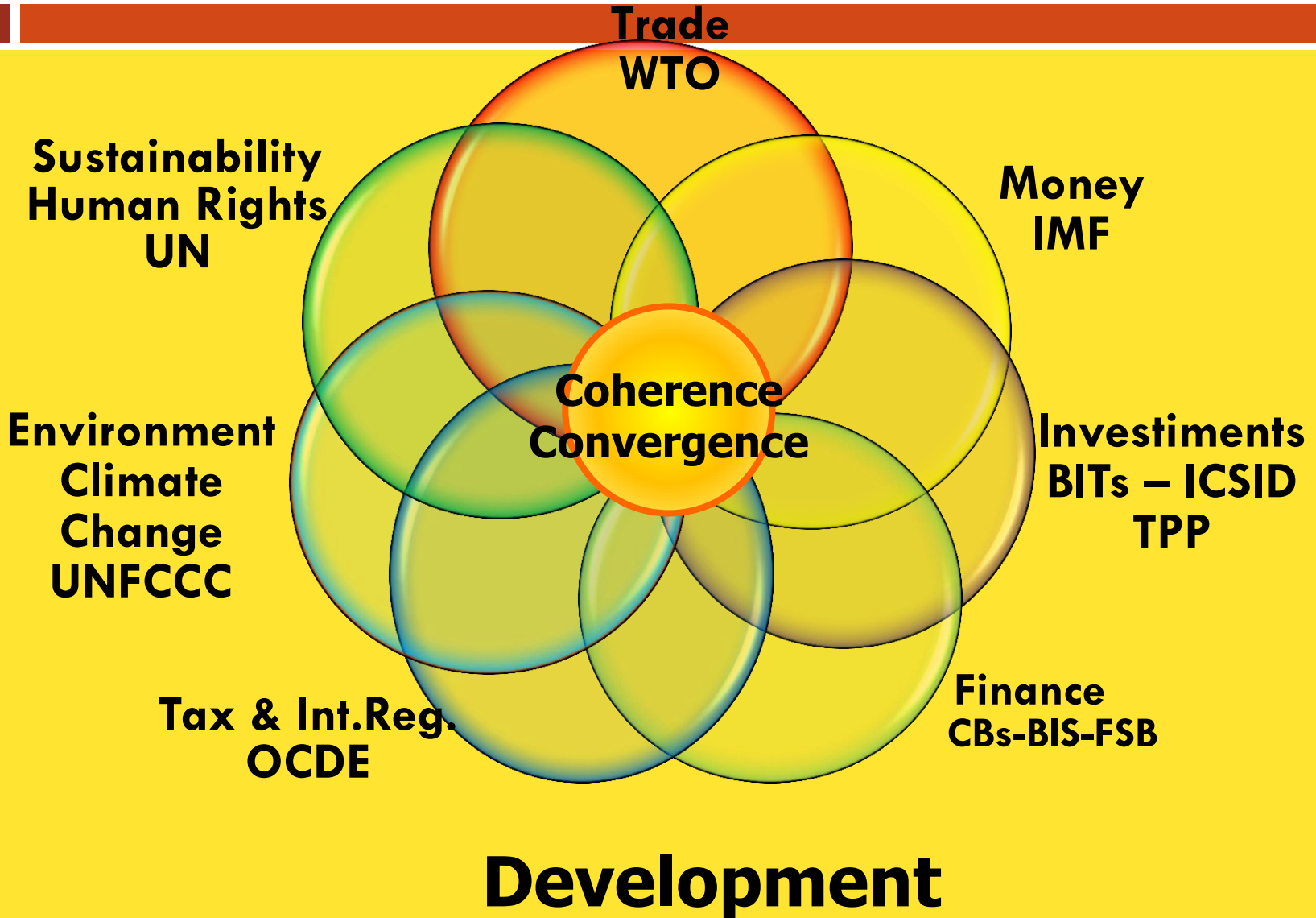


INTERNATIONAL TRADE : CHALLENGES AHEAD

2016

Profs. Vera Thorstensen, Lucas Ferraz,
Emerson Marçal

International Economic System Governance



Trends and Challenges

3

- 1 – Multiplication of PTAs and new Megas
- 2 – Logic of Global Value Chains
- 3 – Fragmentation of regulatory barriers
- 4 – Currency Wars

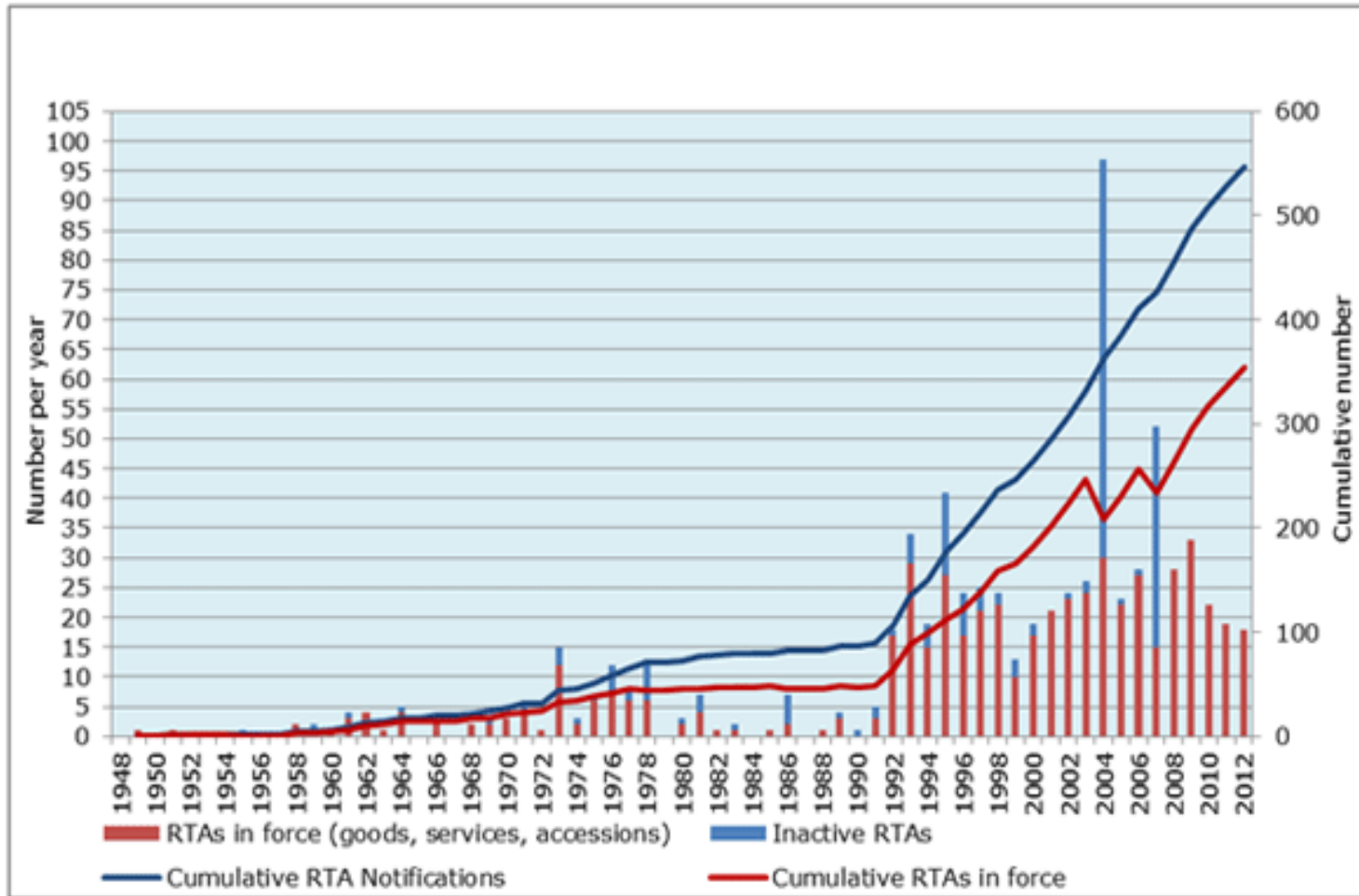
1 - Multiplication of PTAs

4

- Types: RTAs, Bilateral, Non-reciprocal
- Scope: goods + services + IP + Inv + Comp + CC
- Issues: WTO in + WTO plus + WTO extra
- Mega-PTAs: US EU RECEP

Number of PTAs

5



Source: WTO, 2012

MEGAS

6

TTIP – Trans Atlântico:

- . EUA e UE

TPP – Trans Pacific (12)

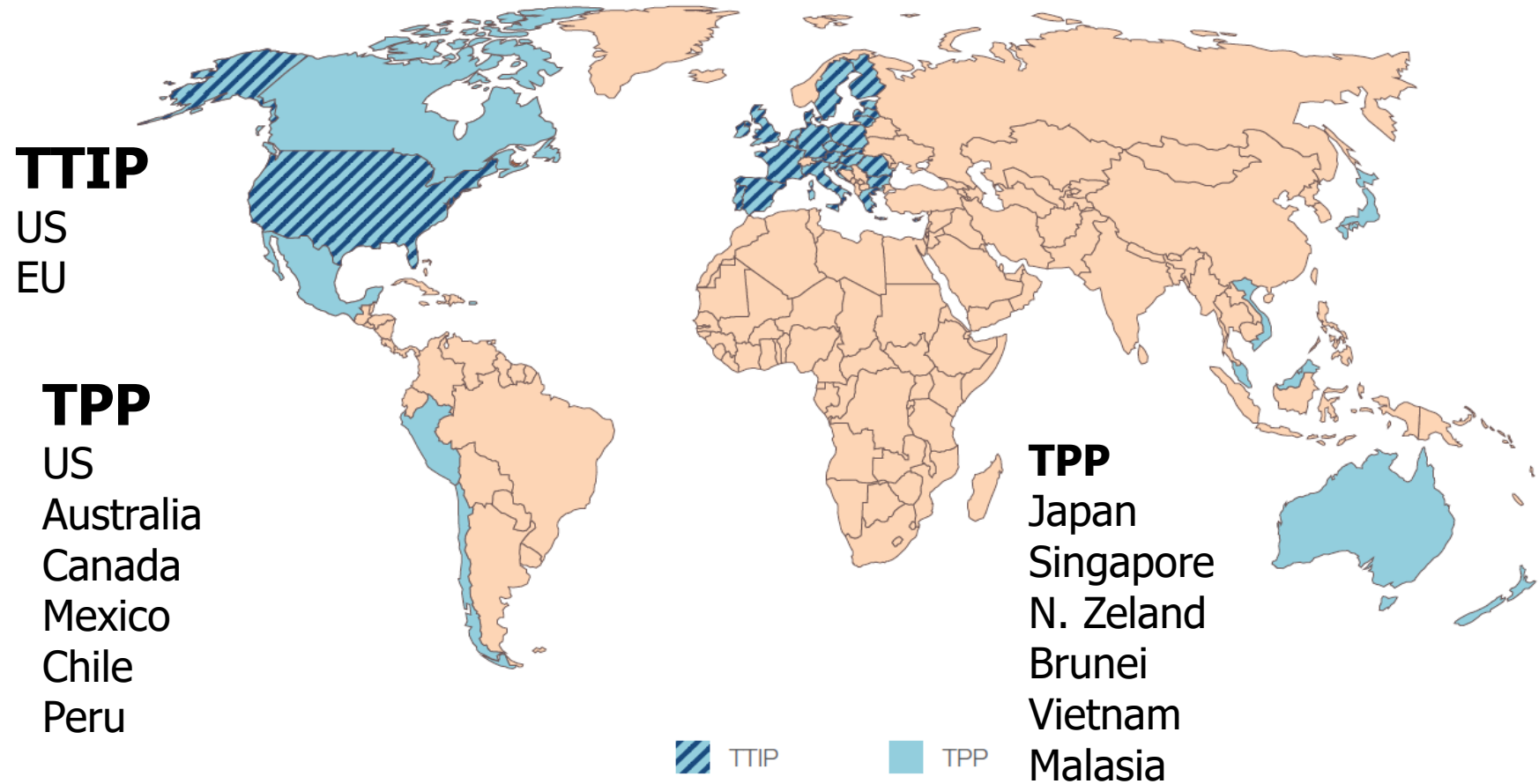
- . EUA, Austrália, Canadá, México, Chile, Peru
Japão, Cingapura, N. Zelândia, Brunei, Vietnã, Malásia

RECEP – Regional Comprehensive Economic Partnership (16)

- . China, Indonésia, Malásia, Filipinas, Laos, Tailândia,
Cingapura, Brunei, Myanmar, Camboja, Vietnã, Japão, Coreia,
Índia, Austrália, Nova Zelândia

TTIP + TPP

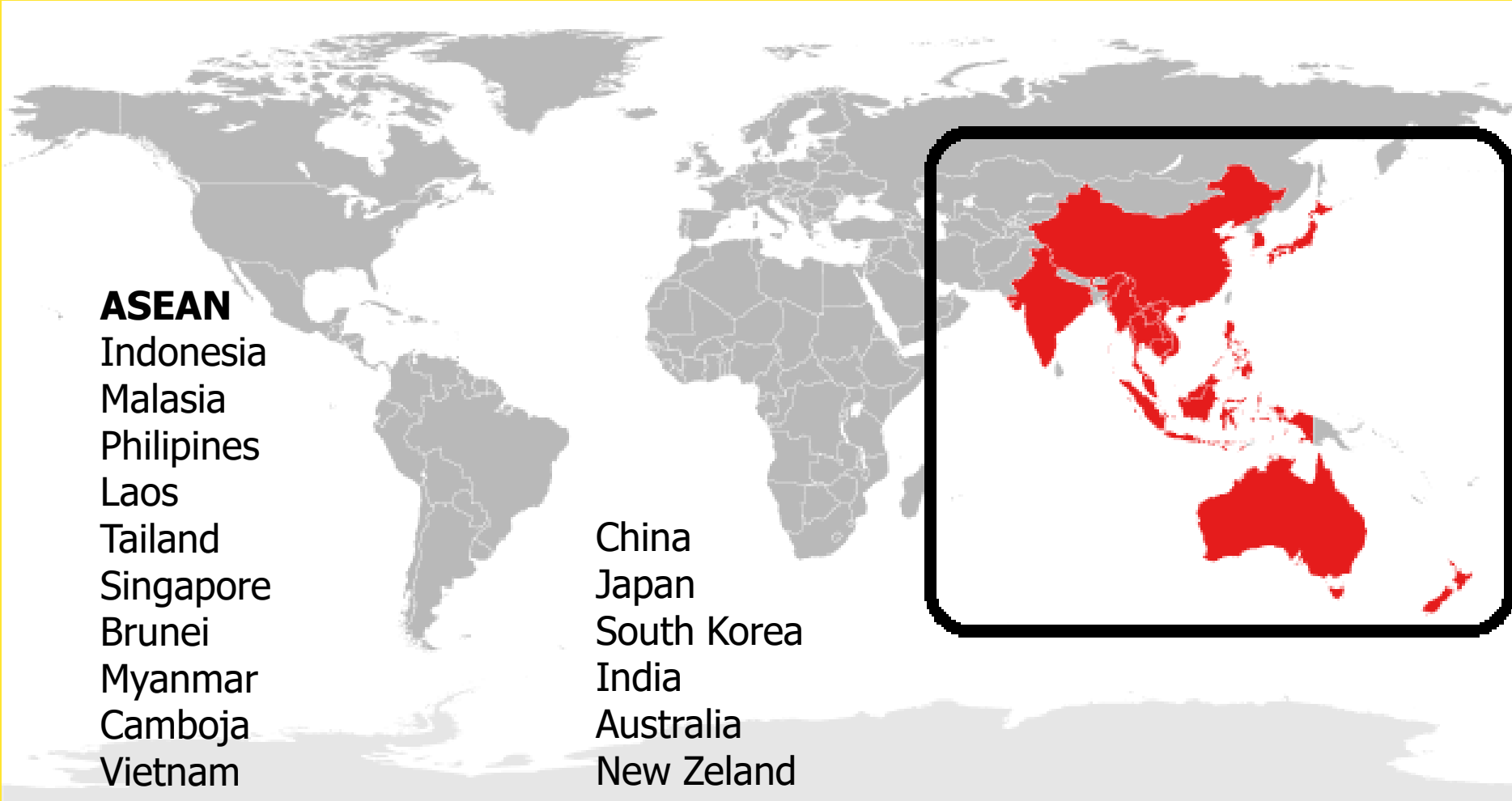
Figure 2: TTIP and TPP membership



Fonte: DRAPER; MELÉNDEZ-ORTIZ, in *Mega-regional trade agreements*. WEF, July 2014

RCEP

8



ASEAN

Indonesia

Malaysia

Philippines

Laos

Thailand

Singapore

Brunei

Myanmar

Cambodia

Vietnam

China

Japan

South Korea

India

Australia

New Zealand

MEGAs

	TPP	TTIP	RCEP
Countries	12	29	16
Mundial GDP (%)	38	46	29
Exports Goods + Services (%)	24	25	30

Fonte: Peterson Institute

China – Loans to South America – Chinese development Bank 2013 (Interamerican Dialog 2014)

10

Country / País	Number of loans	Value (US\$)
Venezuela	16	56.3 bi
Brasil	10	22bi
Argentina	10	19bi
Equador	12	10.8bi
Bahamas	3	2.9bi
México	3	2.4bi
Peru	4	2.3bi
Jamaica	8	1.4bi
Bolívia	3	611 mi
Costa Rica	2	401 mi
Honduras	1	298mi
Chile	1	150mi
Guiana	1	130mi
Colômbia	1	75mi
Uruguai	1	10mi

China - Accumulated flow of direct investment in South America by sector, participation (%) - 2010/2013

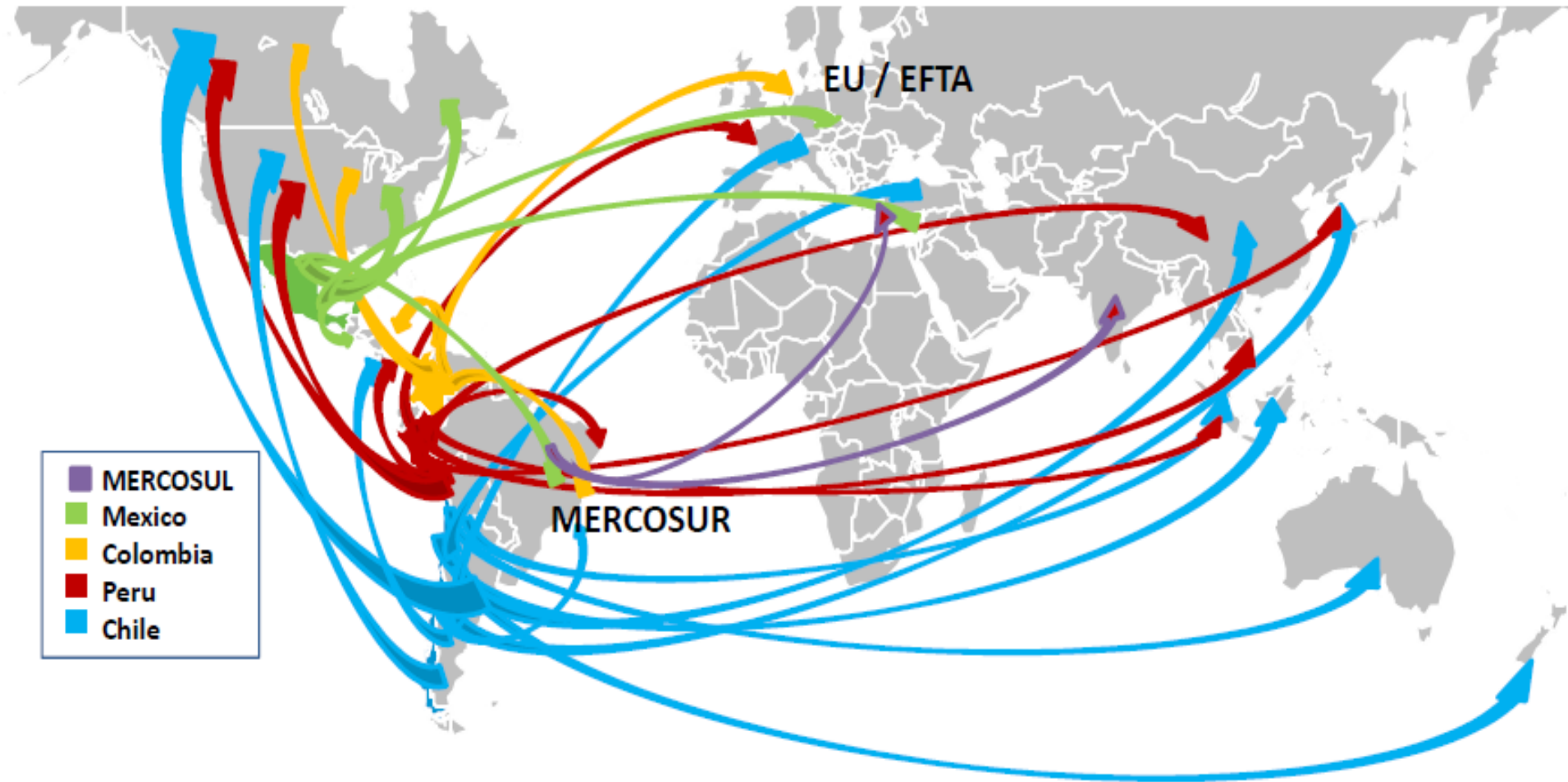
11

	Mining	Transport	Real Estate Construction	Agriculture	Financial Services	Energy	Others	Total
Argentina	-	17,86	-	10,22	5,28	59,81	6,83	100
Bolivia	-	38,78	-	-	-	-	61,22	100
Brazil	11,29	4,48	3,08	6,2	4,37	69,31	1,25	100
Chile	-	-	-	-	-	100	-	100
Colombia	-	-	-	-	-	100	-	100
Ecuador	27,53	-	-	-	-	72,47	-	100
Guyana	13,33	18,67	-	-	-	68	-	100
Paraguay								
Peru	42,23	-	-	13,85	-	43,92	-	100
Suriname								
Uruguay								
Venezuela	5,14	9,77	-	3,63	-	75,69	5,76	100
South America	12,06	7,35	1,26	6,4	2,94	66,86	3,12	100
South America (except Brazil)	12,59	9,35	-	6,53	1,95	65,16	4,41	100
World	10,91	14,99	11,21	5,02	1,72	48,96	7,19	100

Source: CNI, 2015

SOUTH AMERICA

12



Fonte: Barbara Kotschwar, Peterson Institute, 2014.

PTAs – South America

13

Tabela VII – APCs firmados/em negociação por alguns países da AL

	Chile	Colômbia	Equador	México	Peru	Bolívia	Venezuela
Austrália							
Canadá							
Chile	-						
China							
Cingapura							
Colômbia		-					
Coréia do Sul		*					
EFTA							
EUA							
Índia							
Japão							
Malásia							
México				-			
Nova Zelândia					-		
Peru							
Turquia							
Tailândia							
UE							
Vietnam							
Aliança Pacífico							
TPP							
Firmado	Fontes: Sítios virtuais dos ministérios e secretarias de comércio exterior dos países selecionados / elaboração CCGI / *ratificação pendente						
Em negociação							

PTAs - Mercosul

14

PTAs	Data de Assinatura	Data de Entrada em Vigor
Mercosul – Índia	25.01.2004	01.06.2009
Mercosul – Israel	18.12.2007	39.04.2010
Mercosul – SACU*	03.04.2009	04.2016
Mercosul – Egito	02.08.2010	-
Mercosul – Palestina	20.12.2011	-

*União Aduaneira do Sul da África
Fonte: Mercosul

APCs do Mercosul: em negociação, assinados, não ratificados

15

Marrocos (Acordo-Quadro assinado em 2004)

Conselho de Cooperação do Golfo – CCG (em negociação)

SACU e Índia (aprofundamento dos acordos)

Sistema de Integração Centro-Americana – SICA (em negociação)

Paquistão (Acordo-Quadro assinado em 2006)

Jordânia (Acordo-Quadro assinado em 2008)

Turquia (Acordo-Quadro assinado em 2010)

União Europeia (Relançamento das negociações em 2010)

Canadá (Consultas em 2012)

Fonte: Ministério das Relações Exteriores.

MEGAs

16

- Agreements on **rules** not tariffs

- XX th. – liberalization of tariffs
- XXI th. – convergence of rules
- Rules: TBT+SPS; Services; Int. Prop. (WTO +++)
- Rules: Investment; Competition; Environment
(WTO extra)
- WTO x Megas

Impacts on WTO

17

- - New WTO plus and WTO extra rules
- - WTO consistence ?
- - DSB x Mega PTAs dispute mechanism
- - Role of WTO ?
- Proposals:
 - . Reinforce Committee on Regional Arrangements
 - . Discuss Mega in each of WTO Committees
 - . Bring new cases to DSB

TPP

18

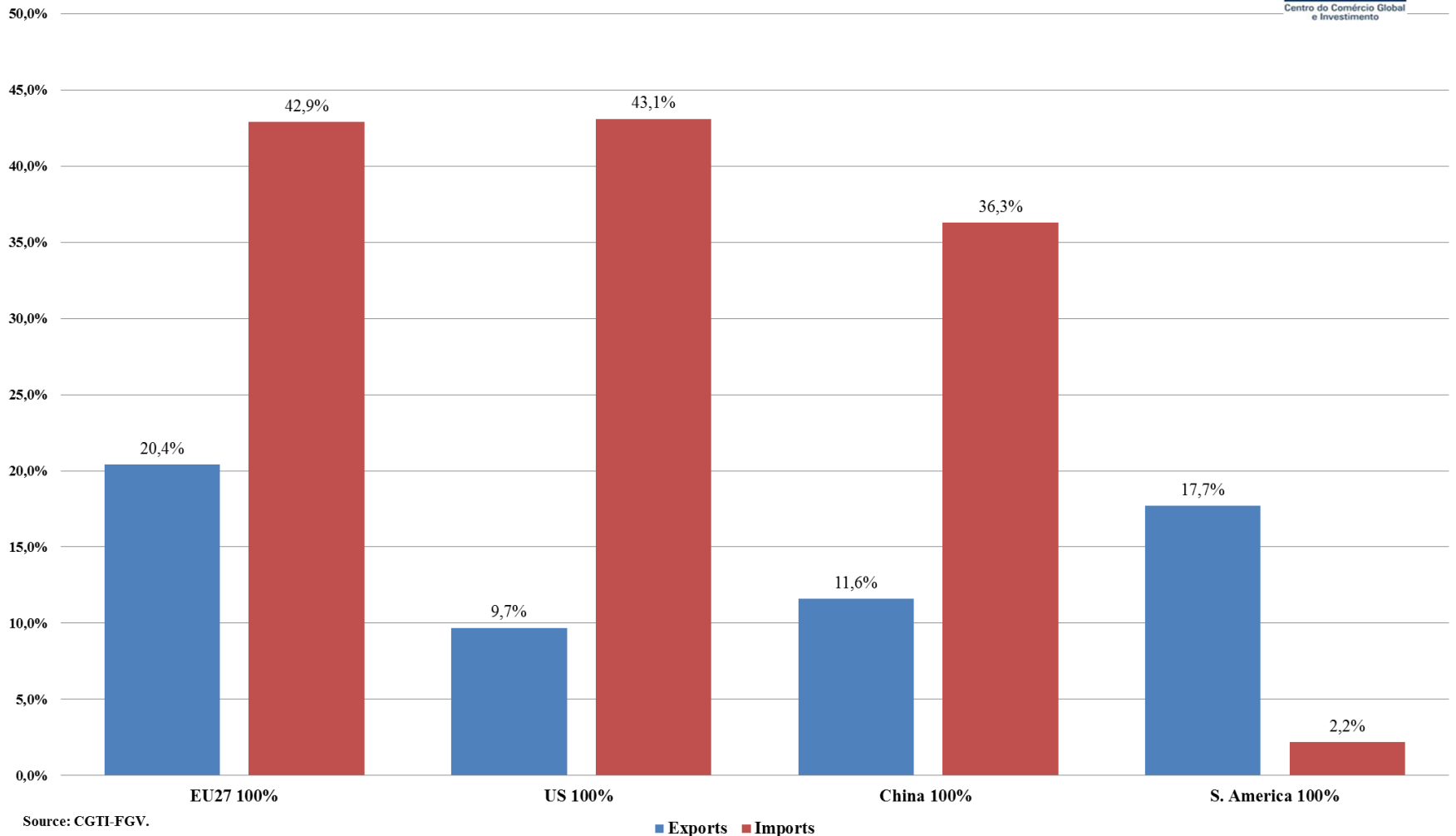
- . Market access: agriculture, industrial,
- . Services: teleco, finance, e-commerce
- . Coherence + cooperation
- . TBT, SPS, PS
- . Intellectual Property
- . Investments
- . Digital economy
- . Environment, Labor Standards
- . Dispute Settlement
- . Anti-corruption, Currency

Brazil PTAS : US, EU, Ch, SAM

Impacts on exports and imports – only tariffs

Brazil's PTAS: Impact on Brazil Exports and Imports

EU-27, the US, China, and South America



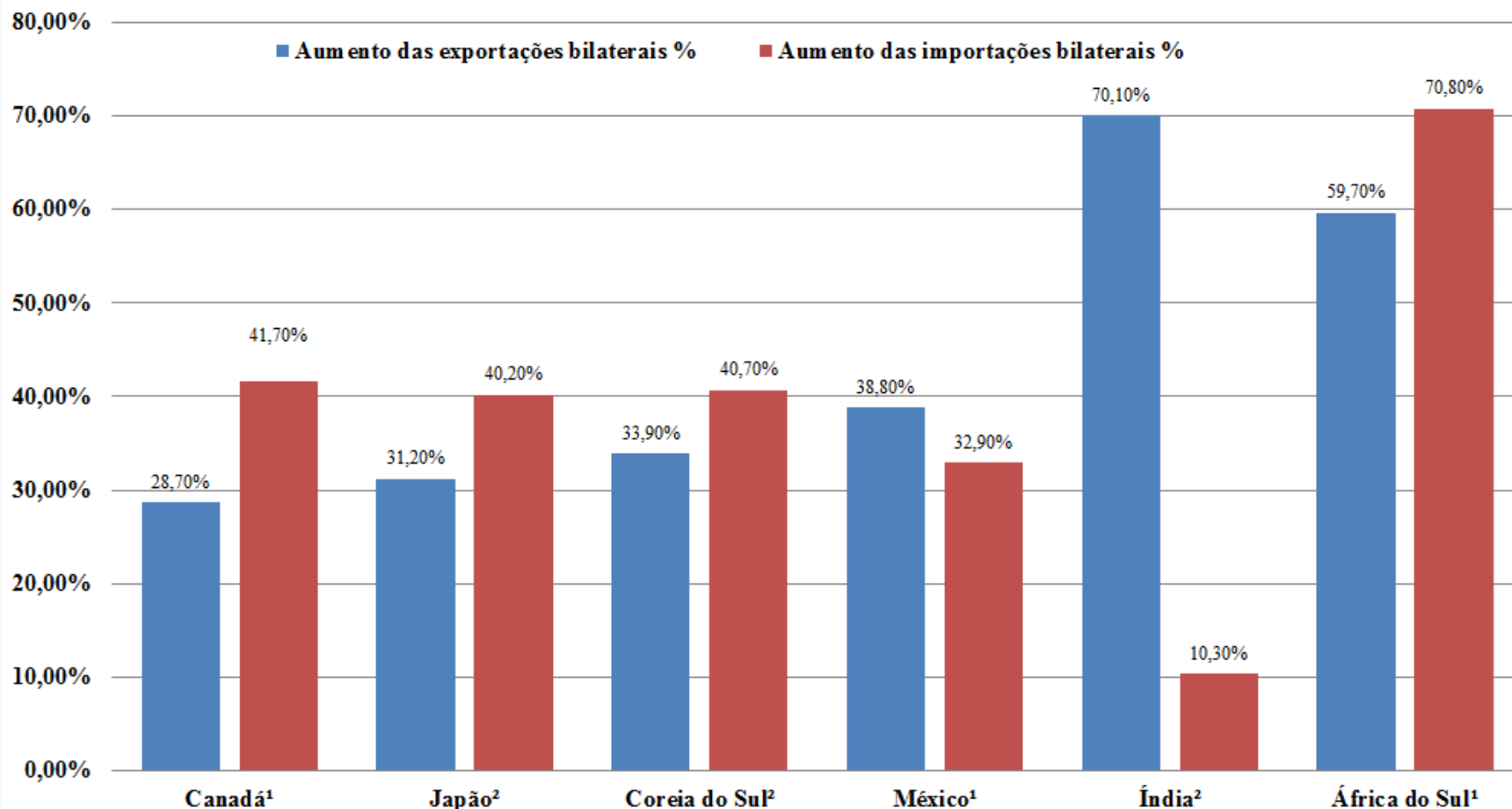
Brazil x Korea, India, Mexico, S. Africa, Japan, Canada

Impacts on exports and import

20

Crescimento das Exportações e das Importações do Brasil

Simulação 7 - Brasil x Coreia do Sul, Canadá, Japão, México, Índia e África do Sul



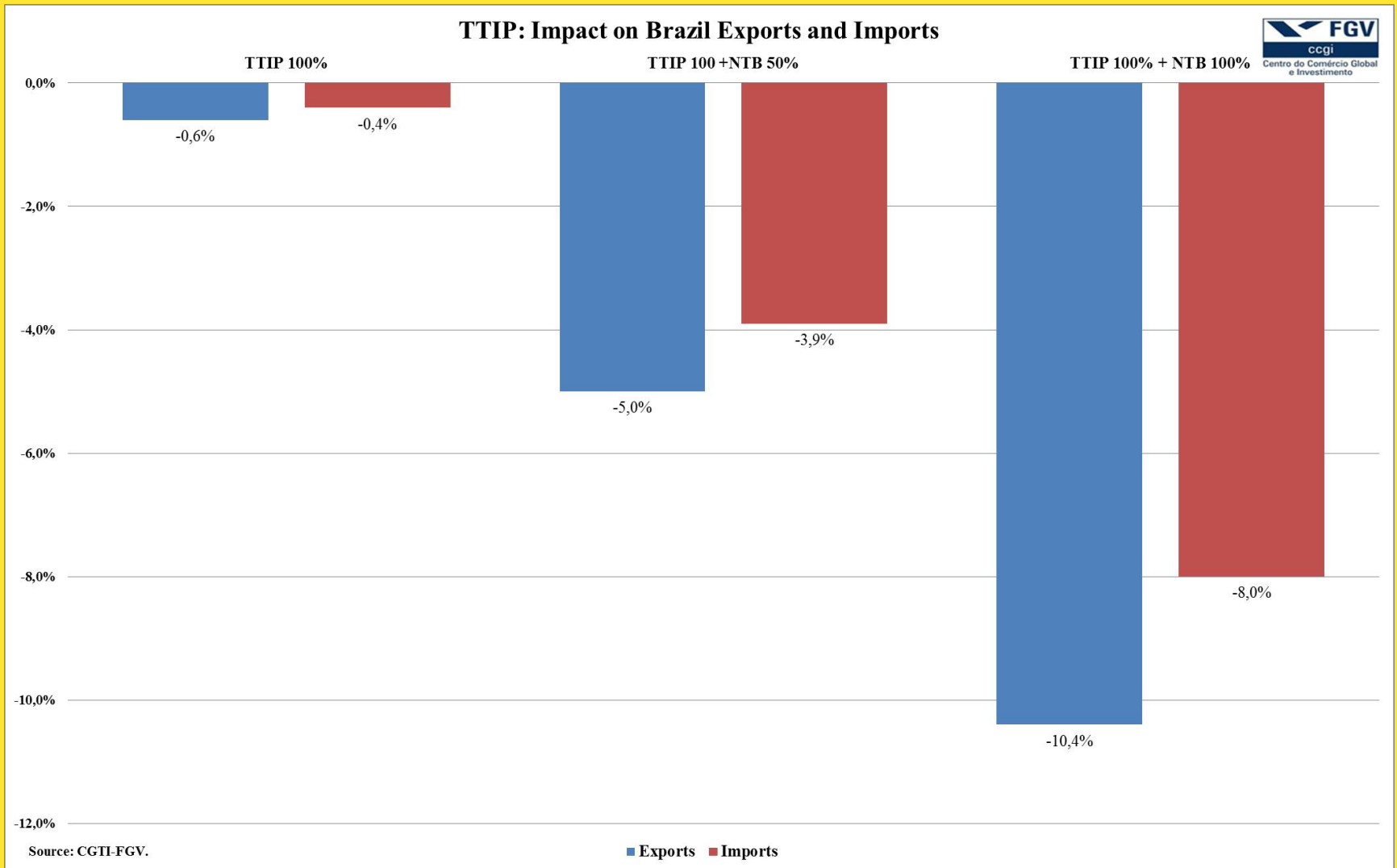
Fonte: CCGI. Notas: ¹Liberalização total. ²Agricultura 50% (Japão, Coreia do Sul e Índia) e Indústria 50% (Brasil).

Non-Tariff Measures in EU-US Trade and Investment Report to the EC - ECORYS 2009.

“Ad Valorem” Equivalent of the NTBs (%) (Average Values for Industrial products)

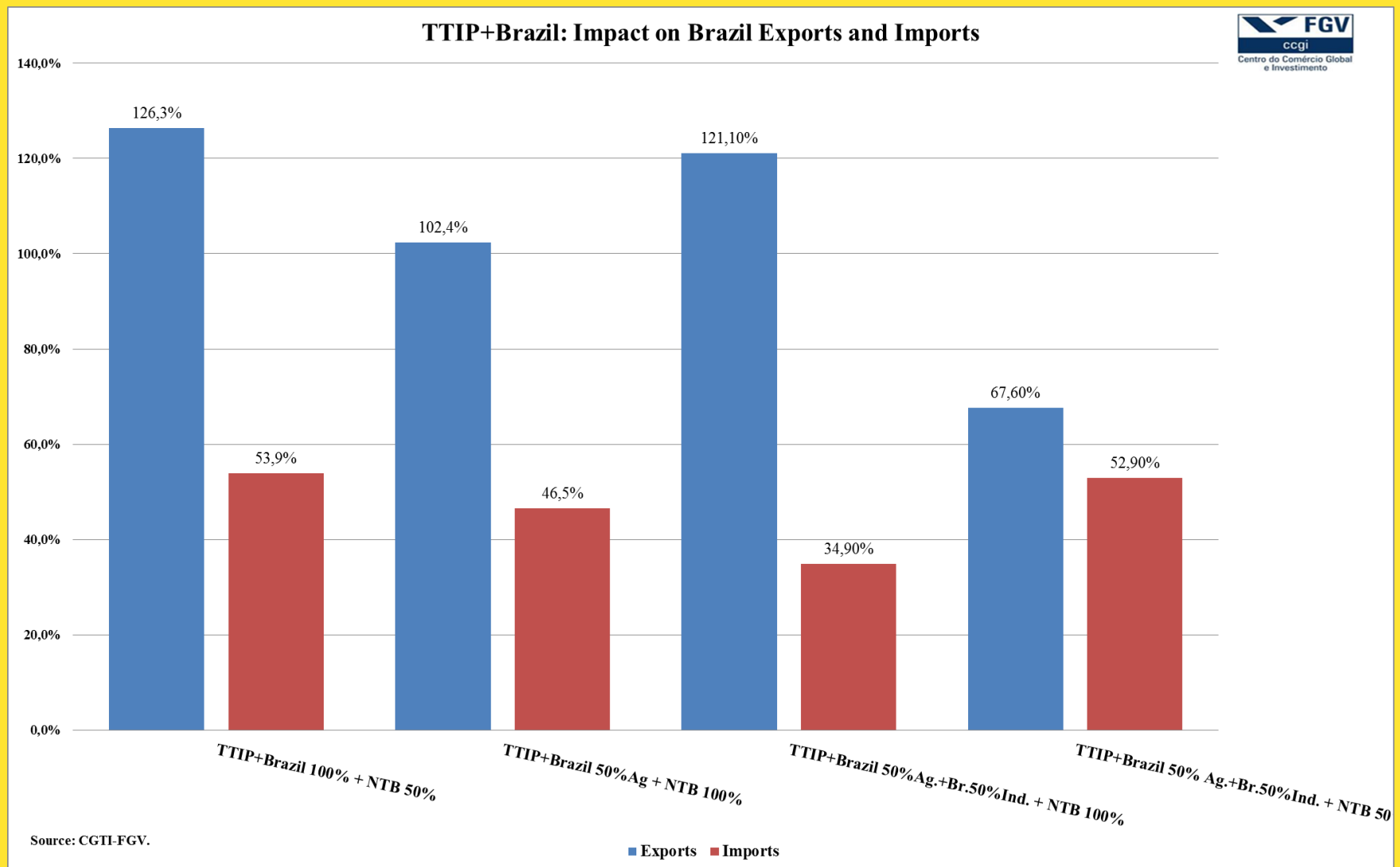
Sector	EU barriers against US exports	US barriers against EU exports
Industry		
Extractive	21,5	25,4
Manufacturing		
Textiles	21,5	25,4
Apparel	21,5	25,4
Leather products	21,5	25,4
Wood products	11,3	7,7
Paper products	11,3	7,7
Petroleum, Coal products	21,5	25,4
Chemical, rubber, plastics	13,6	19,1
Mineral products nec	21,5	25,4
Ferrous metals	21,5	25,4
Metals nec	11,9	17,0
Metal products	11,9	17,0
Motor vehicles and parts	25,5	26,8
Transport equip. nec	18,8	19,1
Electronic equipment	12,8	14,7
Machinery and equip. nec	21,5	25,4
Manufactures nec	21,5	25,4

TTIP– Impacts on Brazil - exports and imports (tariffs and non-tariff barriers)



Brazil in TTIP

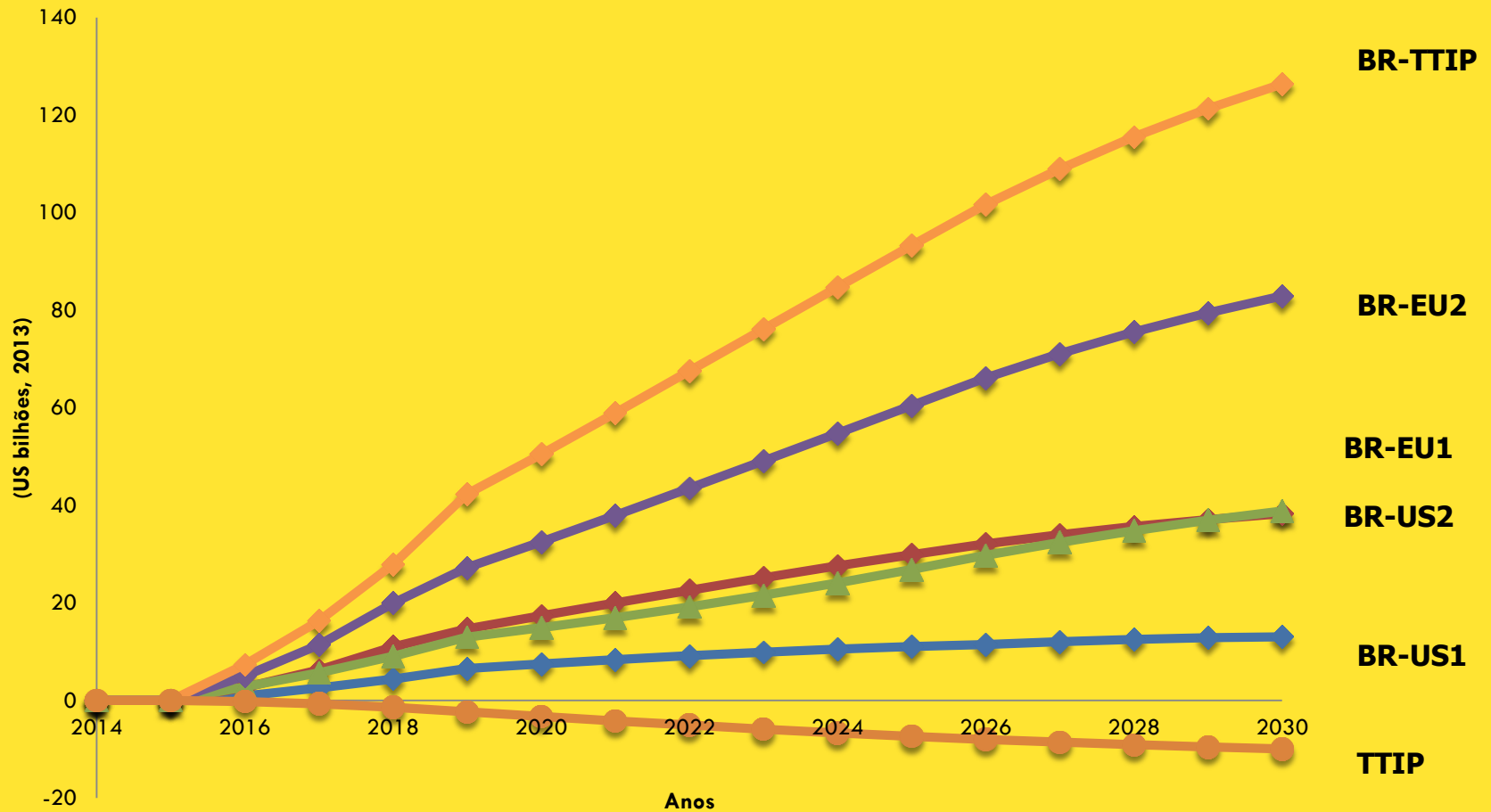
Impacts on exports and imports (tariffs + NTB)



Impacts of PTAs on GDP of Brasil

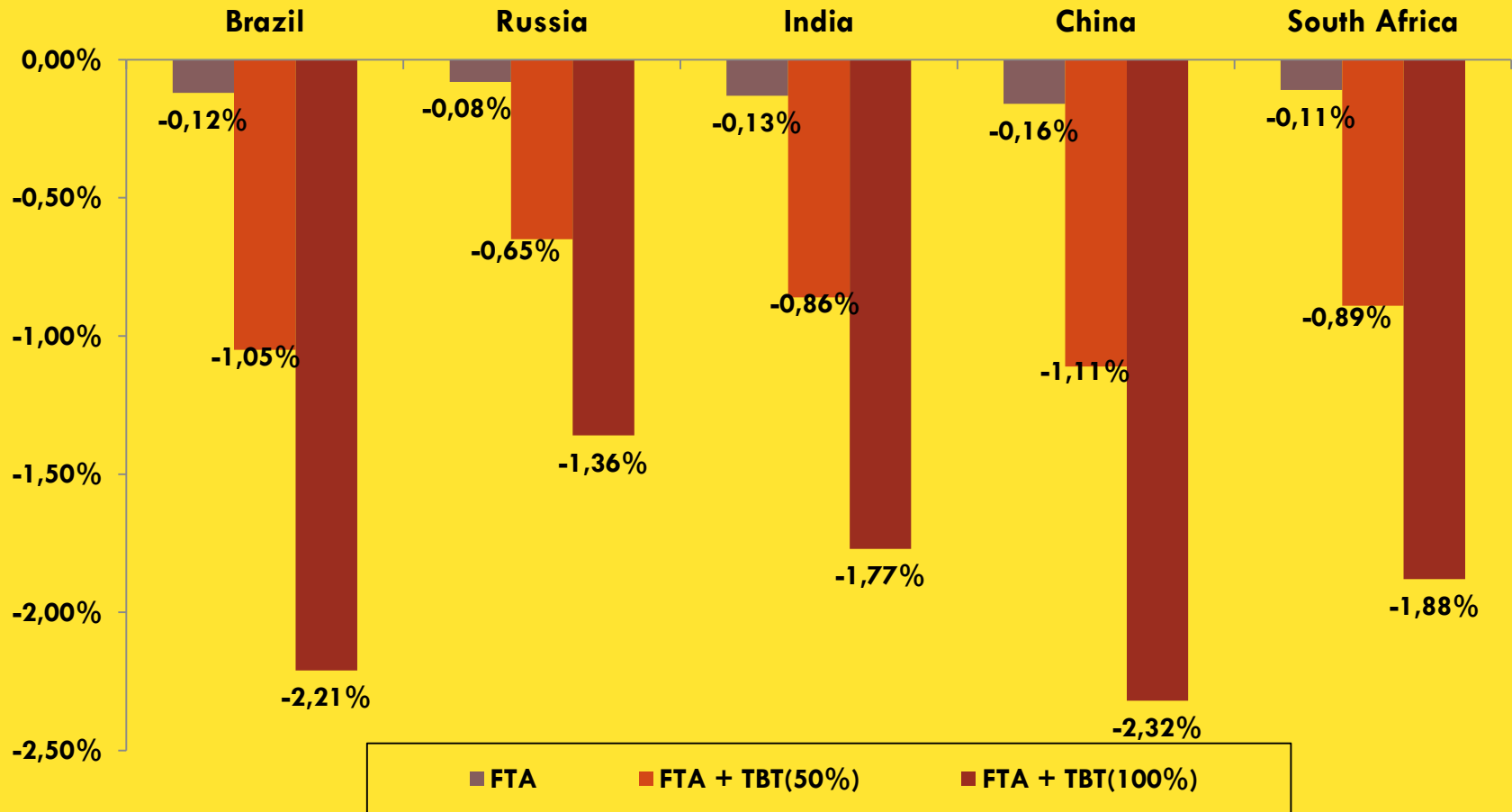
(Dynamic Modeling - adicional gains)

24



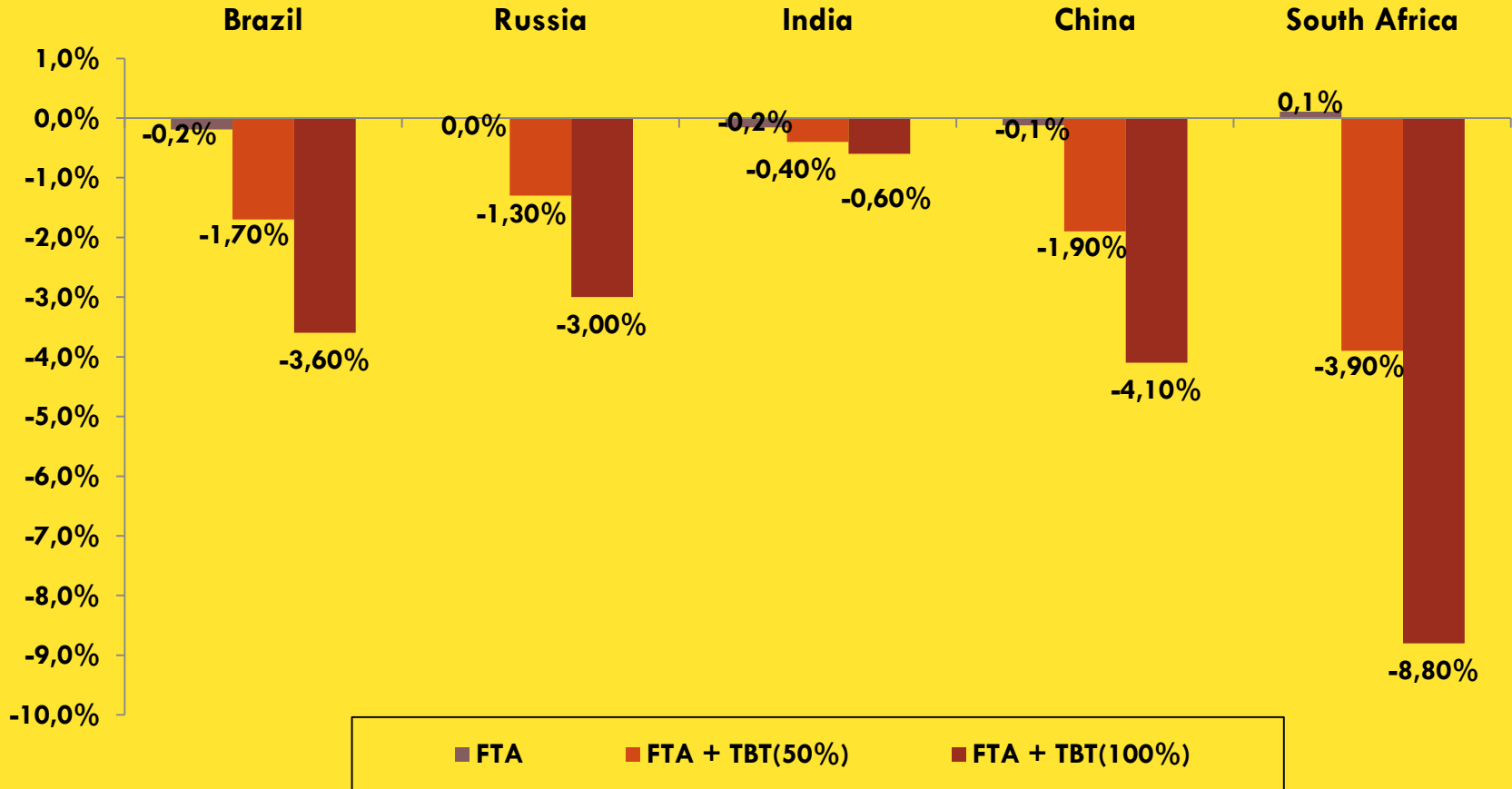
GDP Growth (%) – TTIP

25



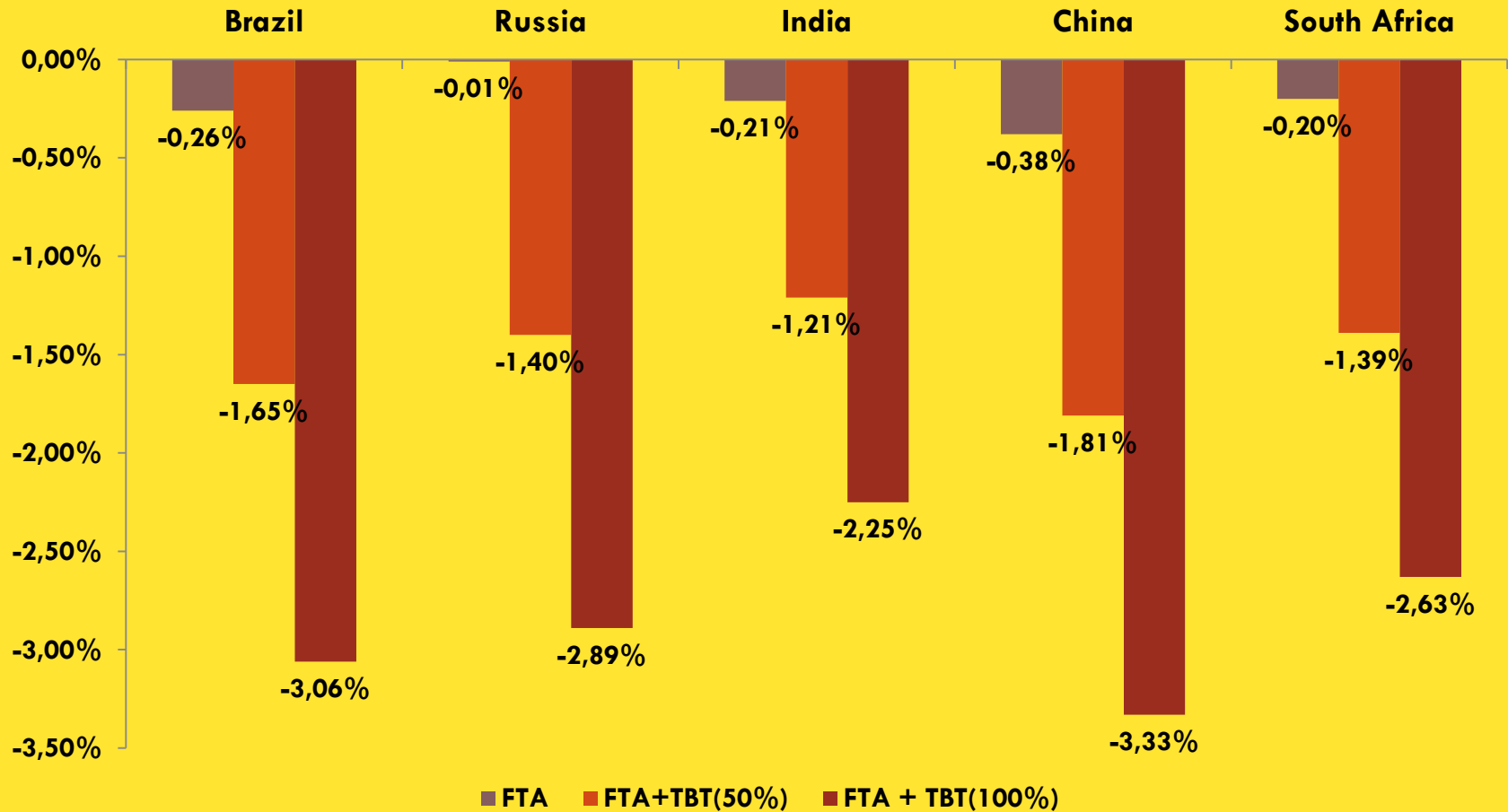
Trade Balance (%) - TTIP

26

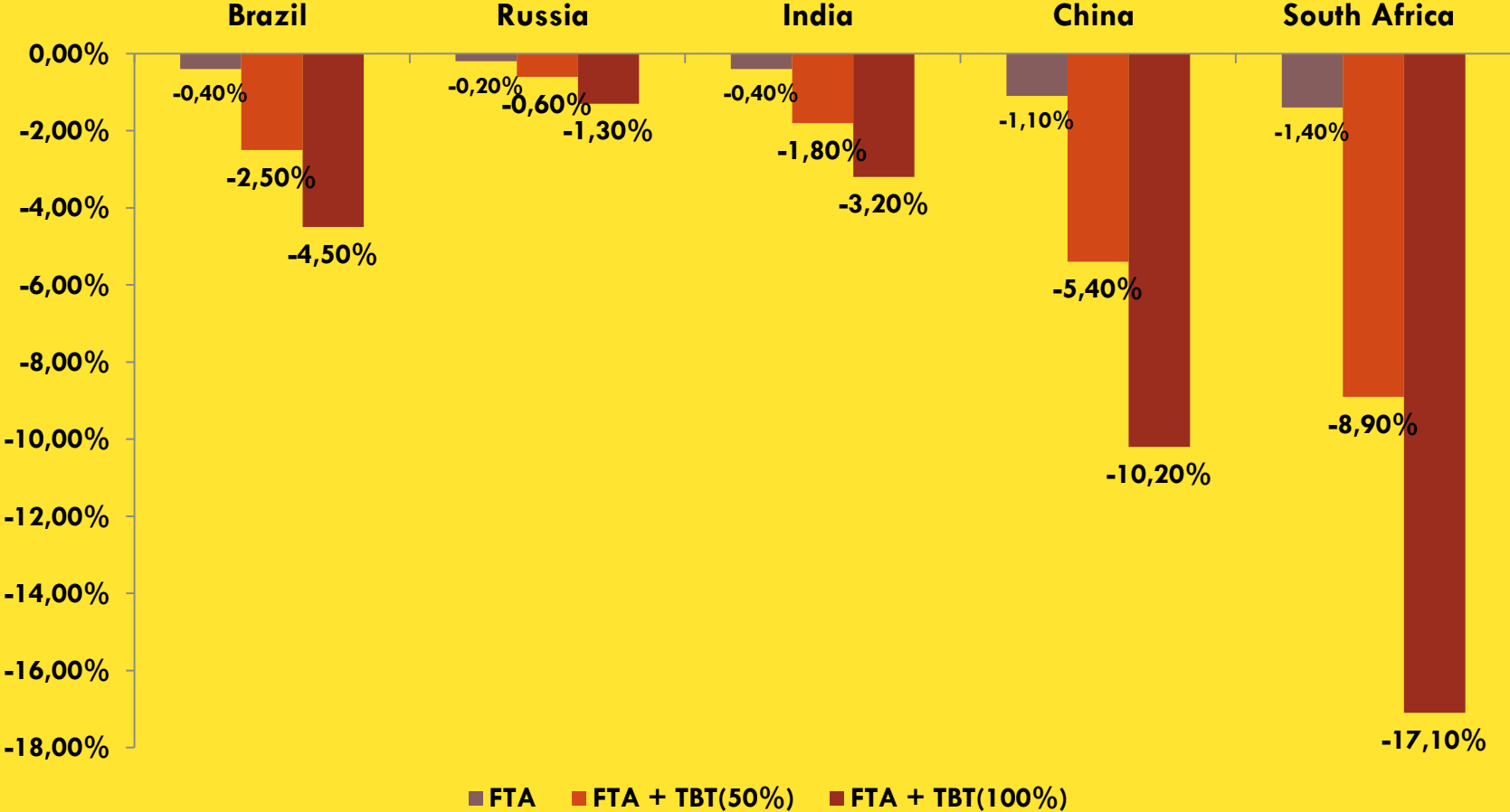


GDP Growth (%) - TPP

27

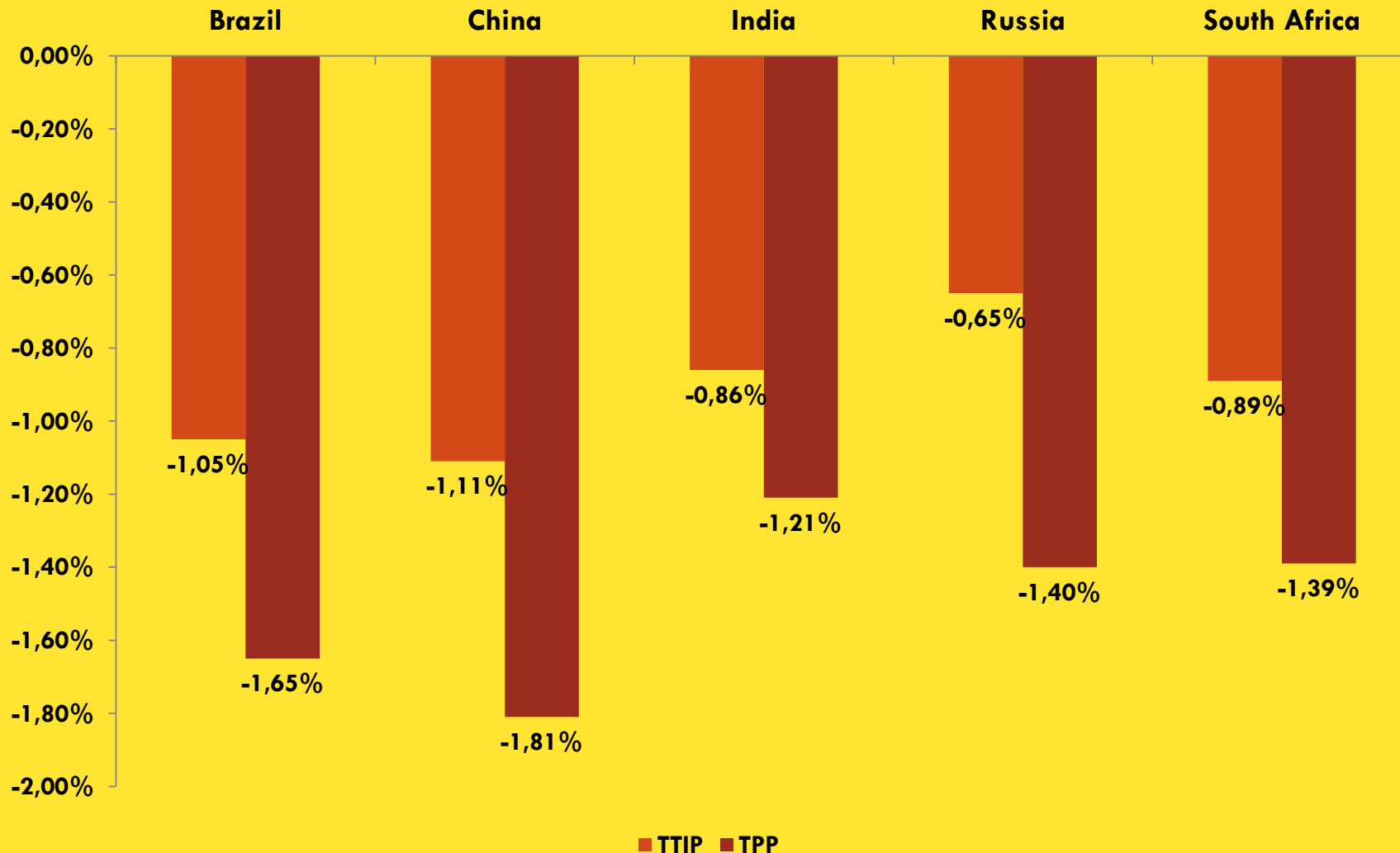


Trade Balance (%) - TTP



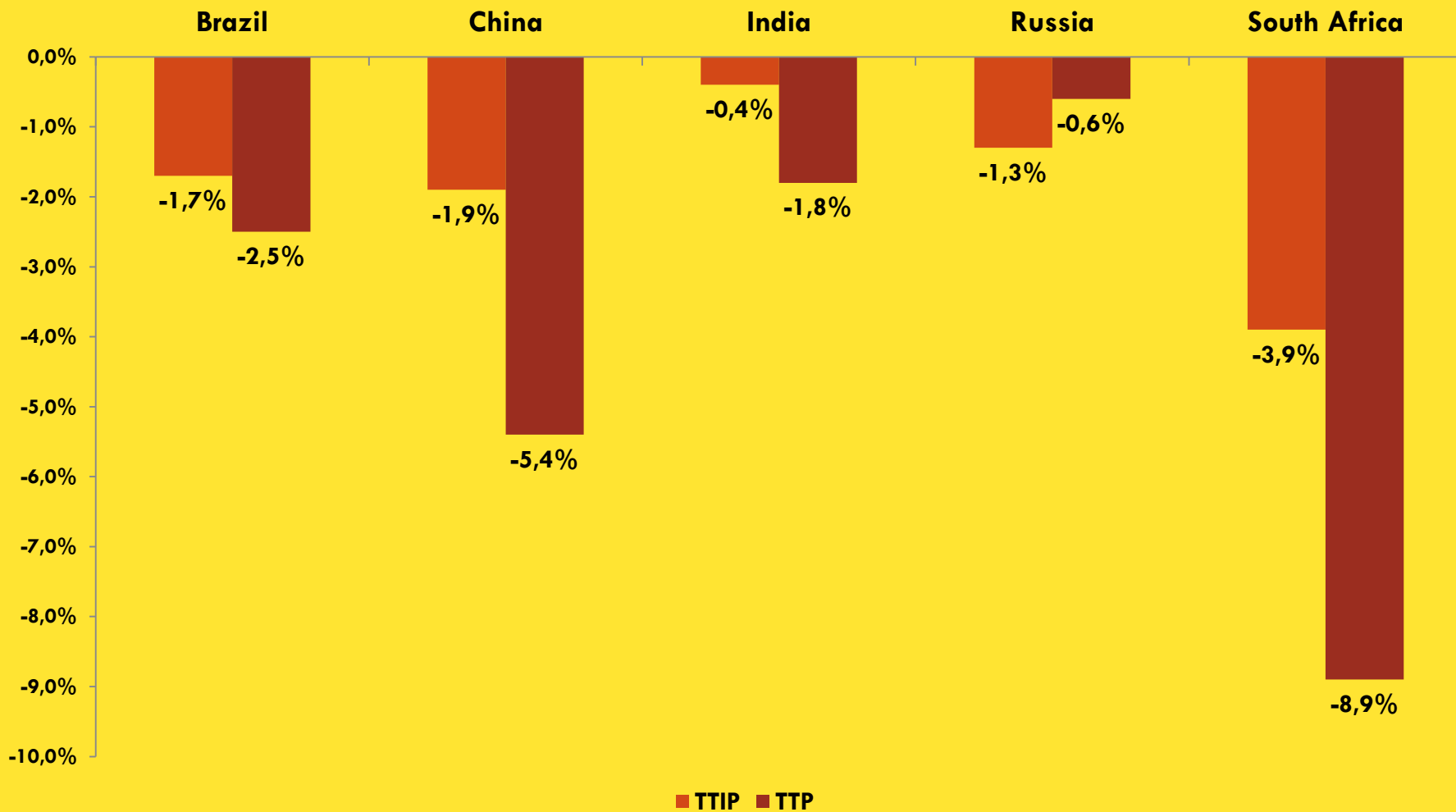
TTIP x TPP - GDP % (NTB – 50%)

29



TTIP x TPP (Trade Balance Effects (%)) (NTB – 50%)

30



Impacts of Mega on WTO and outsiders

31

- - Old trade instruments: tariffs, AD, CVM, RO
- - New trade instruments: comp, inv, env, clime

- - Are Mega creating a dual WTO?
- - Will Mega create a fragmented DSB system ?

- - How far are outsiders impacted by Megas?
- - Should outsiders have a new agenda in WTO ?

Conclusions

32

- TTIP and TPP affect Brazil + EmC growth + trade
- TTIP and TPP affect BRICS growth and trade

- For Brazil and BRICS:
 - WTO is important
 - WTO is the only forum for negotiation
 - WTO must be used to supervise TTIP and TPP

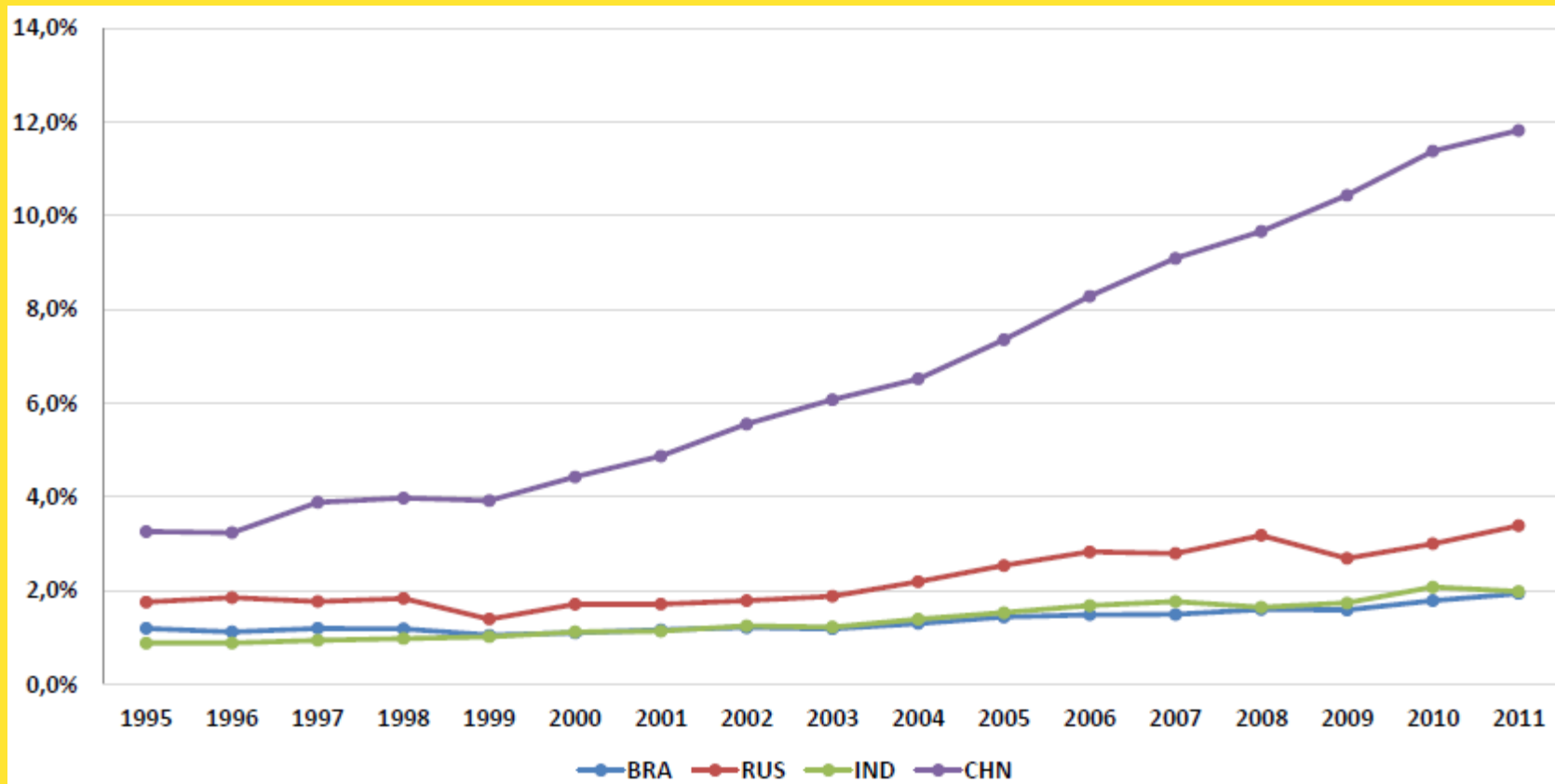
2 - Transnationals and GVCs

33

- Importance of trade among them (60%)
- Strong representation inside national governments
- Strong representation in the international arena
- Faceless organizations

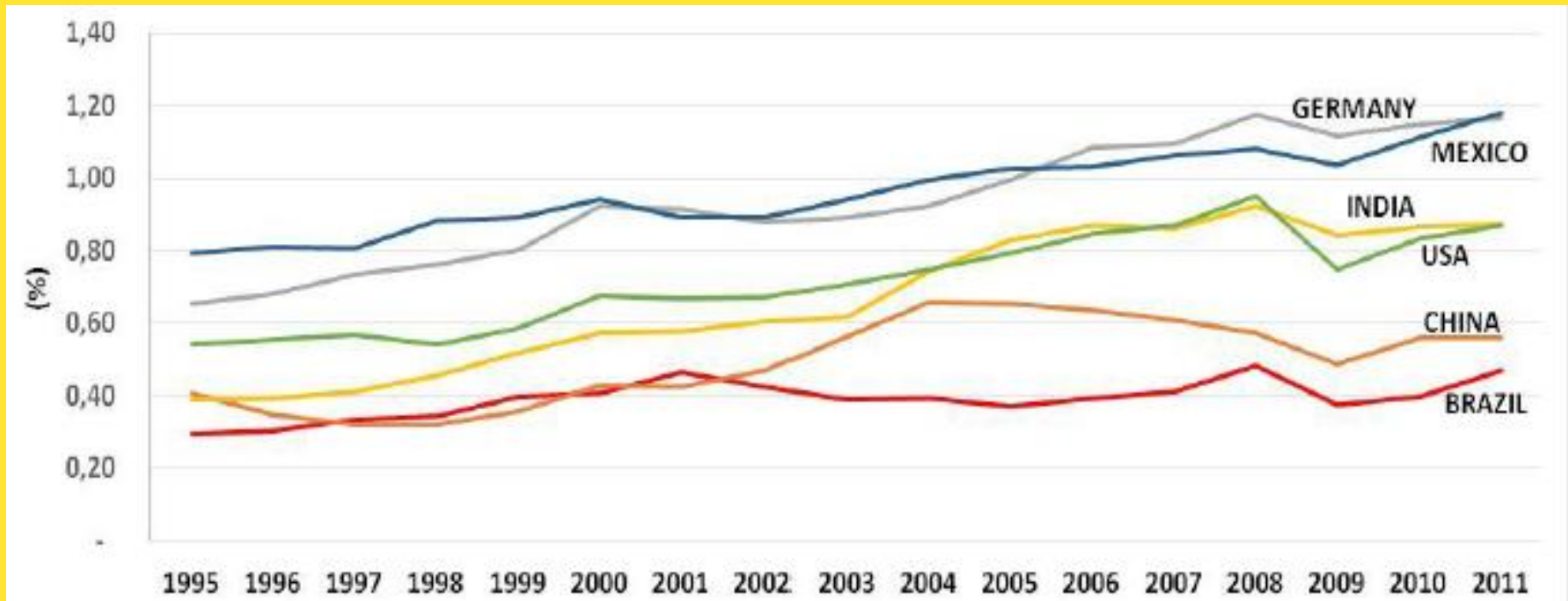
Share of value added on exports (WIOD)

34



Manufacturing Sector: Imports/GDP

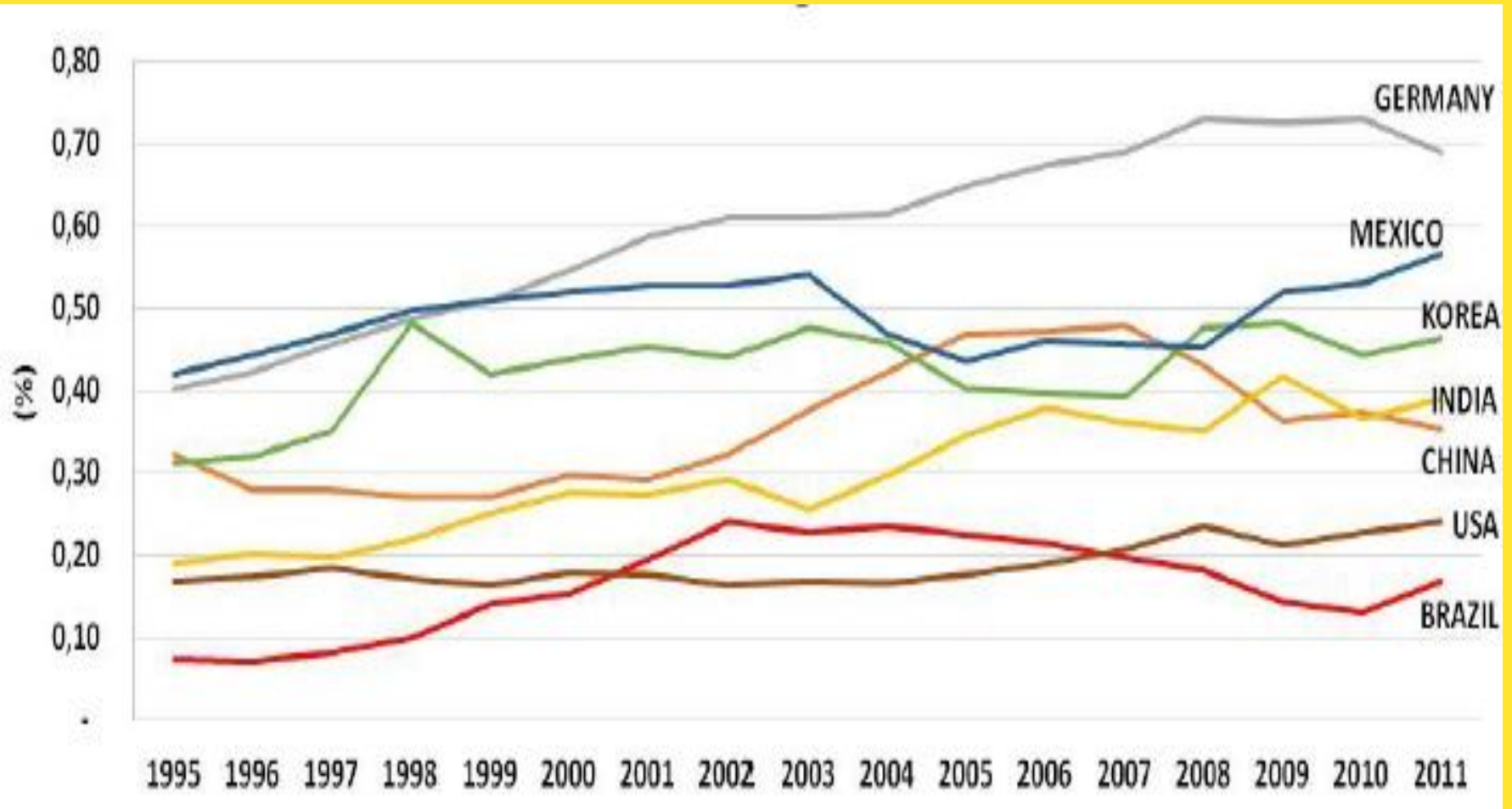
35



Source: WIOD.

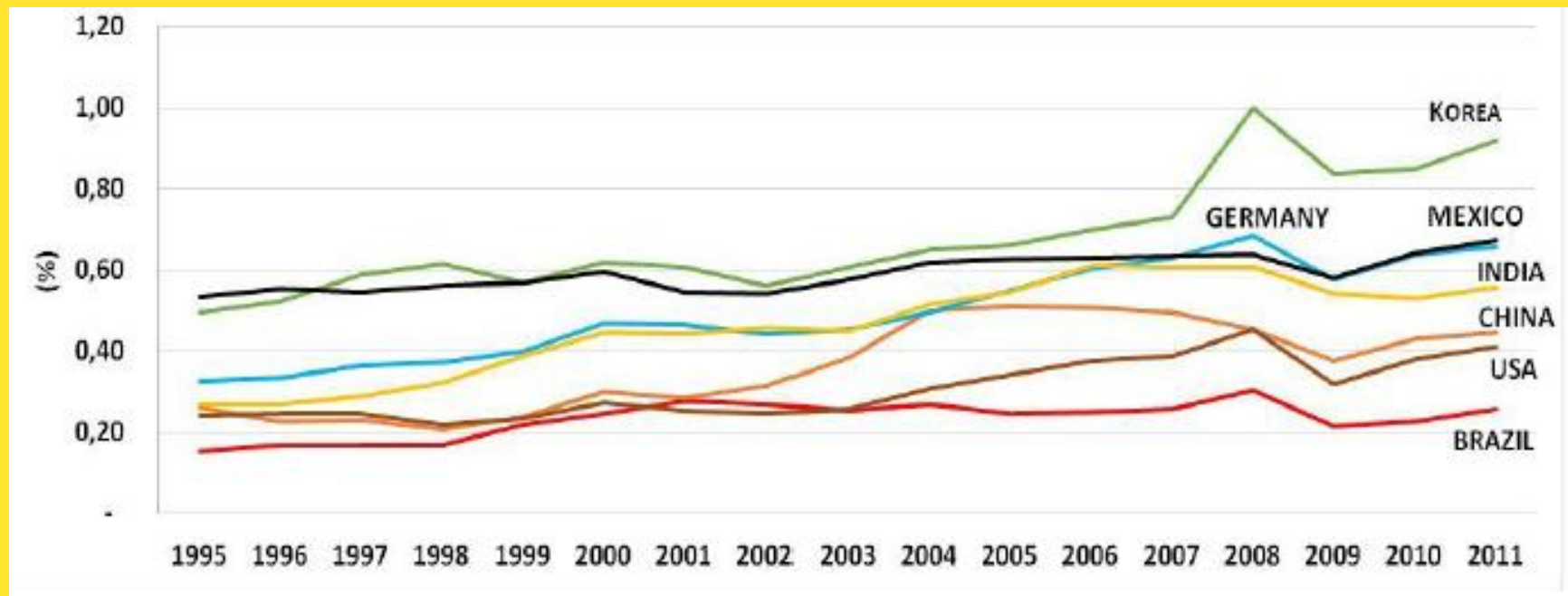
Manufacturing Sector: Exports/GDP

36



Manufacturing Sector: Imports of Intermediate Products/GDP

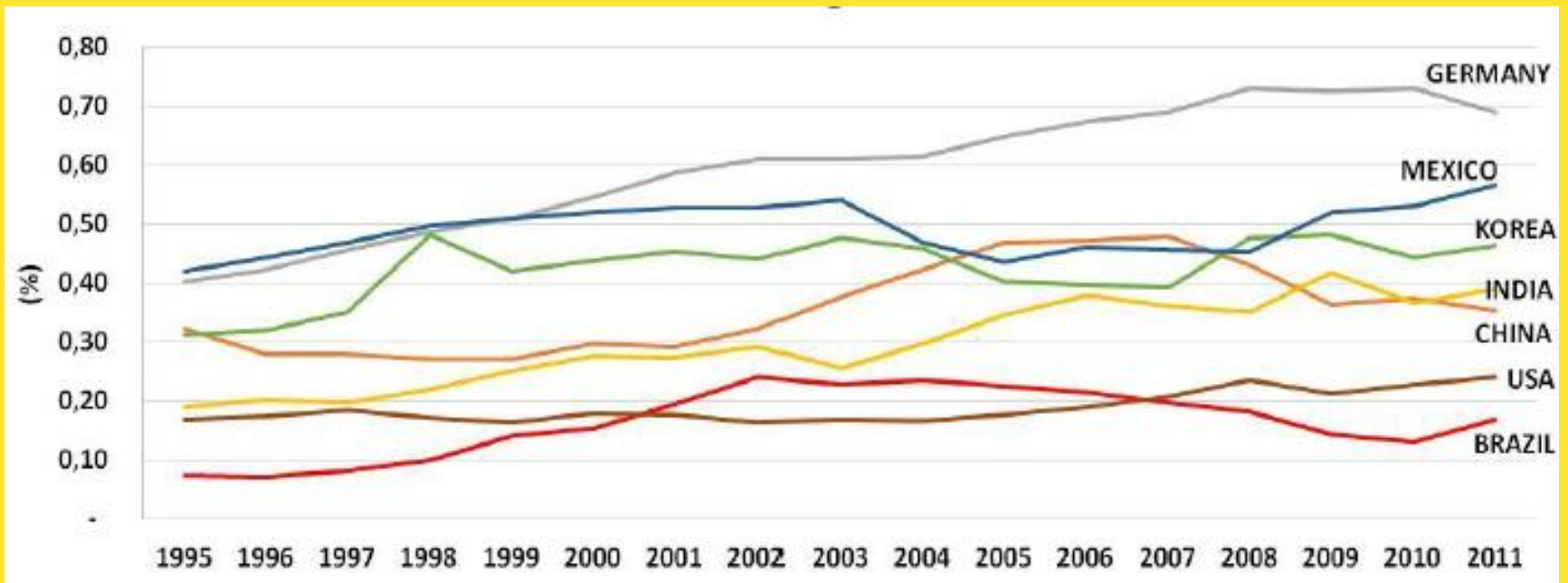
37



Source: WIOD.

Manufacturing Sector: Exports of Intermediate Products/GDP

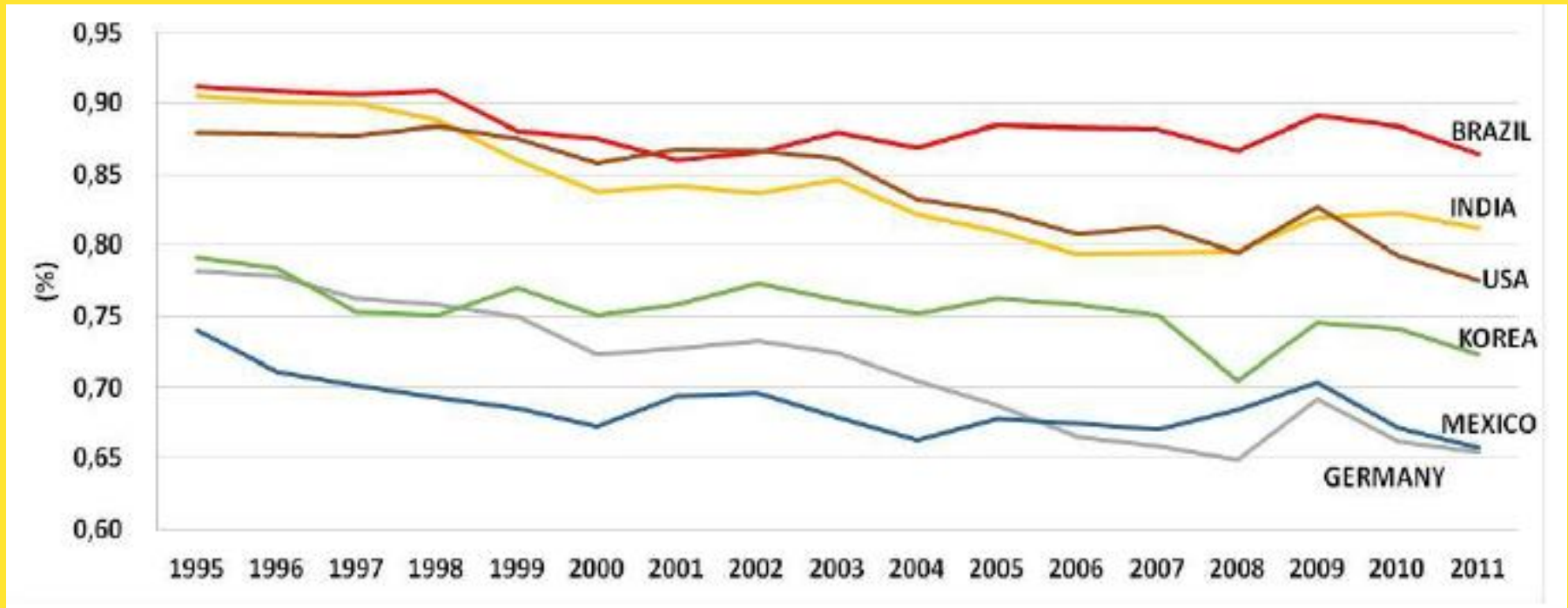
38



Source: WIOD.

Manufacturing Sector: Share of domestic inputs in total inputs consumption

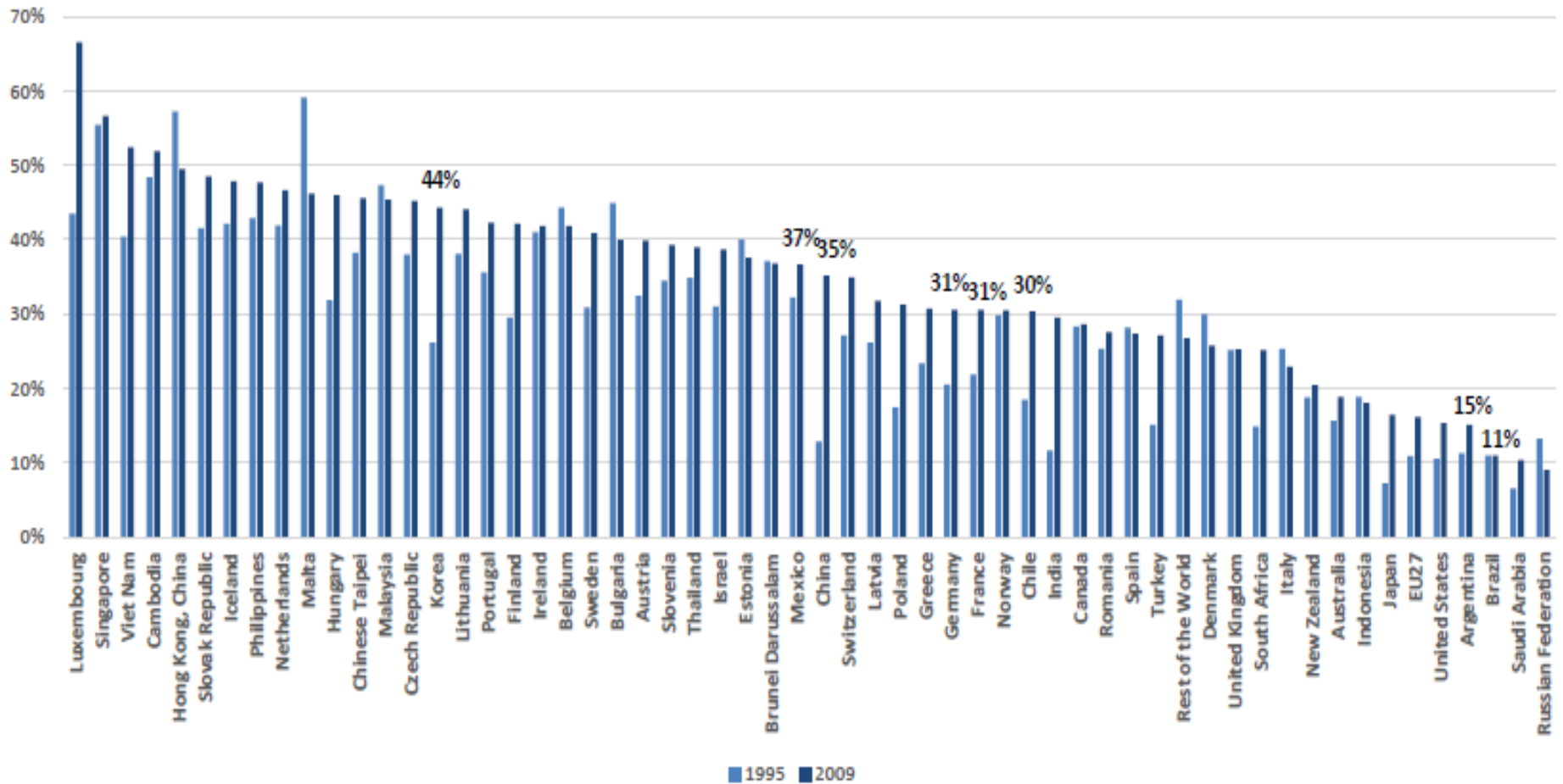
39



Source: WIOD.

GVCs

Foreign Content in Manufacturing exports - 1995 e 2009 - OECD/WTO



WTO Logic X Transnationals Logic (States x Profit)

41

States' Logic

-
- Trade in goods
-
- Tariffs, Quotas
-
- AD, CVM, Safeguards
-
- RO
-
- Subsidies
-
- **DISPUTE SETTLEMENT**
-

Transnationals' Logic

-
- Trade in tasks(value chains)
-
- No Tariffs, No Ad, No CVM, No Saf., No Pref. RO
-
- Investment, competition, IP , Services
-
- Harmonized standards (TBT/SPS)
-
- **ARBITRATION**
-

Conclusion: WTO x GVC

42

- WTO 1.0 - Tariffs, Quotas, AD, AS, RO, Saf, ...
(producer oriented)
- WTO 2.0 - Rules – TBT, SPS, PS, Inv, Comp, Env, CC, ... (consumer oriented)
- What to do: wait for Doha - forget Doha,
reinvente Doha – go to plurilaterals

3 - Regulatory Wars

43

- **TBT – technical barriers**
- **SPS – sanitary + phytosanitary**
- **Private Standards**
- **Custom rules**
- **Investments**
- **Competition**
- **Environment + climate change**
- **Fragmentation of rules x regulatory cohesion**

REGULATORY BARRIERS

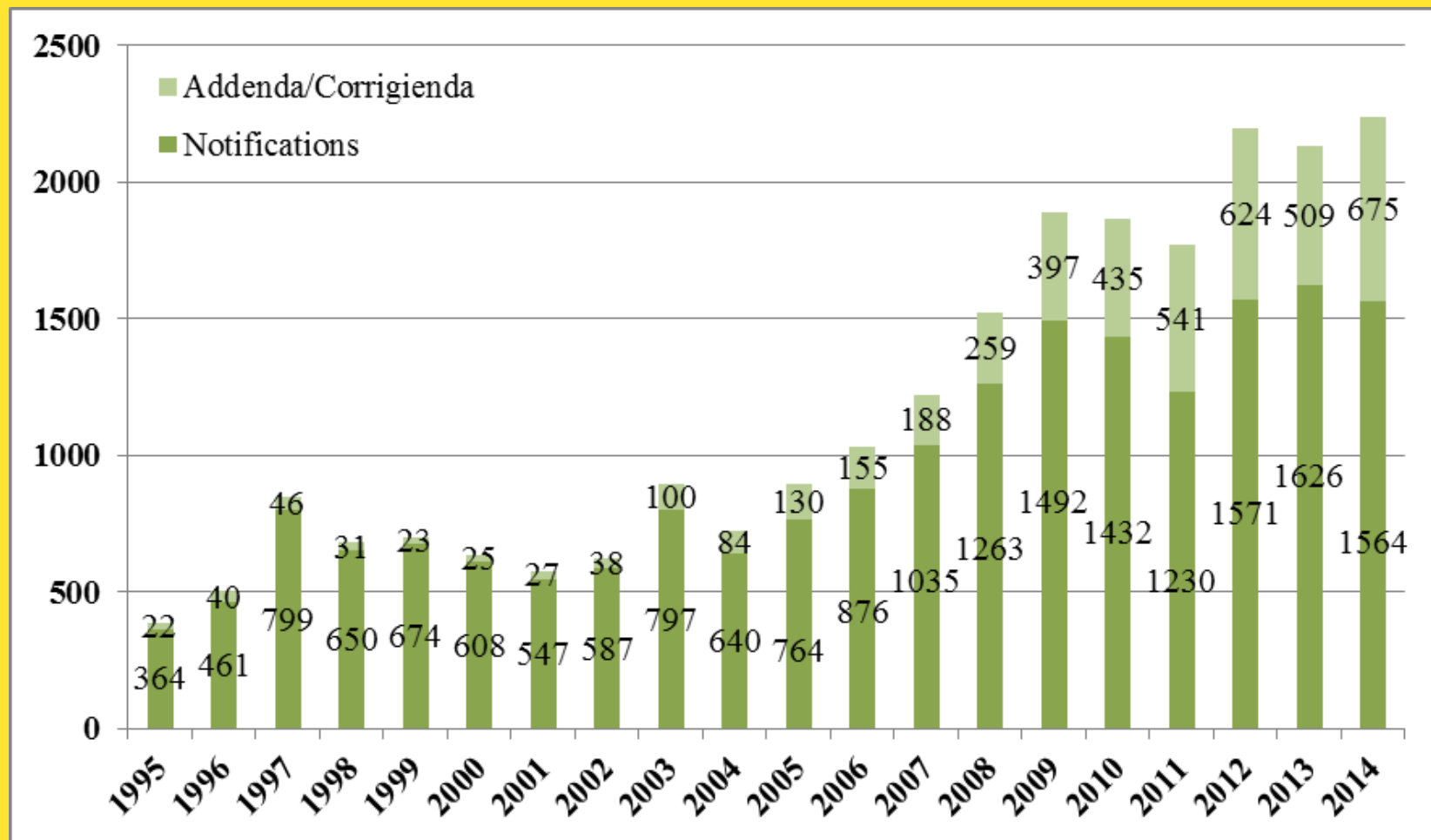
44

- Regulatory Coherence – inside countries
- Regulatory Convergence – among countries
- Regulatory Cooperation – SxS NxS

- Instruments:
 - Harmonization
 - Equivalence
 - Mutual Recognition

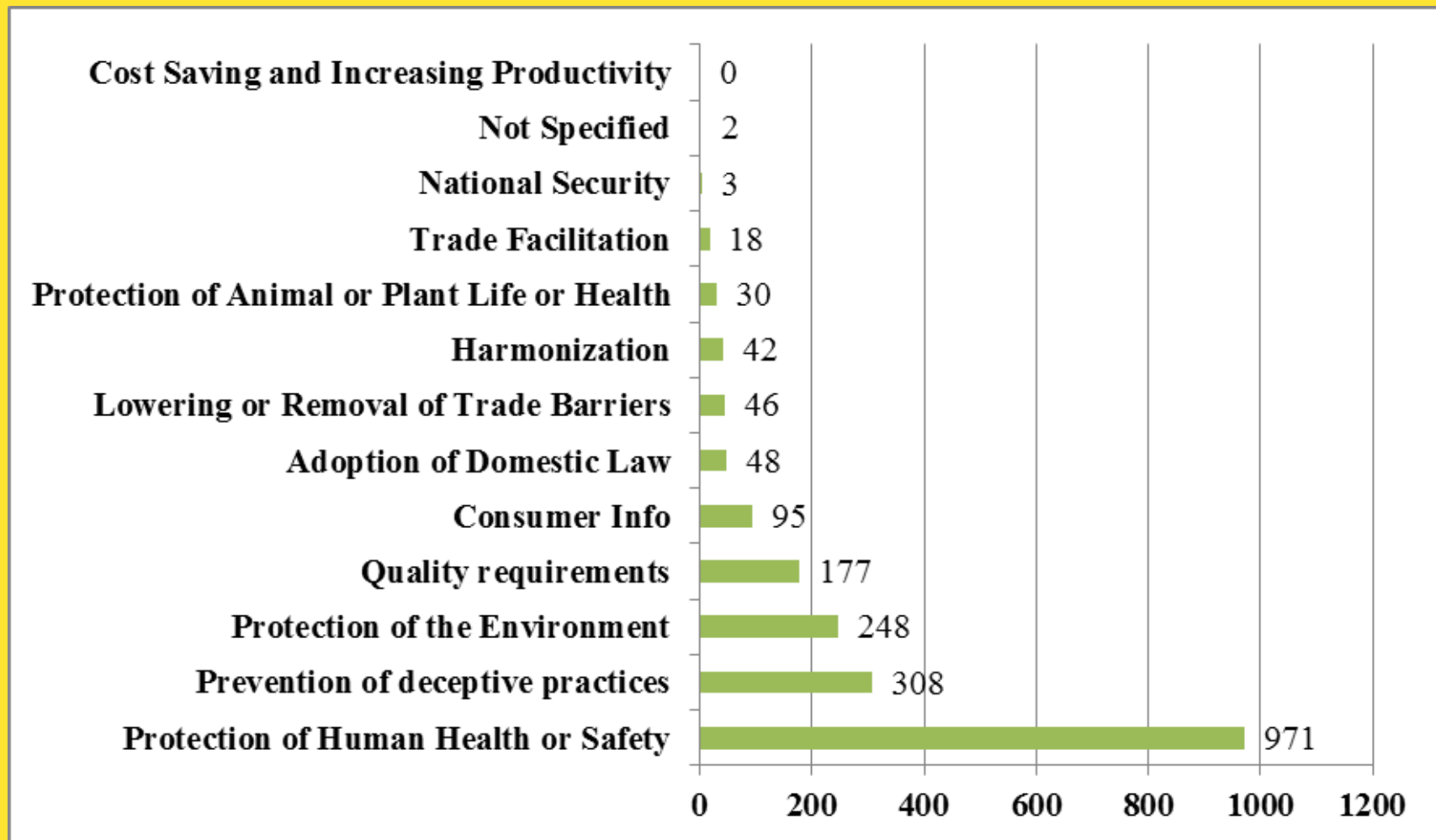
TBT Notifications 1995 to 2014

45



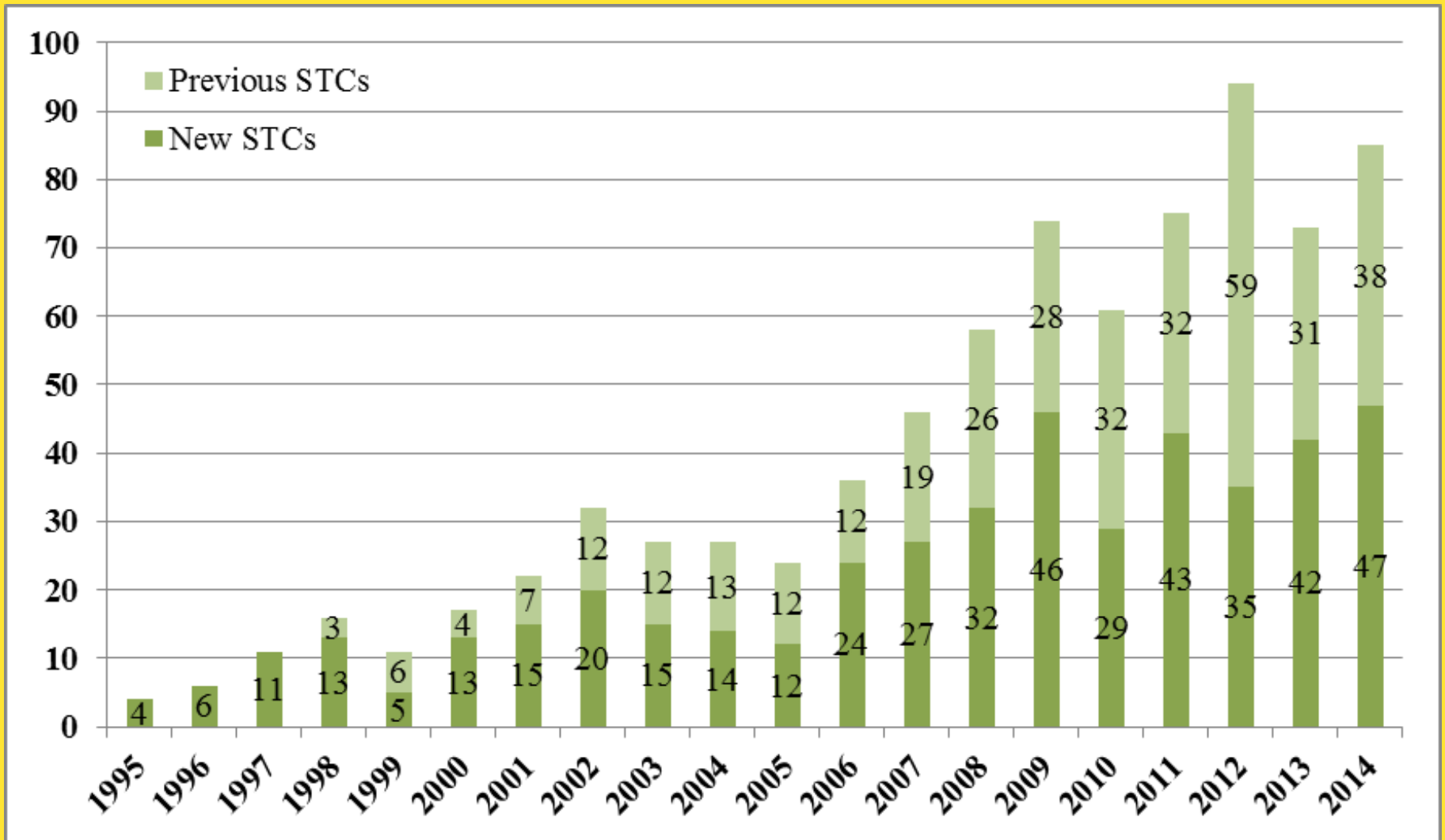
TBT Notification by Objective 2014

46



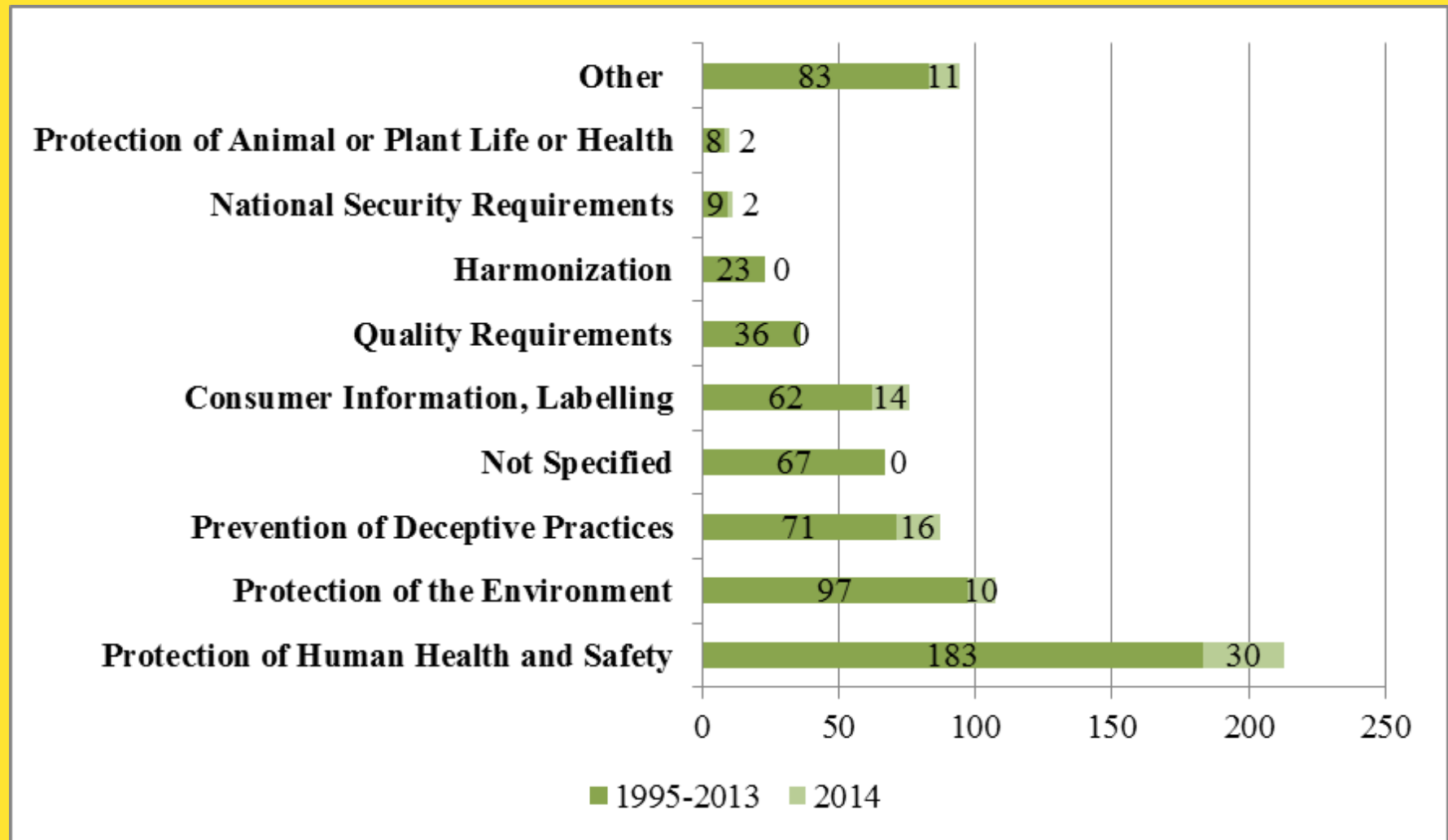
Source: WTO

STCs on TBT 1995 to 2014



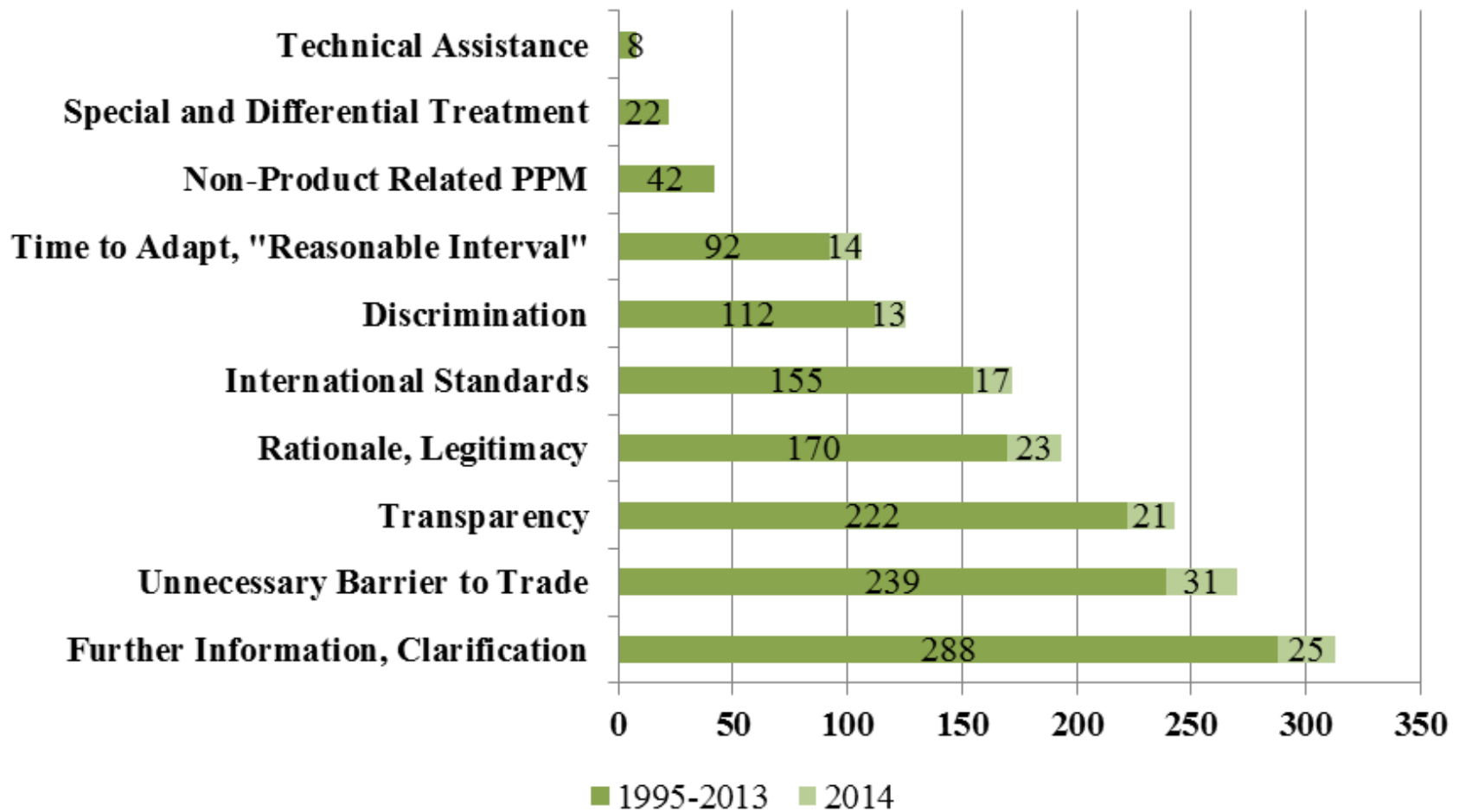
TBT STCs Objectives 1995-2013 and 2014

48



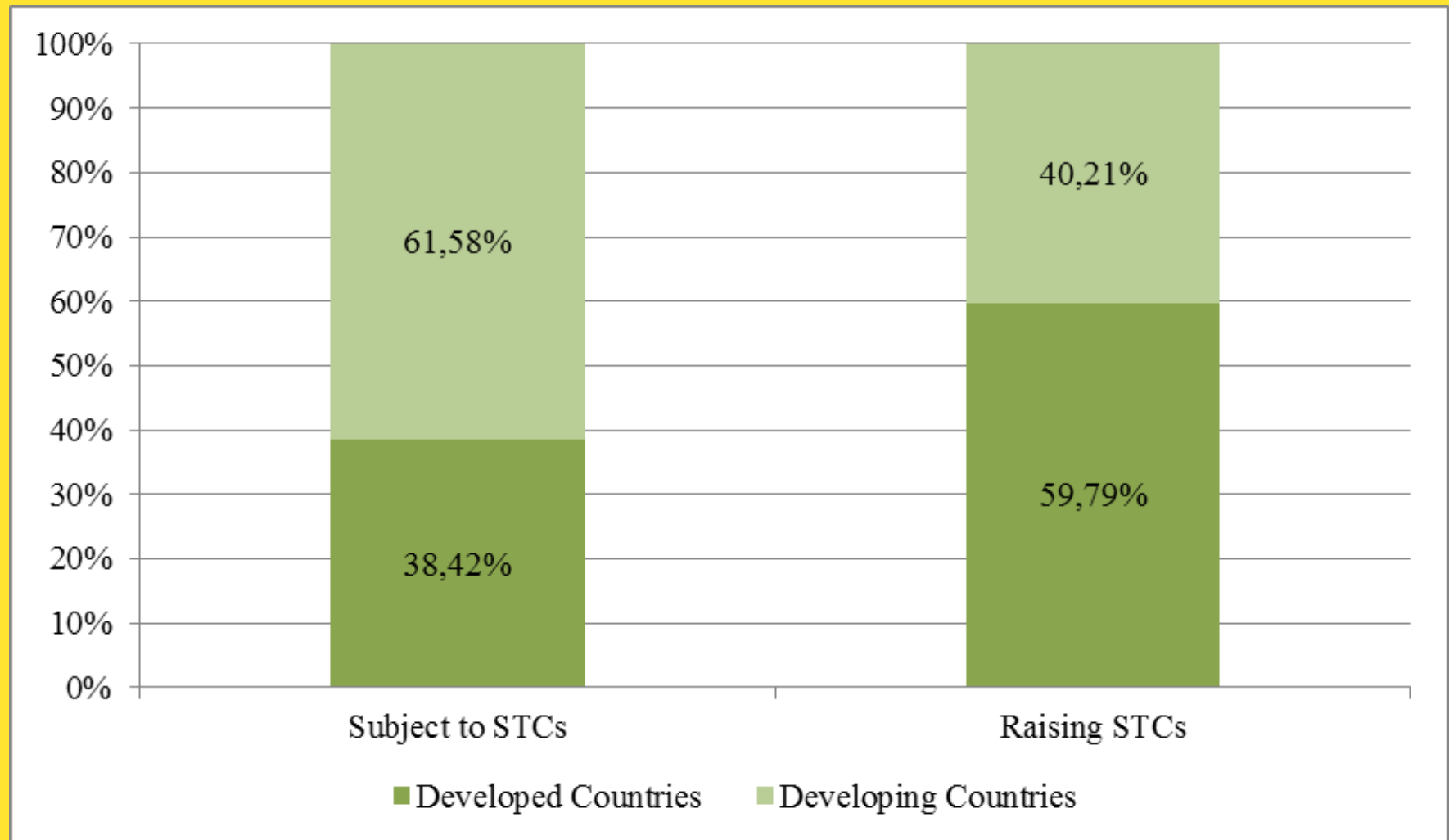
Types of TBT STCs raised 1995-2013 and 2014

49



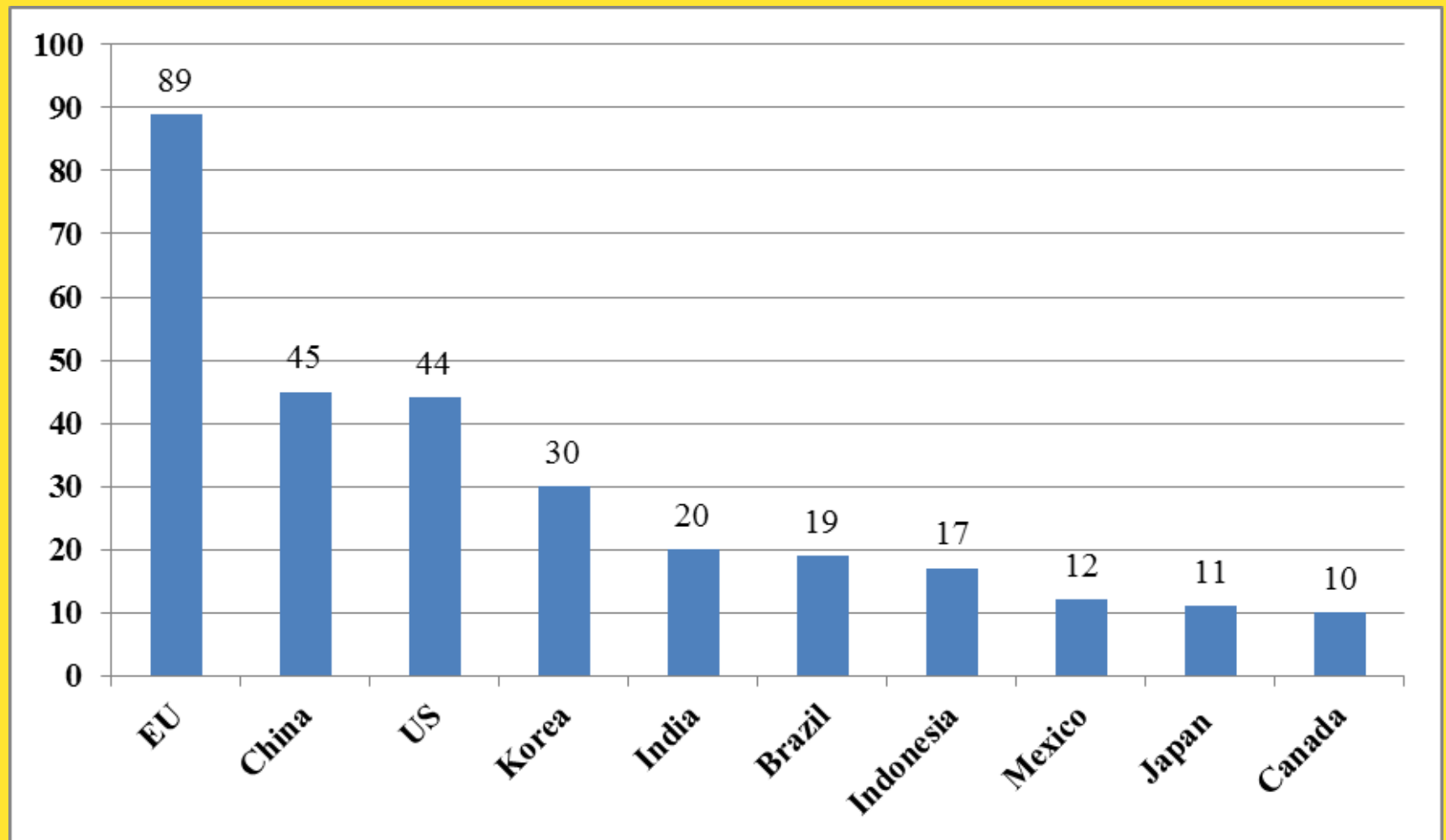
TBT STCs Parts from 1995 to 2014

50



Members most Frequently Subject to TBT STCs, 1995-2013

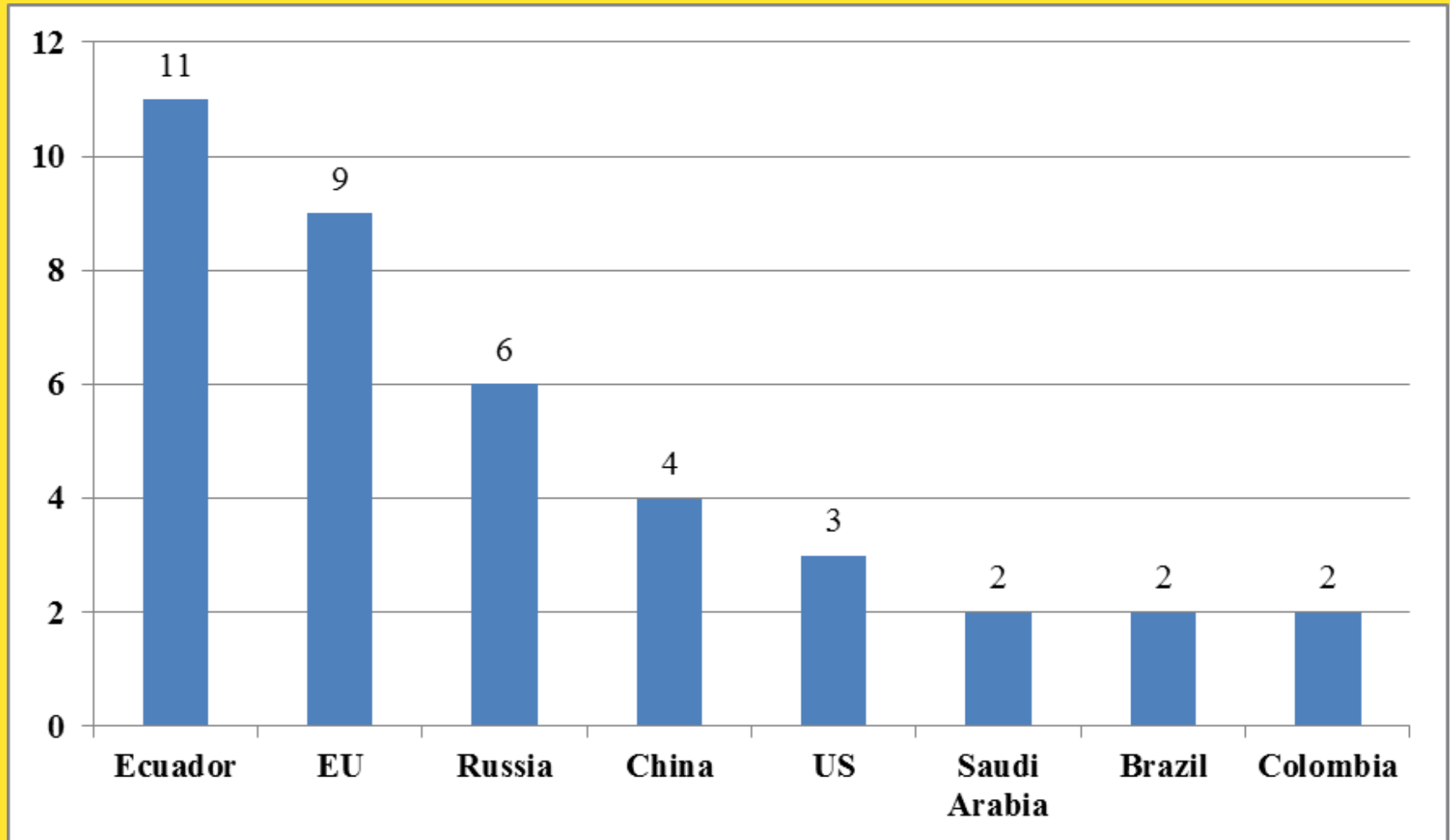
51



Source: WTO

Members most Frequently subject to TBT STCs 2014

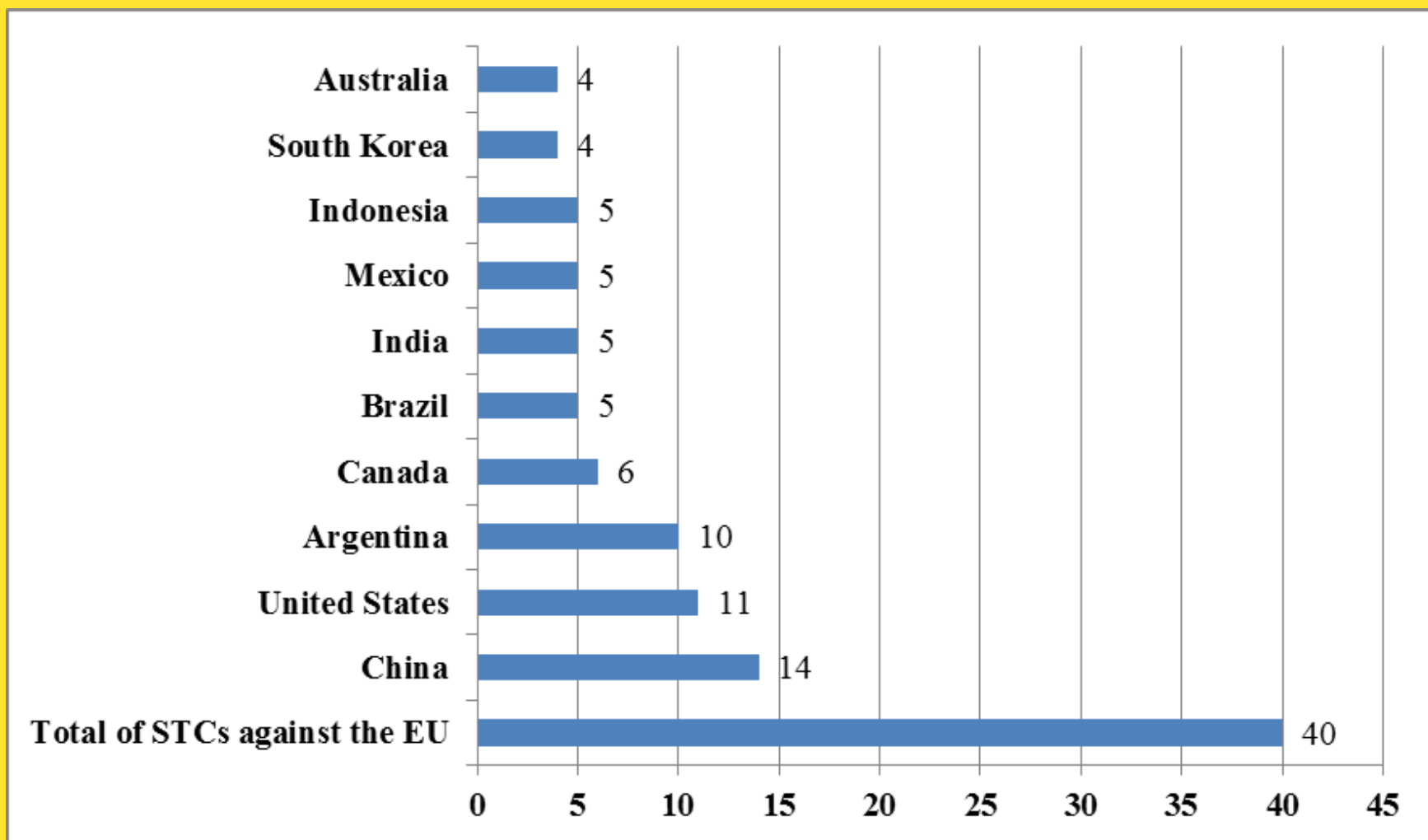
52



Source: WTO

TBT STCs against the EU January 2010 to July 2015

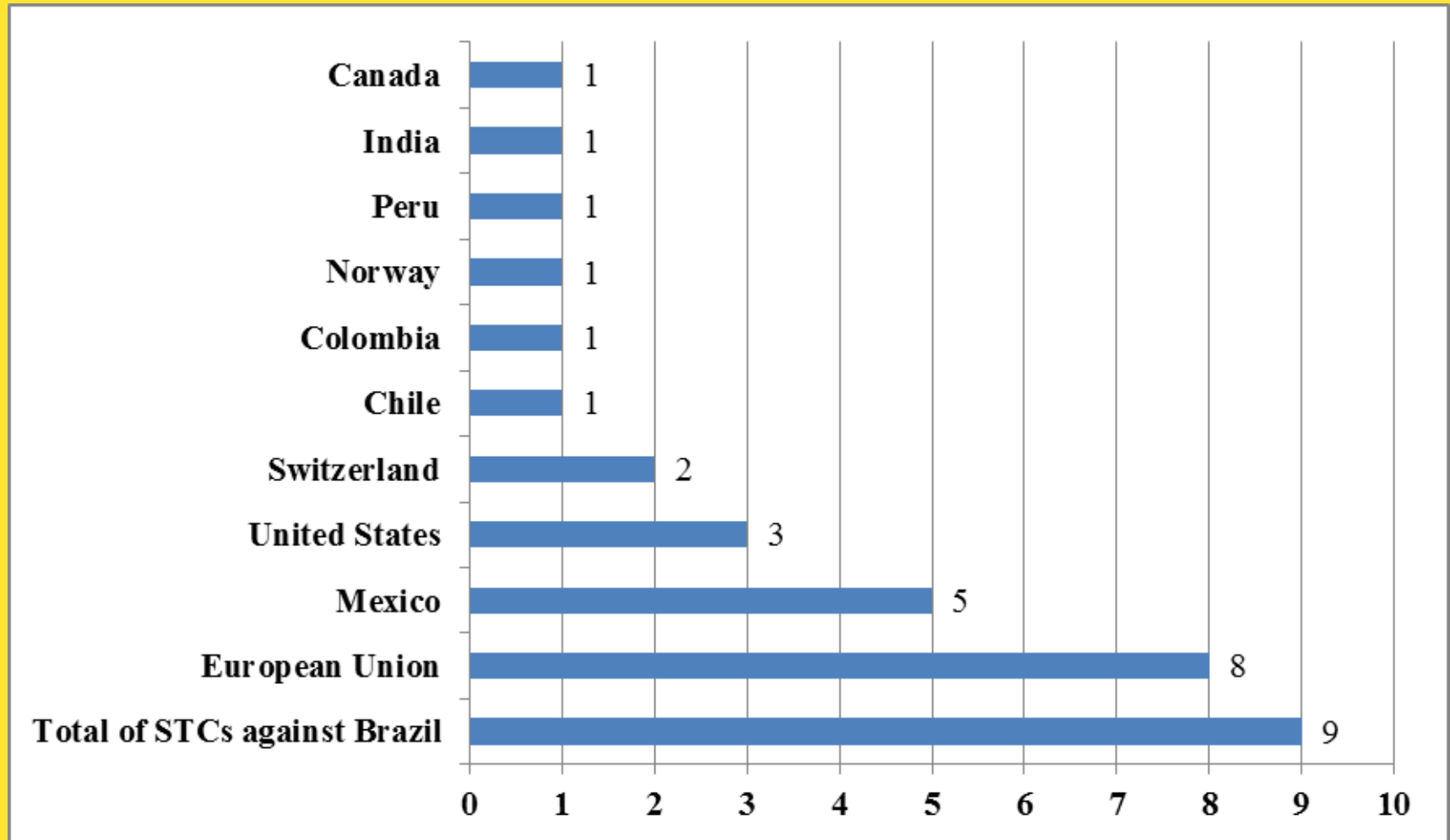
53



TBT STCs against Brazil

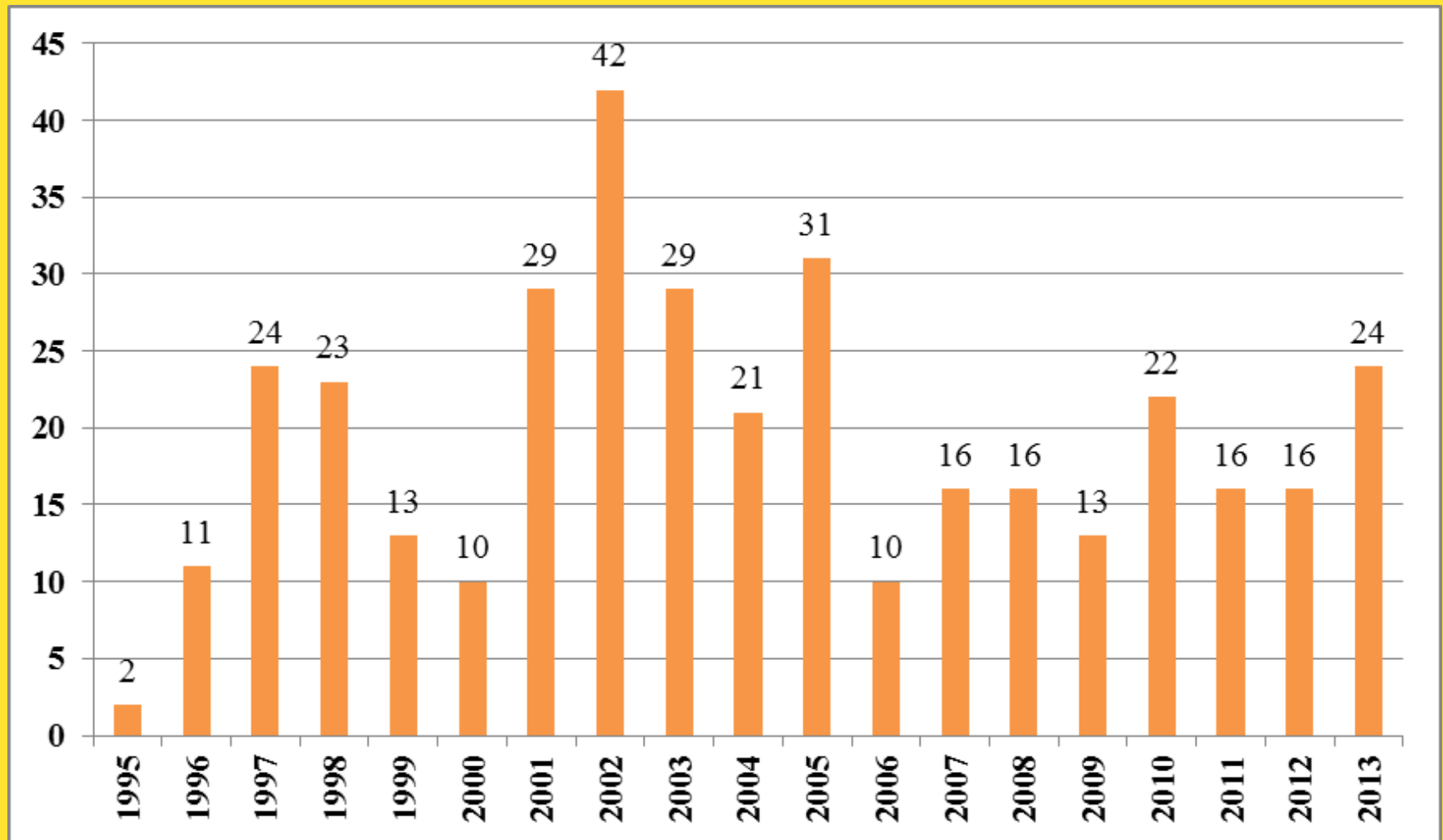
January 2010 to July 2015

54



SPS Notifications 1995-2013

55

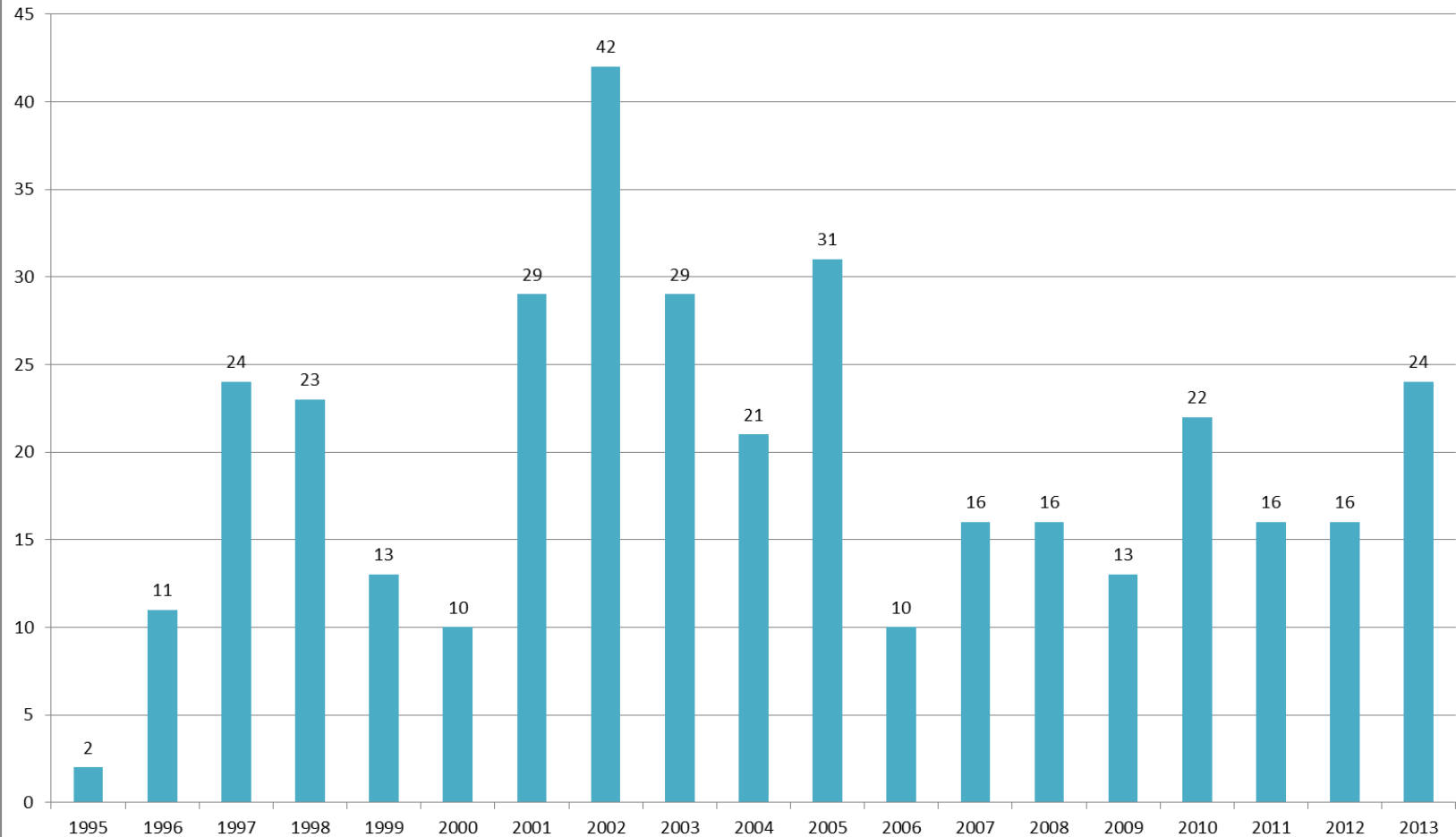


Source: WTO

SPS – STCs

56

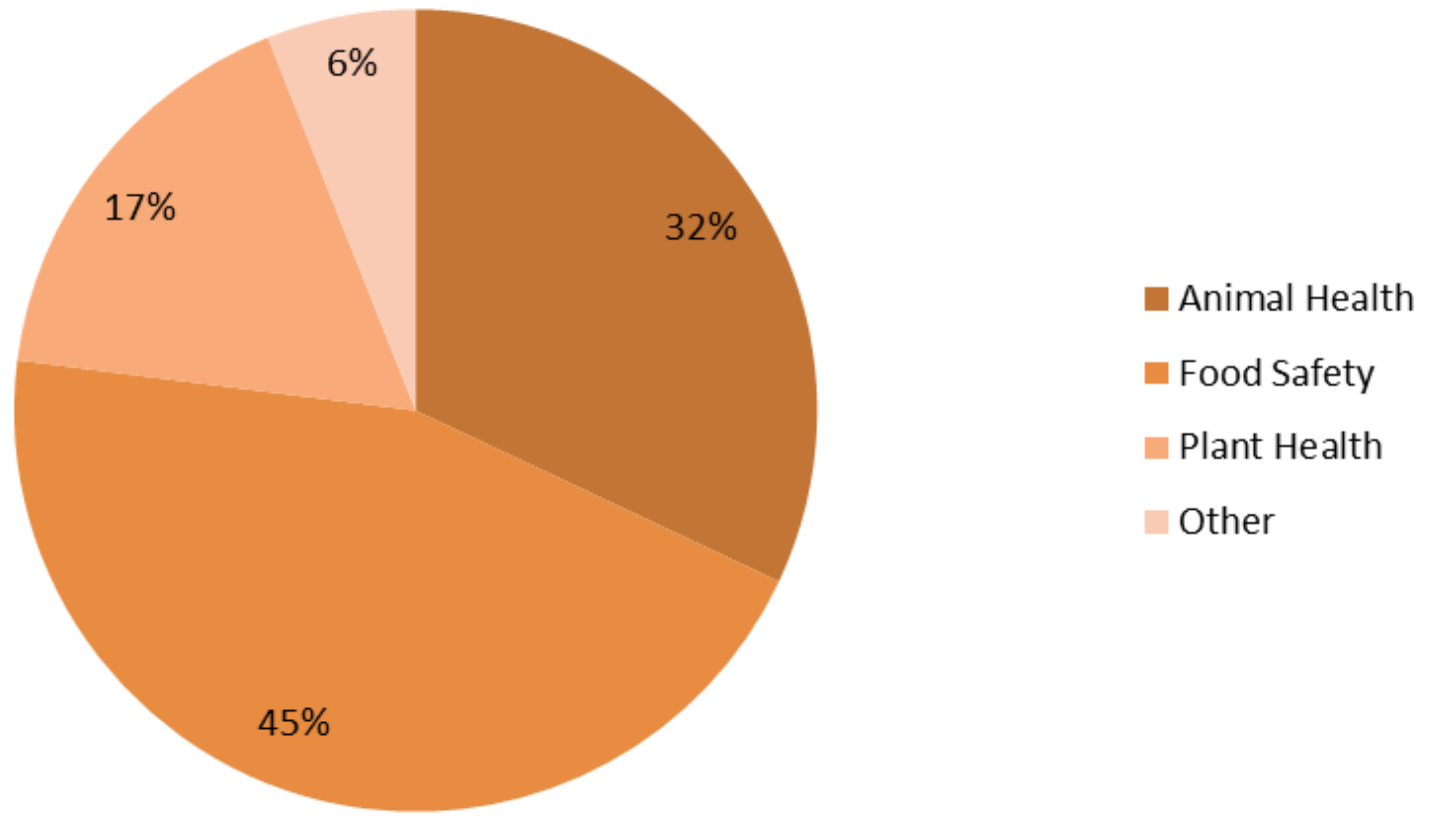
Novas STCs submetidas ao Comitê sobre Medidas Sanitárias e Fitossanitárias



Fonte: CSPS-OMC

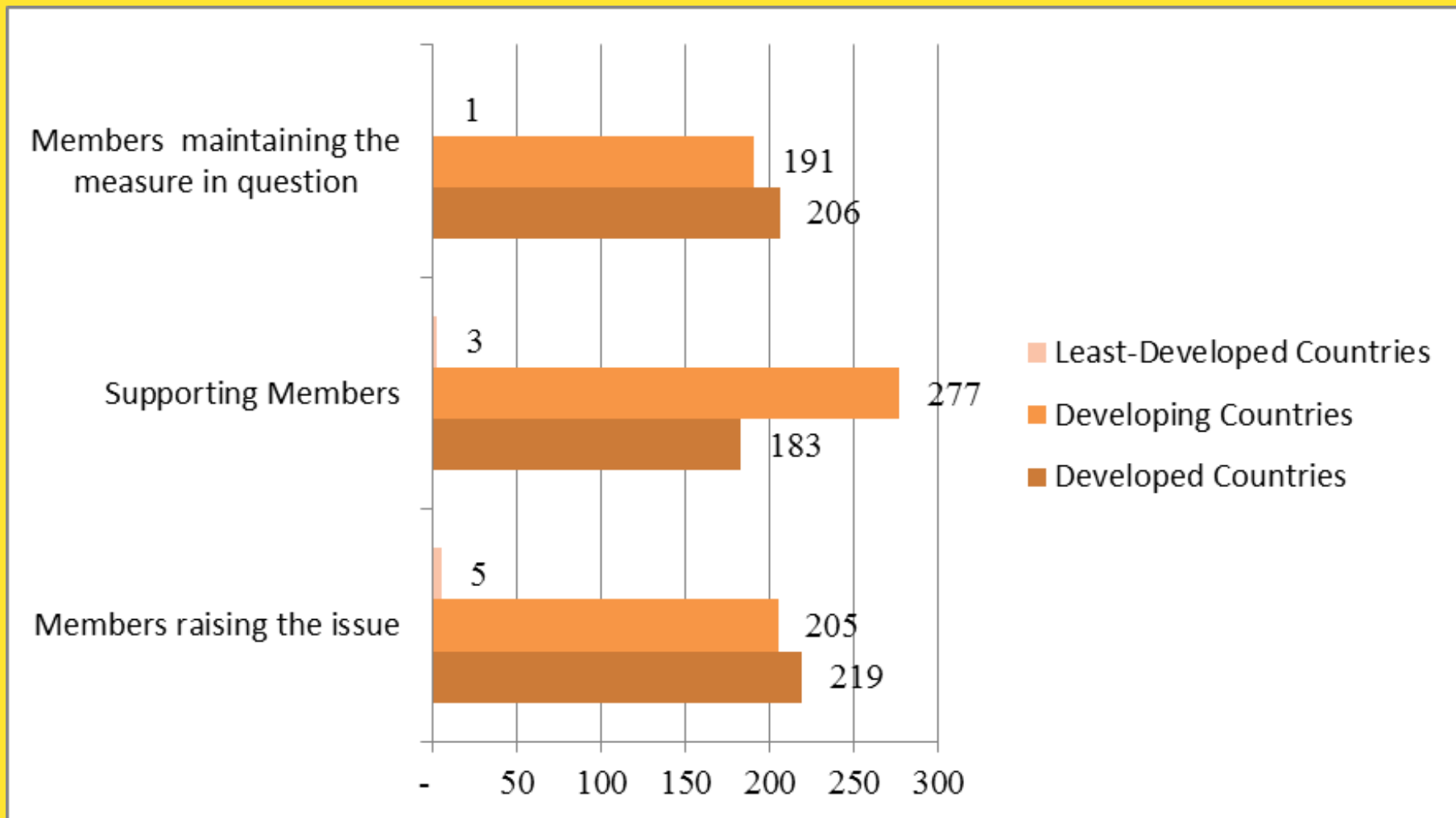
SPS Specific Trade Concerns since 2010 by subject

57



Participation by WTO Members (1995-2013)

58



PRIVATE STANDARDS

59

Exemplos de padrões privados no setor de alimentos

Esquemas de firmas individuais	Esquemas coletivos nacionais	Esquemas coletivos internacionais
<ul style="list-style-type: none">• Nature's Choice (Tesco)• Filières Qualité (Carrefour)• Field-to-Fork (Marks & Spencer)• Filière Controlleé (Auchan)• P.Q.C. (Percurso Qualità Conad)• Albert Heijn BV: AH Excellent	<ul style="list-style-type: none">• Assured Food Standards (UK)• British Retail Consortium Global Standard• Freedom Food (UK)• Qualitat Sicherheit (QS)• Assured Combinable Crops Scheme (UK)• Farm Assured British Beef and Lamb• Sachsens Ahrenwort• Sachsen Qualitatslammfleisch• QC Emilia Romagna• Stichting Streekproduction Vlaams Brabant	<ul style="list-style-type: none">• GlobalGAP• International Food Standard• Safe Quality Food (SQF) 1000/ 2000• Marine Stewardship Council (MSC)• Forest Stewardship Council (FSC)

Fonte: OMC. Comitê SPS e FAO/WHO.

PRIVATE STANDARDS

60

Standard Types		
	Public	Private
Mandatory	Regulations	Legaly binding private standards
Non-Mandatory	non-mandatory public standards	Non-mandatory private standards

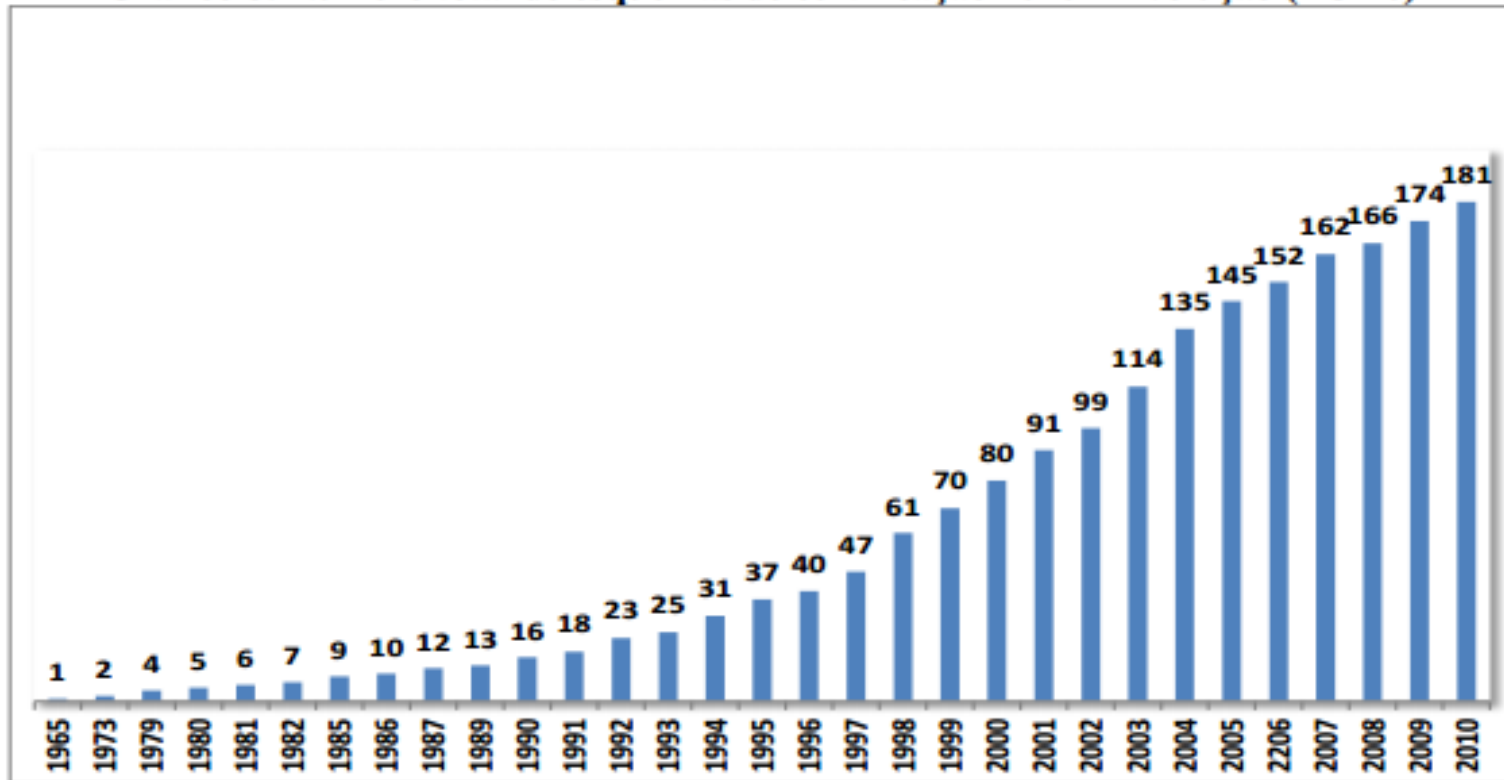
Source: FAO/WHO, In: Manuela Amaral, 2014

PRIVATE STANDARDS

number of certifications

61

Gráfico 8: Número total de esquemas de certificação 2010 – Evolução (EU-27)



Fonte: Comissão Europeia. *Agriculture and Rural Development*. 2010.

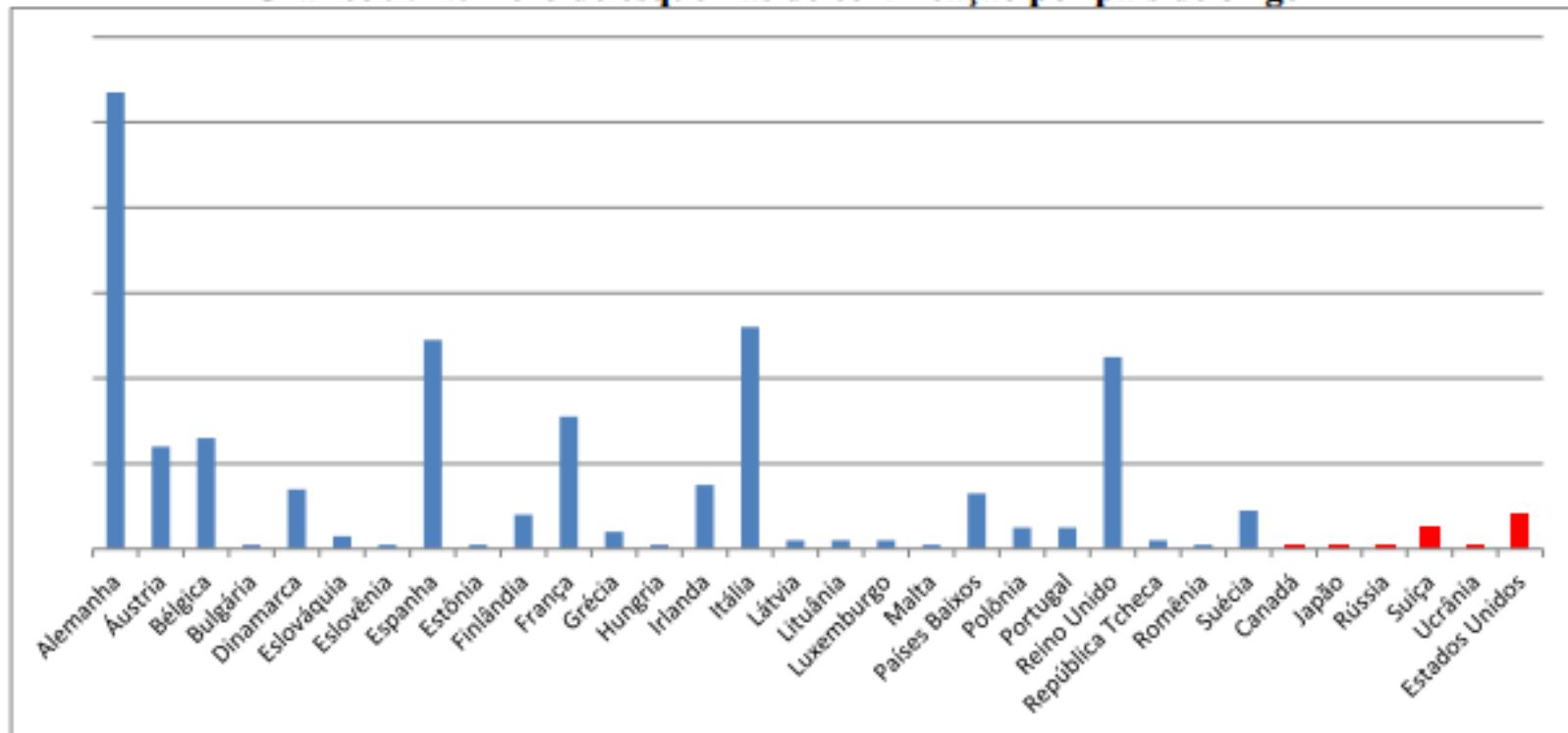
Fonte: Manuela Amaral, 2014.

PRIVATE STANDARDS

Certifications by origin

62

Gráfico 9: Número de esquemas de certificação por país de origem



Fonte: Comissão Europeia. *Agriculture and Rural Development*. 2010.

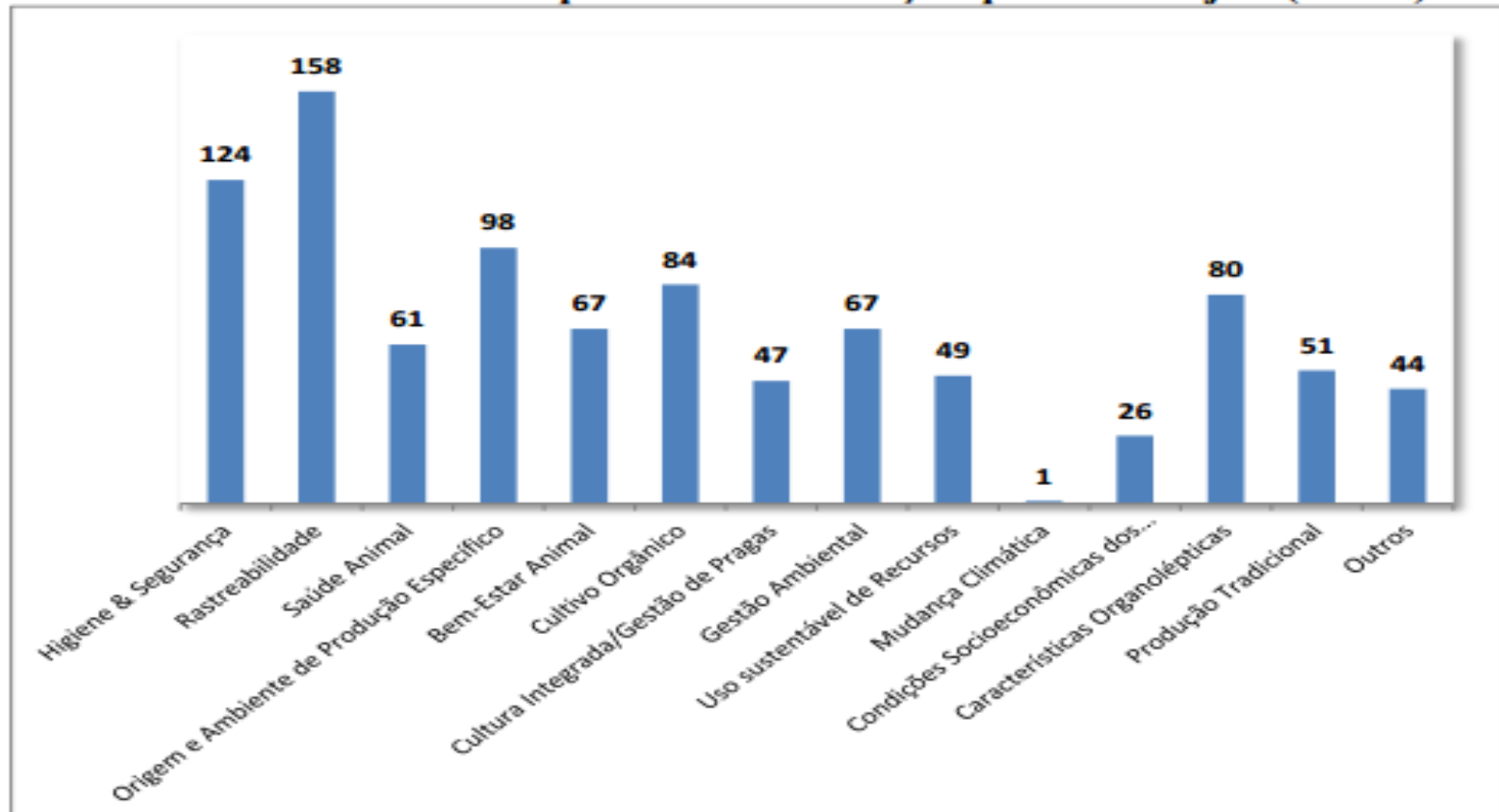
Fonte: Manuela Amaral, 2014.

PRIVATE STANDARDS

Objectives

63

Gráfico 10: Número de esquemas de certificação quanto ao objeto (UE-27)



Fonte: Comissão Europeia. *Agriculture and Rural Development*. 2010.

UNFSS - UN Forum on Sustainability Standards

64



UNITED NATIONS
UNCTAD

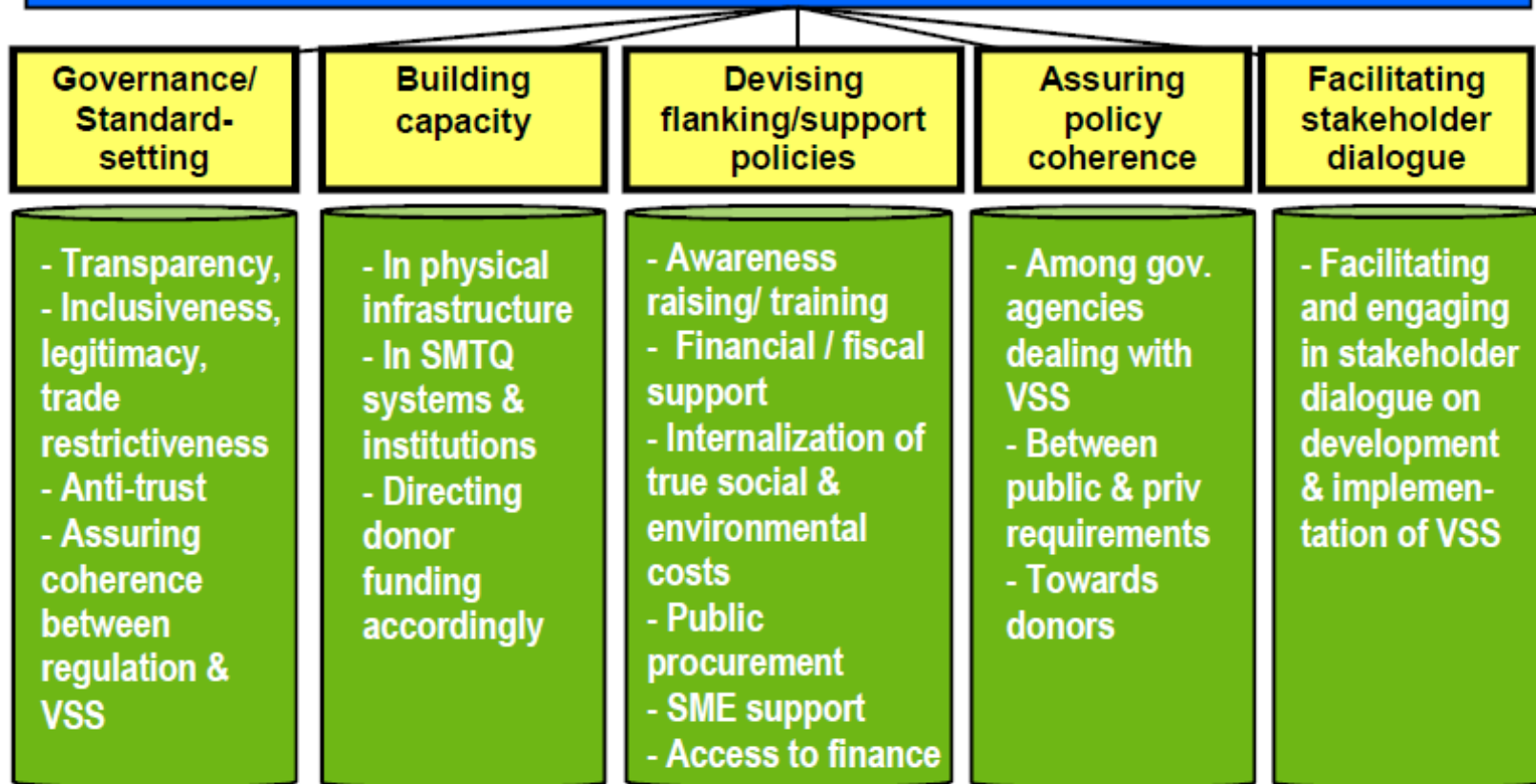


UNFSS - Pro-active Role of VSS

65

The Pro-active Role of Governments on VSS

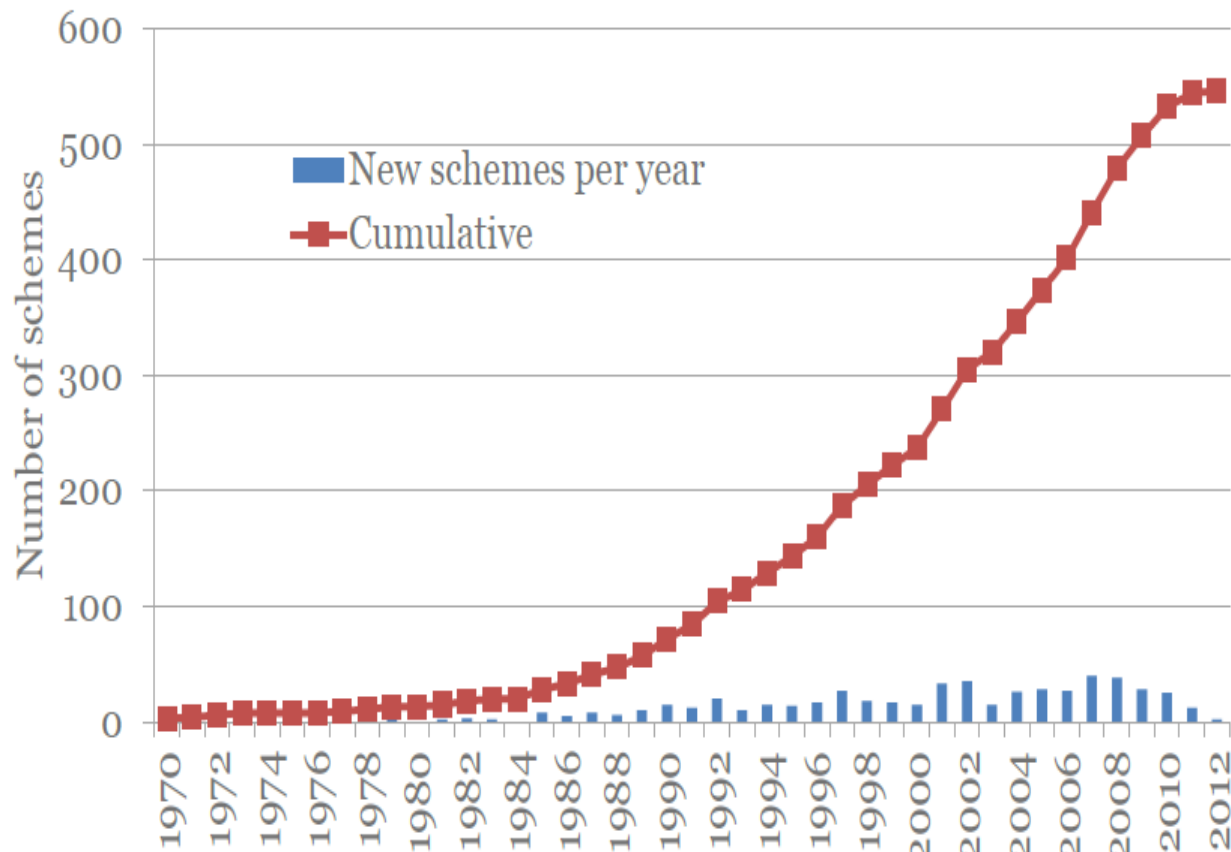
Surveillance, Supportive and Facilitating Role



UNFSS

Some key recent trends in the use of VSS

66



Source: Gruère (2013)

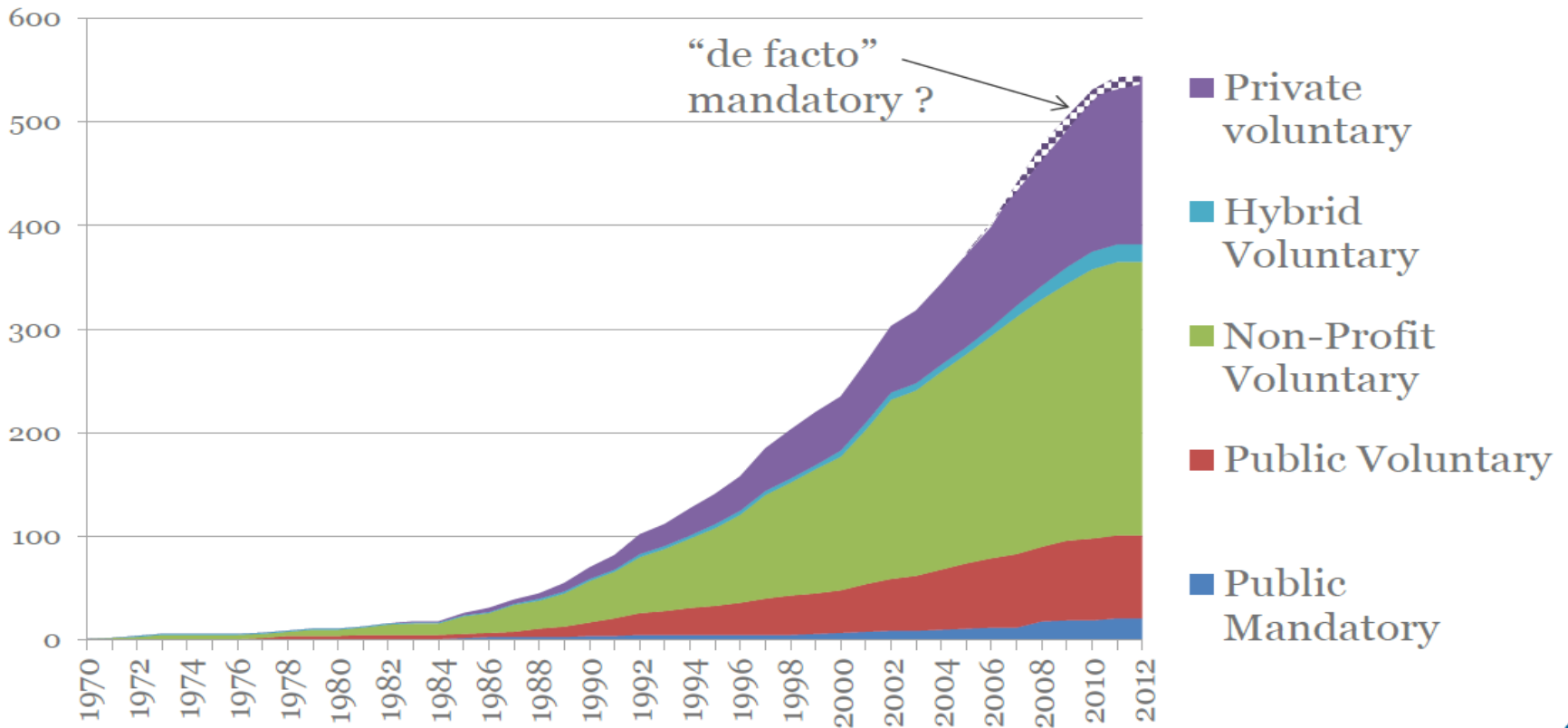
Possible slow-down of new schemes?

UNFSS

Some key recent trends in the use of VSS

67

Evolution of private voluntary versus public standards and regulation



Source: Gruère (2013)

UNFSS

Some key recent trends in the use of VSS

68

Example label mapping: Fruit, vegetables and coffee

Life-cycle stages covered

Attributes targeted

Transport

Raw materials

Processing

End use and disposal

Social sustainability

FairTrade

Chemical control

Organic labels

Natural resource mgmt

Biodiversity conservation

Biodiversity footprint /impact

Energy use

Transport related labels (air freight, food miles)

Rainforest Alliance, 4C coffee, Utz, Food Alliance Certified, etc

GHG emissions

Carbon footprint

Water use

Water footprint

Waste and recycling

Packaging recycled content

Packaging recyclable

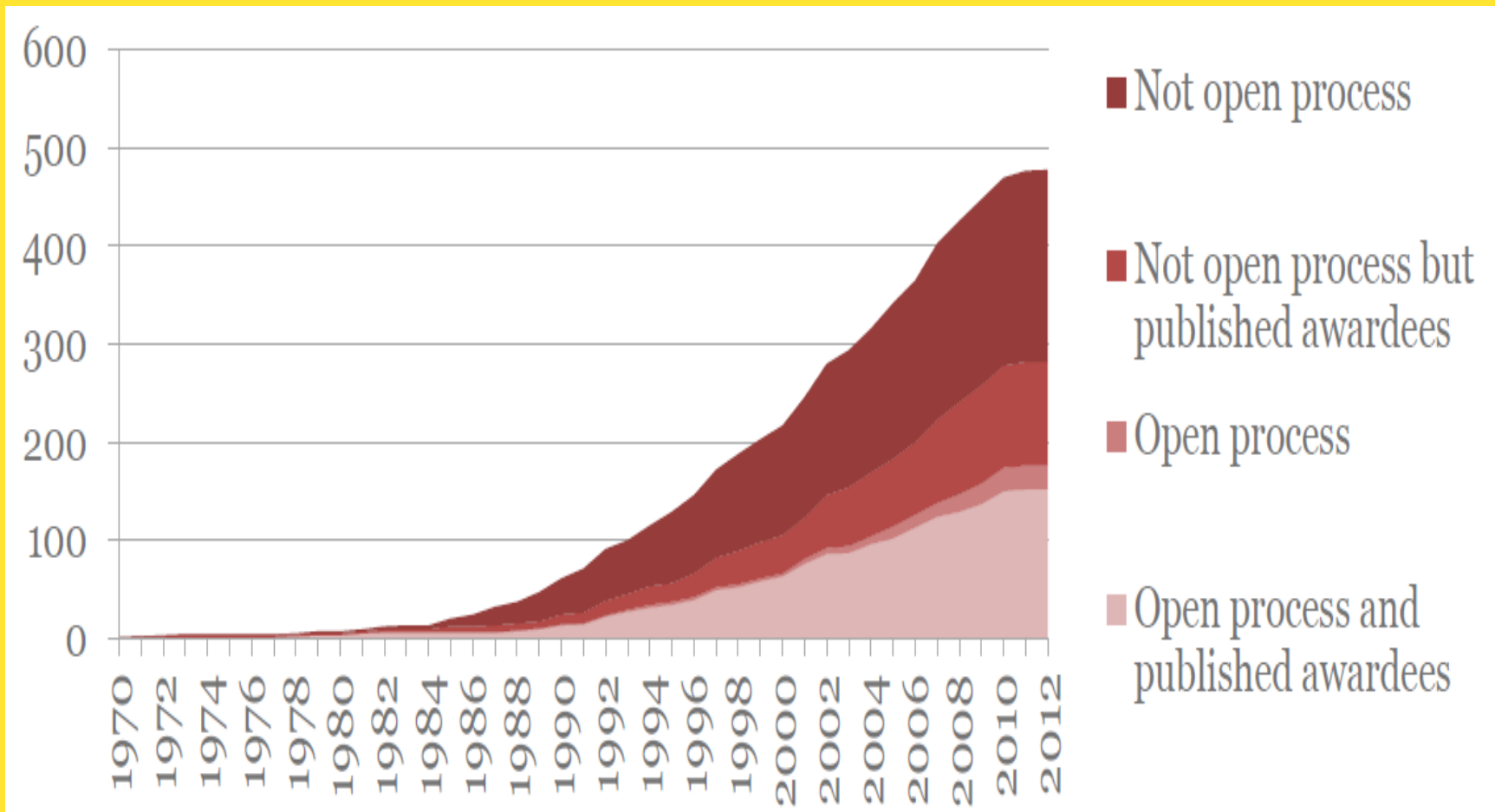
Composting labels

UNFSS

Some key challenges related to VSS

69

More third-party audit, but many private standards are still not transparent



Conclusions

70

- **TBT and SPS are the new barriers to trade**
 - **violations can be discussed in the WTO**

- **Private Standards**
 - **no responsibility of governments**
 - **no place to discuss or negotiate rules**

Need of a new forum to bring coherence !

Globalization of rules x domination by rules !

4 - Currency Wars

71

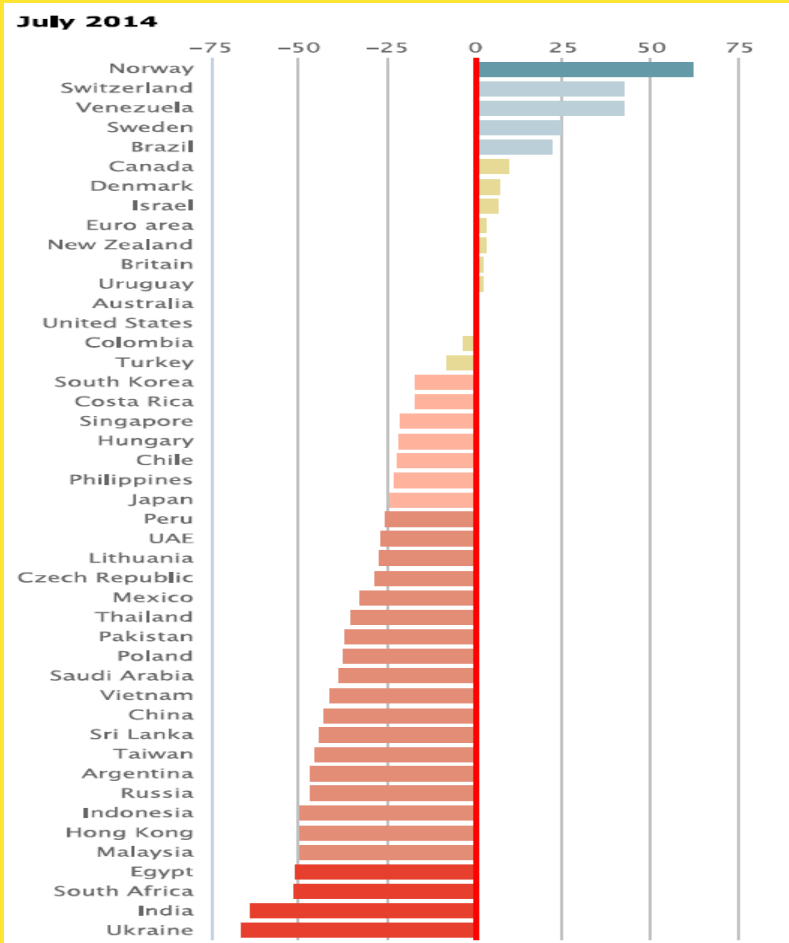
- **Number of countries with misalignments**
- **Persistence and magnitude of misalignments**
- **Where to judge exchange violations?**
- **Manipulators(IMF Art IV) x Frustrators(GATT Art XV)**

HOW TO ESTIMATE MISALIGNMENTS

72

- PPP
- Equilibrium rate to current account balance (flow)
- Equilibrium rate to net foreign asstes (stocks)

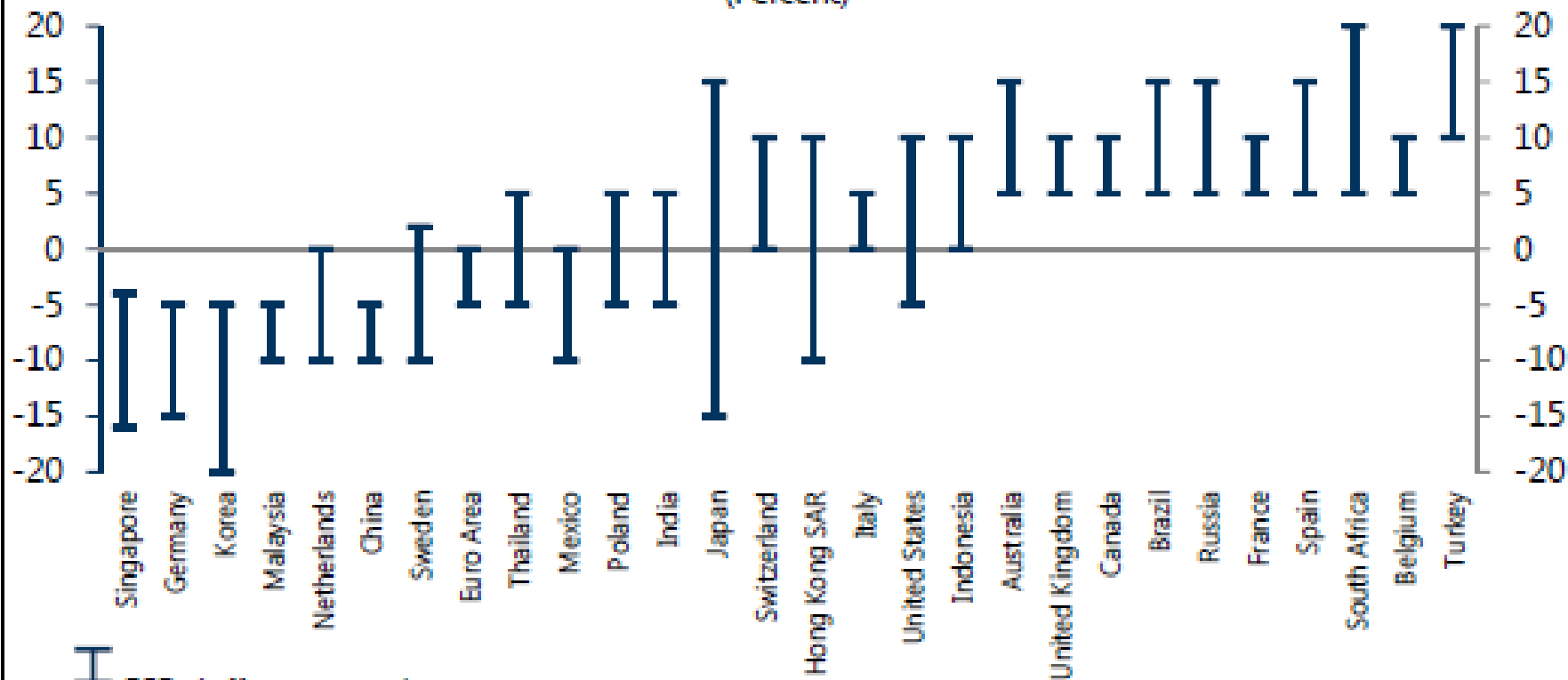
BIG MAC – Index 2015



IMF - Estimates Exchange Rate Misalignments (7/2014) Pilot External Sector Report

Figure 11. Assessed Differences Between Real Effective Exchange Rates and those Consistent with Fundamentals and Desirable Policies (2013 year average)

(Percent)



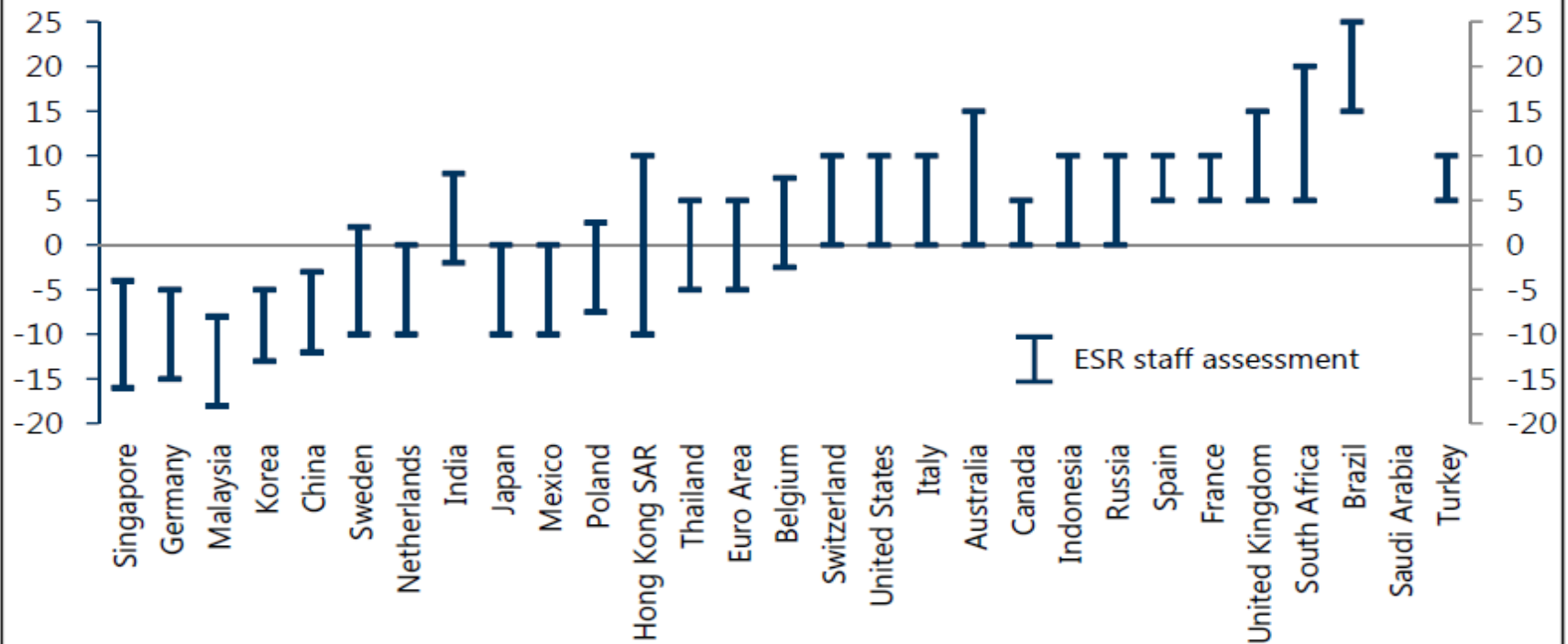
ESR staff assessment

Source: IMF Staff Calculations.

IMF – External Sector Report 7/2015

75

Figure 4. Assessed Differences between Real Effective Exchange Rates and those consistent with Fundamentals and Desirable Policies (2014 year average)
(Percent)

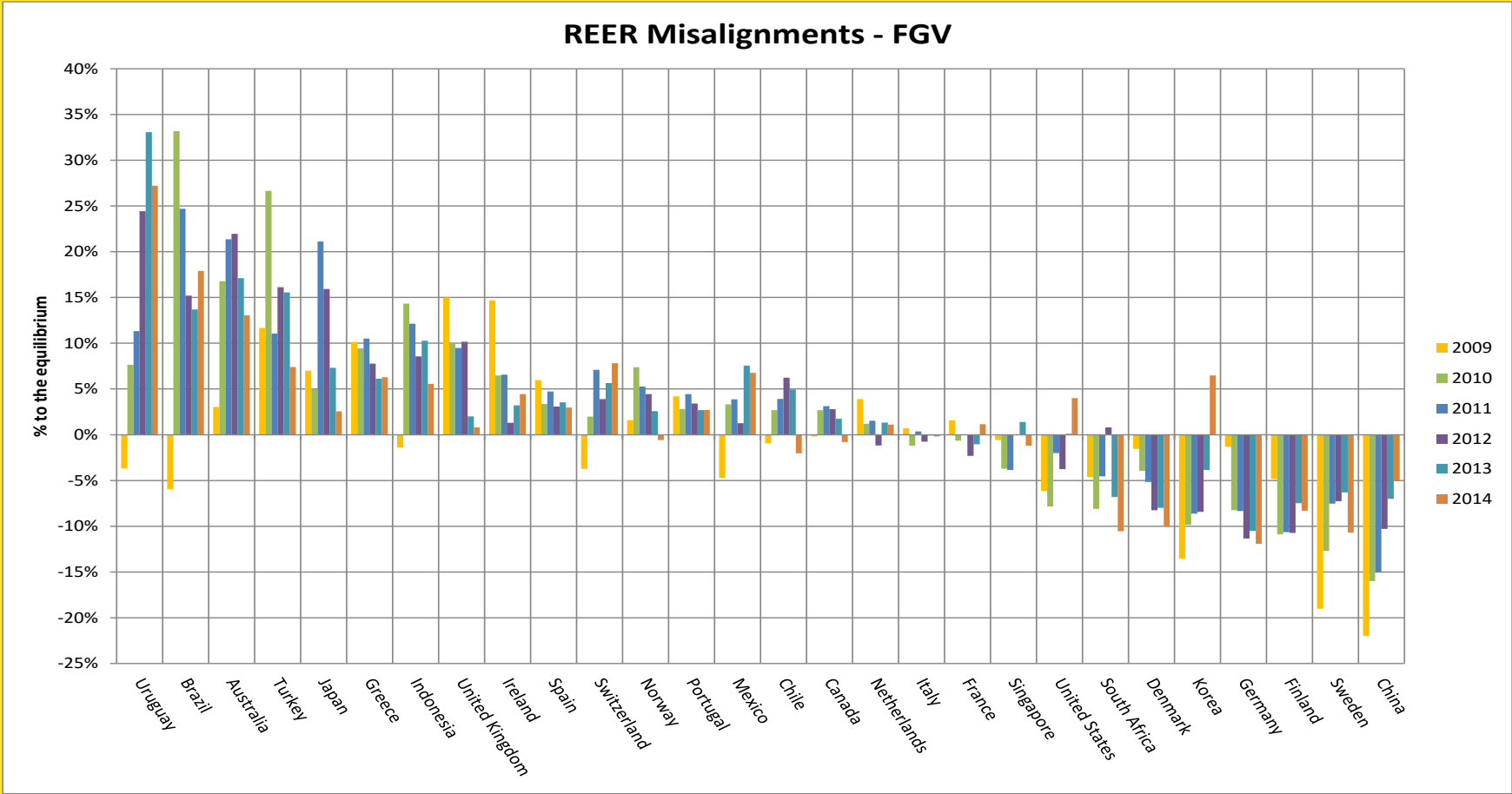


Source: IMF Staff Calculations.

In light of the special structure of the economy of Saudi Arabia, a REER gap is not identified in this case.

FGV – Misalignments

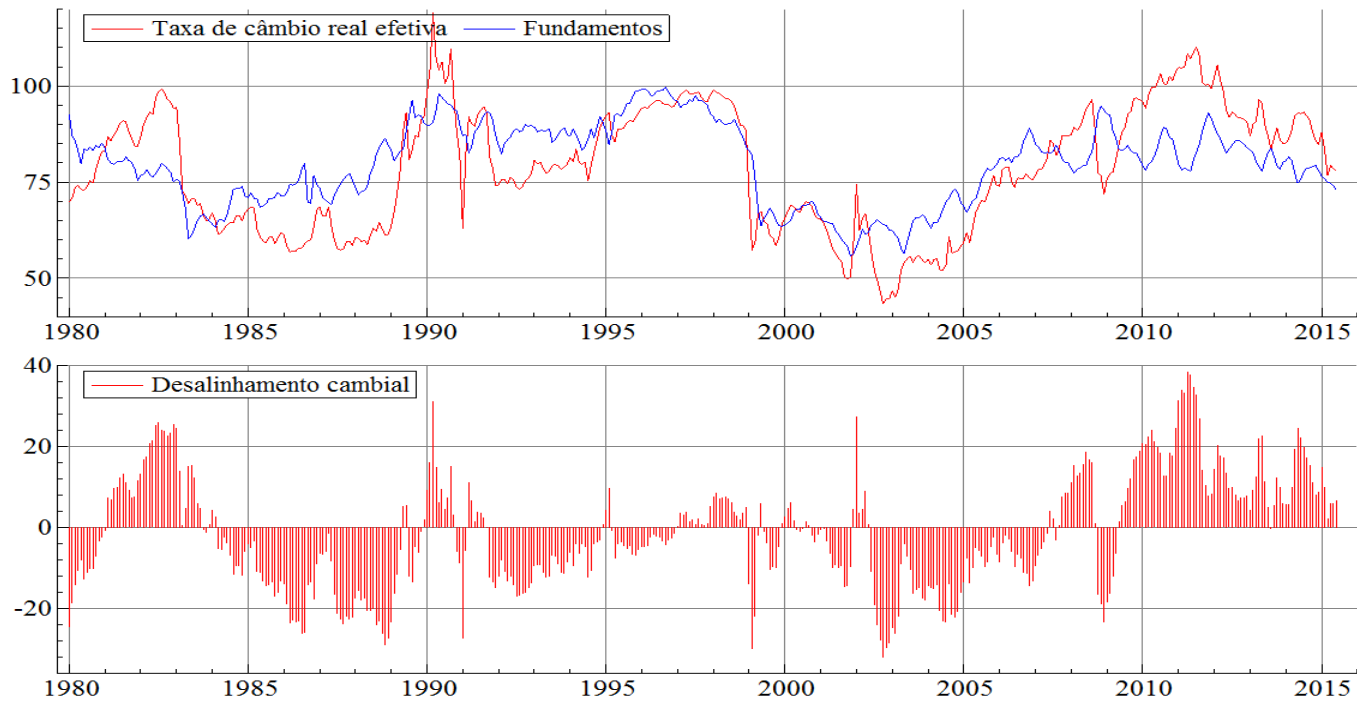
2009 - 2014



Misalignments

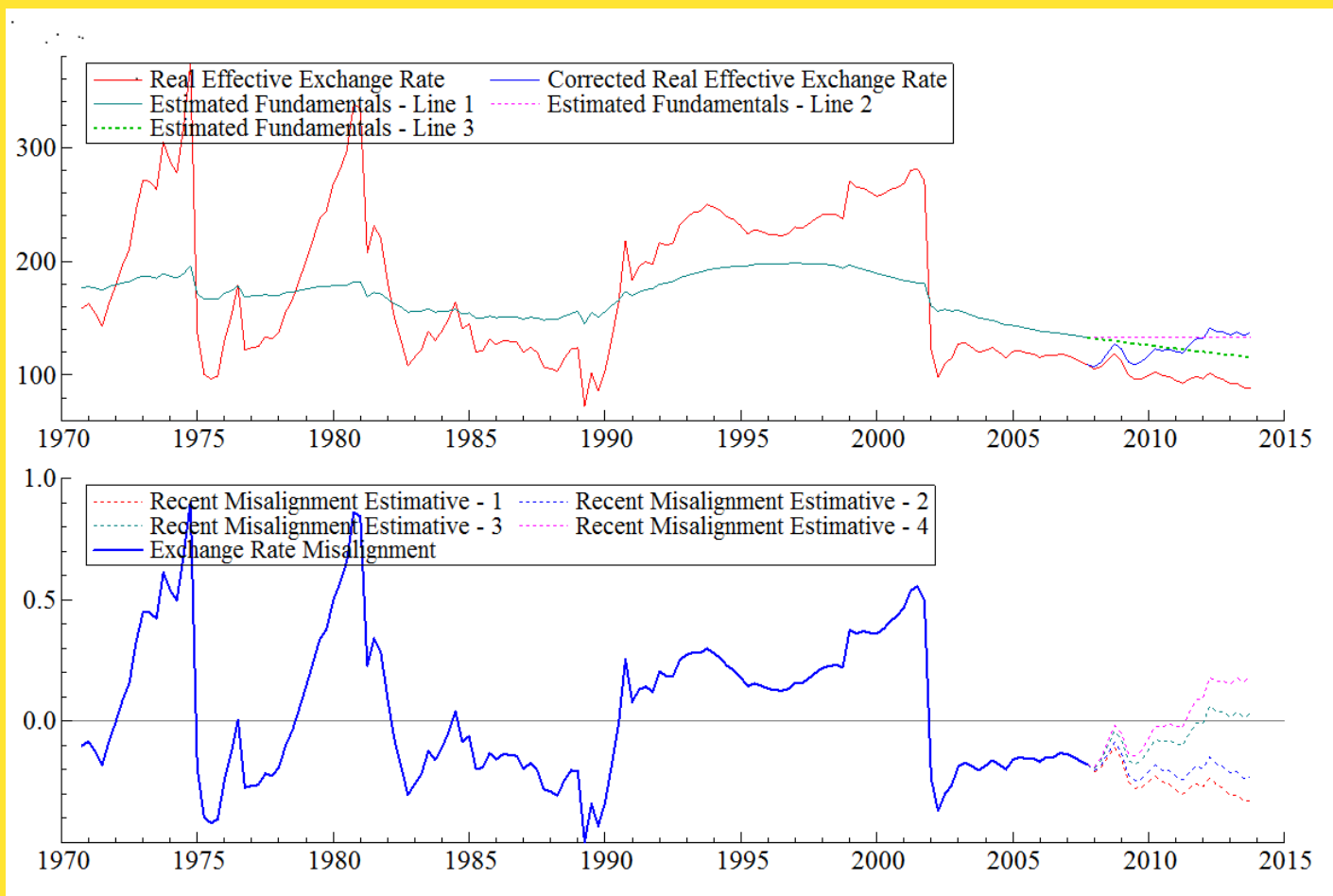
Brazil 6/2015

78



FGV - Argentina: real exchange rate, fundamentals and exchange rate misalignments (annually) - 2014

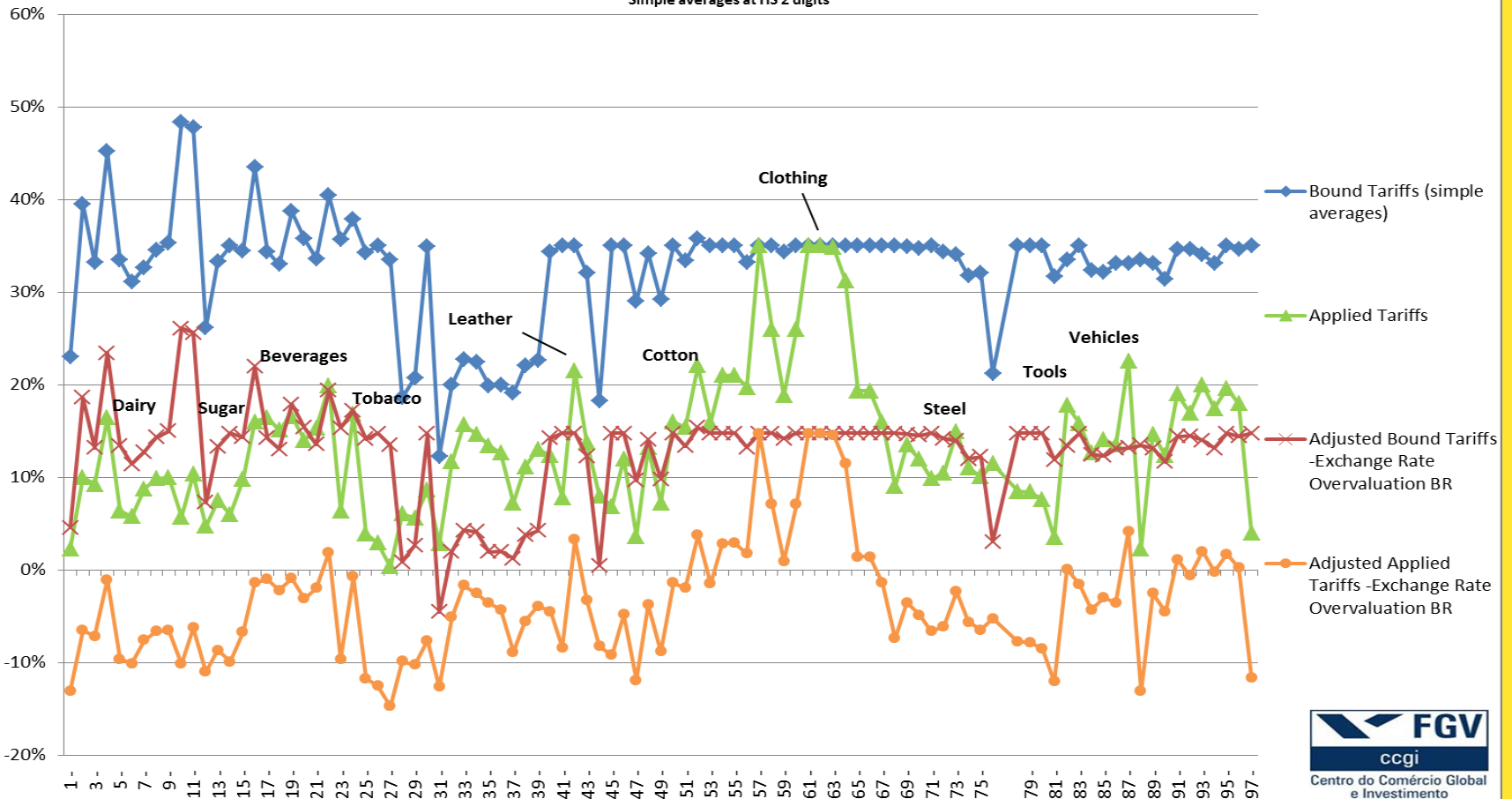
79



Brazil - Impacts of misalignments on Tariffs

Brazil Tariffs x Adjusted Tariffs - Effects of Brazil Exchange Rate Overvaluation

Simple averages at HS 2 digits

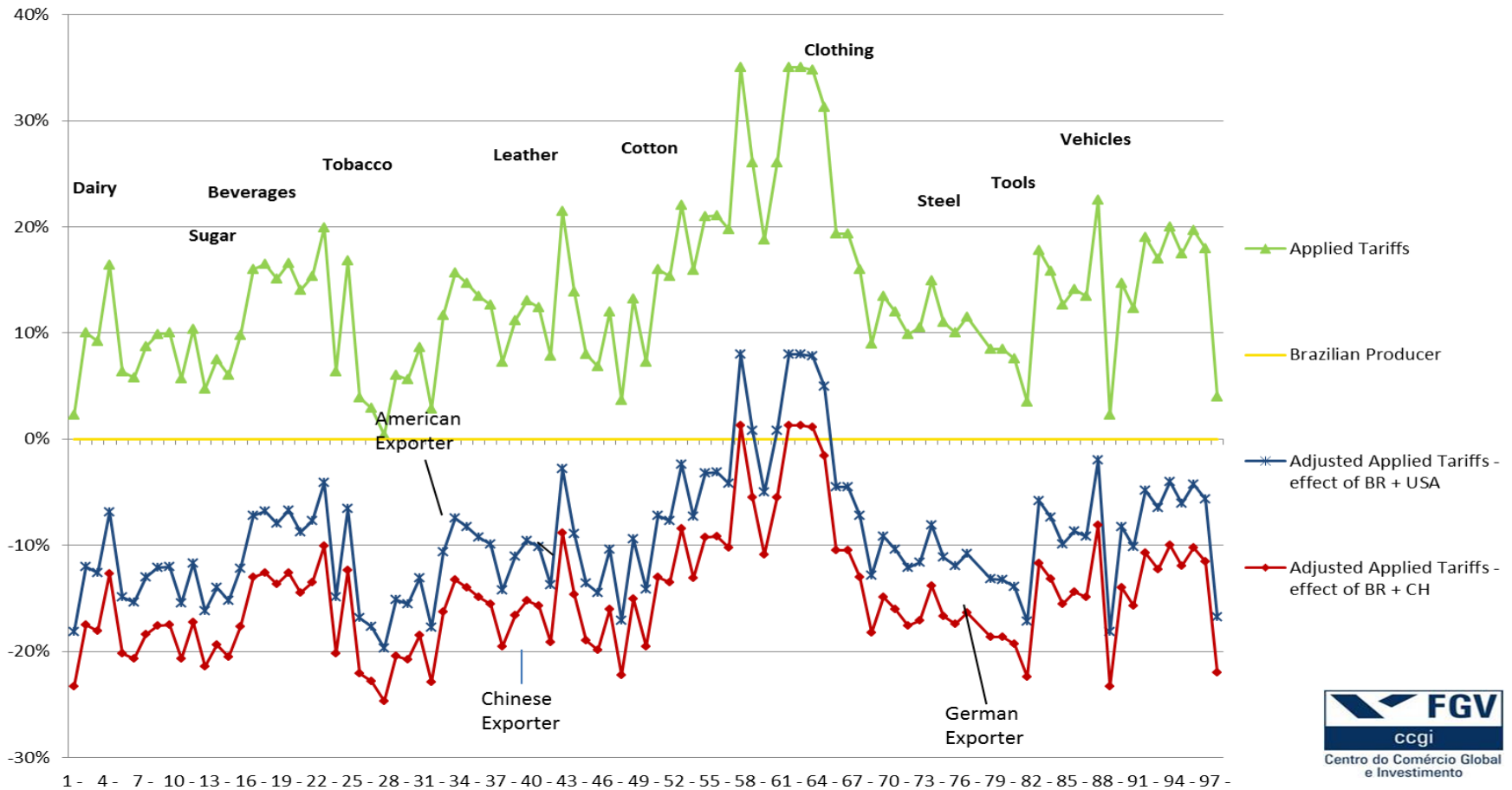


Impacts of Exchange Rates on Brazil Tariff Profile

Brazil x Ch, US

Brazilian Market Adjusted for Multiple Exchange Rate Misalignments

Simple averages at HS 2 digits

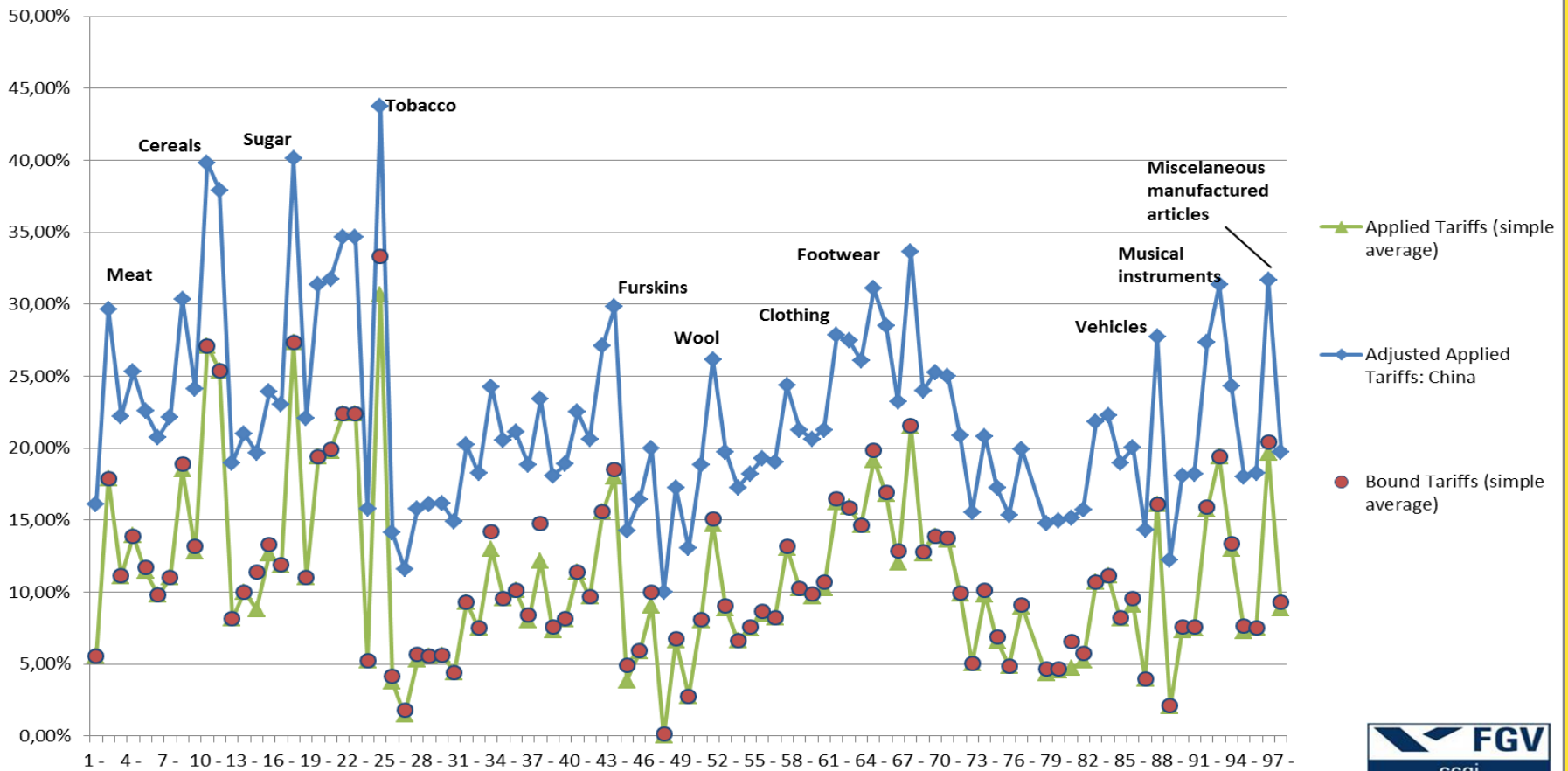


CHINA - Impacts of Exchange Rates

China Tariff Profile

China Tariffs x Adjusted Tariffs - Effects of China Exchange Rate Devaluation

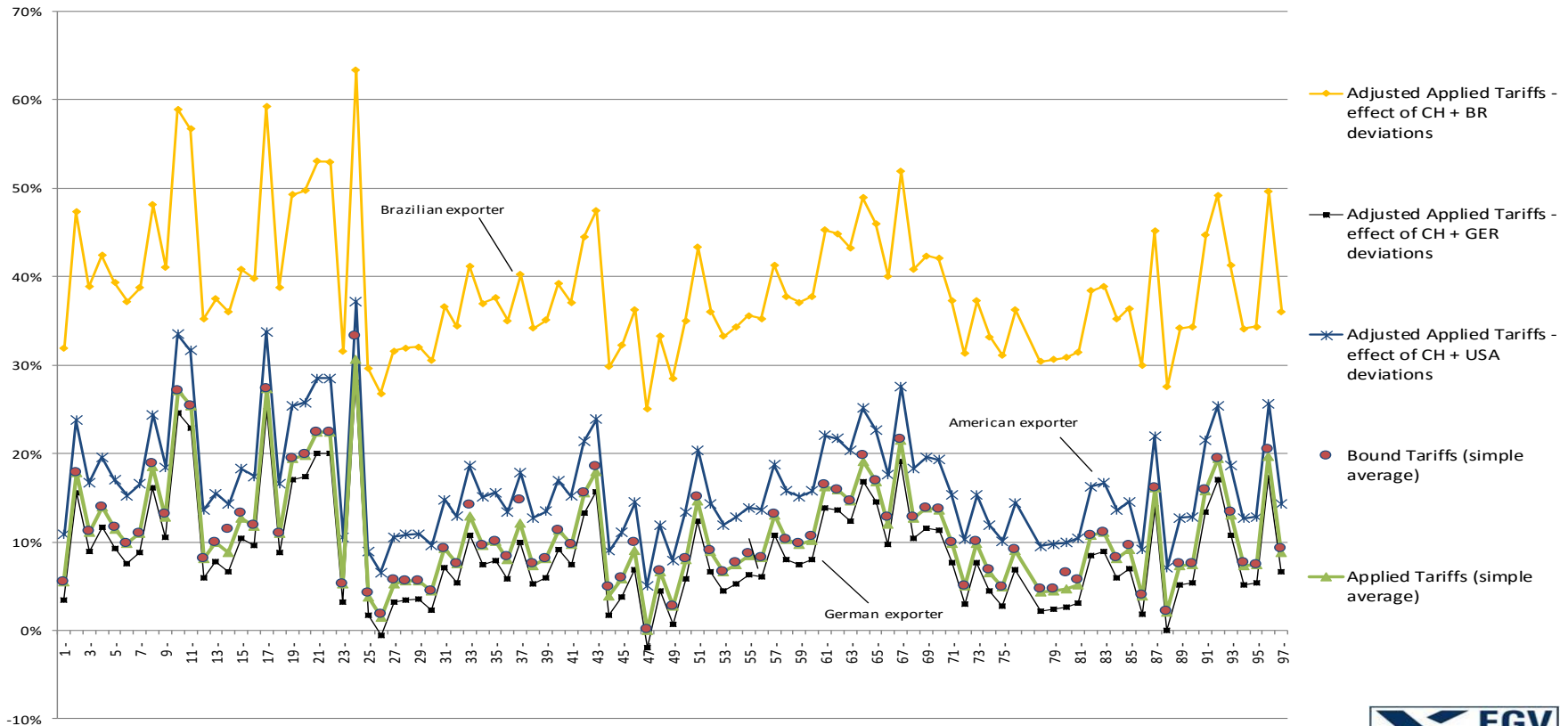
Simple averages at HS 2 digits - source WTO



CHINA - Tariff Profile

China x Germany x USA x Brazil

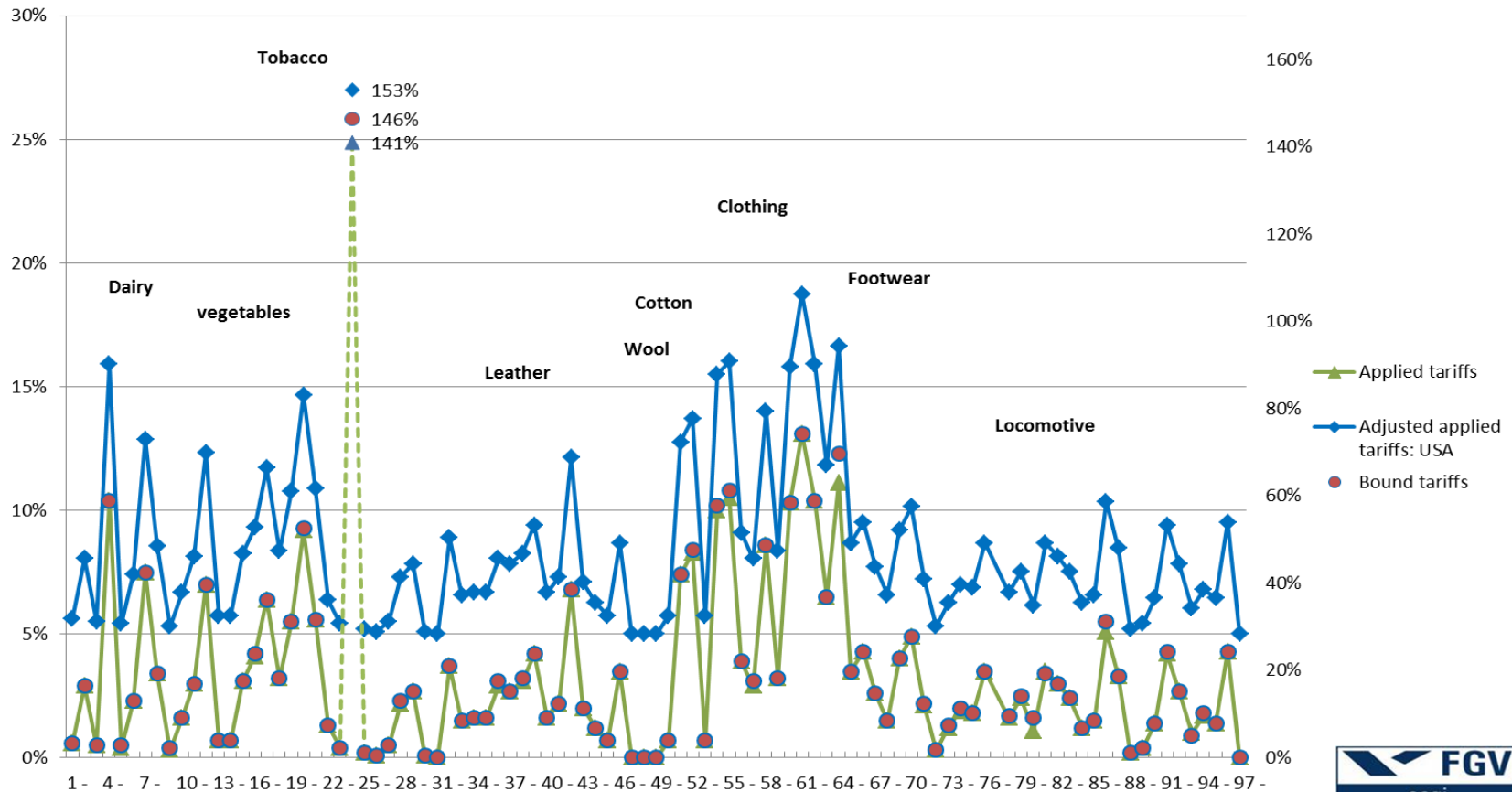
China Tariffs x Adjusted Tariffs - Effects of Selected Countries Exchange Rate Deviations
Simple averages at HS 2 digits



US - Impacts of Exchange Rates on US Tariff Profile

USA Applied Tariffs x Adjusted Tariffs - Effects of USA Exchange Rate Devaluation

Simple averages at HS 2 digits - source WTO

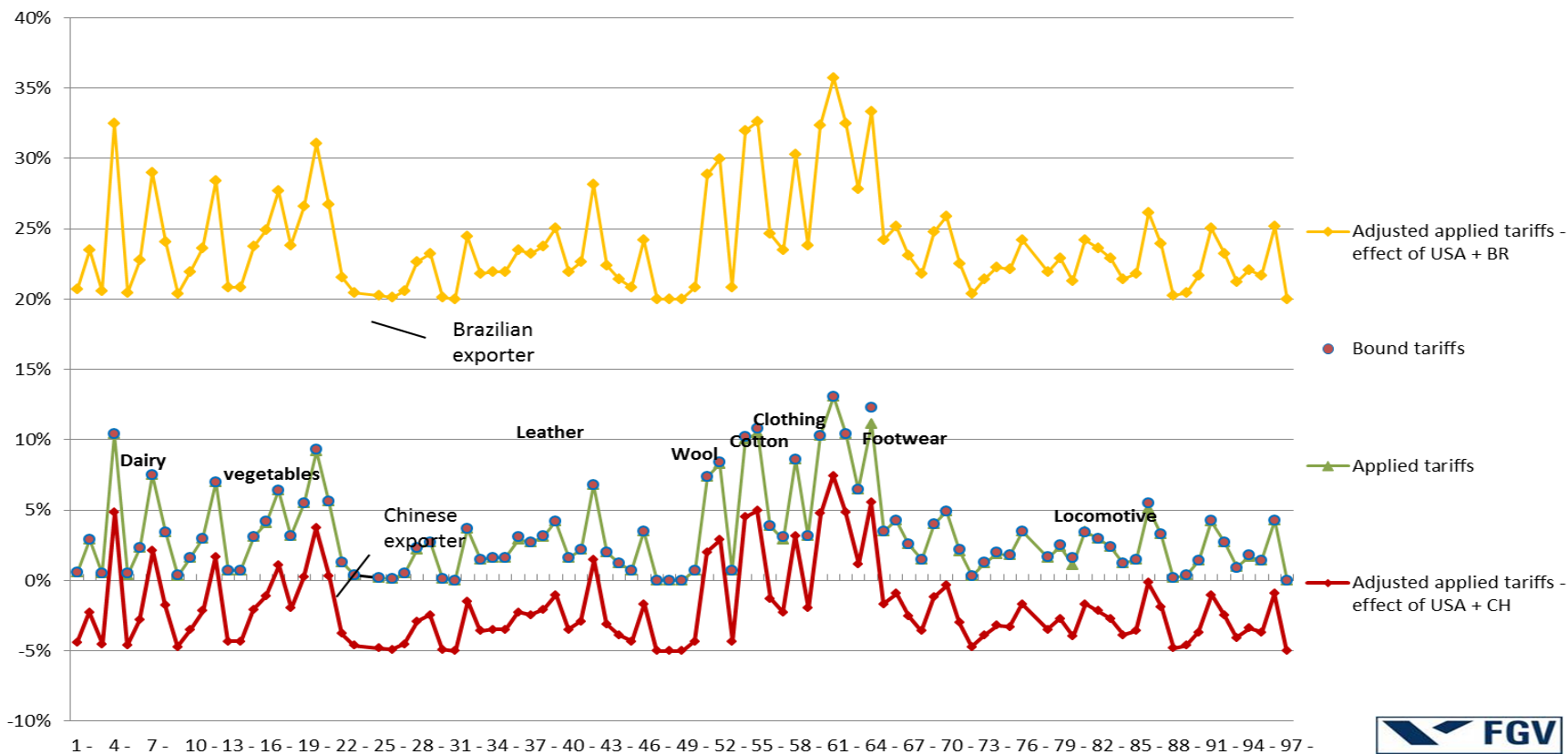


Impacts of Exchange Rates on US Tariff Profile

US-Brazil , US-China in Bilateral Misalignments

USA Applied Tariffs x Adjusted Tariffs - Effects of Selected Countries Deviations

Simple averages at HS 2 digits - Except HS sector 24 (Tobacco)

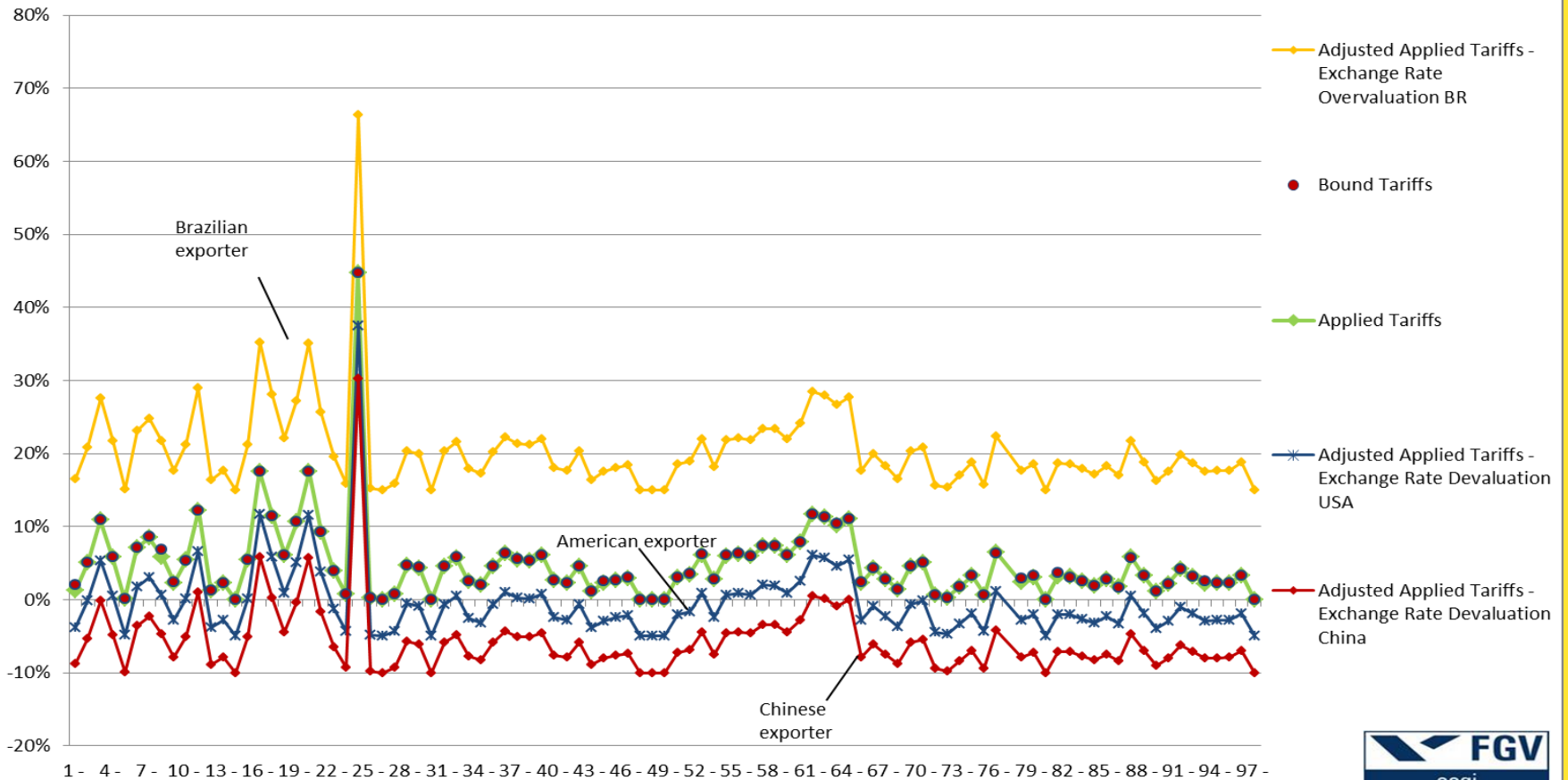


Impacts of Exchange Rates on EU

Brazil, US, China

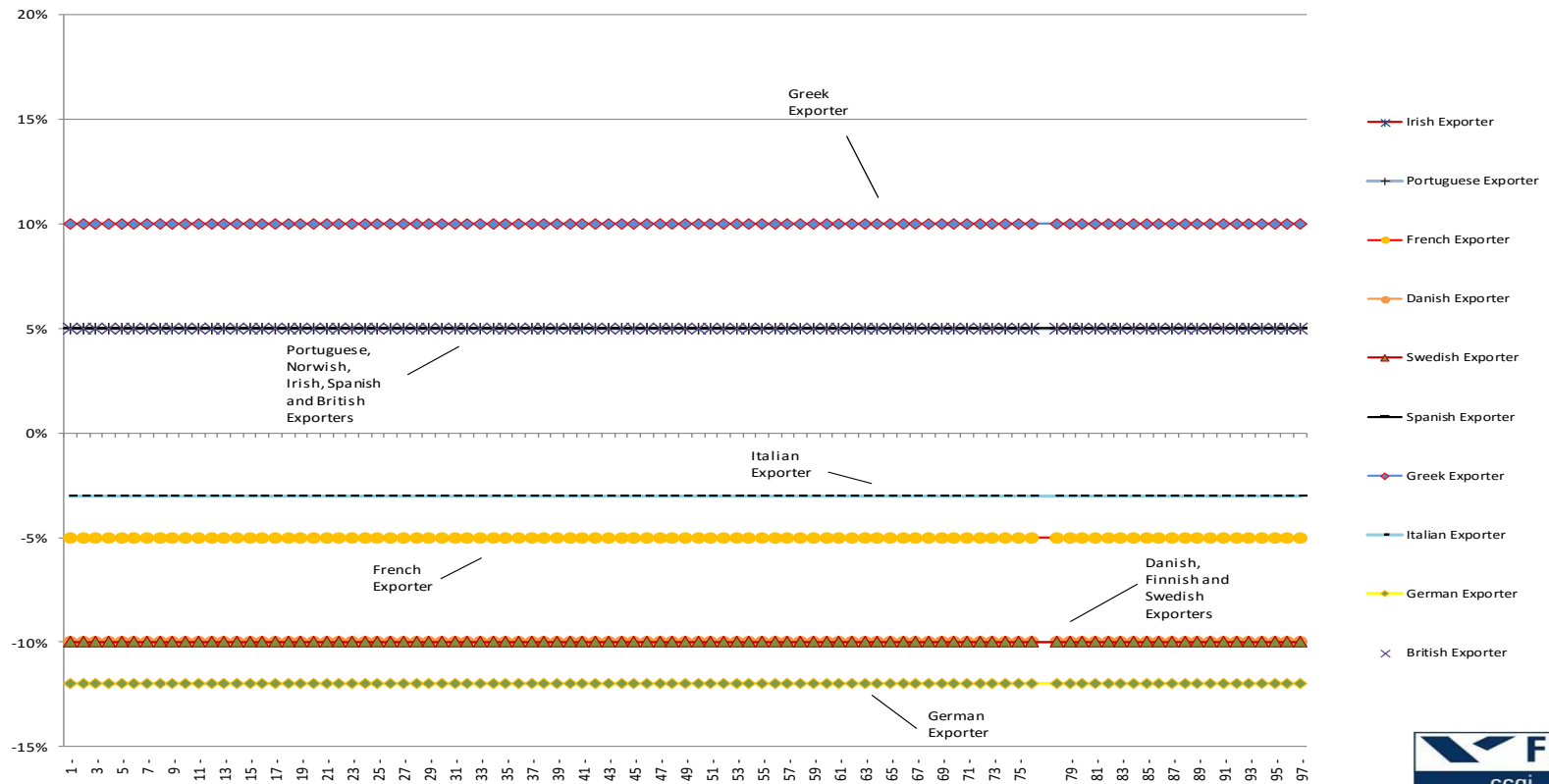
EU Market - Effects of Selected Countries Deviations

Simple averages at HS 2 digits



EU - Impacts of Exchange Rates on ECT

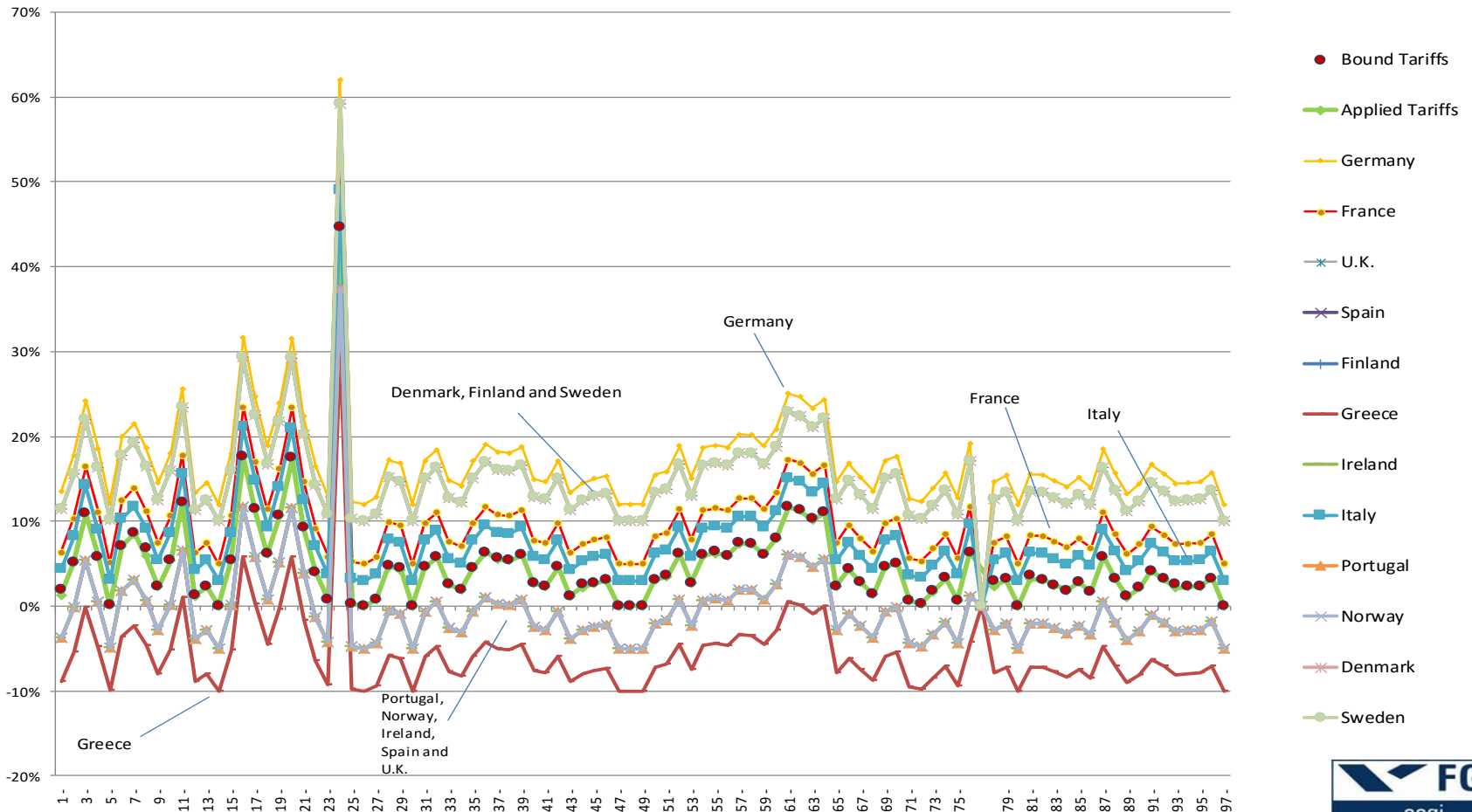
EU Market - Effects of Selected Countries Deviations (Article I)
 Simple averages at HS 2 digits - Exchange rate misalignments



EU - Impacts of Exchange Rates Brazil x Gr, Fr, It, Pt...

EU Countries Tariffs x Adjusted Tariffs - Effects of Selected Countries Deviations

Simple averages at HS 2 digits

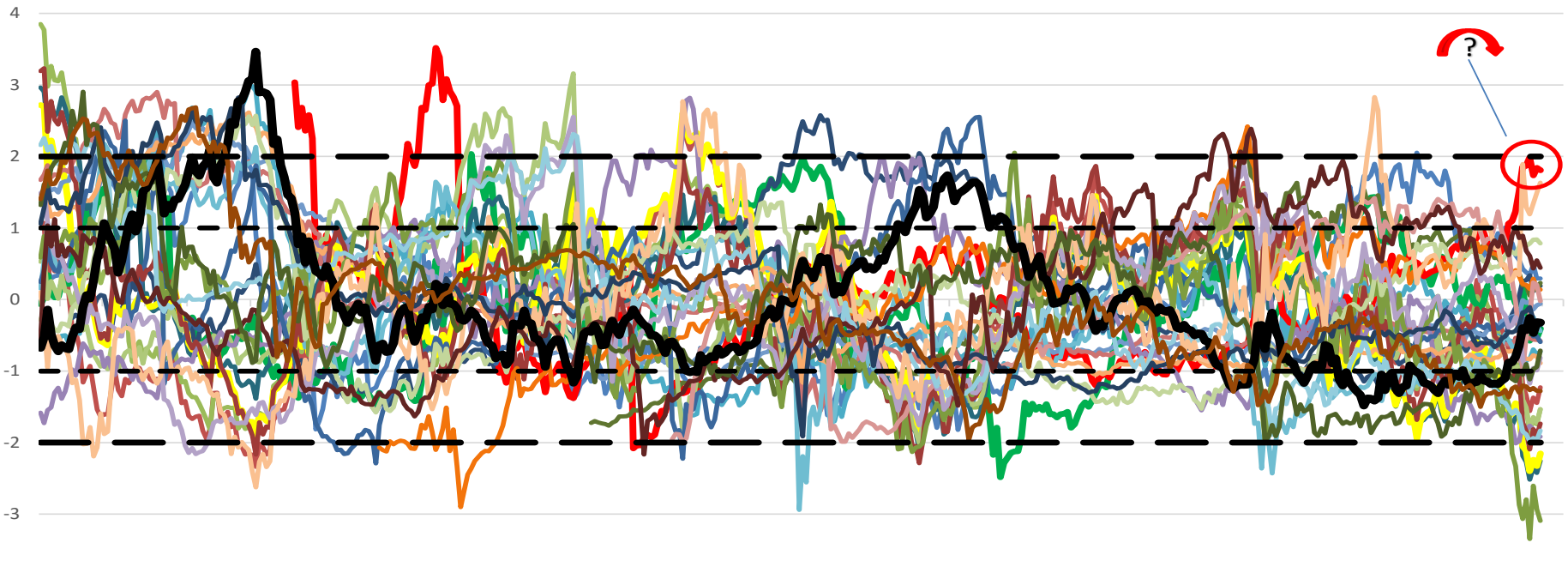


Conclusions

- Countries with overvalued exchange rates (Brazil, South Africa, Australia) have their negotiated tariffs reduced or nullified.
- Countries with undervalued exchange rates (China, Germany) grant subsidies to their exports and their applied tariffs surpass the bound levels agreed at the WTO.
- Substantial and persistent exchange rate misalignments significantly affect or nullify most WTO rules:
tariffs, antidumping, countervailing measures, safeguards, rules of origin, regional agreements, DSB retaliations...
- Problem:
WTO does not have adequate rules to address the exchange rate issue

Misalignments – 30 countries

Standardized PPP against World Trade Currency

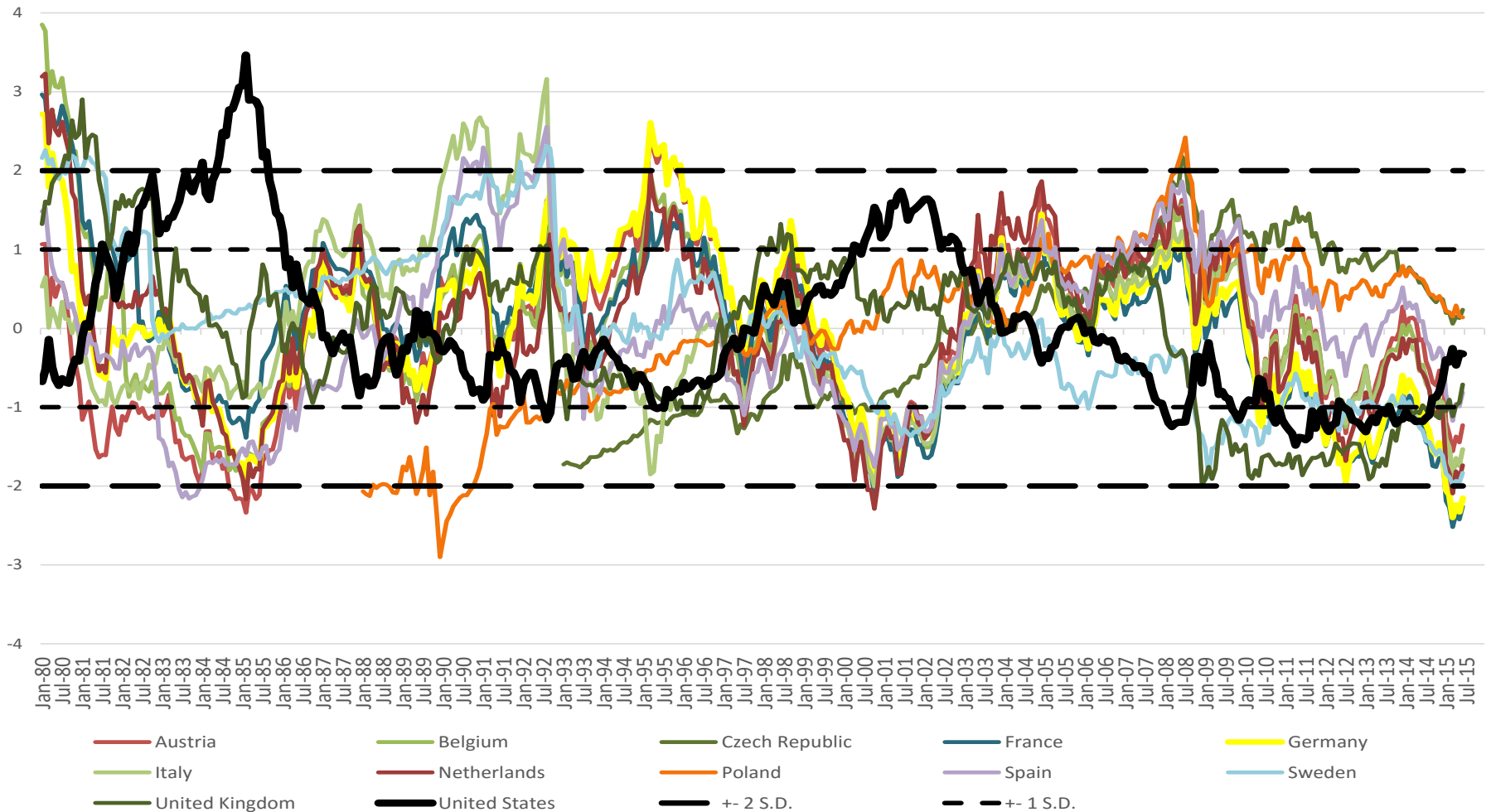


- | | | | | | |
|---------------|------------------|---------------|------------------|-----------------|----------------|
| — Australia | — Austria | — Belgium | — Brazil | — Canada | — Hong Kong |
| — China | — Czech Republic | — France | — Germany | — India | — Indonesia |
| — Italy | — Japan | — South Korea | — Malaysia | — Mexico | — Netherlands |
| — Norway | — Poland | — Russia | — Singapore | — Spain | — Sweden |
| — Switzerland | — Thailand | — Turkey | — United Kingdom | — United States | — South Africa |
| — + 2 S.D. | — + 1 S.D. | | | | |

Misalignments – TTIP

EU + US (6/2015)

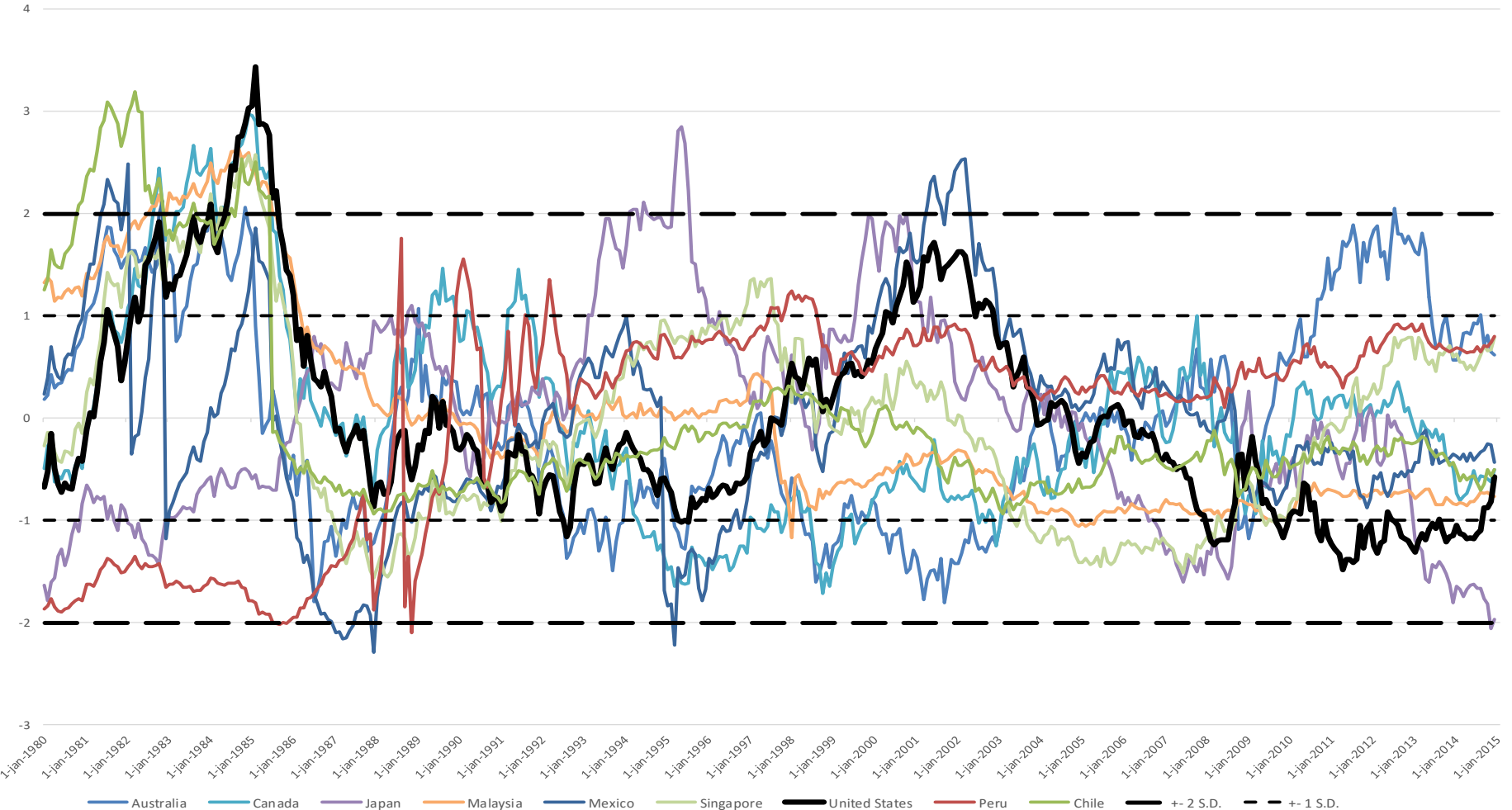
Standardized PPP against World Trade Currency - TTIP countries



BOX OF SNAKES FOR TPP (1980 - 2014)

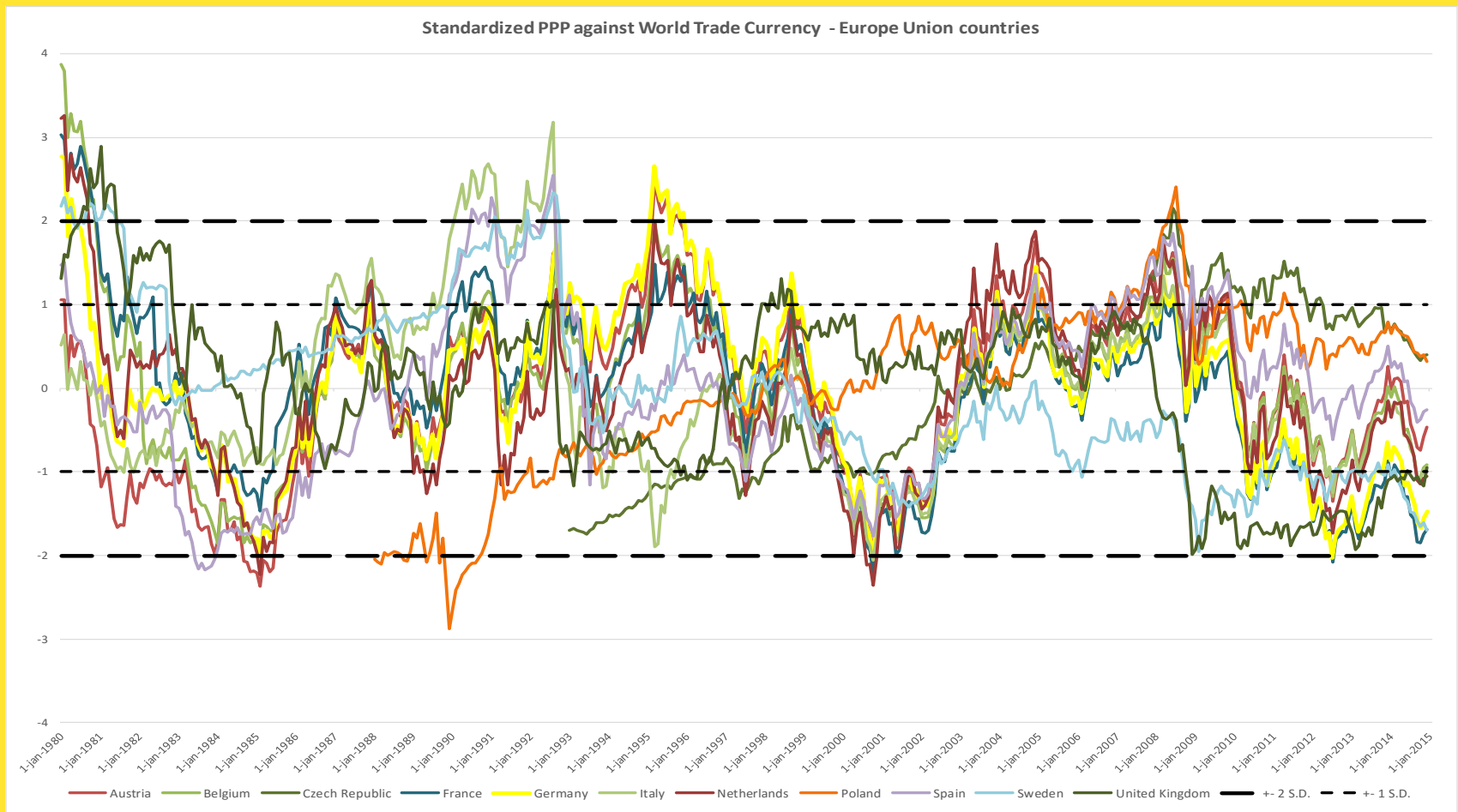
92

Standardized PPP against World Trade Currency - TPP countries



BOX OF SNAKES FOR EU (1980 - 2014)

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How to neutralize ?

94

- Tariffs
- Anti- subsidies
- Currency safeguards
- In WTO - Compensation
- In the PTAs - Preference reduction/elimination

- Neutralize misalignments in the trade flows

MODELAGEM

- Impactos de possíveis acordos

Simulation 1 – Brazil x US – EU – China – SAm

Hypothesis:

US and EU

- Partial liberalization on Agriculture = 50% reduction
- Full liberalization on Industry + Services

China

- Full liberalization on Agriculture + Agribusiness
- Partial liberalization on Industry + Services = 50% reduction (Brazil)

South America

- Full liberalization

Variation on GDP and Classification:

Variation on GDP (%)	Classification
0 – 1	(+) or (-)
1 – 2	(++) or (--)
2 – 3	(+++)
More than 3	(++++)

Simulation 1 – Brazil x US – EU – China – SAm

Summary of gains - GDP by sector

	EU 27	US	China	SAm
Agriculture	15	18	13	5
Industry	5	14	12	9
Services	0	5	5	3
+	10	32	28	17
++	4	4	2	0
+++	1	0	0	0
++++	5	1	0	0
Total	20	37	30	17

Macroeconomic outlook

Macroeconomic Variables	EU 27	US	China	SAm
Increase in bilateral exports (US\$ mi, F.O.B., 2012)	9,967	2,590	4,782	2,181
Increase in bilateral exports %	20.4%	9.7%	11.6%	17.7%
Increase in bilateral imports (US\$ mi, F.O.B., 2012)	20,447	13,946	12,432	226
Increase in bilateral imports %	42.9%	43.1%	36,3%	2.2%
Terms of trade	0.2%	-0.3%	0,0%	0.2%
Real wage	0.0%	0.0%	0,0%	0,0%
Capital gains	0.2%	0.1%	0,1%	0.0%
Land gains	15.2%	2.8%	1,8%	-0.3%
Real exchange rate	0.4%	-0.2%	0,0%	0.2%

Simulation 1 – Brazil x US – EU – China – SAM

GDP by sector – Agriculture

Agriculture	EU 27	US	China	South America
Paddy rice	+	+	-	-
Wheat	+	+	+	-
Other cereals	++	+	+	-
Vegetables/fruits	++	+	-	-
Oil seeds	-	+	++	-
Sugar (cane&beet)	+++	+	+	+
Plant fibres	-	+	+	+
Other crops (unprepared)	+	++	+	-
Cattle, horses, sheeps	++++	+	+	-
Animal products	++++	+	+	-
Raw milk	-	-	-	+
Wool, silk	-	+	-	-
Forestry products	+	+	-	-
Meat: cattle, sheeps, horses	++++	+	+	-
Meat products	++++	+	+	-
Vegetables oils and fats	+	+	+	-
Processed rice	-	-	-	-
Sugar	++++	+	+	+
Food products (animal feed)	++	+	+	+
Beverage, Tobacco products	+	+	-	-
Total (No. of positive results)	15	18	13	5

Simulation 1 – Brazil x US – EU – China – SAm

GDP by sector – Industry

Industry	EU 27	US	China	South America
Extractive				
Fishing	+	+	+	-
Coal	-	+	+	-
Oil	-	+	+	-
Gas	-	+	+	-
Minerals	-	+	+	-
Manufacturing				
Textiles	-	++	--	+
Apparel	-	+	-	+
Leather products	++	++++	++	+
Wood products	+	++	-	-
Paper products	-	-	+	-
Petroleum products	-	+	+	-
Chemical, rubber, plastics	--	-	+	+
Mineral (non-metallic)	-	+	-	+
Iron, steel	---	-	-	+
Metals (non-ferrous)	+	+	+	-
Metal products	---	-	-	+
Motor vehicles and parts	-	+	+	+
Transport equipment	+	++	+	-
Electronic equipment	-	-	-	-
Machinery and equipment	----	---	-	-
Manufactures	-	-	-	+
Total (No. of positive results)	5	14	12	9

Simulation 1 – Brazil x US – EU – China – SAM

Trade Balance: Agriculture

	EU 27			US			China			South America		
	Δ Trade balance	% Exports	% Imports	Δ Trade balance	% Exports	% Imports	Δ Trade balance	% Exports	% Imports	Δ Trade balance	% Exports	% Imports
Agriculture												
Paddy rice	-1,2	11,76	1,92	0,4	8,95	-0,52	-0,02	0,02	0,03	-0,45	1,78	0,7
Wheat	-28,68	-1,27	1,97	-2,1	3,07	0,21	-1,7	-0,11	0,12	-3,59	-0,71	0,24
Other cereals	9,07	0,8	4,13	3,36	0,15	-0,02	-0,9	-0,03	0,12	-2,81	-0,11	0,18
Vegetables/fruits	47,88	6,69	2,27	3,2	0,47	0,19	-4,03	0,12	0,86	-4,12	-0,28	0,26
Oil seeds	-18,84	-0,27	0,56	11,68	0,17	-0,04	160,53	2,36	2,75	-7,89	-0,11	0,27
Sugar (cane&beet)	-0,2	-5,89	2,84	0	-0,01	0,05	-0,03	-0,96	0,58	-0,02	-0,68	0,36
Plant fibres	3,4	0,4	-1,07	-9,48	0,57	9,89	73,15	14,32	-0,22	-2,57	-0,29	0,88
Other crops (unprepared)	102,34	1,96	4,02	374,09	6,54	2,66	84,09	1,48	0,8	-30,77	-0,50	0,51
Cattle, horses, sheeps	-39,43	-14,47	32,38	-0,19	-0,03	0,5	-0,32	-0,12	0,2	-1,25	-0,56	0,25
Animal products	-22,94	-3,56	8,06	-0,41	0,29	1,11	-1,91	-0,03	1,41	0,15	0,09	0,14
Raw milk	-0,02	-0,8	0,24	0,07	1,82	-1,12	0	-0,09	0,05	-0,05	-1,32	0,8
Wool, silk	-1,32	-3,33	26,63	0,24	1,77	-1,18	-0,04	-0,42	-0,07	-0,23	-1,74	1,02
Forestry products	-0,47	0,15	2,44	-0,46	0,43	2,76	0,08	0,34	0,07	-0,35	-0,59	0,92
Meat: cattle, sheeps, horses	3719,34	104,52	21,27	22,33	0,69	1,68	-4,77	-0,1	0,86	-17,21	-0,45	0,74
Meat products	1513,08	21,43	29,1	93,93	1,36	12,64	68,22	0,98	7,16	-34,81	-0,49	0,72
Vegetables oils and fats	-37,63	0,71	13,46	32,86	0,84	0,58	150,71	3,69	1,29	-3,17	-0,01	0,55
Processed rice	1,72	4,4	0,62	1,64	1,11	-0,47	-0,07	0,03	0,04	-1,10	-0,45	0,42
Sugar	588,58	11,74	4,66	126,65	2,53	4,06	109,05	2,18	9,92	15,08	0,30	0,52
Food products (animal feed)	249,35	9,21	5,43	42,84	2,11	2,17	29,54	1,25	1,02	20,86	0,74	0,39
Beverage, Tobacco products	-4,42	4,11	9,79	8,8	0,6	0,11	-0,72	-0,01	0,07	-2,26	-0,04	0,22

Simulation 1 – Brazil x US – EU – China – Sam

Trade Balance: Industry

Industry	EU 27			US			China			South America		
	Δ Trade balance	% Exports	% Imports	Δ Trade balance	% Exports	% Imports	Δ Trade balance	% Exports	% Imports	Δ Trade balance	% Exports	% Imports
Extractive												
Fishing	0,62	3,34	0,60	0,64	0,72	-0,31	-0,06	-0,02	0,04	-0,34	-0,17	0,24
Coal	6,64	0,23	-0,53	-1,19	0,02	0,09	-0,16	0,50	0,01	0,18	0,70	-0,01
Oil	17,66	0,09	-0,15	-2,93	0,07	0,09	-6,78	-0,04	0,05	-16,53	-0,18	0,07
Gas	8,50	7,43	-0,87	2,09	2,45	-0,21	-0,40	-0,24	0,04	-0,40	-1,09	0,04
Minerals	32,56	0,01	-1,01	21,45	0,05	-0,36	9,31	0,06	0,07	-9,87	-0,05	-0,01
Manufacturing												
Textiles	-138,57	5,32	7,75	139,26	16,7	4,09	-207,95	2,33	8,58	54,01	4,90	0,74
Apparel	-49,15	18,67	20,32	57,64	28,68	6,35	-91,21	2,74	18,68	-1,49	0,81	0,76
Leather products	228,05	7,16	13,58	707,13	16,78	2,35	226,89	9,15	28,42	36,51	0,98	0,97
Wood products	103,86	4,80	26,69	126,68	3,55	7,39	-2,11	0,30	3,78	-4,22	-0,04	0,64
Paper products	-200,78	0,37	12,83	-11,45	1,58	4,94	8,37	0,34	0,41	-14,92	-0,14	0,50
Petroleum products	61,79	0	-0,62	81,62	1,29	-0,07	-1,97	0,04	0,04	-9,61	-0,1	0,04
Chemical, rubber, plastics	-1330,58	1,71	5,74	-864,54	3,34	4,70	75,98	2,03	0,60	7,75	1,52	0,63
Mineral (non-metallic)	-94,77	0,57	12,17	199,36	9,93	4,45	-20,24	0,48	3,58	12,86	0,75	0,58
Iron, steel	-151,53	0,61	10,39	113,86	1,65	1,64	37,01	0,88	2,07	1,17	0,16	0,64
Metals (non-ferrous)	320,68	5,19	0,46	176,51	2,49	-0,4	76,39	0,98	-0,35	-62,99	-0,85	0,21
Metal products	-677,68	0,18	32,27	-151,12	2,13	9,06	-90,68	1,26	5,42	29,58	2,32	0,67
Motor vehicles and parts	-519,61	5,06	13,01	21,60	1,86	2,64	76,27	0,63	0,19	430,82	3,33	0,74
Transport equipment	47,91	2,32	1,04	100,87	4,00	1,52	35,05	1,14	0,35	-27,37	-0,43	0,07
Electronic equipment	-212,66	1,43	2,96	-309,6	3,49	4,81	-348,73	1,46	4,53	-17,56	0,96	0,55
Machinery and equipment	-2627,32	3,02	13,53	-1213,15	3,6	7,57	-228,98	1,95	2,19	-11,56	0,63	0,43
Manufactures	-114,21	0,74	14,42	-94,76	2,62	13,25	-110,59	1,89	14,72	10,25	2,99	0,65

Simulation 4 – Impacts of TTIP on Brazil

Hypothesis:

- TTIP – only tariffs
- TTIP with 50% reduction of non-tariff barriers (NTBs)
- TTIP with 100% reduction of NTBs
- Brazil accession to the TTIP: full liberalization
- Brazil accession to the TTIP – 50% liberalization on agriculture

Variation on GDP and Classification:

Variation on GDP (%)	Classification
0 – 1	(+) or (-)
1 – 2	(++) or (--)
2 – 3	(+++ or ---)
More than 3	(++++ or ----)

Simulation 4 – Impacts of TTIP on Brazil

Summary of gains – GDP by sector

	TTIP	TTIP+NTB (50%)	TTIP+NTB (100%)	TTIP+NTB (100%) + Brazil	TTIP+NTB (100%) + Brazil
Agriculture	4	5	7	13	13
Industry	12	12	12	2	3
Services	8	10	11	5	5
+	24	25	24	5	5
++	0	2	4	3	3
+++	0	0	2	0	0
++++	0	0	0	12	13
Total	24	27	30	20	21

Macroeconomic Outlook

Macroeconomic Variables	TTIP	TTIP+NTB (50%)	TTIP+NTB (100%)	TTIP+NTB (100%) + Brazil	TTIP+NTB (100%) + Brazil (50%)
Variation in bilateral exports (US\$ mi, F.O.B., 2012)	-453	-3,778	-7,858	95,433	77,374
Variation in bilateral exports %	-0.6%	-5.0%	-10.4%	126.3%	102.4%
Variation in bilateral imports (US\$ mi, F.O.B., 2012)	-320	-3,121	-6,401	43,130	37,209
Variation in bilateral imports %	-0.4%	-3.9%	-8.0%	53.9%	46.5%
Terms of trade	-0.1%	-0.6%	-1.3%	16.0%	10.7%
Real wage	0.0%	0.0%	-0.1%	0.4%	0.8%
Capital gains	0.0%	-0.1%	-0.1%	1.1%	1.1%
Land gains	-0.4%	-2.7%	-6.2%	198,4%	87.7%
Real exchange rate	-0.1%	-1.0%	-2.2%	15.2%	10.5%

Simulation 4 – Impacts of TTIP on Brazil

GDP by sector – Agriculture

Agriculture	TTIP	TTIP + NTB (50%)	TTIP + NTB (100%)	TTIP + NTB (100%) + Brazil (100%)	TTIP + NTB (100%) + Brazil (50% Ag)
Paddy rice	-	-	-	-	-
Wheat	+	++	+++	----	----
Other cereals	-	-	--	++++	++++
Vegetables/fruits	-	-	-	++++	++++
Oil seeds	+	-	--	++++	++++
Sugar (cane&beet)	+	+	+	++++	++++
Plant fibres	-	+	+	----	----
Other crops (unprepared)	-	--	---	++++	++++
Cattle, horses, sheeps	-	-	-	++++	++++
Animal products	-	--	--	++++	++++
Raw milk	-	-	+	-	-
Wool, silk	-	-	+	+	++
Forestry products	+	+	++	----	---
Meat: cattle, sheeps, horses	-	-	-	++++	++++
Meat products	-	---	----	++++	++++
Vegetables oils and fats	-	-	-	++++	++++
Processed rice	-	-	-	-	-
Sugar	-	+	+	++++	++++
Food products (animal feed)	-	-	-	++++	++++
Beverage, Tobacco products	-	-	-	-	-
Total (No. of positive results)	4	5	7	13	13

Simulation 4 – Impacts of TTIP on Brazil

GDP by sector – Industry

Industry	TTIP	TTIP + NTB (50%)	TTIP + NTB (100%)	TTIP + NTB (100%) + Brazil (100%)	TTIP + NTB (100%) + Brazil (50% Ag)
Fishing	-	-	-	+	+
Coal	+	+	+	----	----
Oil	+	+	-	--	-
Gas	+	+	+	----	----
Minerals	+	+	+	----	----
Manufacturing					
Textiles	-	+	+	----	----
Apparel	-	-	-	++	++
Leather products	-	-	-	----	++++
Wood products	+	++	+++	----	----
Paper products	+	+	++	----	----
Petroleum products	-	-	-	--	-
Chemical, rubber, plastics	+	+	+	----	----
Mineral (non-metallic)	-	-	-	---	-
Iron, steel	+	-	-	----	----
Metals (non-ferrous)	-	+	+	----	----
Metal products	+	+	+	----	----
Motor vehicles and parts	-	-	+	----	----
Transport equipment	+	---	----	----	----
Electronic equipment	+	+	+	----	----
Machinery and equipment	+	+	++	----	----
Manufactures	-	-	-	--	--
Total (No. of positive results)	12	12	12	2	3

Simulation 4 – Impacts of TTIP on Brazil

Trade Balance: Agriculture

Agriculture	TTIP			TTIP + TBT (50%)			TTIP + TBT (100%)			TTIP + TBT(100%) + Brasil (100%)			TTIP + TBT(100%) + Brasil (50%Ag)		
	Δ Trade balance	% Exports	% Imports	Δ Trade balance	% Exports	% Imports	Δ Trade balance	% Exports	% Imports	Δ Trade balance	% Exports	% Imports	Δ Trade balance	% Exports	% Imports
Paddy rice	-0,36	3,03	0,57	-1,27	7,36	2	-2,97	-1,88	4,48	-32,25	1998,15	66,89	-21,11	1975,79	49,85
Wheat	2,20	-0,27	-0,16	16,55	-1,58	-1,19	35,56	-3,55	-2,55	-393,71	-11,35	27,21	-286,18	-12,07	19,70
Other cereals	-8,88	-0,43	-0,28	-60,54	-2,91	-1,78	-115,13	-5,55	-3,63	227,69	14,31	42,37	314,52	17,05	29,78
Vegetables/fruits	0,16	-0,07	-0,13	-10,09	-1,88	-1,2	-23,79	-4,26	-2,57	796,26	109,31	34,72	788,75	104,37	28,34
Oil seeds	7,18	0,1	-0,09	-148,95	-2,18	-1,88	-360,59	-5,28	-4,47	62,62	1,59	70,38	171,06	3,16	70,27
Sugar (cane&beet)	0	-0,17	-0,13	0,01	0,13	-1,15	0,02	0,36	-2,41	-2,59	-70,06	74,03	-1,36	-38,91	26,47
Plant fibres	-2,92	-0,64	-0,28	-2,80	-0,90	-1,41	-5,69	-1,84	-2,94	-72,31	-8,81	21,94	-56,66	-6,89	17,27
Other crops (unprepared)	-41,14	-0,72	-0,38	-390,47	-6,82	-2,70	-914,74	-15,93	-5,51	5580,24	101,64	121,04	5338,18	96,22	95,89
Cattle, horses, sheeps	0,21	0,02	-0,62	0,13	-0,29	-2,81	0,08	-0,7	-5,92	-296,34	-79,97	474,26	-137,83	-48,83	127,35
Animal products	-0,29	-0,21	-0,35	-2,44	-1,46	-2,12	-4,5	-2,84	-4,32	-127,61	-9,35	73,64	-34,92	6,30	44,57
Raw milk	0,01	0,27	-0,15	0,09	2,04	-1,73	0,15	2,13	-3,72	6,44	439,18	65,14	9,23	559,6	47,00
Wool, silk	-0,01	-0,16	-0,19	0,16	0,33	-3,54	0,37	1,19	-6,59	39,59	415,57	195,62	63,86	607,52	118,45
Forestry products	0,03	0,03	-0,11	-1,32	-5,68	-0,89	-2,94	-12,47	-1,79	37,6	160,62	24,31	42,94	175,98	18,30
Meat: cattle, sheeps, horses	-36,62	-1,03	-0,23	-106,88	-3,03	-1,39	-272,04	-7,68	-2,48	24007,78	686,25	445,65	9358,86	266,11	135,21
Meat products	-84,26	-1,19	-0,40	-382,42	-5,40	-3,48	-740,48	-10,46	-7,02	12671,07	179,5	265,96	8453,70	119,61	129,37
Vegetables oils and fats	-4,34	-0,12	-0,16	-56,80	-1,52	-1,57	-163,2	-4,24	-3,43	3403,36	90,31	87,47	4034,42	102,42	64,48
Milk	-3,88	-1,53	-0,07	4,69	0,18	-2,01	14,78	2,16	-4,33	-366,07	-50,86	110,69	-212,01	-46,77	42,51
Processed rice	-0,19	-0,34	-0,02	0,53	-1,23	-0,70	0,77	-2,98	-1,43	-33,00	38,10	30,22	-28,70	21,92	22,43
Sugar	-4,15	-0,08	-0,17	-13,96	-0,28	-1,85	-34,79	-0,7	-3,68	7638,74	152,45	84,27	1947,03	38,87	36,11
Food products (animal feed)	-11,55	-0,39	-0,17	-80,48	-2,88	-1,53	-167,31	-6,01	-3,26	3353,58	112,09	45,68	2704,97	87,61	30,32
Beverage, Tobacco products	-3,04	-0,25	-0,13	-94,25	-6,37	-1,16	-151,15	-10,48	-2,44	29,29	14,74	28,85	52,61	10,61	16,4

Simulation 4 – Impacts of TTIP on Brazil

Trade Balance: Industry

Industry	TTIP			TTIP+TBT (50%)			TTIP+TBT (100%)			TTIP+TBT (100%) + Brasil			TTIP+TBT (100%) + Brasil (50%)		
	Δ Trade balance	% Exports	% Imports	Δ Trade balance	% Exports	% Imports	Δ Trade balance	% Exports	% Imports	Δ Trade balance	% Exports	% Imports	Δ Trade balance	% Exports	% Imports
Extrative															
Fishing	0,25	0,28	-0,12	1,20	-0,17	-1,09	2,47	-0,57	-2,33	-18,75	13,07	20,67	-10,07	18,38	14,95
Coal	0,20	0,03	-0,02	6,20	-1,97	-0,49	14,70	-4,15	-1,17	59,61	-12,69	-4,73	32,82	-11,10	-2,60
Oil	21,46	0,17	-0,13	135,07	-0,12	-1,70	248,72	-0,87	-3,59	586,59	64,43	38,66	782,94	67,68	38,62
Gas	0,91	-0,28	-0,09	7,98	1,23	-0,81	16,77	2,73	-1,71	30,19	269,90	-3,07	11,16	248,45	-1,13
Minerals	-7,49	-0,05	-0,09	-143,93	-0,80	-0,67	-311,64	-1,74	-1,43	-94,58	-2,11	-11,27	-60,40	-1,35	-7,21
Manufacturing															
Textiles	-6,08	-0,74	-0,18	14,30	-1,74	-1,44	33,47	-3,45	-3,04	-918,78	27,28	47,07	-402,49	47,06	39,54
Apparel	-1,38	-0,70	-0,16	8,14	-0,39	-1,75	18,09	-0,53	-3,70	-171,80	94,06	88,18	37,71	129,00	69,93
Leather products	-58,08	-1,38	-0,21	-104,01	-2,65	-1,65	-163,84	-4,28	-3,43	-103,05	11,43	101,67	2293,14	63,09	71,29
Wood products	11,89	0,25	-0,17	112,27	2,38	-1,73	235,99	5,01	-3,61	-830,89	-11,62	78,36	-189,45	1,90	67,41
Paper products	15,55	0,26	-0,22	130,71	2,15	-1,87	274,48	4,53	-3,89	-1808,02	-20,90	49,89	-1181,70	-10,56	41,01
Petroleum products	-10,08	-0,28	-0,06	-123,51	-3,72	-0,93	-231,83	-7,47	-2,03	1147,37	21,94	1,25	1058,68	23,62	3,13
Chemical, rubber, plastics	26,69	-0,22	-0,19	321,80	-1,08	-1,68	683,96	-2,25	-3,55	-11571,64	-19,79	34,78	-8456,84	-7,42	28,49
Mineral (non-metallic)	-43,39	-1,88	-0,20	-146,31	-6,80	-1,94	-242,77	-11,59	-4,08	-33,82	17,11	50,03	344,87	29,72	41,58
Iron, steel	14,05	0,14	-0,10	-165,24	-2,22	-1,60	-357,78	-4,80	-3,44	-441,36	1,91	30,87	642,51	13,83	29,55
Metals (non-ferrous)	-11,58	-0,20	-0,04	-12,26	-0,62	-0,76	-20,81	-1,28	-1,69	-1613,65	-23,49	2,33	-756,94	-9,23	4,24
Metal products	3,26	-0,05	-0,20	58,26	0,51	-2,31	125,68	1,22	-4,86	-2322,72	-25,54	87,27	-1800,87	-11,96	74,66
Motor vehicles and parts	-19,38	-0,21	-0,12	-68,06	-1,20	-1,15	-128,92	-2,45	-2,45	-2863,30	2,58	32,90	-1102,44	12,16	29,77
Transport equipment	5,09	-0,06	-0,12	-275,17	-8,79	-2,58	-610,56	-19,32	-5,61	-960,19	-7,46	8,15	-246,53	7,38	8,97
Electronic equipment	30,83	0,44	-0,20	190,65	1,71	-1,57	382,49	3,07	-3,28	-4508,38	-34,76	39,20	-3397,09	-21,79	31,12
Machinery and equipment	65,33	0,14	-0,21	151,27	-1,97	-1,85	286,20	-4,34	-3,88	-10055,34	-6,06	41,20	-6358,08	12,00	35,55
Manufactures	0,63	-0,21	-0,21	-2,48	-3,51	-1,94	-7,33	-7,74	-4,04	-641,14	2,41	79,85	-397,22	23,39	63,43