

Holzner, Mario; Peci, Florin

**Working Paper**

## Measuring the Effects of Trade Liberalization in Kosovo

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*Mario Holzner and Florin Peci*

## **Measuring the Effects of Trade Liberalization in Kosovo**



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Mario Holzner is a research economist at the Vienna Institute for International Economic Studies (wiiw). Florin Peci is a PhD candidate at the Faculty of Economics, University of Prishtina.

*Mario Holzner and Florin Peci*

**Measuring the Effects  
of Trade Liberalization  
in Kosovo**



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**Abstract**

*Similar to other countries in the European periphery, Kosovo lacks competitiveness, has adopted the euro as its national currency and started an integration process with the EU. The next milestone in this process is the signing of an FTA with the EU. We simulate full trade liberalization vis-à-vis the EU, using the Global Simulation Model. Our results suggest a slight output loss in almost all industries in Kosovo due to a drop in prices. Moreover the government budget is expected to lose about 5% of its revenues due to the tariff cut. A shift towards more direct taxation and an improvement of the investment climate in Kosovo is recommended.*

**Keywords:** *trade policy simulation, Kosovo, EU integration*

**JEL classification:** *F15, F17, P33*





## **Measuring the effects of trade liberalization in Kosovo**

### **1. Introduction**

Kosovo has introduced a liberal trade regime as part of the regional trade liberalization processes, particularly those initiated by the Stability Pact for Southeast Europe (Bartlett, 2008). Although, not an official member of the Stability Pact, Kosovo committed itself to respect the obligations deriving from the Memorandum of Understanding (MoU) on Trade and Transport Facilitation in Southeast Europe (SEE), signed by the countries of SEE in 2001 (Sadiku, 2003). Practically, the MoU provided for (i) the elimination of tariffs on 90% of the volume of trade and 90% of tariff lines, (ii) the elimination of non tariff barriers to trade for intra-regional trade and the strengthening of trade in services, and (iii) the facilitation in trade (Damijan, de Sousa and Lamotte, 2006). The overall objective of the MoU was the implementation of bilateral Free Trade Agreements (FTAs) among the countries of the region. According to the MoU, FTAs were mandatory to the signatory parties, apart from Kosovo in which case countries were merely advised to sign an FTA if they deemed this step as beneficial. Kosovo signed the first FTA with Albania and later with Macedonia, Bosnia and Herzegovina and Croatia. The entire negotiation process was concluded by extending the Central European Free Trade Agreement (CEFTA) to the West Balkan countries in 2006, thus, converting the bilateral agreements into one single FTA. Kosovo acquired full CEFTA membership.

Despite the fact that the ailing economy of Kosovo is facing severe difficulties coping with the consequences of trade liberalization, in the long run there may be several positive aspects of this process. Since one of the purposes of CEFTA is the establishment of trade rules based on European Union (EU) and World Trade Organization (WTO) principles, it is expected that the experience gained in trade with the countries in the region will make Kosovo's businesses competitive for the EU and World markets. In addition and in order to comply with the CEFTA rules and regulations Kosovo will establish and build up institutional and policy frameworks to comply with the requirements of the WTO.

However, the experience of Kosovo with CEFTA so far has not been very positive due to the economic but also political barriers restraining Kosovo. At first, CEFTA was signed by the United Nations Interim Administration Mission in Kosovo (UNMIK) on behalf of Kosovo. Kosovo's international representation for almost a decade was the reserved right of UNMIK, and the negotiating process for bilateral FTAs and the CEFTA were conducted by UNMIK representatives. Thus, the question of legitimacy and Kosovo institutions' compliance with this process has been raised. Also, Serbia and Bosnia and Herzegovina continue not to recognize the institutions of the Republic of Kosovo. This has resulted in regular holdups of Kosovo's exports to these countries.

As regards the EU market, trade relations of Kosovo with the Union are specified under the Council Regulation 2007/2000 from September 2000. This Regulation recognizes Kosovo as an autonomous customs unit, whereby 95% of Kosovo's products are exempt from customs tariffs. Customs and quantity limitations remain in force for a limited number of products only (veal, sardines, wine and some textile products). Also, Kosovo is part of the Stabilization Association Process (SAP) with the final aim of signing a Stabilization and Association Agreements (SAA). However, as a small number of countries within the EU have not yet recognized the independence of Kosovo, the so called Stabilization Tracking Mechanism (STM) remains in force instead of the SAP, designed to guide Kosovo towards necessary reforms for membership in the EU. This mechanism should be used for easier access to the regional and EU market, since the EU through the SAP (STM in the case of Kosovo) is committed to further trade liberalization with the countries of the region and between the countries of the region. Relations with the EU are essential for the development of Kosovo's economy, bearing in mind the fact that the EU is the market with the biggest potential, not only for Kosovo but the whole region, and the main source of investment. However, it is questionable if the economy of Kosovo is prepared for market competition that the EU policies ask for. In recent years about 40% of Kosovo goods imports from the EU have been tariff-protected. Full trade liberalization would be quite a burden for state finances: for instance, in 2010 about 43% of Kosovo government revenues were collected at the border, with a large chunk of it being border excise, customs import duties and various other customs taxes (SAK 2011).

The EU's Autonomous Trade Measures (ATMs) apply to all Western Balkan countries and allow duty free access to the EU market for nearly all products originating from the region. These trade preferences were already granted to Kosovo in the past, but expired on 31 December 2010. The ATMs again re-entered into force on 30 December 2011. Now, important additional integration steps lie ahead: a dialogue on visa liberalization, the negotiation of an FTA, participation of Kosovo in EU programmes and possibly European Bank for Reconstruction and Development (EBRD) membership. The possible effects of an FTA as a cornerstone of a future SAA are the focus of our simulation analysis.

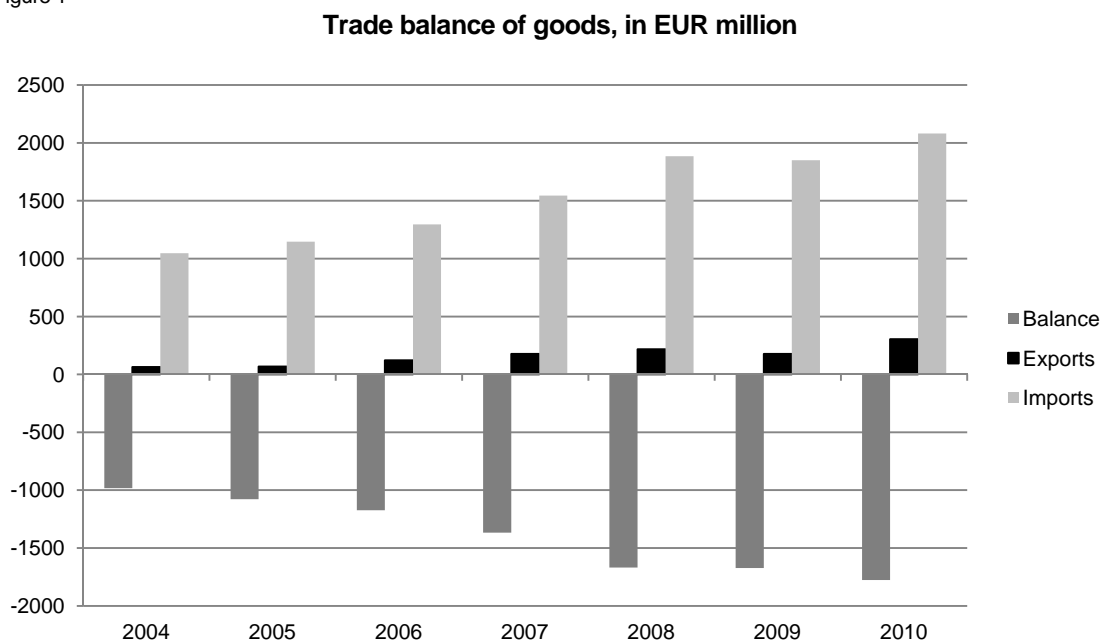
To our knowledge this is the first attempt to quantitatively estimate possible effects of trade liberalization in Kosovo. Literature on this topic related to Kosovo is scarce. There exists the usual trade policy reports commissioned by international organizations and the government (see e.g. RIINVEST, 2003; RK, 2009). There are also a few articles available that deal with Kosovo trade issues in general (see Badivuku-Pantina and Gjonbalaj, 2010; Mustafa-Topxhiu and Xhelili-Krasniqi, 2011). However, all the existing literature remains purely descriptive. Moreover, the present exercise can also be seen as a case study for similar developing economies that have a lack of competitiveness, adopt foreign currencies (Kosovo unilaterally adopted the euro as its currency in 2002) and liberalize trade.

In the following we will give a brief description of the structure of Kosovo's foreign trade, present the applied simulation model, the data used and the results. Finally, the conclusions will provide some policy recommendations.

## 2. Kosovo trade structure

The collapse of the socially owned sector during the 1990s, due to the political crisis in former Yugoslavia, as well as the later delay in ownership transformation of socially owned enterprises (SOE), resulted in a dramatic fall of exports. Currently, Kosovar trade is dominated by imports. However, according to Central Bank of Kosovo (CBK) balance of payments data, 2010 was characterized by positive economic developments. Goods' export rose by 72% and imports by 12%. Still, the trade in goods deficit continued to increase by about 6%. Based on current investment and consumption trends a further increase of the trade deficit is expected for 2011. Imports of goods amounted in 2010 to more than EUR 2 billion. Goods exports in 2010 were a mere EUR 300 million. This amounts to a trade deficit of about EUR 1.7 billion or some 40% of GDP in 2010. The value is pretty persistent over recent years and rising (see Figure 1).

Figure 1



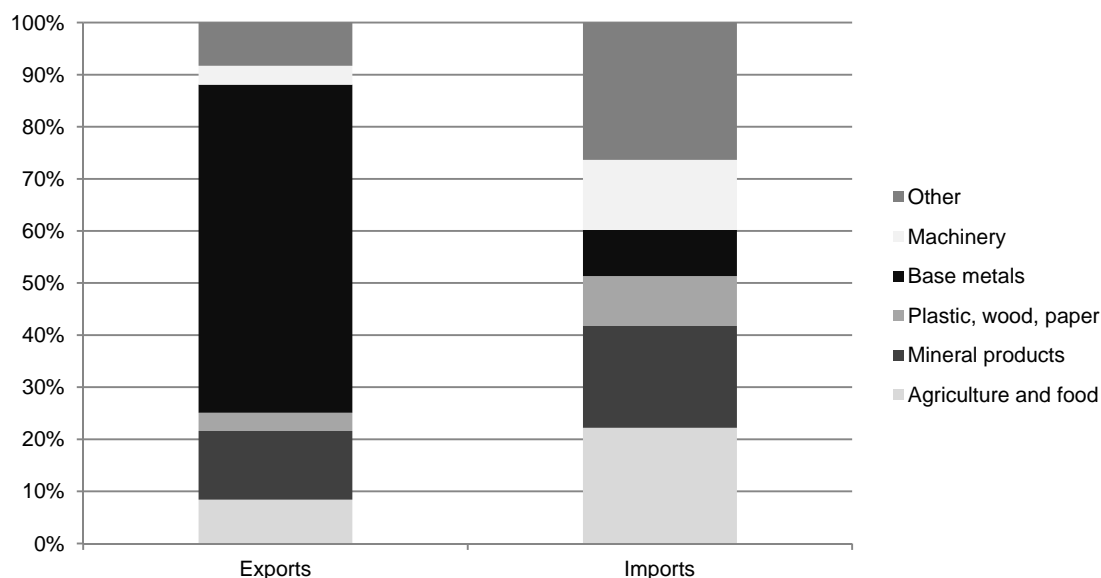
Source: CBK.

In 2010, the structure of exports (see Figure 2) was dominated by base metals. According to statistical data published by CBK, goods export had the following structure: Base metals with a share of about 63%, followed by Mineral products with some 13%, Agricultural and food products with 8%, Machinery and electrical equipment with 4% and Plastic, wood and paper products with about 3.5%.

The import structure is more evenly distributed and consisted in 2010 of the following main items: Agricultural and food products was the largest group with some 22%, Mineral products had a share of 19.5%, followed by Machinery and electrical equipment with 13%, Plastic, wood and paper products with almost 10% and Base metals with about 9%.

Figure 2

**Structure of exports and imports by economic category 2010, in % of total**



Source: CBK.

According to CBK data, the structure of Kosovo's trading partners in 2010 remained similar to previous years. In 2010, Kosovo realized around 75% of total trade with the EU and with CEFTA member countries. The noncompliance with the CEFTA agreement by Serbia and Bosnia and Herzegovina poses a continuous obstacle to Kosovo's exports to these countries, and this situation continued in 2010. Kosovo's exports towards the EU reached EUR 131 million in 2010. The share of Kosovo's exports to the EU in per cent of total exports was 45%. Italy remains the main destination for Kosovo's exports, with a share of 27% of total exports. The largest part of exports to Italy consists of nickel minerals. Other important EU destination countries for Kosovo's exports are Germany (5%) and Belgium (4%).

Also the allocation of Kosovo's exports among CEFTA member countries in 2010 remained similar to the previous year. The CEFTA share in exports amounts to 24%. In this group the largest export markets are Albania (11%) and Macedonia (9%). The EU and CEFTA countries represent the main trading partners for Kosovo also in terms of imports. Around 38% of total goods imported by Kosovo came from the EU member states. The largest part of imports comes from Germany (13%), Greece and Italy (both with a share of about 5%). Among the CEFTA countries (37%), most of the imported goods come from Macedonia and Serbia, with a share of 15% and 12% in total imports, respectively.

### 3. The model

The model that will be applied in this study is the Global Simulation Model (GSIM) for the analysis of global, regional and unilateral trade policy changes proposed by Francois and Hall (2003). This model has been used in a number of trade analysis papers, especially in cases where data is scarce (see e.g. Vanzetti, de Cordoba and Chau, 2005; Mutambatsere, 2006; Serletis and Fetzer, 2008; Hess and Cramon-Taubadel, 2008; Leudjou, 2012).

To avoid unmanageable complexity in the model, the solution set of the model is reduced to those global prices that clear global markets. Having a global set of equilibrium prices allows to backsolve for national results. The representation of import demand is log-linearized and combined with generic export-supply equations (Francois and Hall, 1997).

One of the basic assumptions of the model is national product differentiation, as imports are imperfect substitutes for each other. Across products from different sources the elasticity of substitution is held to be equal and constant. Also the elasticity of demand in aggregate is held constant. Similarly import supply elasticity is constant too. This approach is consistent with the Armington (1969) approach to product differentiation at the national level.

The core equation for the global market clearing condition for each export variety is the following:

$$\begin{aligned} \hat{M}_{i,r} &= \hat{X}_{i,r} \Rightarrow \\ E_{X(i,r)} \hat{P}_{i,r}^* &= \sum_v N_{(i,v),(r,r)} \hat{P}_{(i,v),r} + \sum_v \sum_{s \neq r} N_{(i,v),(r,s)} \hat{P}_{(i,v),s} = \sum_v N_{(i,v),(r,r)} [P_r^* + \hat{T}_{(i,v),r}] \\ &+ \sum_v \sum_{s \neq r} N_{(i,v),(r,s)} [\hat{P}_s^* + \hat{T}_{(i,v),s}], \end{aligned}$$

where  $\hat{\phantom{x}}$  denotes a proportional change,  $r$  and  $s$  the exporting regions,  $v$  the importing regions and  $i$  the industry designation.  $M$  and  $X$  represent imports and exports in quantities, respectively.  $E_{X(i,r)}$  is the elasticity of export supply and  $P_{i,r}^*$  the world price for exports from region  $r$ .  $N_{(i,v),(r,r)}$  is the own price demand elasticity,  $P_{(i,v),r}$  is the internal price for goods from region  $r$  imported into region  $v$  and  $N_{(i,v),(r,s)}$  is the cross-price elasticity. Finally,  $T_{(i,v),r}$  is the power of the tariff,  $T=(1+t)$ . For any set of  $R$  trading countries this equation can be used to define  $S \leq R$  global market clearing conditions with  $R$  exporters. If also domestic production is modelled, there are exactly  $R=S$  market clearing conditions. A more detailed description and definition of the relevant own- and cross-price elasticities, global supply and demand definitions can be found in Francois and Hall (2003).

Using a fully-fledged general equilibrium model (which would have to include a full endogenization of income and expenditure levels across the region) is not possible because Kosovo lacks the necessary input-output tables. However, the partial equilibrium approach

implies useful advantages because it allows for a rapid and transparent analysis of a wide range of commercial policy issues with a minimum of data and computational requirements.

Having the limitations of the partial equilibrium approach in mind, useful insights can be drawn with regard to complex, multi-country trade policy changes at the industry level. The results of the GSIM allow for the assessment of importer and exporter effects related to tariff revenues, exporter (producer) surplus, and importer (consumer) surplus.

The model requires the input of a bilateral trade matrix at world prices, an initial matrix of bilateral import tariffs in ad valorem form, a final matrix of bilateral import tariffs in ad valorem form, export supply elasticities, aggregate import demand elasticities and elasticities of substitution. Using additional data, domestic production effects can also be fitted into the framework.

#### **4. The data**

The data necessary to run the GSIM model are detailed tariff (as well as data on subsidies if existing) and trade data (including data for trade with self, i.e. production less exports) as well as estimates of demand, supply and substitution elasticities. Data on trade as well as simple average applied tariff rates were taken from Kosovo Customs as well as from the UN Comtrade (Commodity Trade Statistics) and the UNCTAD Trains (Trade Analysis and Information System) database. Data was aggregated at the 2-digit ISIC Rev. 3.1 (International Standard Industrial Classification of All Economic Activities) level and stems in general from the year 2010.

However, with regard to trade with self (gross output less exports) latest available disaggregated data were taken from the Statistical Agency of Kosovo for the year 2009 and extended with the help of more aggregated 2010 data, keeping the 2009 structure. For the EU trade with self, data stems from Eurostat and represents latest reasonably complete data for all member countries for the pre-crisis year 2007. This should be a good proxy for the year 2010. For similar reasons trade with self data for the rest of the world reflects the year 2007 as well. Here, for manufacturing industries UNIDO data was used. For agriculture and mining sectors more aggregated UNSTATS National Accounts Main Aggregates Database value added data was disaggregated using export shares of single industries.

Non-tariff-barriers (NTB) such as quotas were not included. This is especially a problem in the case of the EU data on protection from imports from Kosovo and the rest of the world. In 2000, the EU granted Autonomous Trade Measures (ATMs) to the Western Balkan countries, liberalizing 95% of their exports to the EU. The remaining barriers are tariff quotas on imports of wine, baby beef and certain fishery products and some NTB's in the tex-

tile industry. For many products licensing is required. For the purpose of this paper, the EU tariff with respect to Kosovo was assumed to be zero for all industries.

The export supply elasticity (1.5), aggregate import demand elasticity (-1.25) and the elasticity of substitution (5) were adopted from Francois and Hall (2003). However, in the case of the EU and the rest of world (ROW) an 'infinite' export supply elasticity (9999999) was assumed. This flattens out the supply curves and is in line with a small versus large country assumption.

These are certainly very simplified assumptions. However, due to the scarce data it would be impossible to estimate 'true elasticities'. An alternative approach would be to employ average elasticities as described in 22 industry studies by Patrick Messerlin (2001) for example. There, especially the elasticities of substitution seem to be in general much lower than 5. However, in the literature an elasticity of substitution of 5 is used quite often (see also Fujita, Krugman and Venables, 2000).

## **5. The results**

After feeding the model step by step with the initial bilateral trade matrix (including trade with self), at world prices in euro, the initial matrix of bilateral import tariffs in ad valorem form, the final matrix of bilateral import tariffs in ad valorem and the elasticities, the following output was estimated: trade effects, welfare effects (producer surplus, consumer surplus and change in tariff revenue) and price and output changes. This task was done for the 27 Kosovo industries at the ISIC 2-digit level which recorded non-zero imports from the EU in 2010.

A Stabilization and Association Agreement scenario was chosen. Thus, a full liberalization of trade between Kosovo and the EU was assumed. Given that Kosovo exports to the EU are already free of tariff due to the EU's ATMs, the sole difference between the initial matrix and the final matrix of bilateral import tariffs in our model is a zero tariff rate for Kosovo imports from the EU in the final matrix.

According to the model assumptions it is not very surprising that the overall simulated net welfare effect of liberalization is negative for Kosovo (EUR -3.5 million), notably due to strong losses in tariff revenues (EUR -71.2 million) and less so producer surplus which cannot be fully outweighed by a substantial consumer surplus in the wake of falling prices after liberalization.

All the results of this exercise have to be seen with caution, because they are generated with the help of a partial equilibrium model instead of a general equilibrium model. Better performances of the general equilibrium model if the respective data were available might



have helped us to find a shift from import competing and protected sectors to export sectors and non tradable sectors with potentially significant output increases in some of them. This is not possible to be observed in a partial equilibrium model.

Here we want to focus on the simulated effects of a Kosovo membership to the EU SAA on output and tariff revenues. Table 1 presents the most important results in this respect. The first column shows the average Kosovo tariff rate for imports from the EU in 2010 per ISIC 2-digit sector that is being cut to zero in our simulation. Hence the following columns show some of the major simulation results (i.e. changes in consumer prices, output and tariff revenues).

Table 1

**Simulation effects of Kosovo SAA accession**

ISIC Rev. 3.1	Average tariff for imports from EU 2010 in %	Simulated change in con- sumer prices in %	Simulated output change in %	Simulated output change in 1000 EUR	Simulated tariff revenue change in 1000 EUR
01 - Agriculture	9.1	-0.38	-0.32	-3,793	-2,283
02 - Forestry	9.8	-0.12	-0.10	-13	-8
05 - Fishing	10.0	-0.20	-0.18	-7	-4
10 - Mining of coal	0.4	0.00	0.00	-2	-1
14 - Other mining	10.0	-0.64	-0.52	-27	-60
15 - Food and beverages	9.4	-2.37	-1.71	-2,832	-10,514
16 - Tobacco	9.7	-6.91	-5.98	-13	-3,221
17 - Textiles	9.8	-0.91	-0.62	-234	-495
18 - Wearing apparel	9.9	-0.85	-0.69	-36	-445
19 - Leather and footwear	9.9	-0.70	-0.60	-2	-263
20 - Wood products except furniture	9.8	-2.16	-1.75	-239	-685
21 - Paper and paper products	6.2	-0.96	-0.83	-1,245	-1,001
22 - Publishing and printing	8.3	-0.56	-0.48	-333	-196
23 - Coke and refined petroleum	7.2	-1.82	-1.58	-18	-5,420
24 - Chemicals	8.3	-3.96	-3.33	-722	-7,644
25 - Rubber and plastics	9.7	-3.20	-2.38	-1,259	-3,882
26 - Non-metallic mineral products	9.7	-1.25	-1.08	-3,187	-3,306
27 - Basic metals	9.2	-0.84	0.00	0	-1,098
28 - Fabricated metal products	9.7	-3.58	-1.88	-137	-3,069
29 - Machinery	7.2	-4.23	-3.31	-113	-8,598
30 - Computing machinery	9.2	-3.99	-3.44	-33	-956
31 - Electrical machinery	9.6	-4.03	-3.46	-592	-3,647
32 - Communication equipment	9.8	-1.22	-1.05	-63	-96
33 - Precision instruments	4.8	-2.72	-2.09	-3	-817
34 - Motor vehicles	9.4	-7.54	0.00	0	-11,320
35 - Other transport equipment	9.4	-0.57	-0.49	-116	-102
36 - Furniture	9.8	-2.97	-1.91	-94	-2,114
Total	-	-	-0.66	-15,112	-71,246

Source: Own calculations.

Current average applied tariff protection against EU imports is close to the maximum Kosovo tariff rate of 10% for almost all of the industries. Only for a few sectors that are mostly

offering intermediate products and capital goods such as mining of coal, precision instruments, paper, machinery and refined petroleum tariff rates are somewhat lower on average.

Given the mostly uniform average tariff rate for imports from the EU of close to 9%, the largest price effects after a simulated liberalization of trade with the EU occur in sectors where local production is rather small compared to imports. Industries with a drop of consumer prices above 4% after liberalization include motor vehicles, tobacco, machinery and electrical machinery. Prices change very little in industries where domestic output is very strong compared to imports (e.g. mining of coal, forestry, fishing and agriculture).

The simulated relative drop in Kosovo output is highest in those industries where consumer prices decreased most and/or where the biggest part of local production is being sold domestically. Sectors with an estimated drop of more than 3% in output are the tobacco, the electrical machinery, computing machinery, chemicals and machinery industries. The motor vehicles and basic metals industries are not expected to lose any output as they do not sell their goods on the domestic market. In aggregate the 27 analysed sectors are expected to lose some 0.66% in output due to trade liberalization with the EU.

In terms of levels, almost two thirds of the estimated total of EUR 15 million output loss occurs in three industries only. These are the agriculture, the non-metallic mineral products and the food and beverages sectors. Sectors that do not necessarily lose a lot in relative terms but that are among the largest industries selling on the local market.

Regarding expected losses of tariff revenue, more than half of the estimated total losses of EUR 71 million are to be found in the following four sectors that register large imports from the EU: motor vehicles, food and beverages, machinery and chemicals.

Overall it can be said that a Kosovo completion of an EU SAA with a subsequent total opening of the Kosovo market to EU imports would have only minor effects in terms of lower prices for Kosovo consumers and less output for Kosovo producers that would face more competition. Lost tariff revenues would be more substantial. However estimated losses would make up less than 5% of the 2010 general government revenues.

## **6. Conclusions**

The EU has granted Autonomous Trade Measures to all Western Balkan countries, allowing exporters from Kosovo duty free access to the EU market. However, the ailing economy of Kosovo has hardly anything to export apart from base metals. Goods imports are seven times larger than goods exports. On its way towards European integration, Kosovo has to negotiate a Free Trade Agreement with the EU. This research tries to simulate duty

free entry of EU goods to the Kosovo market in the framework of a potential Stabilization and Association Agreement.

The industry specific results of the partial equilibrium Global Simulation Model suggest that the simulated relative drop in Kosovo output is highest in those industries where consumer prices decrease most after liberalization and/or where the biggest part of local production is being sold domestically. Sectors with an estimated drop of more than 3% in output are the tobacco, the electrical machinery, computing machinery, chemicals and machinery industries. However, on aggregate the 27 analysed sectors are expected to lose only some 0.66% in output due to trade liberalization with the EU. Lost tariff revenues would be somewhat more substantial. Still, estimated losses would make up less than 5% of the 2010 general government revenues.

Though the largest estimated output losses are relatively small and expected to occur in rather tiny sectors (the combined output of the machinery, computing machinery, electrical machinery and chemicals industries makes only some EUR 40 million), it is still a further blow for these medium to high skill sectors. It can be expected that increasing trade liberalization between Kosovo and the EU will not increase the diversity of Kosovo exports, at least in the short run. The low skill, basic metals sector will remain the dominating export sector in Kosovo for at least the time when international commodity prices remain high.

However, in practical terms the expected loss in tariff revenues appears to be more policy relevant in the medium run. The Kosovar government will have to consider well before the signing of a Free Trade Agreement how to compensate revenue losses. A move from revenues generated at the borders to more direct taxation seems to be essential. About 11% of government revenues stem from current taxes on income and wealth, which is only a third of the average share in the European Union in 2010. This will be also important in view of further falling international donor assistance, which made almost 20% of total government revenues in 2010.

In the longer run, increasing trade liberalization and decreasing donor transfers and remittances will make it difficult for Kosovo to sustain trade deficits of up to 40% of GDP. An improved investment climate and better institutional and physical infrastructure (Keklik and Gashi, 2009) could help to attract foreign and domestic investors in order to establish a functioning tradable sector, which is capable to cover the country's imports through exports. In this context and given the experiences of similar economies that have adopted the euro as their currency but have a low level of competitiveness it might also be useful to consider the abandoning of the euro and the introduction of an own flexible national currency. This would allow for an improvement of competitiveness and a more balanced current account, a cautious interest rate level in boom phases and a smoother absorption of shocks in crisis periods.

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