

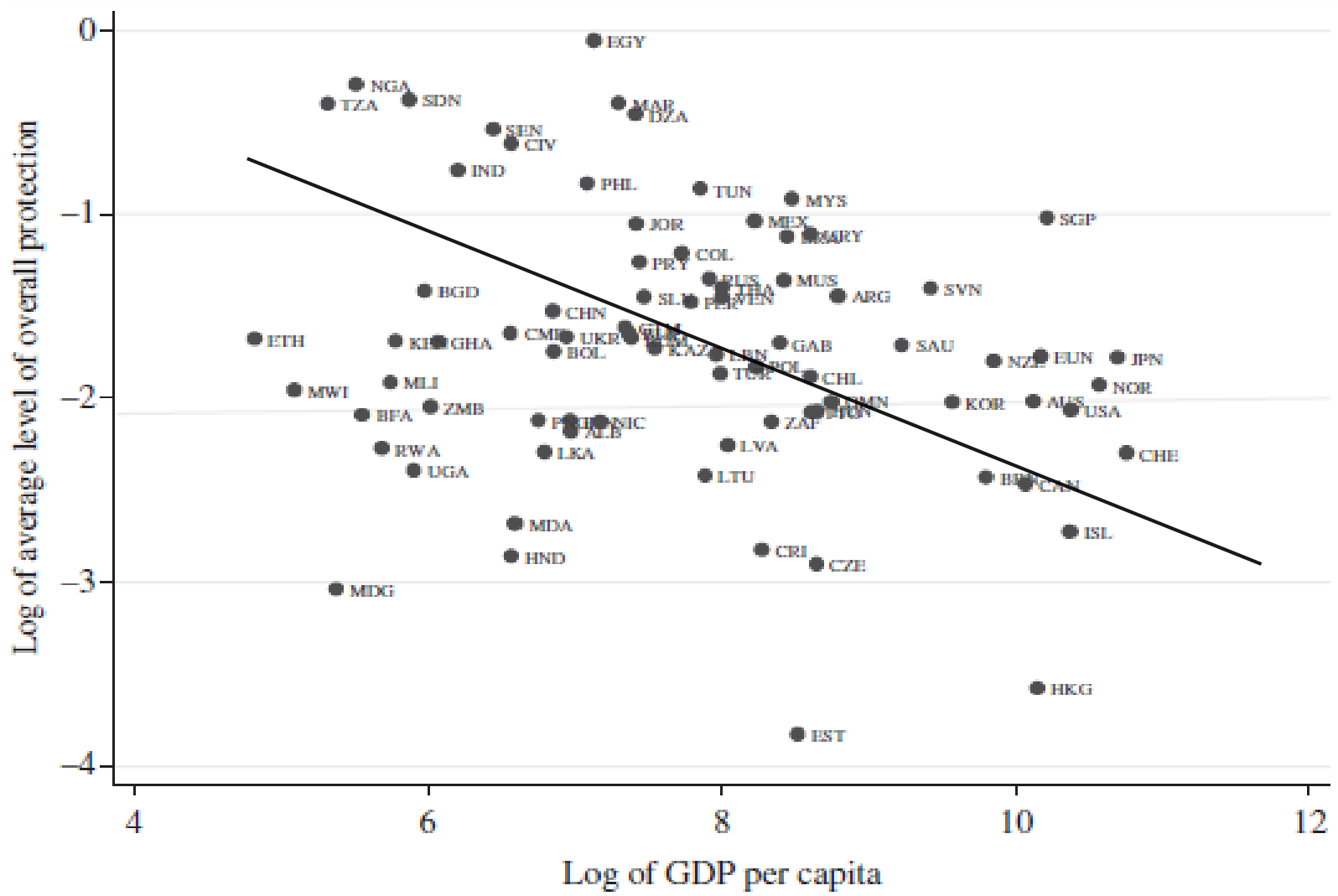
On the Impacts of Mega Regionals: the case of TTIP

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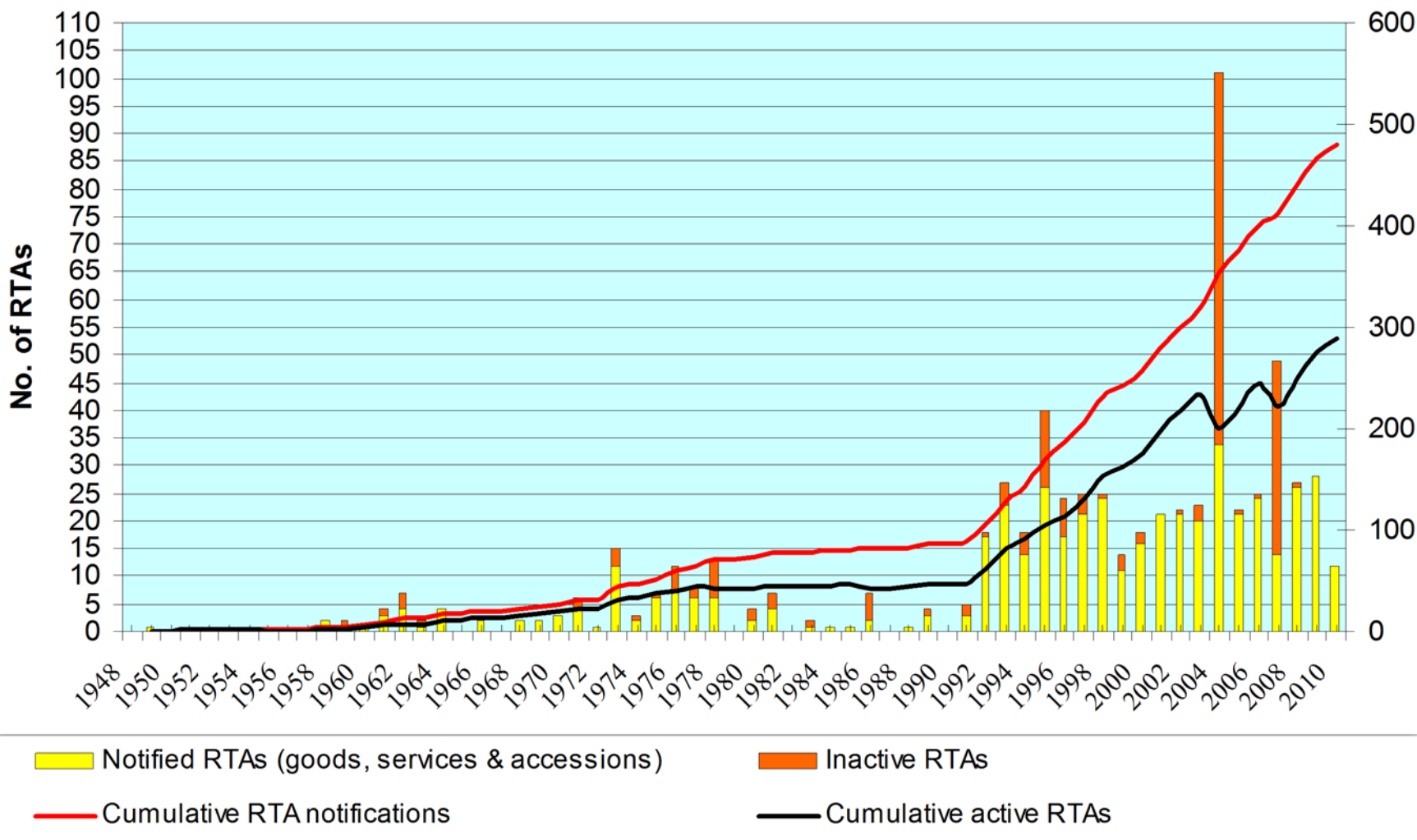
(São Paulo School of Economics - FGV)

Motivation in 4 Points

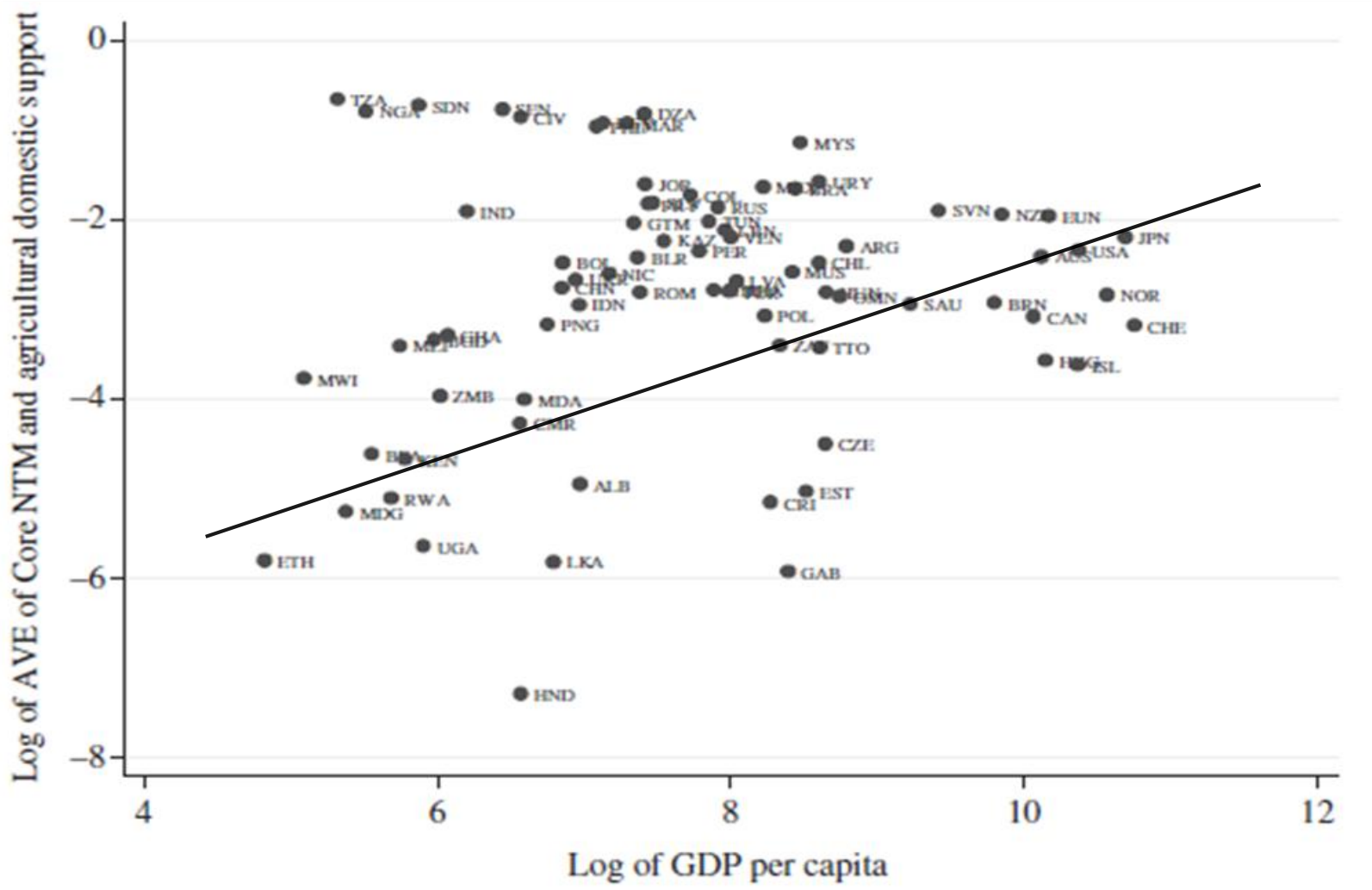
1. An important trend in trade policy over the last decades is the remarkable reduction in tariff barriers worldwide, particularly in developed countries...
(Kee et al, 2009)



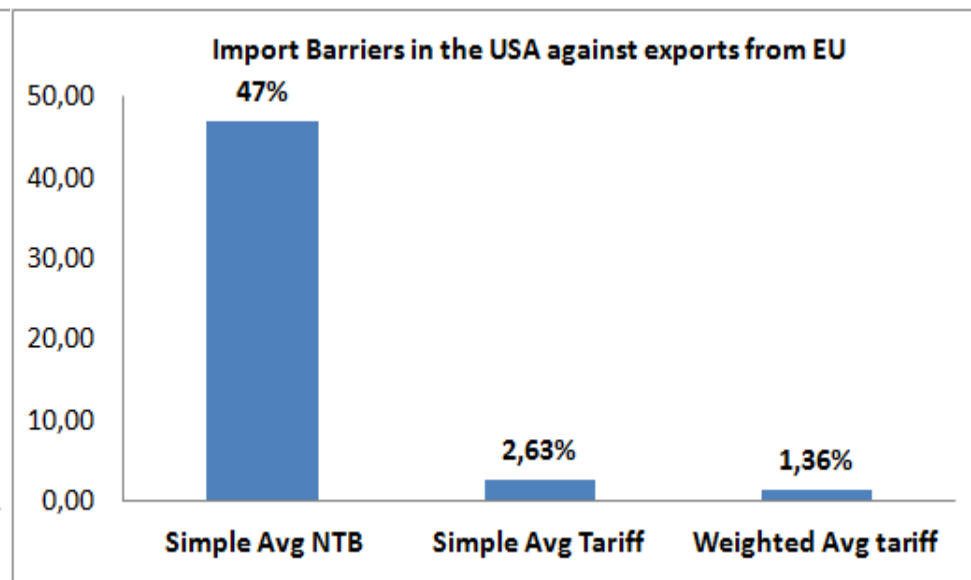
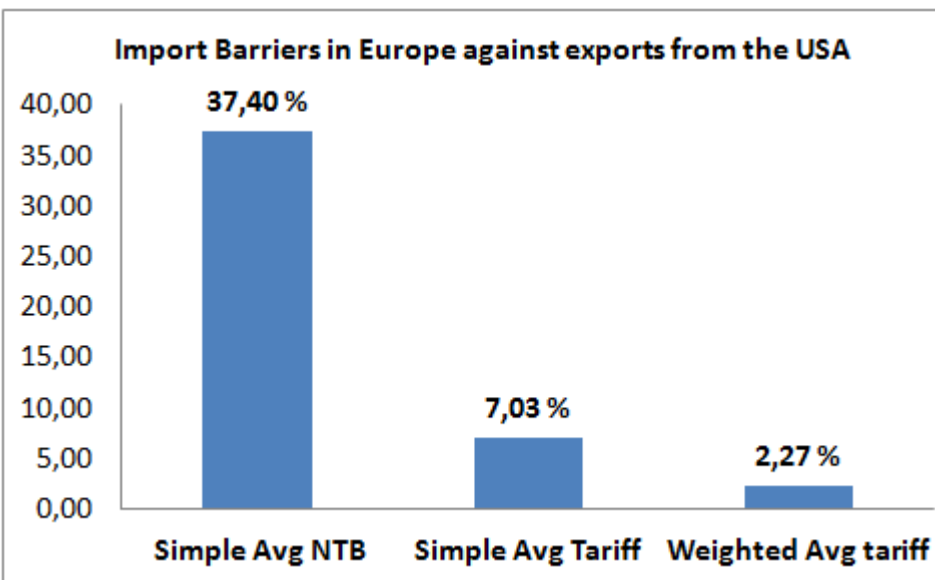
2. This process seems to be correlated with the explosion PTAs and the increasing fragmentation of production, creating pressure for new regulatory arrangements associated with the so called “supply-chain trade”. Over the last two decades, nearly 400 new PTAs were notified at the WTO.



3. As the most integrated economies in the global system, the imposition of nontariff barriers such as TBT/SPS measures, new investment and intellectual property rights arrangements is relatively concentrated in developed and some newly industrialized economies (Kee et al, 2009).



4. Not surprisingly, the **Transatlantic Trade and Investment Partnership (TTIP)**, under negotiation, is much more about reducing **NTBs than Tariff Barriers...**



Source: WITS/ECORYS, 2009

Modeling Issues

- Aggregation:
 - 12 Regions: Namerica, EU_27, East Asia, South_east_Asia, South_Asia, India, China, Turkey, Africa, RestofWorld, Csamerica, Oceania
 - 5 Sectors: Food, Extractive, Manufacturing, Light_Manufacturing, services
- Baseline:
 - Projections for Population and Real GDP growth, from 2001 to 2050: 01_05; 05_10; 10_15; 2016, 2017...., 2030, 30_50
 - TPP: zero import tariffs among member countries
 - Regions for TPP: Namerica, EastAsia and SeAsia (Comprising 12 countries)
- Policy:
 - Zero tariffs between USA and EU_27
 - 50% reduction of Non-tariff barriers (Source: Ecorys (2009))
 - Ecorys estimates are based on gravity models with misspecification problems, such as: 1. Based on opinion polls; 2. Zero trade flows are not taken into consideration in their sample; 2. Log gravity models are better estimated using Poisson regressions instead of OLS, due to heterocedasticity of residuals (Helpman et al 2008; Silva and Teneyro, 2006, 2015)

Modeling Issues

- The GTAP model does not include an explicit representation of nontariff barriers;
- The methodology adopted in this work follows Hertel et al (2001) and assumes that the reduction in NTBs takes the form of **technical progress in trading activities**;
- **CES type demand equation for good “i”**, exported from country “r” to destination country “s” is written in the GTAP model as follows:

$$qxs_{irs} = -ams_{irs} + qim_{is} - \sigma_m^i [pms_{irs} - ams_{irs} - pim_{irs}]$$

- A technical progress in trading activities due to reduction in NTBs may be represented by a positive shock on the **variable AMS_{IRS}**. This corresponds to an **upward shift in import demand**;

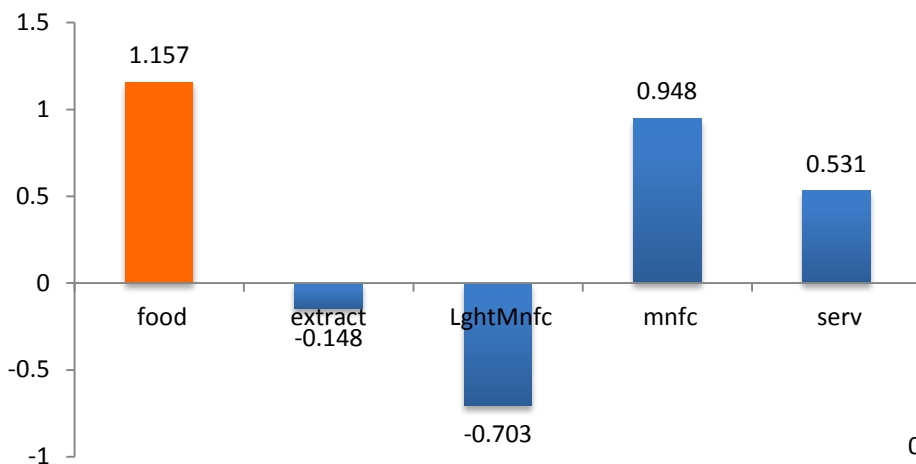
Cumulative Macro – Results (2030)

	USA	EU_27	China	India	Csamerica	EastASIA	Oceania
Real GDP	0.92	0.96	0.20	0.58	-0.87	-0.79	-0.56
Export Volume	5.41	2.32	-0.66	1.28	-1.68	-1.35	0.02
Import volume	6.54	2.78	-0.02	1.36	-3.062	-2.18	-1.35
Unskwages	1.57	1.21	1.58	1.86	-0.12	-0.51	-0.13
Skwages	1.57	1.30	1.7	2.01	-0.04	-0.51	-0.09
Capital price	0.16	0.69	0.73	0.21	1.43	1.097	1.25
Land price	3.00	0.62	1.77	0.34	-1.68	0.62	-1.56

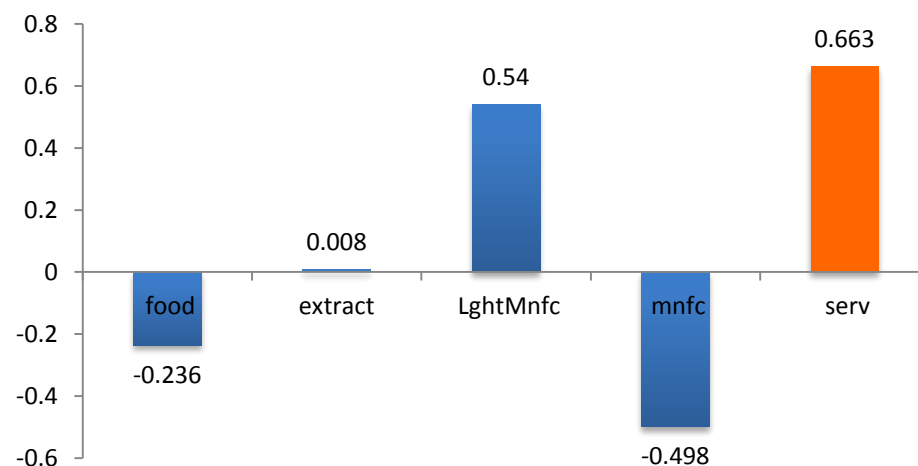
1. Both regions, USA and EU_27 will be positively affected in terms of GDP growth and trade volumes
2. Labor intensive industries related to the production of agricultures will benefit with the TTIP in the USA. In the case of EU_27, labor intensive industries related to manufacturing/services will gain from the agreement.
3. Labor intensive industries in China and India seem to benefit from the agreement. These economies trade a lot with the USA and EU_27. Even out of the TTIP, they will benefit from the positive GDP growth effects on the USA and EU_27
4. Other regions, such as Latin America, Rest of East Asia and Oceania are negatively affected by the agreement, particularly in labor/land intensive industries. This is an expected result, as those countries are mainly commodity exporters.

Cumulative sectorial – Results (2030)

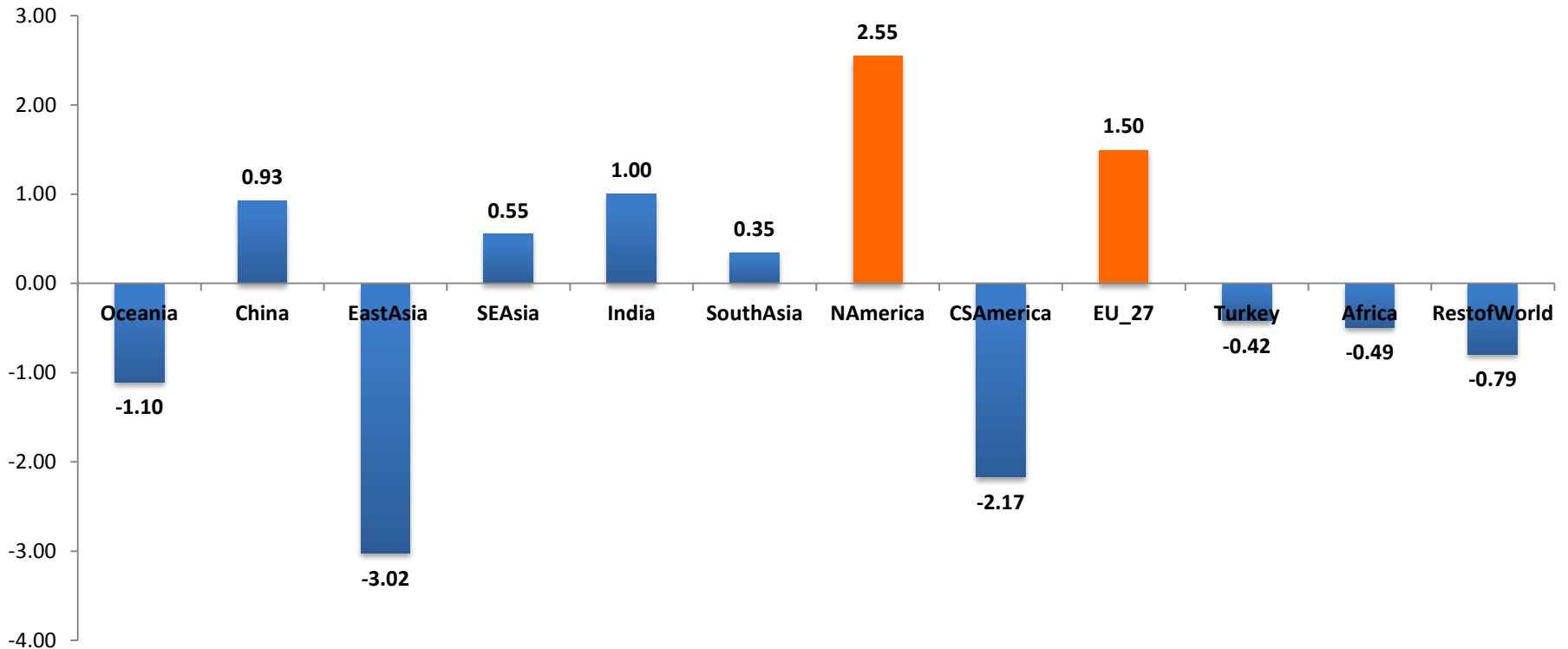
USA



EU_27



Total Investments Flows (2030)



TTIP stimulates investments in capital, mainly in the USA and the EU_27

Welfare decomposition (2030)

WELFARE	Allocative efficiency	NA endowments	Technology	Population	Terms of trade	Capital goods price	Preferences	Net foreign equity	Total
Oceania	-1695,51	0	0	0	-5239,64	-104,79	0	-1715,35	-8755,30
China	1833,92	0	0	0	1985,16	701,71	0	17613,54	22134,34
EastAsia	-29039,25	0	0	0	-486,20	-1778,43	0	6874,99	-24428,90
SEAsia	1334,06	0	0	0	-4500,74	296,94	0	1896,52	-973,21
India	3288,60	0	0	0	2620,55	511,65	0	1250,11	7670,94
SouthAsia	238,80	0	0	0	1558,40	-83,93	0	-506,44	1206,82
NAmerica	19655,11	0	95544,37	0	49932,68	8680,82	0	2961,67	176774,67
CSAmerica	-13916,785	0	0	0	-1996,64	-628,83	0	-8504,67	-25046,94
EU_27	17609,45	0	102341,82	0	20715,76	-3861,68	0	3403,63	140208,98
Turkey	4,03	0	0	0	915,34	-44,35	0	-343,63	531,39
Africa	-6034,54	0	0	0	-36627,24	-436,00	0	-7822,79	-50920,60
RestofWorld	-1469,14	0	0	0	-29424,46	-72,51	0	586,33	-30379,78

1. Improvements in the importing technology (AMS variable) contributes positively to welfare in both USA and EU_27, meaning the harmonization of NTBs are strongly welfare improving for these two regions
2. Rest of the regions (except China and India) have their terms of trade deteriorated, as international demand for their exports shift downward as a consequence of trade diversion

Decomposing Net Foreign Equity (2030)

NFE	K_location	HHLd_TRUST	TRUST_FIRM	Total
Oceania	-3364,41	621,55	1027,49	-1715,35
China	4725,75	13442,73	-554,95	17613,53
EastAsia	-46141,39	48703,04	4313,32	6874,97
SEAsia	2358,37	663,97	-1125,83	1896,52
India	3328,63	-1772,76	-305,75	1250,11
SouthAsia	72,78	3,84	-583,06	-506,44
NAmerica	55002,79	402,67	-52443,78	2961,67
CSAmerica	-14443,92	328,28	5610,95	-8504,68
EU_27	28058,80	14012,14	-38667,32	3403,63
Turkey	-197,76	23,63	-169,49	-343,63
Africa	-10243,54	803,02	1617,72	-7822,79
RestofWorld	-4128,61	5038,45	-323,51	586,33

1. As a result of the agreement, both the USA and EU_27 receive more income from assets in local firms (column 1) as well as from assets abroad (column 2)

2. The income received from foreign assets (column 2) is relatively lower for the USA. This is because the TPP was taken into consideration in the baseline, so in relative terms, the USA may have less to receive from abroad in comparison to the EU_27

3. Both the USA and EU_27 become more attractive places to foreign investors. Therefore, local firms are expected to pay a higher volume of dividends to foreign investors (column 3). That means a negative contribution to domestic welfare.

What if the TPP doesn't become a reality??

	TPP	No TPP	TPP	No TPP
	USA		EU_27	
Real GDP	0.92	0.88	0.96	0.97
Export Volume	5.41	5.95	2.32	2.45
Import volume	6.54	6.82	2.78	3.00

1. Impacts on real GDP are lower for the USA and are basically the same for the EU_27. The consideration of TPP in the baseline potentializes relative GDP gains for the USA from TTIP
2. However, when it comes to trade flows, less stimulus to trade in the “No TPP” counterfactual scenario magnifies the impact of TTIP for both regions

Final remarks

- Both USA and EU_27 will be better off (welfare) as a consequence of TTIP
- The rest of the world will be worse off, with the exception of China and India
- The main transmission channel for the rest of the world will be through international prices (terms of trade)
- When it comes to the USA and UE_27, it turns out that the harmonization of NTBs are a key factor for mutual welfare gains stemming from the agreement