Accounting for Transshipment: The Case of Kosovo

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Introduction and background

- Kosovo imposed 100 percent tariff on imported goods from Serbia and Bosnia and Hercegovina (BiH) in November 2018 in retaliation for Serbia's efforts to block Kosovo's accession to international organizations. Tariff was lifted in April 2020.
- Kosovo is party of the Central European free trade agreement (CEFTA), along with Albania, BiH, Moldova, Montenegro, North Macedonia, and Serbia. Of CEFTA countries, BiH, Kosovo and Serbia are not WTO members, but BiH and Serbia are observers.
- Pre-tariff, Serbia was Kosovo's second largest trading partner after the EU. In 2017, 15 percent of Kosovo's imports (€449 million or 7 percent of GDP) were sourced from Serbia and another 2.7 percent (€81 million) from BiH. Serbia was also Kosovo's second largest export market, and together with BiH absorbed 17.3 percent of Kosovo's exports (€54 million or 0.8 percent of GDP).
- By early 2019, imports of goods have completely shifted from Serbia to Bulgaria, Croatia, Hungary, Poland and Russia, the next most cost-efficient suppliers in the region.

Research question

- Did the tariff prompt a transshipment of goods from Serbia to Kosovo via neighboring countries?
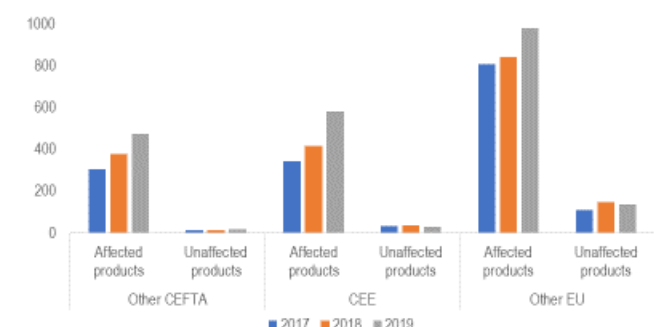
Literature review

- There is a vast literature on trade diversion and deflection following policy actions. Two papers in particular related to the topic of transshipment.
- Rotunno, Vézina, and Wang (2013) show that the rapid rise of African exports can be explained in part by ethnic Chinese firms using Africa as a quota-hopping export platform during the final years of the Multifiber Agreement (2001–05), when the US imposed quotas on Chinese apparel but gave African apparel duty and quota-free access through the African Growth and Opportunity Act (AGOA).
- Liu and Shi (2019) provide evidence of trade re-routing by Chinese firms to avoid US antidumping duties, using monthly trade data for 2002-06.

Data

- Trade data at HS 6-digit level for 2017-19 from Eurostat
  - Kosovo's imports (value and quantity)
  - Serbia's and BiH exports (value and quantity)
- Affected products: products exported by Serbia and BiH to Kosovo in 2017 and 2018.
- Two-way balanced panel
- Pervasiveness of zeros: apply inverse hyperbolic sine (IHS) transformation to Kosovo imports and Serbian/BiH exports

$$IHS(x) = \ln\left(x + (x^2 + 1)^{\frac{1}{2}}\right)$$

Exports to Kosovo
(Million euros)

Note: Other CEFTA includes Albania, Moldova, Montenegro, and North Macedonia. CEE includes Bulgaria, Croatia, Czechia, Hungary, Poland, Romania, Slovakia, and Slovenia. Other EU includes other EU countries not included in CEE, including United Kingdom.
CEFTA = Central European Free Trade Agreement, CEE = Central and Eastern Europe, EU = European Union.

Estimation

$$mKosovo_{pct} = \beta_0 affected_{pt} + \alpha_{pc} + \gamma_{ct} + \varepsilon_{pct}$$
$$mKosovo_{pct} = \beta_1 xSerbiaBIH_{pct} + \beta_2(affected_{pt} \times xSerbiaBIH_{pct}) + \alpha_{pc} + \gamma_{ct} + \varepsilon_{pct}$$

- where p indexes the HS6 product line, c denotes Kosovo's trade partners (excluding Serbia and BiH), and t year.
- $mKosovo$ measures Kosovar imports from its trading partners (excluding Serbia and BiH) while $affected$ is an indicator equal to one for affected product-year pairs.
- $xSerbiaBIH$ measures Serbian and/or BIH exports to Kosovo's trading partners.
- Terms α_{pc} and γ_{ct} are country–product and country–year fixed effects to control for any possible country–product-specific shock (e.g., local labor-market shocks) and country-time shocks common to all products (e.g., exchange rates).
- β_0 reveals the trade-creating effect of the tariff; β_2 measures "transshipment elasticity," i.e., the elasticity of Kosovo's imports to Serbia's exports.
- Standard errors clustered at HS6 product level.

Main results

	Exports by Serbia and BiH		Exports by Serbia		Exports by BiH	
	Values					
Affected	0.13***	0.07	0.12**	0.05	0.16***	0.11**
	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)
Affected x Exports		0.01***		0.02***		0.02**
		(0.00)		(0.00)		(0.01)
Obs	155,757	155,757	155,757	155,757	155,757	155,757
R-squared	0.66	0.66	0.66	0.66	0.66	0.66

	Quantities					
Affected	0.15***	0.05	0.14***	0.05	0.17***	0.10**
	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)
Affected x Exports		0.03***		0.03***		0.03***
		(0.00)		(0.01)		(0.01)
Obs	155,757	155,757	155,757	155,757	155,757	155,757
R-squared	0.75	0.75	0.75	0.75	0.75	0.75

Note: All regressions include country–product and country–year fixed effects. Standard errors clustered at the product level.
***, **, * significant at 1%, 5%, 10%.

- Exports to Kosovo are on average 13-15 percent higher for affected products compared to control products for both trade in values and quantities.
- The transshipment elasticity is significantly higher when exports from Serbia and BiH are higher.
- 100 percent increase in exports from Serbia and BiH corresponds to an 8 percent increase in Kosovo imports of affected products.

- The transshipment elasticity is significantly higher for CEFTA and CEE countries.

	Values		Quantities	
Affected x CEFTA	0.77***	0.08	0.84***	0.09
	(0.24)	(0.31)	(0.21)	(0.26)
Affected x Exports x CEFTA		0.08***		0.10***
		(0.02)		(0.02)
Affected x CEE	0.38***	0.29*	0.43***	0.22**
	(0.13)	(0.15)	(0.10)	(0.11)
Affected x Exports x CEE		0.01		0.04***
		(0.01)		(0.01)
Affected x EU	0.10	0.06	0.11**	0.07
	(0.07)	(0.08)	(0.06)	(0.06)
Affected x Exports x EU		0.01		0.01*
		(0.01)		(0.01)
Obs	155,757	155,757	155,757	155,757
R-squared	0.66	0.66	0.75	0.75

Note: All regressions include country–product and country–year fixed effects. Standard errors clustered at the product level. CEFTA = Central European Free Trade Agreement, CEE = Central and Eastern Europe, EU = European Union.
***, **, * significant at 1%, 5%, 10%.

Conclusion

- This paper shows that the 100 percent tariff by Kosovo on products imported from Serbia and BiH resulted in exporters from these countries using neighboring countries (in particular, Albania and North Macedonia) as export platform to reach the Kosovar market.