The effect of non-tariff barriers on export of CEFTA member countries

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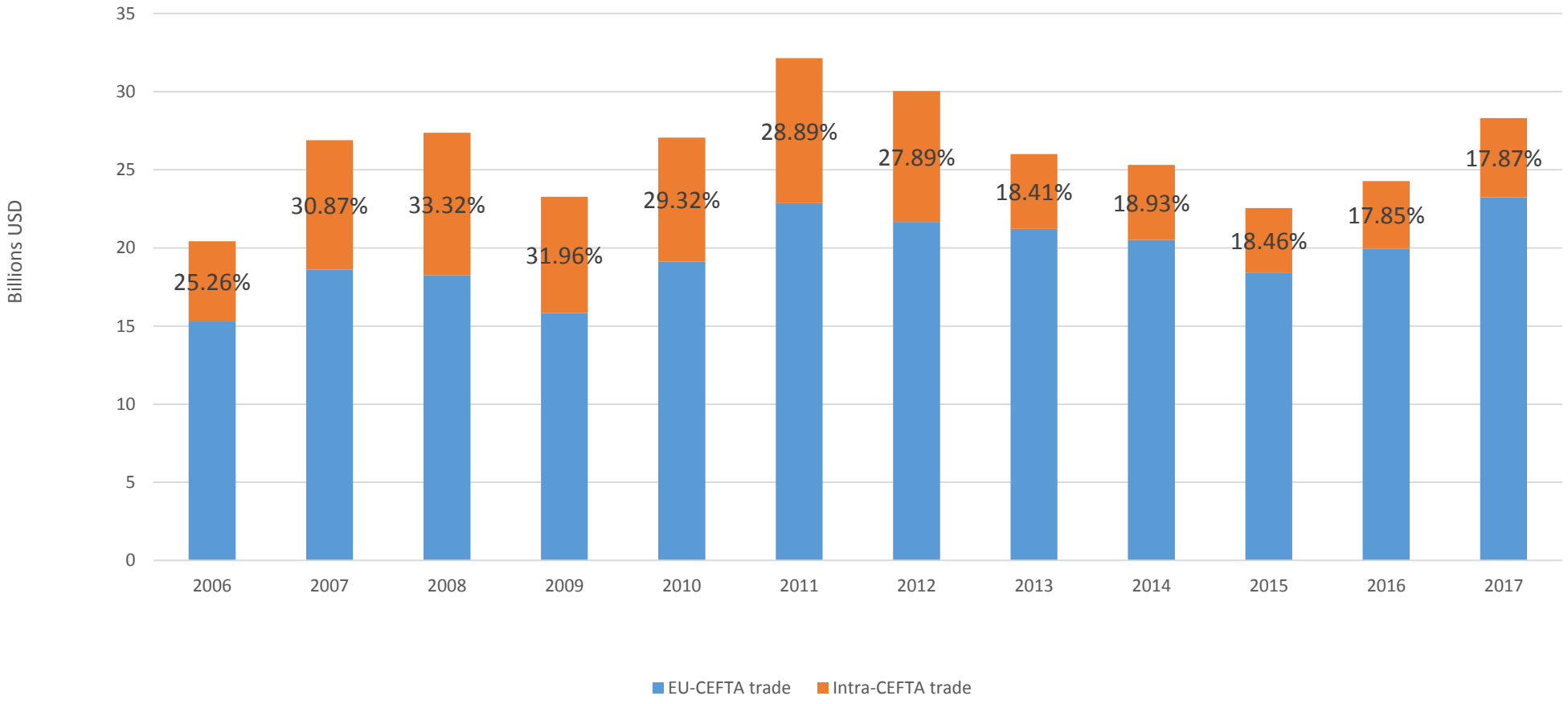
Introduction

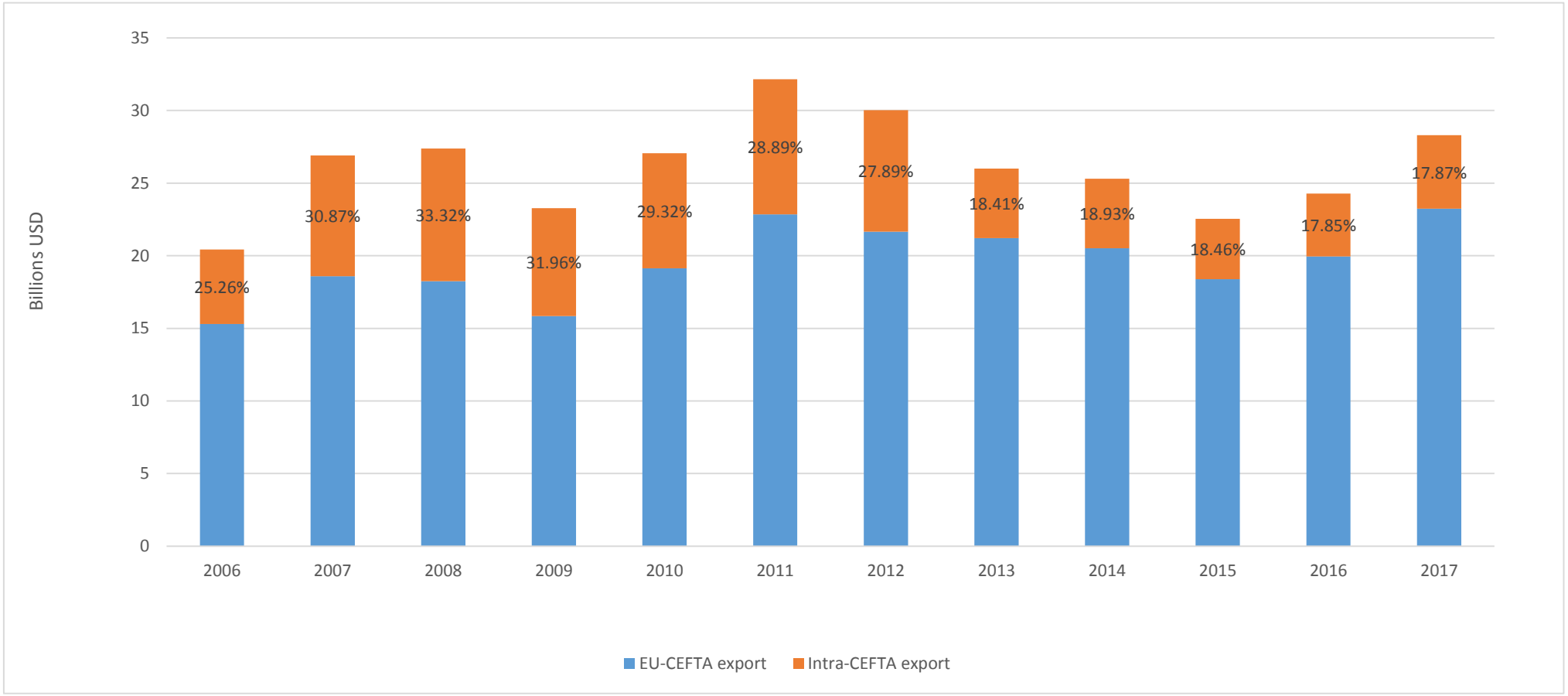
- Ambiguous effect of multilateral trade agreements due to other trade agreements between member and non-member countries, specifity of relations between member countries, as well as individual countries' factors.
- Non-trade barriers (NTBs) which are not released under the free trade agreement, might decrease the trade, regardless of membership in the free trade areas.
- Disputes whether NTBs should be part of trade agreements negotiations
- This paper aims to investigate the impact of CEFTA membership on exports between the members and whether it affects the export of CEFTA members towards EU countries in the accession process.
- We also estimate the effect of non-tariff barriers on CEFTA member countries export.

Trends in CEFTA, cont.



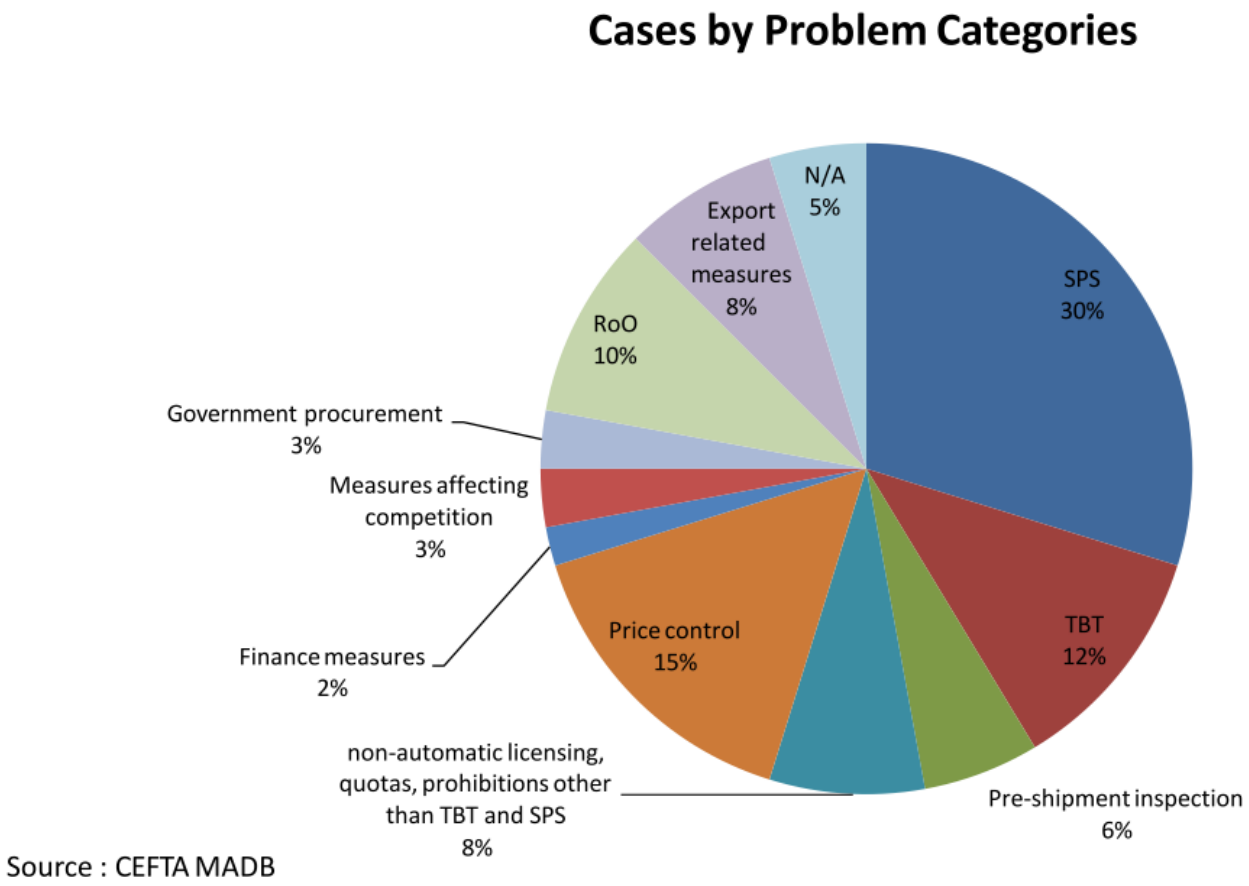
Source: Authors calculation based on UNCTAD data

Trends in CEFTA



Source: Authors calculation based on UNCTAD data

Market access barriers in CEFTA



Source: Ergezer, 2017

Market access barriers in CEFTA

- Multilateral Framework on the Elimination of NTBs in CEFTA
- Subcommittee on non-tariff measures with working groups
- CEFTA Market Access Barriers Database created
- Activities in action: identification and recommendations for elimination of unnecessary technical barriers to trade, sanitary and phytosanitary measures and administrative measures
- There are still some activities pending:
  - Additional protocol 5
  - Involvement of UNCTAD in the functioning of the MADB

Literature review

- The positive effect of CEFTA on CEFTA members trade (Dragutinović-Mitrović and Bjelic, 2015)
- Some literature on the Balkan FTAs suggest that there are other factors that make it difficult to expect quick fixes in value-added changes only because of FTA (Petreski et al. 2015; USAID, 2016)
- The effect of NTB on Western Balkan intra-trade and their trade with the EU – mixed results (Bjelic et al., 2013; Toseska-Trpcevska and Tevdovski, 2014)

Source: Authors calculation based on UNCTAD data

Data

- Bilateral aggregate trade flows
  - UN COMTRADE
- RTAs
  - Mario Larch's Regional Trade Agreements Database
- Traditional gravity variables (distance, contiguous borders, common language, and colonial ties)
  - CEPII GeoDist database
- Tariff and non-tariff barriers
  - ESCAP-World Bank Trade Cost Database, TRAINS and WIIW

Empirical issues and estimation methodology

- Empirical issues
  - Multilateral resistance
  - Heteroscedasticity in trade flow data
  - The presence of zero trade flows
  - Potential endogeneity of regional trade agreements
- Estimation methodology
  - Gravity model with panel data
  - Poisson maximum likelihood estimator controlling for multilateral resistance terms and endogeneity of RTAs

The model

$$X_{ij,t} = \exp(\pi_{it} + \chi_{jt} + \beta_1 \ln(DIST)_{ij} + \beta_2 BRDR_{ij} + \beta_3 LNAG_{ij} + \beta_4 CLNY_{ij} + \beta_5 \ln(TARIFF)_{ij} + \beta_6 ln(NON - TARIFF_{ij}) + \beta_7 \mathrm{CEFTA}_{ij} + \beta_8 SAA_{ij} + \beta_9 FTA_{ij} + \beta_{10} ATM_{ij} + \beta_{10} YUGO_{ij})x\ \varepsilon_{ij,t}$$

Where: π_{it}-vector of exporter -time fixed effects

χ_{jt}-vector of importer time fixed effects

- To account for endogeneity, country-pair fixed effects (z_{ij}) are included:

$$X_{ij,t} = \exp(\pi_{it} + \chi_{jt} + z_{ij} + \beta_1 \ln(TARIFF)_{ij} + \beta_2 ln(NON - TARIFF_{ij}) + \beta_3 \mathrm{CEFTA}_{ij} + \beta_8 SAA_{ij} + \beta_9 FTA_{ij} + \beta_{10} ATM_{ij} + \beta_{10} YUGO_{ij})x\ \varepsilon_{ij,t}$$

Estimation results

	(1)	(2)	(3)	(4)
	PPML	ENDOGENEITY	REV_CAUSALITY	PHASING
ln_tariff	-1.786	-0.699	-1.348	-0.719
	(2.395)	(2.340)	(1.786)	(2.348)
ln_nontariff	-3.588	-2.759	-2.933	-2.759
	(0.174)**	(0.336)**	(0.303)**	(0.336)**
Cefta_bil	1.246	0.592	0.592	-0.578
	(0.220)**	(0.205)**	(0.224)**	(0.246)*
SAA	-0.311	-0.345	-0.540	-0.350
	(0.117)**	(0.080)**	(0.163)**	(0.080)**
Fta	0.040	0.009	0.161	0.011
	(0.130)	(0.125)	(0.124)	(0.125)
Atm	0.091	-0.560	-1.039	-0.569
	(0.169)	(0.159)**	(0.300)**	(0.161)**
Cefta_lead3			0.612	
			(0.241)*	
Cefta_lag3				-0.483
				(0.167)**
Cefta_lag6				-1.371
				(0.297)**
N	705	703	703	703
R2	0.994	0.999	0.999	0.999

Notes: The dependent variable is always bilateral export in levels. The estimator is PPML. Robust standard errors are clustered by country pair and reported in parentheses. The years in the data are 1996, 1999, 2002. 2005, 2008, 2011 and 2014. All estimations are performed with exporter and importer fixed effects, whose estimates including the constant, are omitted for brevity. $^{+}$ $p < 0.10$, * $p < .05$, ** $p < .01$
Only variables of interest presented here

Robustness checks

- Different year intervals used
- Different measures of non-tariff barries
- OLS method

Limitations and tentative implications from the empirical analysis

- The main findings:
  - Most of variables enter with the expected sign
  - Non-tariff barriers deter trade
  - CEFTA increase bilateral exports of its members
- The main limitation:
  - Limited access to databases on biletaral non-tariff barriers

Any suggestions are welcome

Thank you

	(1)	(2)	(3)	(4)
	PPML	ENDOGENEITY	REV_CAUSALITY	PHASING
ln_dis	0.315			
	(0.141)*			
ln_tariff	-1.786	-0.699	-1.348	-0.719
	(2.395)	(2.340)	(1.786)	(2.348)
ln_nontariff	-3.588	-2.759	-2.933	-2.759
	(0.174)**	(0.336)**	(0.303)**	(0.336)**
Evercol	0.428			
	(0.116)**			
Comlang	-0.050			
	(0.148)			
Contig	0.069			
	(0.100)			
Cefta_bil	1.246	0.592	0.592	-0.578
	(0.220)**	(0.205)**	(0.224)**	(0.246)*
SAA	-0.311	-0.345	-0.540	-0.350
	(0.117)**	(0.080)**	(0.163)**	(0.080)**
Fta	0.040	0.009	0.161	0.011
	(0.130)	(0.125)	(0.124)	(0.125)
Atm	0.091	-0.560	-1.039	-0.569
	(0.169)	(0.159)**	(0.300)**	(0.161)**
Yugo	-0.116	1.578	0.000	0.000
	(0.135)	(0.448)**	(.)	(.)
Cefta_lead3			0.612	
			(0.241)*	
Cefta_lag3				-0.483
				(0.167)**
Cefta_lag6				-1.371
				(0.297)**
N	705	703	703	703
R2	0.994	0.999	0.999	0.999