UNIVERSITÄT HOHENHEIM

Transatlantic Trade and Investment Partnership - Impact on Developing Countries

Anniversary Workshop

Partnership University of Hohenheim – Hebrew University Jerusalem

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Introduction

- Ongoing debate about the Transatlantic Trade and Investment Partnership (TTIP)
- Only few quantitative results on the impact of the TTIP
- Quantitative analyses of Free Trade Areas (FTAs) have been criticized (Kehoe 2005; Hertel et al. 2006)
- Standards (Non-tariff barriers, NTBs) play an important role in the TTIP
- How should science handle this often very emotionally discussed issue?
- TTIP would cover around half of world trade. How would third countries be affected?
- How important are AgFood Standards or spillover effects in the analyses of TTIP?

Outline

- Introduction
- Assessments of FTAs
- Estimation of AgFood Standards and Simulation of the TTIP
- Policy Scenarios and Results
- Conclusion

Lessons learned from the Assessment of the North American Free Trade Area (Kehoe, 2005)

- FTAs are mostly analyzed using Computable General Equilibrium (CGE) models which cover the national or global economic activity in all sectors

- Actual outcome (2003) compared to the results of the analyses of the North American Free Trade Area (NAFTA, prior to 1994):
  - CGE models underestimated the impact of NAFTA on trade, particularly for North America
  - CGE models performed better on an aggregated basis, but failed to match results of disaggregated sectors
  - Relative results (e.g., increases of trade flows in relation to GDP) are closer to the actual outcome than absolute results

Kehoe , T. (2005). An Evaluation of the Performance of Applied General Equilibrium Models of the Impact of NAFTA. In: Kehoe, T., Srinivasan, T., Whalley, J (Eds.). Frontiers in Applied General Equilibrium Modeling. p.341-378.

Lessons learned from the Assessment of other Free Trade Areas (Hertel et al. 2006)

- "Computable General Equilibrium models, widely used for the analysis of Free Trade Agreements, are often criticized for having poor econometric foundations."
- Improve the weak econometric foundations by
  - employing point estimates and the associated standard errors to take explicit account of the degree of uncertainty in the underlying parameters
  - generating a distribution of model results, from which we can construct confidence intervals
  - evaluating the most important parameters (trade elasticities) in a sensitivity analysis

Hertel, T., Hummels, D., Ianic, M., Keeney, R. (2006). How confident can we be of CGE-based assessments of Free Trade Agreements? Economic Modelling 24, 611-635.

Econometric Estimates of Standards in the Agricultural and Food as well as the Non-Food Sectors

- NTBs in the food and agricultural sector play an important role in the TTIP
- Information on NTBs is not available (no data bases!)
- Identify NTBs through differences in the regulatory systems causing additional costs or limited access for foreign firms
- By how much are the NTBs between the EU and the US reduced?
  - Focus on the food and agricultural sectors
  - Analysis does not judge whether the EU or US system is better (asymmetry)
  - Integration level of the EU and the US in previously negotiated FTAs is applied to TTIP
  - Differentiate between costs and rents

Simulation of TTIP with the Global Trade Analysis Project Model

- Global Trade Analysis Project (GTAP) model
  - Covers the global economic activity of 57 sectors in 140 countries and regions as well as the bilateral trade, tariffs and NTBs between them
  - Captures 20 agricultural and food sectors (including up- and downstream sectors)
  - Differentiate between cost and rent of NTBs
  - Production and consumption structure covers bioenergy
  - Agro-Ecological Zones (AEZ)
  - Calorie Module (in progress)

- GTAP data base
  - Version 9, Base Year 2011
  - Aggregation covers main trading partner, disaggregation of food and agricultural sector

Simulation of TTIP: Baseline and Policy Scenarios

Base year 2011

Baseline 2020:

Economic environment

- GDP
- Population
- Factor endowment

Political Environment:

- EU enlargement (Croatia, NTBs)
- EBA

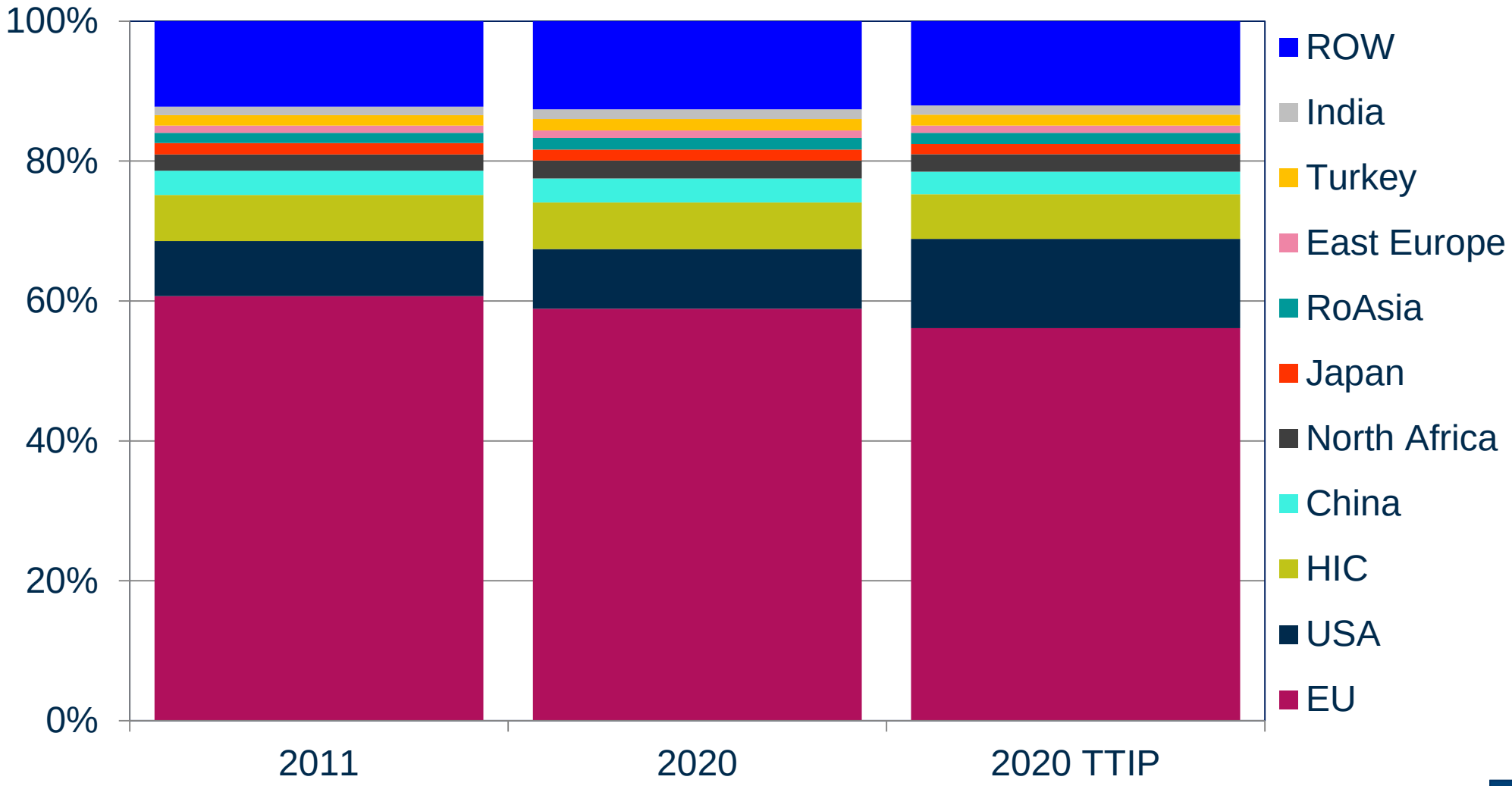
Policy Scenario TTIP:

2020 TTIP

- Eliminate Tariffs, Standards (NTBs, cost and rents) between EU and US
- Differentiated spillover effects for third countries (conservative assumption)

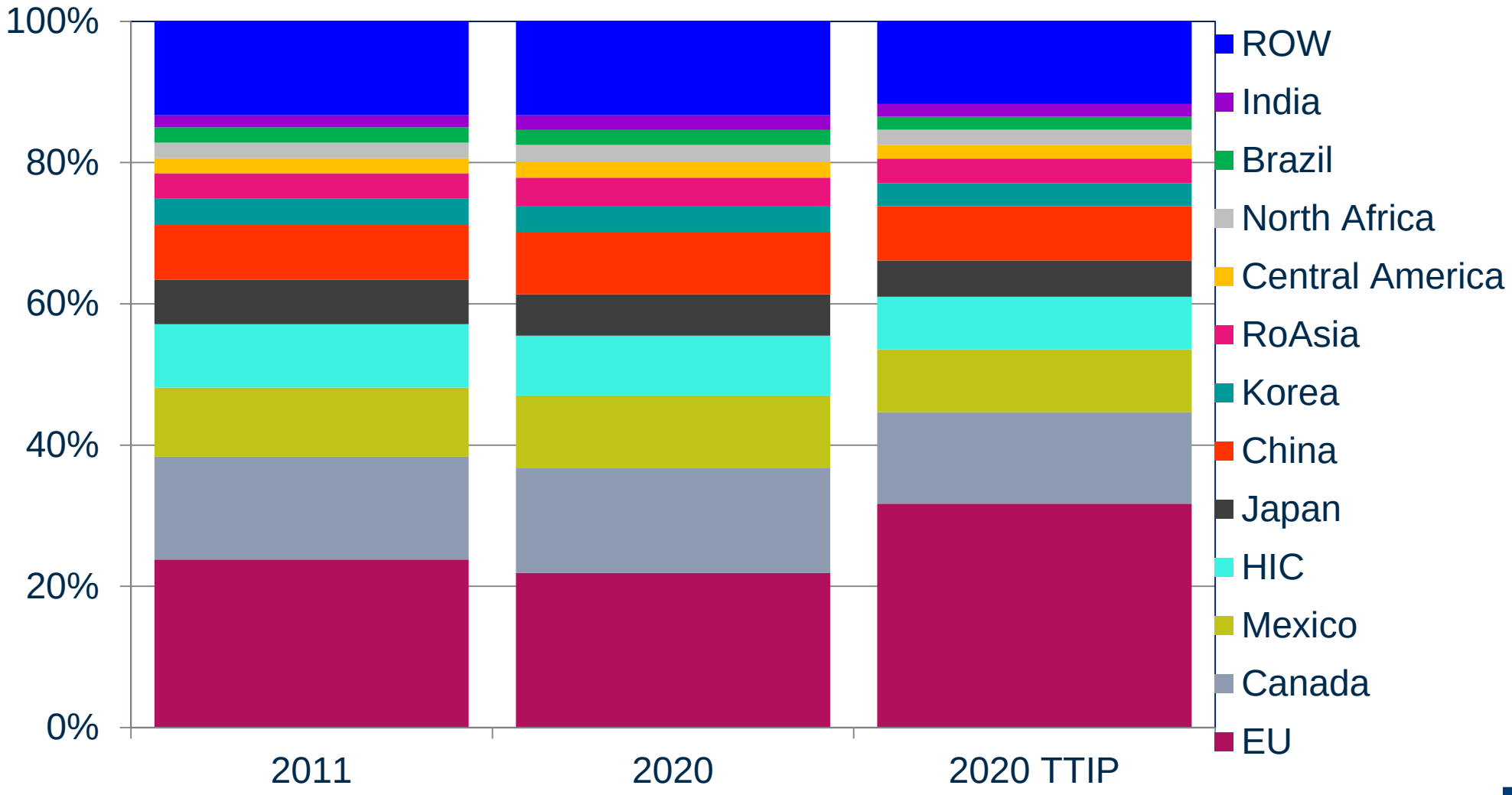
Target year 2020

EU Trading Partners (Export %)



Source: GTAP Data Base, Version 9, 2011; 2020: Authors' calculation based on GTAP

US Trading Partners (Export %)



Source: GTAP Data Base, Version 9, 2011; 2020: Authors' calculation based on GTAP

Change in Bilateral Exports (%)

	EU	US	HIC	East Europe	N-Africa	CAN MEX	Brazil	Ro-Am	China	Ro-Asia	LDC	ROW
EU	-1.63	64.51	29.51	0.34	0.58	1.62	-0.28	-0.11	0.05	-0.26	-0.54	-0.16
US	3	0.00						9	-1.85	-1.42	-1.11	-0.21
HIC	-	0.93						0	0.22	0.06	0.22	0.06
East Europe		0.78	0.61	0.17	0.43	0.41	0.49	0.39	0.74	0.59	0.45	0.27
NAfrica	-	0.86	0.68	0.04	0.07	0.35	0.36	0.20	0.77	0.53	0.36	0.23
CANMEX		0.35	0.35	0.17	0.25	0.29	0.20	-0.10	0.23	0.14	0.32	0.19
Brazil		0.75	0.59	0.16	0.16	0.58	0.51	-0.10	0.43	0.33	0.31	0.19
RoAm		0.65	0.55	0.27	0.33	0.42	-0.12	-0.08	0.38	0.36	0.40	0.30
China	-	0.33	0.17	0.14	-0.23	-0.20	0.23	0.14	0.52	-0.22	0.23	-0.07
RoAsia		0.80	0.51	0.12	-0.08	0.16	0.04	0.05	0.19	-0.07	0.11	0.02
LDC		0.66	0.55	0.18	0.20	0.33	0.26	0.44	0.45	0.28	-0.06	0.12
ROW	-0.7	1.10	0.81	-0.33	-0.05	0.68	0.16	0.25	0.50	0.32	-0.12	-0.02

Export Supply

Import Demand

Change in Welfare (Equivalent Variation, Billion US$)

	Lower	Mean	Upper
World	89.26	96.57	118.04
EU	46.78	53.61	72.54
US	44.46	44.66	49.05
HIC	0.06	0.49	1.59
East Europe	0.05	0.14	0.46
North Africa	0.16	0.09	-0.38
CAN_MEX	0.26	0.37	0.42
Brazil	-0.03	-0.04	-0.05
RoAmerica	-0.21	-0.22	-0.18
China	-1.11	-0.72	-0.43
RoAsia	-0.76	-0.60	-0.32
LDC	-0.12	-0.23	-0.67
ROW	-0.28	-0.98	-4.00

Summary

- Analysis is based on econometrically estimated elasticities, NTB rents and costs as well as an extended GTAP framework.
- We consider NTB rents and costs economy-wide, but particularly for disaggregated food and agricultural sectors.
- We capture the depth of integration in past FTAs and transfer it to TTIP.
- NTBs are much more important than tariffs for trade effects, but also for welfare effects.
- Results show a strong increase of trade between the EU and the US. Trade diverting effects are mainly observed for Brazil and China.
- EU and USA experience a strong increase in welfare, particularly due to NTB cost reduction.
- LDCs show negative welfare effects, mainly because we assume that LDCs are unable to adapt to EU-US standard (= no spillover effects).
- Welfare effects for high and middle income third countries are mainly positive (conservative approach of spillover effects).

Thanks for your attention!

Change in Exports relative to GDP