

Regional policies initiatives to mitigate the impacts of the international financial crisis

José Durán Lima (CEPAL)
Cecilia Llambí (CINVE)
Inés Terra (dECON)

Sebastián Herreros
Alessia Lo Turco
Gonzalo Véliz
Dayna Zaclicever

Dialogue on Canada-Latin American Economic Relations
May 27-28, 2010
Ottawa

Presentation outline

- “ Context and motivation
- “ Objectives
- “ Methodology and data
 - “ Methodological strategy
 - “ Simulation scenarios
 - “ Data sources
 - “ General equilibrium models
- “ Some results
- “ Policy implications

Context and motivation

- “ Regional impacts of global economic crisis (Latin-American countries): slowdown in economic growth, trade flows, remittances and foreign direct investment
- “ Pressures for greater protectionism
- “ Increasing demands for appropriate policies to mitigate the impacts of the crisis

Context and motivation

International trade restrictive measures implemented in the world between November 2008 and March 2010

Regions	Applied (A)	Share of total (%)	Pending (B)	Share of total (%)	Total (C= A+B)	Share of total (%)	Share of application (D = A/C)
Latin America and the Caribbean	66	13.3	71	22.0	137	16.7	48.2
European Union 27	140	28.3	20	6.2	160	19.6	87.5
United States	14	2.8	44	13.6	58	7.1	24.1
Asia	100	20.2	83	25.7	183	22.4	54.6
China	19	3.8	17	5.3	36	4.4	52.8
Rest of Asia	81	16.4	66	20.4	147	18.0	55.1
Rest of the World	175	35.4	105	32.5	280	34.2	62.5
Total World	495	100.0	323	100.0	818	100.0	60.5

Source: Own elaboration based on Global Trade Alert (GTA) and other official sources

Context and motivation

Mapping of the trade restrictive measures applied by Latin-American countries between November 2008 and March 2010

	Argentina	Bolivia	Brazil	Chile	Colombia	Ecuador	Mexico	Paraguay	Peru	Uruguay	Venezuela	No. of Countries
Tariff increases		X	X			X	X	X				5
Antidumping	X		X	X					X			4
Licenses	X		X									1
Prices of reference	X							X				2
Fiscal discrimination	X									X		2
Safewards						X						1
Quotes						X						1
Exchange control											X	1
Antidumping investigations	X		X	X	X							3
Total applied measures	5	1	4	2	1	3	1	2	1	1	1	11

Source: Own elaboration based on Global Trade Alert (GTA) and other official sources

Objectives

- “ Assess the impact of the restrictive (tariff and non-tariff) measures implemented by Latin-American countries to address the international crisis
- “ Evaluate the effects of alternative trade measures (plausible and extreme scenarios)

Methodology and data

Methodological strategy

- a) calculation of tariff-like proxies of the non-tariff restrictive measures implemented by Latin-American countries in response to crisis
- b) use of computable general equilibrium (CGE) methods to evaluate the real effects of the trade policy changes**
- c) use of microsimulations to assess the impacts on poverty and income distribution

Methodology and data

Simulation scenarios

ESC-00	Crisis
ESC-01	Crisis and trade policy measures implemented during 2009
ESC-02	Crisis and retaliation
ESC-03	Crisis and trade policy measures applied only to non-LAC
ESC-04	Crisis, trade policy measures applied to non-LAC and free intra-regional trade
ESC-05	Economic recovery (no crisis), trade policy measures applied to non-LAC and free intra-regional trade

Methodology and data

Average baseline tariffs and changes considered for the simulation exercises - Total imports

Country	Baseline 2008 tariffs	ESC-01 Trade policy measures 2009	ESC-02 Retaliation	ESC-03 Trade policy measures only for non-LAC partners	ESC-04 & ESC-05 Trade policy measures for non-LAC and free intra-regional trade
Costa Rica	2.7	2.7	2.7	2.7	1.5
Guatemala	3.9	3.9	3.9	3.9	2.6
Nicaragua	2.8	2.8	2.8	2.8	1.7
Panama	6.7	6.7	6.7	6.7	6.7
Mexico	3.0	2.3	3.2	2.4	2.1
Bolivia	3.6	5.0	5.0	4.1	2.9
Colombia	8.1	8.1	8.3	8.3	7.1
Ecuador	6.0	10.1	10.1	6.9	5.4
Peru	5.9	5.9	6.0	6.3	4.6
Venezuela	8.8	18.1	18.3	17.8	15.7
Argentina	4.9	5.1	6.7	5.0	4.7
Brazil	6.6	7.0	7.2	6.7	6.5
Paraguay	5.5	5.5	6.2	5.5	5.0
Uruguay	3.8	3.8	3.9	3.8	3.5
Chile	1.6	1.6	2.1	1.6	1.4
Rest of LAC	9.1	9.1	9.1	9.1	7.7
LAC	5.2	5.5	6.0	5.4	4.7

Methodology and data

Average baseline tariffs and changes considered for the simulation exercises - Intraregional imports

Country	Baseline 2008 tariffs	ESC-01 Trade policy measures 2009	ESC-02 Retaliation	ESC-03 Trade policy measures only for non-LAC partners	ESC-04 & ESC-05 Trade policy measures for non-LAC and free intra-regional trade
Costa Rica	4,6	3,4	4,7	0,0	0,0
Guatemala	3,3	2,5	3,7	0,0	0,0
Nicaragua	2,5	1,9	2,5	0,0	0,0
Panama	6,5	6,5	6,7	0,0	0,0
Mexico	6,4	6,7	6,7	0,0	0,0
Bolivia	2,3	2,4	3,4	0,0	0,0
Colombia	2,8	2,8	5,6	0,0	0,0
Ecuador	2,7	2,8	7,1	0,0	0,0
Peru	2,3	3,9	4,0	0,0	0,0
Venezuela	2,3	2,8	3,3	0,0	0,0
Argentina	2,2	3,4	2,5	0,0	0,0
Brazil	4,4	4,4	5,3	0,0	0,0
Paraguay	0,6	0,7	0,6	0,0	0,0
Uruguay	1,3	1,4	1,4	0,0	0,0
Chile	3,8	4,8	4,8	0,0	0,0
Rest of LAC	5,0	4,2	5,3	0,0	0,0
LAC	3,7	4,2	4,6	0,0	0,0

Methodology and data

Data sources

- “ GTAP 7.0 database updated from base year 2004 to 2008 using the alertax algorithm
- “ Global Trade Alert (GTA) database
- “ ALADI, COMTRADE and TRAINS (UNCTAD) databases
- “ Other sources (IMF, Eurostat, U.S. Bureau of Economic Analysis)

Regional aggregation of the GTAP database



No.	Codes	Countries	Regions/Subregions
1	CRI	Costa Rica	Central America
2	GTM	Guatemala	
3	NIC	Nicaragua	
4	PAN	Panama	
5	MEX	Mexico	Mexico
6	BOL	Bolivia	Andean Countries
7	COL	Colombia	
8	ECU	Ecuador	
9	PER	Peru	
10	VEN	Venezuela	
11	ARG	Argentina	Southern Common Market (MERCOSUR)
12	BRA	Brazil	
13	PRY	Paraguay	
14	URY	Uruguay	
15	CHL	Chile	
16	RAM	Rest of Latin America	Rest of Latin America and the Caribbean
17	EU_27	Austria; Belgium; Cyprus; Czech Republic; Denmark; Estonia; Finland; France; Germany; Greece; Hungary; Ireland; Italy; Latvia; Lithuania; Luxembourg; Malta; Netherlands; Poland; Portugal; Slovakia; Slovenia; Spain; Sweden; United Kingdom; Bulgaria; Romania	European Union 27
18	CHN	China	China
19	Asia	Hong Kong; Japan; Korea; Taiwan; Rest of East Asia; Cambodia; Indonesia; Lao People's Democratic Rep.; Myanmar; Malaysia; Philippines; Singapore; Thailand; Viet Nam; Rest of Southeast Asia; Bangladesh; India; Pakistan; Sri Lanka; Rest of South Asia	Rest of Asia
20	EEUU	USA	United States of America
21	ROW	Other countries nec.	Rest of the World

Sectoral aggregation of the GTAP database



Sector	Name	GTAP 7.0 category	Aggregate sector
1	Rice	Paddy rice	Agricultural products
2	Wheat	Wheat	
3	Other cereals	Cereal grains nec.	
4	Fruit and vegetables	Vegetables, fruit, nuts	
5	Oils seeds	Oil seeds	
6	Other crops	Sugar cane, sugar beet; Crops nec.	
7	Vegetable fibers	Plant-based fibers	
8	Livestock and livestock products	Cattle, sheep, goats, horses; Animal products nec; Raw milk; Wool, silk-worm cocoons	
9	Forestry	Forestry	
10	Fishing	Fishing	
11	Energy extraction	Coal; Oil; Gas	Extraction and mining
12	Mining	Minerals nec.	
13	Meat	Meat: cattle, sheep, goats, horse; Meat products nec.	Light manufactures
14	Vegetable oils	Vegetable oils and fats	
15	Dairy	Dairy products	
16	Other foods	Processed rice; Food products nec.	
17	Sugar	Sugar	
18	Beverages and tobacco	Beverages and tobacco products	
19	Textiles	Textiles	
20	Apparel	Wearing apparel	
21	Leather products and footwear	Leather products	
22	Wood	Wood products	
23	Paper	Paper products, publishing	
24	Refined oil products	Petroleum, coal products	Heavy manufactures
25	Chemicals	Chemical, rubber, plastic products	
26	Mineral products	Mineral products nec.	
27	Metals	Ferrous metals; Metals nec.	
28	Metal products	Metal products	
29	Auto parts	Motor vehicles and parts	
30	Transport equipment	Transport equipment nec.	
31	Other manufactures	Electronic equipment; Manufactures nec.	
32	Machinery and equipment	Machinery and equipment nec.	
33	Services	Electricity; Gas manufacture, distribution; Water; Construction; Trade; Transport nec; Sea transport; Air transport; Communication; Financial services nec; Insurance; Business services nec; Recreation and other services; Pub.Admin./Defense/Health/Education; Dwellings	

Methodology and data

General equilibrium models

	GTAP model	Mercenier model																								
Exogenous regions	United States European Union 27 China Rest of Asia	United States European Union 27																								
Baseline shocks (crisis simulation)	<ul style="list-style-type: none"> ▪ Unemployment of capital and labor ▪ Changes in GDP volume of exogenous regions ▪ Changes in capital endowments of exogenous regions 	Changes in intermediate and final demand for imported goods in exogenous regions																								
Shocks details	<p>Variations of GDP volume:</p> <table style="margin-left: 40px;"> <tr><td>USA</td><td>-2.5%</td></tr> <tr><td>EU27</td><td>-4.0%</td></tr> <tr><td>China</td><td>8.7%</td></tr> <tr><td>Rest of Asia</td><td>-0.036%</td></tr> </table> <p>Variation of capital stock:</p> <table style="margin-left: 40px;"> <tr><td>USA</td><td>-3.0%</td></tr> <tr><td>EU27</td><td>-4.0%</td></tr> <tr><td>China</td><td>9.0%</td></tr> <tr><td>Rest of Asia</td><td>-2%</td></tr> </table>	USA	-2.5%	EU27	-4.0%	China	8.7%	Rest of Asia	-0.036%	USA	-3.0%	EU27	-4.0%	China	9.0%	Rest of Asia	-2%	<p>Variation of imports prices (simple average):</p> <table style="margin-left: 40px;"> <tr><td>USA</td><td>-6.9%</td></tr> <tr><td>EU27</td><td>-5.6%</td></tr> </table> <p>Variation of imports volume (simple average):</p> <table style="margin-left: 40px;"> <tr><td>USA</td><td>-14.2%</td></tr> <tr><td>EU27</td><td>-16.8%</td></tr> </table>	USA	-6.9%	EU27	-5.6%	USA	-14.2%	EU27	-16.8%
USA	-2.5%																									
EU27	-4.0%																									
China	8.7%																									
Rest of Asia	-0.036%																									
USA	-3.0%																									
EU27	-4.0%																									
China	9.0%																									
Rest of Asia	-2%																									
USA	-6.9%																									
EU27	-5.6%																									
USA	-14.2%																									
EU27	-16.8%																									

Some results

Latin America and the Caribbean: impacts of the international crisis under different trade policy scenarios

Macroeconomic effects (changes with respect to baseline)

	GDP	Consumption	Investment	Exports	Imports
ESC-00	-0.6				
ESC-01	-0.3	-0.3	-0.1	-0.9	-0.7
ESC-02	-2.2	-2.1	-2.0	-3.3	-3.3
ESC-03	0.0	0.0	0.3	-0.5	-0.3
ESC-04	1.8	1.8	2.3	2.0	2.6
ESC-05	1.9	2.0	1.9	2.7	3.1

Some results

Latin America and the Caribbean: exports and imports by group of product (changes with respect to the baseline)

	ESC-01 Trade policy measures 2009	ESC-02 Retaliation	ESC-03 Trade policy measures only for non- LAC partners	ESC-04 Trade policy measures for non-LAC and free intra- regional trade	ESC-05 Trade policy measures for non-LAC and free intra- regional trade with economic recovery
EXPORTS					
Goods	-0,9	-3,8	-0,5	2,3	3,1
Agriculture	-1,5	-3,9	-1,5	-1,4	3,4
Extraction and mining	-2,7	-3,1	-2,7	-2,3	7,8
Light manufactures	-1,0	-3,7	-0,6	2,5	1,7
Heavy manufactures	-0,2	-4,0	0,4	4,3	2,2
Services	-0,8	-0,5	-0,6	0,1	-0,3
Total exports	-0,9	-3,4	-0,5	2,1	2,7
IMPORTS					
Goods	-0,7	-3,4	-0,2	2,7	3,1
Agriculture	-0,6	-3,5	-0,3	2,8	3,5
Extraction and mining	-1,0	-7,3	-0,4	5,1	6,7
Light manufactures	-1,0	-4,2	-0,4	3,2	3,7
Heavy manufactures	-0,6	-2,9	-0,2	2,4	2,7
Services	-0,6	-2,5	-0,4	1,6	3,2
Total imports	-0,7	-3,3	-0,3	2,5	3,1

Some results

Latin America and the Caribbean: welfare changes by sub-region (as a percentage of initial consumption)

Sub-region	ESC-01 Trade policy measures 2009	ESC-02 Retaliation	ESC-03 Trade policy measures only for non-LAC partners	ESC-04 Trade policy measures for non-LAC and free intra- regional trade	ESC-05 Trade policy measures for non- LAC and free intra- regional trade with economic recovery
MERCOSUR	-0.7%	-3.9%	0.7%	2.9%	-0.9%
Andean Community	-4.0%	-7.8%	-2.7%	-0.5%	1.0%
Central America	0.6%	-0.9%	0.1%	5.4%	4.1%
Chile	0.5%	-1.0%	1.0%	3.2%	1.7%
Mexico	1.5%	-1.7%	0.9%	2.9%	2.6%
Rest of LAC	0.4%	0.4%	0.0%	5.7%	3.9%
LAC	-0.2%	-3.0%	0.2%	2.9%	1.4%

Policy implications

- “ Intraregional trade spaces should be preserved, especially in times of crisis.
- “ The maintenance of the status quo would be a better response than the proliferation of indiscriminate protectionist measures, that would sharpen the adverse effects of crisis.
- “ The deepening of regional integration would be the best policy option, contributing to compensate the impacts of crisis.