IME
Institute for Market Economics

WESTERN BALKANS:
IDENTIFICATION OF KEY ECONOMIC SECTORS WITH HIGHEST GROWTH POTENTIAL

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Executive summary

The Western Balkan region consists of six relatively small and increasingly open economies – Albania, Bosnia and Herzegovina, Kosovo, Macedonia, Montenegro, and Serbia. These countries feature a common recent history and a similar path of economic development since the commencement of their transition to market economies. Their foreign trade patterns are largely similar, too – these countries demonstrate significant trade both with the EU and with other Western Balkan countries.

The present analysis seeks to identify those economic sectors in the Western Balkans that can serve as future growth engines for the region as a whole. The methodology developed by the IME team for selection of key sectors thus rests on the assumption that **export-oriented sectors could act as motors** for these economies, as domestic markets are limited by relatively low incomes and small savings rates. This approach is based on a series of economic studies, exploring the link between trade and economic growth in developing and transition economies. Those studies in general provide strong and conclusive evidence on the positive effect of increasing trade and openness on growth.

The methodology, employed in order to identify key economic sectors with the highest growth potential consisted of two stages. At the first stage, the selection procedure shortlisted key export-oriented sectors for the region as a whole on the basis of UN trade data and the Balassa index of revealed comparative advantage. At the second stage, we analyzed a number of additional indicators - high value added, substantial inflow of FDI, rising number of employees and a growing share in the economy – in order to identify the leading sectors for the region that carry the highest potential for future expansion, export and growth. As a result of the application of this two-stage methodology and the collection and analysis of about 16,000 data points for the Western Balkan countries, we have come up with a shortlist of "champion sectors'' for the region as a whole.

The results of our analysis show that **Tourism, ICT and agribusiness** expose best competitive potential as combined findings of all selection criteria. These **sectors perform well-above average** across the Western Balkan region.

Fruit and vegetables perform best in terms of the export-related criteria and their selection could be narrowed down to such agribusiness sub-sectors as *growing of fruit* and *growing of vegetables*.

All the three shortlisted sectors show a relatively high value added in comparison to the rest, as more than 50% of the output value is value added. All three also show a rising number of employees, which confirms their good performance in recent years that has resulted in attracting more labor. Tourism and ICT enjoy a relatively high inflow of FDI, too, which is no doubt a stepping stone for future growth of these sectors. Finally, tourism and agribusiness also show a growing share in the overall GVA of at least 3 economies in the Western Balkan region, which confirms their upward trend in the last few years, despite the global crisis and the ensuing painful recovery, which has taken its toll on the region, too.

These three top-performing sectors are followed by **footwear manufacturing**, mostly due to traditions but also, perhaps, due to global conjecture that retains the output of this industry at a competitive level (at comparatively still-low cost of labor).

In contrast to footwear, the sector of **wearing apparel**, the export of which has also benefited from cheap labor, has deteriorated in the crisis and post-period. For this reason, it cannot qualify for the list of the top sectors.

Additionally, we shall specifically note that two sectors which did not qualify for the final shortlist – **food manufacturing**, and **manufacturing of vehicles and parts thereof** – have attracted a great deal of foreign direct investment in the past few years that may serve as a base for future growth.

Food manufacturing has attracted substantial FDI in Albania, Bosnia and Herzegovina, Macedonia and Montenegro, while manufacturing of vehicles and vehicle parts is one of the top-5 FDI recipients in the three biggest economies of the region – Bosnia and Herzegovina, Macedonia and Serbia. Therefore, we propose taking into account that these two sectors also carry a good potential for expansion in the future.

Introduction

The Western Balkan region consists of six relatively small and increasingly open economies – Albania, Bosnia and Herzegovina, Kosovo, Macedonia, Montenegro, and Serbia, with common (except for Albania) pre-transition background in terms of economic and industrial structure, human capital and language.

These countries also feature a common recent history and a similar path of economic development since the commencement of their transition to market economies. Their foreign trade patterns are largely similar, too – these countries demonstrate significant trade with the EU and intra-regional trade with other Western Balkan countries. Inevitably, their comparative advantages are also similar, as found by different surveys for the after 1995 (Dayton Agreement) period.[2]

In the last ten years, these countries stabilized politically and embarked on the path to EU accession. As we shall see, these years coincide with significant gains in FDIs and economic growth, and intensified inter-industry trade with the EU. The picture is somewhat typical for all accession countries.[3]

The present analysis seeks to identify those economic sectors in the Western Balkans that can serve as future growth engines for the region as a whole. The methodology for selection of key sectors rests on the assumption that **export-oriented sectors** could act as motors for these economies, as domestic markets are limited by relatively low incomes (see Table 1) and small savings rates.

TABLE 1: GDP PER CAPITA IN PPP (INTERNATIONAL USD)				
	2008	**2009**	**2010**	**2011**
Albania	6,921	7,185	7,498	7,848
Bosnia and Herzegovina	7,808	7,660	7,833	8,115
Kosovo	N/A	N/A	N/A	N/A
Macedonia	9,602	9,577	9,964	10,469
Montenegro	10,824	10,252	10,601	11,545
Serbia	10,360	10,125	10,120	10,409
EU average	**30,840**	**29,682**	**30,604**	**31,673**

Source: IMF

At the same time, both exports and trade openness (see Table 2) of these countries have been on a stable upward trend in the past few years, except for the crisis year of 2009.

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[2] *On Revealed Comparative Advantages (RCA) for 1995-2000, see Krassen Stanchev, Martin Dimitrov, "SEE Trade and Institutions: A Case Study on Bulgaria and the Region", WIIW Balkan Observatory, Working Papers, No 023, February 2002, p. 18-23; for the 2000-2006 period, see Vladimir Gligorov, "Trade and Policies in the Balkans", A Presentation, 2007, slides 19-28.*

[3] *See Ville Kaitila, "Accession Countries' Comparative Advantage in the Internal Market: A Trade and Factor Analysis", Bank of Finland Institute for Economies in Transition Discussion Papers, 2001, No 3, p. 18-28.*

TABLE 2: OPENNESS, % OF GDP							
	2005	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**
Albania	40.3	42.7	48.9	50.7	46.5	52.3	N/A
Bosnia and Herzegovina	86.9	84.9	90.2	92.4	73.9	83.6	92.5
Kosovo	40.4	45.4	38.2	54.0	52.4	57.2	58.9
Macedonia	86.1	92.3	102.7	106.4	80.9	92.2	N/A
Montenegro	N/A	N/A	94.3	95.5	64.8	64.0	70.4
Serbia	59.5	66.6	70.1	73.0	59.7	70.9	N/A

Source: National statistical offices, World Bank, European Commission

Theoretically, this approach is based on a slew of economic studies, exploring the link between trade and economic growth in developing and transition economies. Those studies in general provide strong and conclusive evidence on the positive effect of increasing trade and openness on growth[4].

Methodology and its application

With the above in mind, the methodology that we have employed in order to identify the key economic sectors with the highest potential in the region consists of the following stages.

Selection of top export product groups for the region as a whole

Selection of top export categories for each of the six Western Balkan countries

The selection was based on official UN foreign trade data for the 2008-2012 period, assembled according to the Harmonized System (HS) classification. In order for a product group to be selected as a top export category for the region as a whole, three criteria have been considered on a step-by-step basis:

1) The product group features in **the top 20 export categories** of the country in question, and its presence there is stable for the 2008-2012 period;
2) The product group shows **stable growth of its export** over the period under study (2008-2012), with tolerance for the crisis years of 2009-2010;
3) The product group's export shows **a Balassa competitiveness index of above 1** consistently for the entire period;

The third criterion incorporates the concept of revealed comparative advantage, put forward by a renowned economist, Bela Balassa, back in 1965[5]. Balassa's competiveness index in turn is based on

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[4] . See, for instance, Billmeier and Nannucini, *"Economies in Transition: How important is Trade Openness to Growth?":*
http://didattica.unibocconi.it/mypage/upload/92884_20100924_104745_TRADE_GROWTH_TRANSITION_NEW_3.P DF

David Ricardo's theory of comparative advantage in foreign trade and is frequently used in international economics for calculating the relative advantage or disadvantage of a certain country with regard to certain goods or services as evidenced by trade flow statistics. A comparative advantage is "revealed" if the index exceeds the value of 1; if the index is less than unity, the country is said to have a comparative disadvantage in the particular export item/category.

Due to rather aggregated statistics and time-consuming access to business registries (to test findings with company data for pre-selected sectors), we used four additional criteria to isolate conjectural factors: gross value added (GVA) dynamics (growth), value added outliers (above 50% of output values, in constant prices), employment growth (human capital accumulation) and accumulation of FDI's. We are confident that the final picture gives reasonable foundation for competitive strategies on sector and firm level.

Selection of top export categories for the Western Balkans region as a whole

Once the top export categories for each country have been selected on the basis of the above-stated criteria, the top export categories for the region as a whole are chosen if an export category was shortlisted as "top" one in 3 or more Western Balkan countries.

A further criterion that was applied in the final selection of top export sectors was the assignment's requirement that sectors related to chemicals, weapons, tobacco and spirits, as well as environmentally polluting industries should not be present in the shortlist. That way several product groups that otherwise match the above-stated criteria of top exports, export growth and a Balassa index above 1 have been excluded from the analysis: pharmaceuticals (as a chemical industry), base metals (on environmental considerations), fabricated metal products (on both environmental grounds and the fact that the NACE Rev. 2 activity of Manufacturing of Fabricated Metal Products contains, among others, weapons), ores, slag and ash (on environmental grounds), salt, sulfur, earth, stone, plaster, lime and cement (on environmental grounds).

It is also worth noting that the above-mentioned **objective criteria** for selection have been complemented and tested against the research team's **subjective knowledge** of the region's economies. As a result, we have decided to include two export categories – *"Vehicles other than railway, tramway and parts thereof"* and *"Furniture, lighting, signs, prefabricated buildings"* that otherwise (i.e. based solely on strict following of the objective criteria) would not have qualified for the shortlist.

Comments

The broad Furniture category appeared to be marginal - it is widely present in the region (in 5 countries it ranks among the top 20 export categories), but it is not competitive in 3 of them, if we judge from the low Balassa indices. Only in Bosnia and Herzegovina and Serbia the Balassa competitiveness index is above 1; in Albania it is equal to 1, while in Macedonia and Kosovo it is below 1. The situation is similar

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[5] *Balassa, B., "Trade Liberalization and 'Revealed' Comparative Advantage", The Manchester School of Economic and Social Studies, 1965, Vol. 32, pp. 99-123:* *http://onlinelibrary.wiley.com/doi/10.1111/j.1467-9957.1965.tb00050.x/abstract*

with the category of *"Vehicles other than railway, tramway and parts thereof"* - it features among the top 20 export items in five countries, but has strong Balassa indices only in Serbia and Bosnia and Herzegovina; in Kosovo, Montenegro and Macedonia the Balassa index is <1.

Yet, one could use the argument that if those export categories are fairly competitive in Serbia and BiH, then they can well become more competitive with targeted support in the other Western Balkan countries, too. For background reasons automotive and manufacturing firms and individuals, engineers tend to cooperate across borders. Moreover, their importance for the exports of most WB countries makes them key for these economies. Last, but not least, the fact that FIAT opened a 1 bn euro refurbished car plant in the region's biggest economy - Serbia in 2012 with ambitions to export 160,000-200,000 cars per year makes the vehicle category one that carries a substantial growth potential for the future. One of the key factors for FIAT 2008 investment decision was not only the export potential, but also the human capital available at ZASTAVA factory in Kragujevac (by 2012, the factory work force increased by 10%).[6]

The situation with the category of *"Paper and paperboard, articles of pulp, paper and board"* is similar, as it is widely present among the top 20 export sectors (in 4 countries), but no country is showing a Balassa index above 1. In other words, the lack of comparative advantage for this product group in any of the WB countries suggests that there are no grounds for positive peer effects within the region, i.e. from one more competitive economy to a less competitive one. Yet, the category would be included conditionally in the shortlist of key sectors due to its being a member of the wider family of wood and wood-processing industries, which is obviously widely present in those countries and has some more competitive branches, too. Bearing this in mind, it is worth taking a closer look at it, particularly in a trade-flow analysis, due to its importance for the region's exports and its potential importance for intra-industry trade and regional value chains.

Finally, it is worth commenting on the various foods that Western Balkan countries export and also show comparative advantage. Even if some processed food categories meet all the objective criteria only for 1 or 2 countries in the region, such as "Meat, fish and seafood food preparations nes" or "Sugars and sugar confectionery", all these export categories can be classified as the output of *the food manufacturing industry*. Therefore, we have decided to include all these in our shortlist and further research as they are all a part of the wider food industry. To be precise, the export categories that correspond to the wider manufacturing of food products are as follows: *Cereals, flour, starch, milk preparations and products*; *Meat, fish and seafood food preparations nes*; *Vegetable, fruit, nut, etc food preparations*; *Miscellaneous edible preparations and Sugars and sugar confectionery*.

The two-stage methodology, described above, was applied both for exports of goods and export of services. As a result, the shortlist of sectors complies not only with the objective criteria, but also reflects subjective considerations of the type described above (i.e. potential positive peer effects, wider sectors of importance to the region, large-scale investment that sets the ground for future growth). As a result, the shortlist of key export categories for the Western Balkan region, according to the HS classification, and their corresponding economic activities according to the NACE breakdown (Rev. 1.1. and Rev. 2) looks the following way.

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[6] *For details, see Biljana Pekusic, "FIAT Investment Fuels New Questions", Southeast European Times, May 1, 2012.*

TABLE 3: TOP EXPORT CATEGORIES FOR THE WESTERN BALKAN REGION		
TOP EXPORT CATEGORIES (HS)	**NACE REV. 1.1**	**NACE REV. 2**
Export of Goods: Top Categories		
Footwear, gaiters and the like, parts thereof	**Subsection DC - 19.3.** Manufacture of footwear	**C15.2** - Manufacture of footwear
Wood and articles of wood, wood charcoal	**Subsection DD** Manufacture of wood and wood products	**C16** - Manufacture of wood and wood products
Articles of apparel, accessories, not knit or crochet	**Subsection DB - 18** Manufacture of wearing apparel; dressing and dyeing of fur	**C14** - Manufacture of wearing apparel
Articles of apparel, accessories, knit or crochet		
Edible fruit, nuts, peel of citrus fruit, melons	**Section A - 01.13** Growing of fruit, nuts, beverage and spice crops	**A** - **01.2** Growing of perennial crops
Edible vegetables and certain roots and tubers	**Section A - 01.12** Growing of vegetables, horticultural specialities and nursery products	**A** - **01.13** Growing of vegetables and melons, roots and tubers
Cereals, flour, starch, milk preparations and products	**Subsection DA 15** Manufacture of food products and beverages (DA 15.9 excluded)	**C10** - Manufacture of food products
Meat, fish and seafood food preparations nes		
Vegetable, fruit, nut, etc food preparations		
Miscellaneous edible preparations		
Sugars and sugar confectionery		
Furniture, lighting, signs, prefabricated buildings	**Subsection DN - 36** Manufacture of furniture; manufacturing n.e.c.	**C31 -** Manufacture of furniture
Vehicles other than railway or tramway rolling-stock, and parts and accessories thereof	**Subsection DM** 34 Manufacture of motor vehicles, trailers and semitrailers	**C29** - Manufacture of motor vehicles, trailers and semi-trailers
Paper and paperboard, articles of pulp, paper and board	**Subsection DE 21.12** Manufacture of paper and paperboard	**C17.1** - Manufacture of pulp, paper and paperboard
Export of Services: Top Categories		
Travel	**Section H** Hotels and restaurants	**I** - Accommodation and food service activities
ICT (Information and Communication Technology)	**Section K - 72** Computer and related activities + 64.2 Telecommunications	**J** - Information and communication
Construction Services	**Section K - 74.2** Architectural and engineering activities and related technical consultancy	**M71** - Architectural and engineering activities; technical testing and analysis

Source: IME

Conclusions

Of course, there is no perfect correspondence between the HS classification for foreign trade, on the one hand, and the NACE methodology, used for classification of economic activities (i.e. in national accounts, labor statistics, etc.), on the other. Nevertheless, we have applied a rough approximation between the

product/service categories according to the HS breakdown, and the economic activities that stand behind them according to the NACE breakdowns. As some Western Balkan countries use the NACE Rev. 1.1 methodology, others – the newer version of NACE Rev. 2 and third switch from one to the other during the period of analysis (2008-2012), we have applied the match-making process for both revisions of NACE.

For instance, export of wearing apparel (Articles of apparel, accessories, not knit or crochet; Articles of apparel, accessories, knit or crochet) corresponds to the following NACE activities: C14. Manufacture of wearing apparel (NACE Rev. 2) and DB17. Manufacture of wearing apparel, dressing and dying of fur (NACE Rev. 1.1.). Of course, some of the economic activities at the second-level breakdown are wider and may encompass other products, too. Yet, these other products typically have a lower contribution to the overall output of the sector, and a compromise could be made in the name of adapting the foreign trade data to the other (national accounts, labor market, etc.) statistics. We believe that even if this matching process between the two classifications is not absolutely precise, overall it serves the analytical purpose of identifying the key export-oriented sectors for the Western Balkan region as a whole.

Short-listing of key export-oriented sectors with growth potential for the region

Similarly to the first stage, the second stage of the selection process will apply a similar **mix of objective economic criteria and subjective judgment**, based on the knowledge of the research team of the region and its economic development in recent years. When working with statistics on the Western Balkans, one should bear in mind that the time series are often patchy (i.e. some years may be missing), data are published with a significant delay which far exceeds best European standards and Eurostat's practices (i.e. the latest annual data available may be for 2011, 2010 or even for 2009 for some countries and some indicators), while sector breakdowns may be available only at the highest level. All these data limitations require a degree of conditionality in any sort of sector analysis, undertaken with regard to these countries.

The objective criteria that will be used in the further short-listing of 3-5 key sectors with high potential for future growth are as follows:

Growing share of the sector's gross value added in the entire economy's gross value added over the period under study.

As the purpose of the analysis is to identify key sectors with growth potential, this criterion will help seed in such that demonstrate increasing importance for the local economies. We have compared the share of the sector in overall GVA for the economy in the last year with the first (i.e. base) year, for which data is available, but we have also considered its dynamics in between.

It is worth noting that while **the dynamics** of the share in overall GVA is used as a selection criterion, the underlying share of the sector in total GVA is deliberately excluded as a criterion. This exclusion was made on the grounds that the initial shortlist of the key export-oriented sectors included economic activities at different levels of the NACE breakdown.

Comments

For instance, the initial shortlist includes travel/tourism, which corresponds to the highest (grossest) level of NACE, while at the same time it also includes footwear, which is to be found in Subsection DC - 19.3. Manufacture of footwear (NACE Rev. 1.1.) or C 15.2 - Manufacture of footwear (NACE Rev. 2). Therefore, if we were looking at the share of the selected sectors in total GVA, we shall select only those bigger sectors (at the highest level of NACE breakdowns) and erroneously seed out all those that have a minor share due to their definition at a lower level. With this in mind, we believe that a growing share in total GVA would act as a more appropriate indicator that can help identify "champions" with good growth perspective for the future.

Share of gross value of the sector in the sector's output (in constant prices)

Basically, by using this criterion we are trying to pick up those sectors that in relative terms (i.e. in comparison to the other sectors) bring a higher value to the local economy. The formal benchmark that we have employed in distinguishing between "higher" and "lower" value added sectors is *a gross value added of above 50%* as percent of the sector's output in constant producer prices.

Comments

Interestingly, the Western Balkan economies show somewhat unexpected results when one analyses the value added of their strongest export industries. Sectors that are traditionally presumed to carry a relatively low value such as agriculture or manufacturing of apparel actually show a high degree of value added in most Western Balkan countries (for which data is available). This can be attributed to the relatively low wage levels in these economies (in comparison, for instance, to the rest of Europe) and the fact that this phenomenon is noticed in export-oriented industries that are labor intensive. In other words, low wage levels have enabled these economies to be externally competitive and at the same time, generate bigger value added in export-oriented, labor-intensive industries.

Serbia was the only country the national statistical office of which does not publish data on intermediate consumption, gross value added and output/production value for the sectors of its economy. Hence, it has been excluded from the analysis on the basis of this criterion.

Cumulative FDI inflows for the period under study

The Western Balkan region features a relatively low degree of internal savings, which have come short of investment demand over the transition period. The arising savings-investment gap has been filled with external capital inflows, which have spurred economic growth in the region[7]. Given the relatively lower income in these countries (in comparison to the EU, for instance) and the still-low savings rates, the chance for faster economic growth in the future would also depend on the ability of these economies to attract foreign savings, including investment and credit funds.

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[7] *See European Commission, "Western Balkans in Transition", Occasional Papers # 46, 2009:*
http://ec.europa.eu/economy_finance/publications/publication15155_en.pdf

Comments

While, in general, WB countries were lagging in FDI attraction at the beginning of the period,[8] the selected sectors – due to privatization, background factors and EU membership perspective – have demonstrated a relative good performance.

Thus, cumulative FDI for the period under study (2008-2012) provide an appropriate benchmark for spotting sectors that have the potential for future growth. More specifically, for each country we have highlighted those 5 sectors among the preselected shortlist of 12 sectors that have enjoyed the highest value of FDI inflows for the period under study. This relative criterion was chosen to reflect the different size of these economies and the different absolute volumes of FDI inflows to them. In other words, while a USD 70 mn inflow in a sector is a substantial value for Kosovo, it shows a rather unsatisfactory performance of the sector in the case of the much larger economy of Serbia.

Noteworthy, Montenegro's central bank does not compile and publish sectoral breakdown of its FDI data, hence this country has been excluded from the consideration of this criterion.

Number of employees and related criteria for the selected sectors

The criterion that we have applied is whether the number of employees in the selected sectors is growing or not over the examined period (2008-2012). The assumption that stands behind this criterion is the following: if a sector is growing and performing well, then it usually attracts more workers to it. This positive relation between sectoral growth and employment is stronger in labor-intensive industries, but is usually observed in less labor-intensive businesses, too.

The remaining indicators collected for the study – labor productivity, sector revenues, wages and number of companies – can hardly be used for selection of leading sectors with high potential for growth, exports and employment for the following reasons:

1) **Labor productivity** and its dynamics, in principle, could have acted as an appropriate indicator for judging what sectors are more productive or where productivity improves at a brisker pace, as fast productivity growth could serve as a basis for the sector's good performance in the future. Yet, in the case of Western Balkans statistics, labor productivity has been excluded as a criterion due to the fact that official statistics in most countries does not calculate labor productivity. We have attempted to overcome this shortcoming of official data and fill it with our own calculations by using the standard approach of dividing value added of the sector (in constant prices) by the number of employees. Yet, the results obtained that way do not appear to be reliable, as the agriculture sector in most cases shows labor productivity values, that in some countries turn out to be up to 10 times higher than those in other sectors. Those huge differences and the overall unreliability of the obtained data can be attributed to the large-scale informal economies in some sectors, particularly agriculture, where the number of formally registered employees is only a (small) part of all those that work in the sector.

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[8] *See again European Commission, "Western Balkans in Transition", Occasional Paper # 46, 2009, p. 37-39.*

For instance, in Kosovo agriculture is the largest employment sector, providing jobs for approximately 16.5% of the population, primarily on an informal basis[9]. According to the Statistical Office's Agricultural Household Survey 2005, the World Bank and Ministry of Agriculture the share of employees in the agricultural sector is approximately 53% of all employees in the economy[10]. For comparison, the official and latest labor force survey of the stat office (for 2009) estimates the share of those employed in the agricultural sector to be only 6.2% of all employees in the economy. In Macedonia the situation is similar, as the latest labor statistics (for 2011) puts the number of employed in the agricultural sector at 120 893, while the GDP and GVA data calculates the number for employed in agriculture to be roughly twice lower, at 60 509. The difference most likely comes from informal employment, the so-called "unpaid family workers" (some 45000) and part-time "unpaid family workers" (some 11000). Therefore, considering the inability of our calculation of labor productivity to account for informal workers, this indicator was left out of the short-listing methodology.

2) **In most Western Balkan countries revenues at sector level are not compiled** and published by the national statistics. Even if output data provides a good proxy for this indicator, we believe that value added is a more appropriate indicator for the sector's contribution to the economy and its importance for economic growth.

3) **Officially reported gross and net wages are heavily dependent on inflation, strength of labor unions, informal sectors, etc**. – i.e. if nominal wages are growing, that may be the result of rising productivity, inflation, strong unions that periodically demand wage rises or even efficient measures against the informal economy, which "bring to light" formerly shadow segments. As it is hard to discern among all these factors, we have decided not to include wages as a criterion for selection of leading sector. For instance, even if inflation is easily accounted for, if one deflates the nominal values, in some sectors where labor unions are relatively strong, nominal growth would follow closely the dynamics of inflation. In others, however, where labor unions are not present or less influential, wages may stay frozen for years, so deflating the nominal values would not be appropriate. Net wages carry further the shortcoming of reflecting tax changes (in addition to all the above-mentioned factors), hence controlling for these effects requires very good knowledge of the tax systems of all 6 countries and their development in the past 5 years.

4) **The number of companies in a sector is not indicative of the sector's potential for growth** and its performance due to the fact that one cannot distinguish between small, medium-sized and large companies. Thus, a falling net number of companies does not necessarily bode poorly for the sector's future, as this decline (hypothetically) may reflect the opening of 1 big company with 1000 employees and the closure of 5 SMEs companies with a total of 100 employees. Therefore,

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[9] *For more information, see GlobalEdge, http://globaledge.msu.edu/countries/kosovo/economy*

[10] *See, for instance, Study on the State of Agriculture in Five Applicant Countries: Kosovo, EC, 2006*
http://ec.europa.eu/agriculture/analysis/external/applicant/kosovo_en.pdf

the number of employees and its dynamics is much more indicative of the sector's development than the number of companies itself.

Overall conclusions

All the above four criteria (rising share in the economy's GVA, value added above 50% of production value, increasing number of employees and high cumulative FDI inflows for the period) carry an equal weight in the selection process. Similarly to the methodology employed in the first-stage short-listing on the base of export data, the second stage of the selection procedure also contains two steps:

1) Firstly, with regard to each criterion, we have highlighted those **sectors that comply with the particular criterion in at least 3 countries** in the Western Balkan region. For instance, if Manufacturing of Footwear shows rising share in total value added of the economy in at least 3 countries, then it is shortlisted according to this criterion. Thus, we have come up with a shortlist of sectors for each of the selection criteria. These shortlists look the following way:

CRITERION	SECTORS THAT MEET IT IN AT LEAST 3 WB COUNTRIES		COUNTRIES
	NACE REV. 1.1	**NACE REV. 2**	
Rising share in the economy's GVA over the period	**Section A**-Agriculture, hunting and forestry*	A - Agriculture, forestry and fishing*	Albania, Kosovo, Montenegro, Macedonia
	Subsection DC - 19.3. Manufacture of footwear	**C15.2** - Manufacture of footwear	Albania, Bosnia and Herzegovina, Kosovo
	Subsection DE 21.12 Manufacture of paper and paperboard	**C17.1** - Manufacture of pulp, paper and paperboard	Albania, Bosnia and Herzegovina,, Macedonia, Serbia
	Section H Hotels and restaurants	**I** - Accommodation and food service activities	Albania, Montenegro and Kosovo
Value added above 50% of output value (in constant prices)	**Section A**-Agriculture, hunting and forestry	**A** - Agriculture, forestry and fishing	Bosnia and Herzegovina (2008), Macedonia, Montenegro, Serbia
	Subsection DB - 18 Manufacture of wearing apparel; dressing and dyeing of fur	**C14** - Manufacture of wearing apparel	Albania, Bosnia and Herzegovina, Macedonia
	Section H Hotels and restaurants	**I** - Accommodation and food service activities	Albania, Bosnia and Herzegovina, Macedonia, Montenegro
	Section K - 72 Computer and related activities + 64.2	**J** - Information and communication	Albania, Bosnia and Herzegovina,

	Telecommunications		Montenegro
Rising number of employees over the period	**Section A**-Agriculture, hunting and forestry	**A** - Agriculture, forestry and fishing	Albania, Bosnia and Herzegovina, Montenegro
	Subsection DC - 19.3. Manufacture of footwear	**C15.2** - Manufacture of footwear	Albania, Bosnia and Herzegovina, Kosovo, Macedonia
	Subsection DN - 36 Manufacture of furniture; manufacturing NEC	**C31** - Manufacture of furniture	Albania, Bosnia and Herzegovina, Montenegro
	Section H Hotels and restaurants	**I** - Accommodation and food service activities	Albania, Bosnia and Herzegovina, Kosovo, Macedonia
	Section K - 72 Computer and related activities + 64.2 Telecommunications	**J** - Information and communication	Albania, Bosnia and Herzegovina, Kosovo, Macedonia, Serbia
Top 5 sectors in terms of cumulative FDI for the period	**Subsection DA 15** Manufacture of food products and beverages (DA 15.9 excluded)	**C10** - Manufacture of food products	Albania, Bosnia and Herzegovina, Macedonia, Serbia
	Subsection DM 34 Manufacture of motor vehicles, trailers and semitrailers	**C29** - Manufacture of motor vehicles, trailers and semi-trailers	Bosnia and Herzegovina, Macedonia, Serbia
	Section H Hotels and restaurants	**I** - Accommodation and food service activities	Albania, Bosnia and Herzegovina, Serbia
	Section K - 72 Computer and related activities + 64.2 Telecommunications	**J** - Information and communication	Albania, Bosnia and Herzegovina, Kosovo, Serbia

Source: IME

* Initially, using export data, we have shortlisted fruit and vegetables as being among the strongest export items for the region as a whole. Yet, the remained statistical data at sector level (national accounts, labor statistics, number of companies, etc) contains figures only at the highest level of Agriculture. Therefore, in this second stage of short-listing key sectors we have used data for this broader sector.

2) Secondly, we have **arranged the sectors by the number of criteria they comply with**. The reasoning behind this grouping process was to identify those sectors that meet as much of the selection criteria as possible. For instance, tourism demonstrates a growing share in total GVA, a

high value added as % of the production value, rising employment and high cumulative FDI for the period, which automatically makes it a "champion" and obviously a sector that carries the potential for future growth.

SECTOR		CRITERIA THAT IT MEETS IN AT LEAST 3 COUNTRIES
NACE REV. 1.1	**NACE REV. 2**	
Section H Hotels and restaurants	**I** - Accommodation and food service activities	1. Rising share in the economy's GVA 2. Value added above 50% of output value 3. Rising number of employees 4. Top 5 sectors in terms of cumulative FDI
Section K - 72 Computer and related activities + 64.2 Telecommunications	**J** - Information and communication	1. Value added above 50% of output value 2. Rising number of employees 3. Top 5 sectors in terms of cumulative FDI
Section A-Agriculture, hunting and forestry	A - Agriculture, forestry and fishing	1. Rising share in the economy's GVA 2. Value added above 50% of output value 3. Rising number of employees
Subsection DC - 19.3. Manufacture of footwear	**C15.2** - Manufacture of footwear	1. Rising share in the economy's GVA 2. Rising number of employees

Source: IME

Selected sectors: results

Overall, **tourism, ICT and agribusiness** fare best in terms of the second-stage selection criteria. Considering the result of the first-stage selection process, and namely that the fruit and vegetables performed best in terms of the export-related criteria, we can narrow down the wider agribusiness sector to *growing of fruit* and *growing of vegetables*.

Interestingly, **all the three shortlisted sectors show a relatively high value added** in comparison to the rest, as more than 50% of the output value is value added. All three also show a rising number of employees, which confirms their good performance in recent years that has resulted in attracting more labor. Tourism and ICT enjoy a relatively high inflow of FDI, too, which is no doubt a stepping stone for future growth of these sectors. Finally, tourism and agribusiness also show a growing share in the overall GVA of at least 3 economies in the Western Balkan region, which confirms their upward trend in the last few years, despite the global crisis and the ensuing painful recovery, which has taken its toll on the region, too.

These three top-performing sectors are followed by **footwear manufacturing**, which is of little surprise, given the traditions of the region and its external competitiveness in the output of this industry (due to the still-low price of labor in comparison to the rest of Europe). In contrast to footwear, the sector of

wearing apparel, the export of which has also benefited from cheap labor, has suffered a serious blow in the crisis and post-period, which has prevented it from qualifying among the top sectors.

Noteworthy, two sectors that did not qualify for the final shortlist – **food manufacturing**, and **manufacturing of vehicles and parts thereof** – have attracted a great deal of foreign direct investment in the past few years that may serve as a base for future growth. Food manufacturing has attracted substantial FDI in Albania, Bosnia and Herzegovina, Macedonia and Montenegro, while manufacturing of vehicles and vehicle parts is one of the top-5 FDI recipients in the three biggest economies of the region – Bosnia and Herzegovina, Macedonia and Serbia. Therefore, we believe that these two sectors also carry a good potential for expansion in the future.

Appendix – Statistical Sources

The analysis is based on statistics derived from the official statistical entities of different countries:

Republic of Bosnia and Herzegovina: Agency for Statistics of Bosnia and Herzegovina, Federal Office of Statistics for the Entity of Federation of Bosnia and Herzegovina, Institute of Statistics for the Entity of Republika Srpska, Central Bank of Bosnia and Herzegovina; **Republic of Serbia**: Statistical Office of the Republic of Serbia, National Bank of Serbia; **Republic of Macedonia**: State Statistical Office of the Republic of Macedonia, National Bank of the Republic of Macedonia; **Republic of Kosovo**: Central Bank of the Republic of Kosovo, Kosovo Agency of Statistics; **Republic of Albania**: Institute of Statistics (INSTAT), Bank of Albania; **Republic of Montenegro**: Statistical Office of Montenegro (MONSTAT), Central Bank of Montenegro; **International**: The World Bank, The International Monetary Fund, The United Nations, Eurostat, International Trade Centre, World Trade Organization and others.

The process of gathering data included several steps to insure the reliability of the analysis:

1) Data mining and data processing using available official data provided by the statistical entities of Western Balkan countries and international databases;
2) Verification of selected data sources by cross-checking the data with other national and international statistical publications and online databases;
3) Coordination and cooperation with local experts from the Western Balkans countries.

Attachment – Western Balkan Data

The results of this analysis are based on more than 16 000 data points, spread across 20 separate tables, attached to this report.