

Market Access in Non-Agricultural Goods: What Is at Stake in the Development Round?

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Motivation

- NAMA in the Doha Round
 - average tariff = low
 - contrast developed vs. developing ctries
 - high dispersion (tariff peaks)
 - PTAs widespread
- Formula design?
 - Harmonising
 - S&D treatment
- Numerous different proposals (Girard main basis for future negotiations)

Aim and scope

- What would be the impact of liberalising NAMA?
 - for DCs in particular
- How does the scenario design matter?
 - emphasis on peaks?
 - Girard (B coefficient)
 - S&D T
- Assessment using MIRAGE and MAcMap
 - imperfect competition, products differentiation
 - applied protection incl. preferences
 - scenarios computed at the HS-6 level (on MFN applied)

Measuring protection: MAcMap

- ITC-CEPII joint work
- Sources: source files of TRAINS, country notifications to the WTO, AMAD, national sources, Comtrade, BACI-CEPII.
- See methodological note for details (Bouët et al. 2004, www.ceprii.fr/anglaisgraph/bdd/macmap.htm)
- Measures applied duties (incl. exhaustively PTAs) in 2001
- AV, specific, TRQs (ADDs not included here)
- 147 countries, 240 partners
- Aggregation procedure intended to reflect trade restrictiveness (not tariff receipts...)

Methodology: Aggregation

- Reflect trade restrictiveness
- Across products and exporters: weighting scheme based on imports of the RG the importer belongs to, instead of the importer himself
- Across importers: weighting scheme accounts for the size of the importer, and of the share of the product in imports of the RG the importer belongs to

Initial, applied protection (AVE, %)

		Textile-wearing, from:				Other industrial prod., from:			
		Industrialised	Developing	Poorest	World	Industrialised	Developing	Poorest	World
Industrialised ctries		8.6	8.3	7.8	8.3	2.9	2.2	1.5	2.7
of which:	EU25	8.2	7.1	6.5	7.2	3.3	2.2	1.8	2.8
	US	9.7	10.7	10.7	10.3	2.0	1.7	0.6	1.9
Developing ctries		14.8	17.2	16.2	15.5	8.8	9.9	9.3	9.1
of which:	Brazil	18.3	18.1	17.4	18.2	12.6	9.2	6.9	11.4
	Maghreb	33.1	36.8	35.2	34.4	16.0	17.0	18.1	16.4
	Mexico	12.3	26.4	27.5	18.5	8.3	15.7	16.7	10.1
Poorest ctries		33.4	33.4	30.1	33.2	20.1	23.7	18.1	21.2
of which:	AFR	27.1	31.1	32.9	30.2	15.0	16.2	17.4	15.6
	INDIA	42.0	47.4	29.8	44.8	31.7	36.3	27.3	33.0
World		11.0	10.2	9.2	10.4	4.8	4.3	5.3	4.7

Initial, applied protection: salient features

- 2x+ in textile-clothing
- 2x+ in LDCs than in other DCs, 2x+ in other DCs than in rich ctries
- Highest average protection: India, Maghreb, SSA South-Asia, Argentina, Brazil, Mexico
- Strong effect of FTAs (NAFTA, Mercosur, EU-Turkey, EU-EFTA...)
- Sizeable effect for some countries of non-reciprocal preferences (SSA, South-Asia)

Scenarios

- (a) Peaks elimination: peaks (ie >15%) replaced by 15%
- (b) Complete liberalisation
- (c) Girard 1: Girard's proposal, coefficient B=1.
- (d) Girard 2: Girard's proposal, coefficient B=2.
- (e) Girard 0.65: Girard's proposal, coefficient B=0.65.
- (f) Girard 1, North only: Girard's proposal, coefficient B=1, applied only in developed countries

Girard formula:
$$T_1 = \frac{B \times t_a \times T_0}{B \times t_a + T_0}$$

Implementing scenarios

- Pre-experiment simulation (MFA phased out, China & Russia in WTO, AGOA fully applied)
- Liberalisation restricted to non agricultural products
- For each HS-6 product, each country and each partner:
 - formula applied to AVE MFN tariff → liber'd MFN
 - liber'd applied = MIN (initial applied, liber'd MFN)
- Then aggregation of liberalised applied (20 sectors, 22 regions)

Aggregation

➤ 22 regions x 20 sectors

Progcrops	MetalsNec
OtherAg	MetalProd
Livestock	MotorVeh
Primary	TrspEqNec
Textiles	Electronic
Wearing	Machinery
Leather	OtherManuf
WoodPap	ServOth
Chem	Transp
FerMetals	BusServ

AFR	Korea
ANZCERTA	Maghreb
Argentina	Mexico
Brazil	RoW
Canada	RSAm
China	Russia
EFTA	SACU
EU25	SouthAsia
HKTaSgp	Tigers
INDIA	Turkey
Japan	US

Main Features of MIRAGE

- Imperfect competition *à la* Cournot & IRTS in manufactures and services
- Product differentiation at quality (N/S), country (Armington) and variety (SDS) levels
- Capital and skilled labour vs other factors
- Fixed stock of capital
- Fixed current balance, endogenous RER
- Data:
 - MAcMap_2001 for protection
 - GTAP 5.3 otherwise

Resulting applied protection (AVE, %)

		Textile-wearing					Other industrial prod.				
		Benchmark	(a) Peaks	(c) Girard 1	(d) Girard 2	(e) Girard 0.65	Benchmark	(a) Peaks	(c) Girard 1	(d) Girard 2	(e) Girard 0.65
Industrialised ctries		8.3	7.7	1.6	1.8	1.4	2.7	2.4	1.3	1.4	1.2
of which:	EU25	7.2	7.1	1.3	1.4	1.2	2.8	2.7	1.2	1.3	1.1
	US	10.3	9.3	2.0	2.3	1.8	1.9	1.8	0.9	1.0	0.7
Developing ctries		15.5	10.9	5.4	6.5	4.6	9.1	7.3	4.5	5.4	3.9
of which:	Brazil	18.2	14.3	7.0	8.7	5.8	11.4	10.1	5.4	6.8	4.5
	Maghreb	34.4	13.6	11.0	13.2	9.4	16.4	10.9	8.2	10.1	6.9
Poorest ctries		33.2	13.6	12.7	15.3	10.9	21.2	13.6	11.9	14.4	10.2
of which:	AFR	30.2	13.5	11.9	13.4	10.8	15.6	11.5	8.6	10.2	7.6
	INDIA	44.8	15.7	17.7	22.5	14.7	33.0	18.9	19.2	23.6	16.4
World		10.4	8.5	2.7	3.1	2.3	4.7	3.9	2.3	2.7	2.0

Resulting applied protection, salient features

- Strong harmonising effect of Girard's formula across sectors (textile)
- Peaks: -20% in average, but strong effect in some cases (India, Maghreb)
- Girard 1 approx. halves average protection (here MFN cut...)
- B coeff does not matter much, except for strongly protected countries

The impact of liberalising NAMA: preliminary remarks

- Prices of textile-cloth always decline (excl. when North only liberalises)!!!
- Strong initial protection in DCs $\Rightarrow$ import surge $\Rightarrow$ real depreciation $\Rightarrow$ lower price for most textile-clothing exporters $\Rightarrow$ stiffer price comp'n in text-cloth $\Rightarrow$ real depreciation needs to be strong

Impact on industrial imports (vol., %)

		(a) Peaks elimination	(b) Complete liberalization	(c) Girard 1	(d) Girard 2	(e) Girard 0.65	(f) Girard 1, North only
Developed ctries		1.2	9.7	6.3	5.6	6.8	5.2
of which: EU25		1.2	12.8	8.2	7.4	8.8	6.7
US		0.6	5.7	3.6	3.1	4.0	3.0
DC		4.1	17.3	10.4	9.0	11.5	4.1
of which: Brazil		5.3	30.9	16.2	13.2	18.4	0.9
Maghreb		17.9	31.6	18.3	15.9	20.1	-0.5
Mexico		1.4	6.0	3.1	2.7	3.4	-0.3
Poorest		14.8	35.7	17.3	13.2	20.2	1.4
of which: AFR		5.8	15.7	9.0	7.3	10.2	-0.1
INDIA		27.3	61.7	26.3	18.5	31.9	2.6
World		2.4	12.0	7.3	6.3	8.1	4.4

Impact on industrial exports (vol.,%)

(a) Peaks elimination
(b) Complete liberalization

(c) Girard 1

(d) Girard 2

(e) Girard 0.65
(f) Girard 1, North only

		(a)	(b)	(c)	(d)	(e)	(f)
Developed cttries		1.5	9.5	6.0	5.3	6.6	4.4
of which:	EU25	1.5	10.2	6.1	5.2	6.8	3.9
	Japan	2.8	12.7	8.6	7.7	9.2	6.8
	US	0.6	6.2	4.0	3.4	4.3	3.1
DC		4.2	18.1	11.1	9.7	12.1	5.1
	China	2.0	17.5	12.1	10.8	13.0	5.7
	Mexico	1.2	5.4	2.7	2.3	3.0	-1.1
	Tigers	7.7	24.3	15.9	14.0	17.2	13.9
	Turkey	9.8	13.9	9.6	9.2	10.0	-2.9
Poorest		15.3	40.9	19.4	14.8	22.7	3.3
of which:	AFR	5.6	11.1	6.0	4.3	7.3	-2.1
	INDIA	20.9	53.2	22.8	16.2	27.5	4.2
World		2.4	11.8	7.2	6.2	7.9	4.3

Impact on ToT (% change)

(a) Peaks elimination
(b) Complete liberalization
(c) Girard 1
(d) Girard 2
(e) Girard 0.65
(f) Girard 1, North only

Developed ctries

of which:	EU25	0.4	1.0	0.4	0.2	0.5	-0.5
	Japan	0.7	2.8	1.7	1.5	1.9	0.9
	US	0.1	0.1	-0.1	-0.1	0.0	-0.5

DC

of which:	Argentina	-0.2	-2.8	-1.5	-1.1	-1.8	0.4
	Brazil	-1.0	-4.1	-2.4	-1.9	-2.7	0.4
	China	-0.4	-1.6	-0.2	0.2	-0.5	1.9
	Maghreb	-2.5	-5.4	-3.4	-2.9	-3.8	0.1

Poorest

of which:	AFR	-1.3	-3.9	-2.3	-1.9	-2.6	0.0
	INDIA	-4.0	-7.1	-2.9	-1.6	-3.7	1.2

Impact world prices, % change

(a) Peaks elimination
(b) Complete liberalization
(c) Girard 1
(d) Girard 2
(e) Girard 0.65
(f) Girard 1, North only

Primary

Progcrops	-0.43	-1.57	-0.86	-0.66	-0.99	0.03
OtherAg	-0.24	-0.79	-0.44	-0.35	-0.51	-0.01
Livestock	-0.09	-0.46	-0.28	-0.23	-0.31	-0.20
Primary	-0.36	-1.20	-0.64	-0.50	-0.74	0.19

Manufacturing

Textiles	-0.45	-1.36	-0.69	-0.52	-0.81	0.11
Wearing	-1.14	-2.92	-1.40	-1.05	-1.65	0.47
Leather	-0.49	-1.63	-0.70	-0.46	-0.87	0.53
WoodPap	-0.07	-0.26	-0.20	-0.19	-0.21	-0.28
Chem	0.01	-0.11	-0.05	-0.04	-0.06	-0.10
FerMetals	-0.05	-0.36	-0.09	-0.02	-0.14	0.19
MetalsNec	-0.35	-1.41	-0.70	-0.56	-0.80	-0.29
MetalProd	0.02	0.02	0.11	0.14	0.10	0.07
MotorVeh	0.00	-0.19	-0.16	-0.18	-0.15	-0.33
TrspEqNec	0.10	0.11	0.07	0.06	0.08	-0.16
Electronic	0.04	0.27	0.25	0.28	0.23	-0.10
Machinery	0.15	0.31	0.22	0.20	0.23	-0.02
OtherManuf	-0.29	-0.74	-0.26	-0.13	-0.35	0.30

Impact on welfare (EV, %)

(a) Peaks elimination
(b) Complete liberalization
(c) Girard 1
(d) Girard 2
(e) Girard 0.65
(f) Girard 1, North only

		(a)	(b)	(c)	(d)	(e)	(f)
Developed cttries		0.07	0.21	0.12	0.10	0.14	0.01
of which:	EU25	0.08	0.21	0.10	0.07	0.12	-0.05
	Japan	0.13	0.51	0.35	0.31	0.37	0.23
	US	0.04	0.09	0.05	0.04	0.05	-0.03
	HKTaSgp	0.15	0.91	0.49	0.39	0.57	0.12
DC		0.02	-0.51	-0.16	-0.07	-0.22	0.10
of which:	China	-0.10	-0.93	-0.33	-0.17	-0.43	0.43
	Maghreb	0.81	-0.39	0.38	0.57	0.23	0.05
	Mexico	0.09	-0.36	-0.02	0.04	-0.07	-0.07
Poorest		-0.35	-1.30	-0.44	-0.24	-0.58	0.11
of which:	AFR	-0.18	-1.23	-0.59	-0.42	-0.70	-0.02
	INDIA	-0.47	-1.38	-0.34	-0.11	-0.51	0.14
World		0.06	0.05	0.06	0.07	0.06	0.03

Sensitivity analysis, impact on welfare (EV, %)

	Mirage	Sigma x 2	Perfect comp'n	No vertical diff'n	Mirage, after agric lib'n	K endog
Developed ctries	0.12	0.14	0.09	0.13	0.46	0.12
of which: EU25	0.10	0.11	0.09	0.11	0.35	0.09
Japan	0.35	0.40	0.25	0.37	1.79	0.35
US	0.05	0.06	0.03	0.05	-0.02	0.04
DC	-0.16	0.05	0.05	-0.11	-0.80	-0.16
of which: Brazil	-0.16	-0.06	-0.04	-0.14	-3.01	-0.18
China	-0.33	-0.31	0.25	-0.41	1.18	-0.33
Maghreb	0.38	1.74	0.69	0.60	-1.43	0.39
Poorest	-0.44	-0.14	-0.08	-0.39	-1.93	-0.44
of which: AFR	-0.59	-0.33	-0.35	-0.42	-1.92	-0.59
INDIA	-0.34	-0.03	0.02	-0.37	-2.36	-0.33
World	0.06	0.14	0.09	0.09	0.20	0.06

Concluding remarks

- Global gains, unevenly distributed
- Higher protection, similar specialisation of DCs $\Rightarrow$ high ToT cost (stiff price comp'n in clothing)
- S&D T might correct this cross-country distributive impact
- Agenda: Apply scenario to bound rates (on-going)