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The EU-Ukraine Trade Liberalization: How much do the costs of tariff elimination matter?

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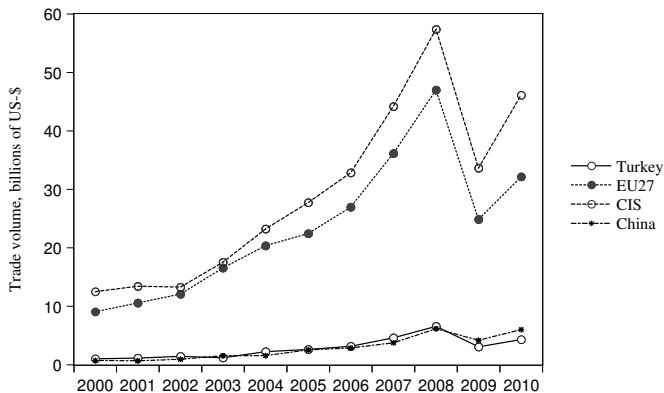
Agenda

1. Motivation
2. Model
3. Data
4. Results
5. Conclusions

Background

- ▶ Ukraine's WTO accession in 2008
- ▶ negotiations on an Association Agreement (AA) with the EU are concluded after 21 rounds starting in 2007
- ▶ March 30th, 2012: Ukraine and the EU initialled the text of the AA
- ▶ creation of a Free Trade Agreement (FTA) between the EU and Ukraine is part of the AA

Dynamics of Ukraine's foreign trade



Source: Comtrade Database

Background

- ▶ previous studies on the EU-Ukraine trade liberalization find diverging results: negative as well as positive welfare effects are predicted for Ukraine
- ▶ purpose of this work: analyze the effects of the EU-Ukraine FTA simulating a unilateral import tariff elimination in a CGE model for Ukraine
- ▶ according to Weisbrot and Baker (2002): '[. . .] most of the projected gains from trade liberalization do not come from the removal of trade barriers in the industrialized countries - rather the biggest source of gains to developing countries is the removal of their own barriers to trade.'

Related Literature

- ▶ previous studies on Ukraine's integration are devoted to WTO accession: Pavel et al. (2004), Jensen et al. (2005)
 - ▶ significant welfare gain is identified
- ▶ subsequent studies concentrate on Ukraine's trade relations with the EU (creation of FTA and DCFTA):
 - ▶ Emerson et al. (2006), Ecorys and CASE-Ukraine (2007), Maliszewska et al. (2009): stronger positive impact of the DCFTA compared to a simple FTA is predicted
 - ▶ Francois and Manchin (2009): negative impact of the both FTAs

Contribution

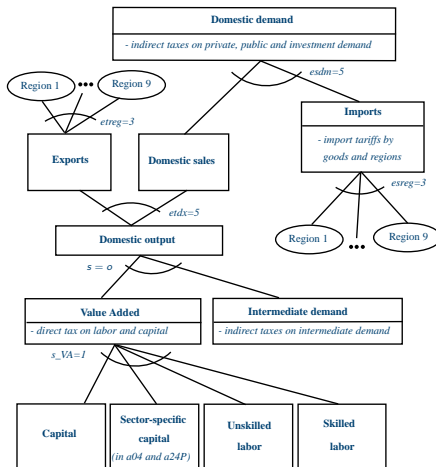
- ▶ Weisbrot and Baker (2002): one substantial problem in reducing trade barriers, especially in case of developing countries, is the loss of revenues due to a reduction or elimination of tariffs
 - ▶ due to the Ukrainian treasury report for 2007 tariff revenues amount to 4.5% of the public budget
- ▶ previous studies do not state clearly how they deal with the costs resulting from the tariff elimination
- ▶ our paper contributes to the ongoing discussion in two ways:
 - ▶ it complements the only very scarce research on the effects of the EU-Ukraine FTA incorporating the changed economic conditions *after* Ukraine's WTO accession in 2008
 - ▶ we explicitly account for the loss of tariff revenues as one of the most important costs of trade liberalization in case of a developing country and evaluate different modes of compensation for these losses

Model description

A static CGE model (modification of Pavel et al., 2004)

- ▶ characteristics
 - ▶ small open economy
 - ▶ 38 sectors, four types of households, a government and an external sector consisting of nine trading regions
 - ▶ perfect competition and constant returns to scale
- ▶ our modifications
 - ▶ different composition of trading regions and production sectors
 - ▶ disaggregation of the representative household into four types
 - ▶ implementation of sector-specific capital

Model structure



Source: own illustration

Data sources

- ▶ Ukrainian National Accounts and Input-Output Tables for 2007
- ▶ information on indirect taxes, subsidies, imports of services and intermediate products, labor remuneration (State Statistics Committee of Ukraine)
- ▶ household budget survey for 2007 covering more than 10,000 Ukrainian households consuming 200 different commodity groups
- ▶ United Nations Commodity Trade Statistics Database (Comtrade)
- ▶ Law of Ukraine 'About the Customs Tariff of Ukraine'

Import tariffs

Sector	SAM code	Import-weighted MFN tariff*
Agriculture	b01	5.63
Forestry, logging and related service activities	b02	1.71
Fishing	b03	5.00
Mining of coal and peat	b04	0.00
Production of hydrocarbons	b05	0.50
Mining and quarrying	b06	2.23
Food-processing	b07	13.66
Textile industry	b08	8.06
Wood industry	b09	0.98
Manufacture of coke products	b10	1.61
Petroleum refinement	b11	1.64
Chemical industry	b12	3.71
Other non-metallic products	b13	7.07
Metallurgy, metal processing	b14	1.93
Machine-building	b15	3.09
Other production	b16	1.85
Electric energy	b17	3.50

Source: own calculation

* These tariff rates apply for all trading regions except Russia and CIS.

Policy experiments

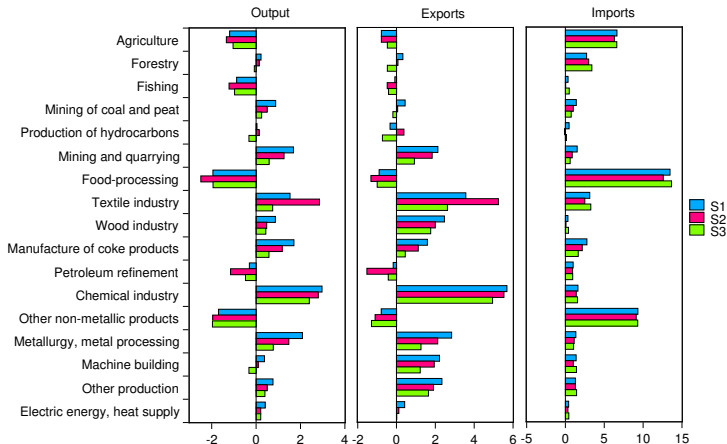
- ▶ We model three different scenarios reflecting the possibilities to deal with the lost tariff revenues
- ▶ All counterfactual experiments include the elimination of import tariffs in all commodity groups for EU-15 (old) and EU-12 (new), while for all other regions the calculated import tariffs remain valid
 - ▶ **S1:** there is no possibility for the government to compensate the loss in tariff revenues meaning that there is no endogenous adjustment
 - ▶ **S2:** the government is assumed to use its power to enforce an increase in the indirect tax rate meaning that the public spending can be held constant
 - ▶ **S3:** we allow the government to gain additional foreign aid as the EU intends to provide Ukraine with financial as well as technical and legal assistance

Aggregate effects

Variable	S0	S1	S2	S3
Tariff revenue (share of public budget, in %)	4.03	1.70	1.65	1.66
Public services provision (change in %)	-	-1.93	0.00	0.00
Indirect tax rate (weighted average, in %)	13.15	13.15	13.70	13.15
Price index for households' consumption composites (change in %):				
- Urban households	-	-0.41	0.07	-0.39
- Rural households	-	-0.47	0.10	-0.44
- Urban poor households	-	-0.40	0.05	-0.37
- Rural poor households	-	-0.44	0.08	-0.42
Real GDP (change in %)	-	0.00	0.00	0.00
Real factor return (change in %):				
- Return to capital	-	0.23	-0.08	0.10
- Wage rate for unskilled labor	-	0.22	0.07	0.17
- Wage rate for skilled labor	-	-0.17	0.08	0.19
Hicksian welfare index per household type (change in %):				
- Urban households	-	0.48	-0.07	0.55
- Rural households	-	0.54	-0.09	0.61
- Urban poor households	-	0.56	0.00	0.50
- Rural poor households	-	0.69	-0.01	0.60
Aggregate exports (change in %)	-	2.00	1.62	1.11
Aggregate imports (change in %)	-	1.77	1.44	1.72
Additional foreign aid (UAH bn)	-	-	-	2.7

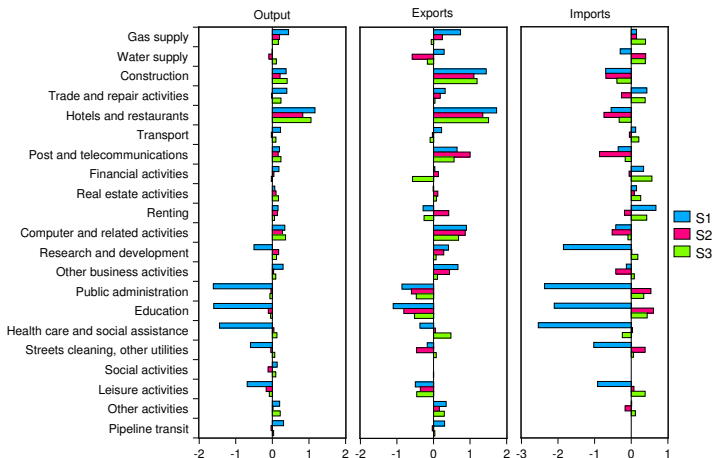
Source: own calculation

Disaggregate results: manufacturing sectors



Source: own calculation

Disaggregate results: services



Source: own calculation

Conclusions and policy implication

- ▶ **main result:** while real GDP is almost unaffected in all scenarios, welfare effects differ significantly ranging from -0.09% to 0.69%, depending on the mode of compensation
 - ▶ different assumptions about endogenous adjustments as a possible reason for the diverging previous results
- ▶ **conclusion:** no or only slightly positive welfare gains due to initially low level of protection after Ukraine's WTO accession
- ▶ **policy implication:** prudence in funding the liberalization costs by means of an increase in tax rates \Rightarrow welfare decrease
- ▶ DCFTA between Ukraine and the EU: the question of how to deal with the higher costs of trade liberalization would be even more important