform")

	Dev'g						
	EU-25	USA	Japan	Cairns	Asia	ACP	Row
Welfare	0.4%	0.2%	0.9%	0.3%	0.8%	0.4%	0.5%
GDP (volume)	0.1%	0.1%	0.3%	0.1%	0.3%	0.5%	0.5%
Prod'n factors real reward :							
Unskilled labor	0.3%	0.2%	0.4%	0.4%	0.8%	1.2%	0.5%
Skilled labor	0.3%	0.2%	0.6%	0.3%	1.2%	1.2%	0.8%
Capital	0.3%	0.2%	0.3%	0.2%	0.6%	0.8%	0.6%
Natural resources	-0.3%	-0.2%	-3.3%	0.0%	-1.0%	1.1%	2.2%
Land	-0.4%	1.6%	-5.0%	2.8%	-0.1%	1.5%	-1.7%
Dual price index of utility	0.3%	0.0%	-0.5%	-0.3%	-0.4%	-1.4%	0.2%
Exports (volume)	6.4%	6.0%	6.6%	7.0%	13.1%	9.3%	8.7%
Imports (volume)	7.4%	5.2%	7.6%	6.8%	12.6%	7.8%	8.8%
Tariff revenue	-19.1%	-30.7%	-2.6%	-22.0%	-18.6%	-25.3%	0.5%

Scenario (b) results (“Uniform except peaks”)

	EU-25	USA	Japan	Cairns	Dev'g Asia	ACP	Row
Welfare	0.3%	0.1%	0.3%	0.1%	0.3%	0.3%	0.2%
GDP (volume)	0.0%	0.1%	0.2%	0.1%	0.1%	0.2%	0.3%
Prod'n factors real reward :							
Unskilled labor	0.1%	0.1%	0.2%	0.2%	0.3%	0.5%	0.3%
Skilled labor	0.1%	0.1%	0.3%	0.1%	0.4%	0.5%	0.4%
Capital	0.2%	0.2%	0.2%	0.1%	0.2%	0.3%	0.3%
Natural resources	0.1%	0.1%	-3.3%	0.2%	-0.5%	0.8%	0.7%
Land	-0.5%	1.0%	-1.4%	1.5%	-0.1%	0.5%	-1.0%
Dual price index of utility	0.1%	0.0%	-0.2%	0.0%	-0.1%	-0.6%	0.1%
Exports (volume)	4.3%	4.5%	4.4%	3.5%	4.7%	2.9%	4.3%
Imports (volume)	4.8%	3.8%	5.0%	3.4%	4.6%	2.4%	4.4%
Tariff revenue	-13.3%	-23.8%	-10.5%	-12.2%	-7.3%	-10.4%	0.2%

Scenario (c) results ("Evening out")

	EU-25	USA	Japan	Cairns	Dev'g Asia	ACP	Row
Welfare	0.4%	0.2%	1.5%	0.4%	1.1%	0.4%	0.8%
GDP (volume)	0.1%	0.2%	0.4%	0.1%	0.4%	0.4%	0.6%
Prod'n factors real reward :							
Unskilled labor	0.4%	0.2%	0.5%	0.5%	1.2%	1.4%	0.6%
Skilled labor	0.5%	0.2%	0.9%	0.5%	1.3%	2.0%	0.9%
Capital	0.5%	0.2%	0.4%	0.2%	0.7%	1.0%	0.8%
Natural resources	-0.7%	-0.5%	-2.7%	-0.5%	-1.7%	0.3%	4.1%
Land	-0.6%	1.8%	-11.6%	-3.7%	0.4%	1.4%	-1.6%
Dual price index of utility	0.2%	0.0%	-0.6%	-0.4%	0.0%	-1.6%	0.3%
Exports (volume)	7.3%	6.8%	7.7%	8.8%	18.8%	10.9%	12.3%
Imports (volume)	8.6%	6.0%	8.9%	8.6%	18.0%	9.2%	12.4%
Tariff revenue	-25.6%	-33.5%	7.5%	-28.6%	-22.1%	-32.8%	0.8%

Scenario (d) results

(“Evening out, smoother for Dev’g”)

	Dev'g						
	EU-25	USA	Japan	Cairns	Asia	ACP	Row
Welfare	0.3%	0.1%	1.3%	0.4%	0.9%	0.3%	0.7%
GDP (volume)	0.1%	0.1%	0.4%	0.1%	0.3%	0.2%	0.5%
Prod'n factors real reward :							
Unskilled labor	0.4%	0.1%	0.5%	0.4%	0.9%	1.0%	0.4%
Skilled labor	0.5%	0.2%	0.9%	0.5%	0.9%	1.2%	0.6%
Capital	0.5%	0.2%	0.4%	0.2%	0.4%	0.6%	0.6%
Natural resources	-0.7%	-0.4%	-2.5%	-0.7%	-1.4%	-0.6%	3.4%
Land	-0.7%	1.2%	-11.5%	2.7%	0.7%	1.3%	-0.6%
Dual price index of utility	0.1%	0.0%	-0.2%	-0.1%	0.6%	-0.8%	0.3%
Exports (volume)	7.2%	5.9%	6.6%	7.1%	13.3%	6.3%	9.4%
Imports (volume)	8.2%	5.2%	7.7%	6.9%	12.8%	5.4%	9.5%
Tariff revenue	-25.9%	-34.1%	6.5%	-18.3%	-9.4%	-19.6%	0.7%

Terms of trade

		Scenario		
	Uniform	Unif. exc. peaks	Even out	Even out, asym
	(a)	(b)	(c)	(d)
EU-25	+ 0.10	- 0.02	+ 0.04	- 0.17
Japan	+ 0.61	+ 0.23	+ 0.64	+ 0.29
USA	+ 0.42	+ 0.18	+ 0.57	+ 0.27
Cairns	- 0.42	- 0.02	- 0.63	- 0.34
Dev'g Asia	- 0.32	- 0.09	- 0.01	+ 0.43
ACP	- 1.60	- 0.59	- 2.10	- 1.27
Row	- 0.40	- 0.24	- 0.42	- 0.05

Conclusions / Agenda for research

- Work in progress
 - Systematic design of scenarios at the HS_6 level: uniform reduction vs Swiss formula, differential treatment for dvp'g.
 - Integration in a dynamic CGE
- Importance of tariffs and of tariffs peaks, in agriculture and in industry. Half the gains associated with the lowering of tariff peaks
- Strong income effects: Land real reward
- Special treatment for dvp'g: redistrib^o of gains through ToT
- To be extended to domestic support and export subsidies
- MFN duty-level to be tackled
- Scenarios to be made available to GTAP community when fixed