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## FOREIGN DIRECT INVESTMENT AS EXPORT FACILITATOR IN SERBIA'S APPAREL INDUSTRY<sup>1</sup>

Strana direktna ulaganja kao pokretač izvoza u  
srpskoj odevnoj industriji

### Abstract

The attraction of foreign direct investment, especially export oriented FDI has been one of the main economic policy goals for Serbia since the start of transition in 2001, backed by incentives for attracting this type of investment. The apparel industry is one sector that has drawn significant amount of FDI, and where the link between FDI and exports is emerging strongly, as confirmed by data presented in this article. Appearance of several multinational investors, particularly from Italy, led to positive spillovers on Serbian apparel industry in terms of specific products production and their export on foreign markets, especially "panty hose, tights, stockings & other hosiery, knitted or crocheted". In 2012, Serbia's exports for this product represented 1.8% of world exports, ranking Serbia 10<sup>th</sup> in the world and hence representing a rising niche export. Recent investments of big industry players like Benetton will have further positive effects on export and employment in years to come, provided that the government engages in activities to improve branding in addition to continued investment incentives and policies aimed at advancing infrastructure, education and general business climate.

**Key words:** *FDI, export, apparel industry, Serbia*

### Sažetak

Privlačenje stranih direktnih investicija, posebno izvozno usmerenih, jedan je od osnovnih ciljeva srpske ekonomske politike od početka tranzicije 2001. godine. Razni podsticaji su pruženi stranim investitorima da bi se odlučili baš za Srbiju kao odredište. Jedan od sektora koji je privukao veliki broj stranih direktnih investicija, posebno iz Italije, i gdje je sve vidljivija veza između SDI i izvoza, je odevna industrija Srbije. Investicije nekoliko multinacionalnih preduzeća u Srbiju podstakle su proi-

zvodnju specifičnih proizvoda i njihov izvoz na strana tržišta. Uticaj SDI na izvoz proizvoda odevne industrije se najbolje može videti kroz podatak da je Srbija u 2012. po izvozu čarapa zauzela 10. mesto u svetu, uz udeo od 1,8% u svetskom izvozu, što predstavlja izvozna nišu. Investicije velikih igrača kao što je Benetton, tek treba da daju pozitivne rezultate kada je izvoz i zapošljavanje u pitanju, uz dodatno angažovanje države radi unapređenja imidža zemlje i nastavak podsticaja investitorima i mera koje imaju za cilj unapređenje infrastrukture, obrazovanja i opšte poslovne klime.

**Cljučne reči:** *SDI, izvoz, odevna industrija, Srbija*

### Introduction

The attraction of foreign direct investment, especially export oriented FDI has been one of the main economic policy goals for Serbia since the start of transition in 2001, backed by incentives for attracting this type of investment. More than 12 billion Euros of foreign direct investments reached Serbia in the period between 2005 and 2010 [17] but the impact on export and economic development is yet to be researched. The apparel industry is one sector where the link between FDI and exports is emerging strongly and this link will be studied in further detail in this article.

The research methodology includes both literature review (presented below) and a field study of Serbian apparel industry conducted in March-June 2013. Following a review of primary sources such as Serbian trade statistics, Business

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Registry Agency data and world trade statistics – ITC and secondary market research, the information collected was used to formulate questionnaires for interviews with sector stakeholders, including manufacturers, associations/ clusters, relevant organisations, government officials and other sector experts. The questionnaires were designed to provide both quantitative and qualitative information and to encourage practical, timely and market-based recommendations from a total of 35 stakeholders. Field interviews were conducted both through direct interviews and focus groups, in several towns in Serbia, namely Ada, Arilje, Belgrade, Novi Pazar where there is a concentration of apparel producers. The companies were selected to allow for geographic and product diversity, while ensuring that subsector small and medium size enterprises (SME) leaders are included (list compiled of companies noted in previous studies and based on recommended by associations and peers). Key government officials, industry leaders and experts have also been interviewed. Only aggregate results are here presented to preserve anonymity of interviewees (*Note: This study was supported by the Swiss Economic Cooperation Office as a basis for further activities in promoting exports of Serbian apparel.*)

## Literature review

Several researchers have studied the role of foreign investment in transition countries and the government policy to attract FDI. *Roman and Padureanu* [16, p. 1] have shown that developing and emerging countries' priorities in last decades shifted towards international capital flows, as a complementary way to finance domestic economic growth. In their opinion Central and Eastern Europe countries seek foreign direct investments as a critical component to solving the capital deficit problem. *Lemi* underscores that in economies where domestic private investment is very low and where foreign capital is crucial to increase production/productivity and transfer technology, policy makers provide different forms of incentives to attract FDI [12, p. 3]. *Harding and Javorick* explain that policy makers believe that FDI can contribute to a foster economic growth by bringing additional capital, creating jobs, and transferring new technologies and know-how

across international borders. They also deduct from recent empirical evidence that FDI may also lead to positive productivity spillovers to local firms, particularly in the supplying industries [9, p. 3].

*Sultan* further indicates that FDI can promote exports of the host countries by enhancing the productivity and productive capacity of the host country by increasing capital stock, transfer of technology, managerial skills and upgrading the skills of the local workforce through training [21, p. 1]. He specifically stresses the importance of vertical FDI for export development:

“...If the motive for FDI is to reap the benefits of host country's comparative advantage so as to produce at relatively low cost, such investments are likely to promote trade and hence complement trade. Such FDI is called export oriented or vertical FDI” [21, p. 1].

United Nations Conference on Trade and Development in World Investment Report 2002 “Transnational Corporations and Export Competitiveness” confirms this, highlighting that FDI has both direct and indirect effect on host country's export. The direct effect refers to export by foreign affiliates themselves. The indirect effect includes spillover effect of multinational companies on local firms' export activities [22, p. 152].

*Kutan and Vuksic* consider that the positive supply capacity effects arise when FDI inflows increase the host country's production capacity, which, in turn, increase export supply potential. Such effects arise because the multinational company may have superior knowledge and technology, better information about export markets, or better contacts with the supply chain of the parent firm than local firms [11, p. 1]. The theory indicates that positive effects of inward FDI on a host country's exports may be expected when the host country and a home country have different factor intensities. In this case, the multinational enterprise (MNE) may outsource some segments of its production process to the host country and export these (intermediate) products back to the home country (as well as to other countries). Similarly, when the host country has a cost advantage and costs of trade are low (as compared to the trade costs of the home country), the host country may be used by the MNE as an export platform for serving its home market, as well as other markets.

*Lemi* [12, pp. 3-4] concurs that the positive spillover effects are benefits generated through the transfer of technology, managerial and marketing skills, and the network effect of marketing (through reduced costs of marketing to penetrate foreign markets following the footings of the affiliate firms' exports). The impact of FDI on a domestic firm's productivity is crucial for the host countries as domestic infant industries are expected to learn from foreign firms. *Aitken* [1, p. 2], [1, p. 12] has tested and confirmed two effects of foreign direct investment on domestic enterprises. The author used a panel of more than 4,000 Venezuelan plants between 1976 and 1989, deducing that increases in foreign equity participation was correlated with increases in productivity for recipient plants with less than 50 employees, suggesting that these plants benefit from the productive advantages of foreign owners.

One immediate channel for positive export spillovers is by domestic firms learning from the export activities of foreign subsidiaries in the host country through information externalities. Subsidiaries may have easier access to information on foreign markets because they form part of a multinational enterprise. Exporting involves fixed costs, such as the establishment of distribution networks, creation of transport infrastructures, investment in advertising to gain public exposure, research about the foreign market to gain intelligence on consumers' tastes, market structure, competitors, regulations and so on. These may be lower for MNEs as they already have knowledge and experience of operating in foreign markets and can benefit from network economies and know-how of managing the international marketing, distribution and servicing of their products. This information could spill over to domestic firms [6, p. 4].

*Sultan* points out that the export of a country is directly affected by FDI in the following two ways. First, FDI converts import-substituting industries to exporters. In many of the import substituting products like home appliances and automobiles products, FDI combines its advanced technology with the available cheap labour of the developing countries and produces and exports the products at internationally competitive prices. Second, FDI leads to exports of new labour-intensive final products.

By providing links to final buyers in different countries including the home country, FDI helps enhance exports of labour and technology intensive final products of the host countries [21, p. 2].

*Metwally* [14, p. 381] tests the relationship between FDI, export and economic growth in three countries, Egypt, Jordan and Oman, during the period from 1981 to 2000 by using a simultaneous equation model. The result suggests that the export of goods and services is strongly influenced by the inward FDI in these three countries. *Lipsey* demonstrates that one of the main contributions of inward direct investment in some cases has been to introduce new industries to a country or drastically change the composition of production [13, p. 5].

Similarly, *Castejon*, *Woerz* [3, p. 2] stress that the potential for positive spillovers does not solely depend on a country's overall absorptive capacity, but also on which sectors or industries in the economy receive FDI. Authors underline that the impact of FDI differs, depending on country specific absorptive capacity or stage of development as well as on the sectorial and industrial structure and allocation of FDI. *Ekholm et al.* [4, p. 5] highlight that effects of FDI on export will depend on the development level of technological and human capital of the domestic producers. One specific channel through which domestic firms may increase their productivity and export competitiveness in tradable goods and services industries is simply by copying the operations of the foreign producer. This may be facilitated by the mobility of workers previously trained in the MNE's affiliate. It is important to underscore that "FDI is not only from transnational companies; there are physical persons, investment funds or firms that are contributing to FDI flows. But transnational companies realize the majority of foreign direct investments especially by international mergers and acquisitions" [16, p. 2].

*Castejon* and *Woerz* arrive to an important conclusion that the effect of FDI in the same industry but in countries at different stages of development can be just as different as the effect of FDI in one country but in different industries. First of all, the results differ across individual industries. For a country's long-term prospects the type of industries receiving foreign capital is thus more significant than the aggregate amount of FDI flowing into a country [3, p. 8],

[3, p. 16]. They further caution that effects of FDI depend on many factors, notably the legal system, regulations, infrastructure, human capital endowments, and the complexity of the technology [3, p. 7]. If the host economy does not provide an adequate environment in terms of human capital, private and public infrastructure, legal environment and the like, many of the spillovers that may potentially arise from FDI cannot materialize [3, p. 8].

### Serbia's apparel industry development

In the past, the apparel industry accounted for a significant portion of production and exports of Serbia, amounting to USD 890.5 million in 1991 or 19% of total exports and employing 118,647 people. Nonetheless, in the first decade of the 2000s, the competition from low labour prices in Asia, combined with dilapidated technology in Serbia as a result of a decade of conflict and economic sanctions in the 1990s, led to a sharp decrease in the Serbian apparel production and exports. The industry dwindled to a third its size during the last decade of transition in terms of employment (or almost a sixth compared to 1991), first as a result of the privatization and restructuring process and then with the World Economic Crisis (employment fell by 26% between 2004 and 2006, and by another 16,2% which is 3,926 jobs lost since 2008 [20, p. 180]. Serbian apparel industry now employs 24,142 people in 1,054 companies and it generated USD 406 million exports in 2010 and USD 478 million exports in 2011 and it is expected to generate further exports based on new foreign investments (see Table 1 and Table 2). The EU and the Western Balkans market almost exclusively absorb the apparel exports of Serbia, which is the case for all the countries in the region [19, p. 189].

There are two main products in apparel as identified by world trade statistics: *Product: 61 Articles of apparel,*

**Table 1: Number of companies in apparel sector in Serbia – 2010\* (latest, 2012 data)**

	Total	Micro	Small	Medium	Large
Total	83787	72191	8958	2129	509
Manufacturing	17282	13486	2668	894	234
Manufacturing Textile	486	398	62	22	4
Manufacturing Apparel	1054	770	214	56	14

Source: [19, p. 189]

\* Micro = up to ten employees, Small = up to 50 employees, Medium = up to 250 employees, Large = more than 250 employees.

*accessories, knit or crochet* and *Product: 62 Articles of apparel, accessories, not knit or crochet* (see Table 3). Serbia's exports represent only 0.2% of world exports for product 61 according to the most recent 2012 data, and its ranking in world exports is 51. Top five export destinations in this category are Italy, Germany, Romania, Bosnia and Herzegovina and the Netherlands. The most exported product in this category falls under code 6115 *Panty hose, tights, stockings & other hosiery, knitted or crocheted*. In 2010, the export in this subcategory was almost 190 million USD, rising to 227.8 million USD in 2012. Serbia's exports for this product (6115) represent 1.8% of world exports, ranking 10<sup>th</sup> in the world, and hence representing a niche export. Most of the hosiery production derives from Italian investment. In 2012 top five export destinations in this category were Italy, Russian Federation, Germany, Croatia and Romania [8].

Similarly, Serbia's export represents only 0.1% of world exports for product 62, and its ranking in world exports is 64. Top five export destinations in this category are Germany, Italy, France, Bosnia and Herzegovina and Montenegro. These five countries were the top export destinations in 2012. The most exported product in this category falls under HS code 6203 *Men's suits, jackets, trousers etc. & shorts*. In 2010, the export of this subcategory of product had value of almost 36 million USD, rising to 41.8 million USD in 2012 [8]. This was the key source of exports in the past and now part of LOHN business (two large public enterprises that still operate are Prvi maj that is mainly involved in LOHN and Yumco that also produces publicly procured uniforms, etc., in addition to SMEs in this sector), as well as bigger producers that have emerged since the 1990s, namely Mona, Zekstra, Luna, AMC, Nicolas, TFY, PS Fashion, Eminent, Beba Kids, Exit, Stig.

The World economic crisis has affected the Serbian apparel sector two-fold. On one hand, the markets have become even more demanding in terms of price and hence

**Table 2: Number of employees in apparel sector in Serbia**

	2008	2009	2010
Manufacturing	360036	329491	345719
Manufacturing Textile	7412	6809	8178
Manufacturing Apparel	24142	22271	21743

Source: [19, p. 191]

cost cutting, with power purchase decreasing both in the immediate region and EU markets. As a result most companies decreased the number of staff and decreased salaries – or at least officially, returning in part to grey market with underreported staff and salaries. The cost pressure has rendered these companies even more sensitive to increased government charges, especially at local level. Many have stopped or decreased planned investments in enhanced capacities, new collections or certification, and almost all have reduced or even eliminated their marketing budgets. Clearly, such constraints are preventing companies from moving up the value chain to produce higher value

added products. On the other hand, there is also a trend of some foreign, principally Italian garment producers relocating Serbia and although these are generally lower market brands they are contributing to employment and exports in the sector.

The key opportunity for Serbian apparel industry today is its flexibility to produce small orders efficiently, with short lead times due to proximity to markets and fabric producers and efficient transport and logistics linkages, coupled with a favourable trade regime (duty free access to EU, Central European Free Trade Area – CEFTA, etc.) and relatively low production costs for Europe of 0.09 EUR per

**Table 3: List of products exported by Serbia**  
**Product group: Apparel HS Code 61 and 62**

Code	Product label	Exported value in 2008	Exported value in 2009	Exported value in 2010	Exported value in 2011	Exported value in 2012
'6115	Panty hose, tights, stockings & other hosiery, knitted or crocheted	203504	186971	189944	210318	227890
'6110	Jerseys, pullovers, cardigans, etc, knitted or crocheted	11625	9262	9851	16002	26435
'6109	T-shirts, singlets and other vests, knitted or crocheted	32646	33070	29824	28878	22402
'6108	Women's slips, panties, pyjamas, bathrobes etc, knitted/crocheted	17481	16932	17465	18240	18855
'6104	Women's suits, dresses, skirt etc & short, knit/croch	4857	3623	5195	9107	18081
'6107	Men's underpants, pyjamas, bathrobes etc, knit/croch	4969	4380	4803	6552	6732
'6112	Track suits, ski suits and swimwear, knitted or crocheted	3107	2886	1997	3256	5046
'6114	Garments, knitted or crocheted, nes	2641	1770	2159	2095	2078
'6117	Clothing accessories, knitted/croch	2556	1702	1237	1675	1800
'6106	Women's blouses & shirts, knitted or crocheted	2245	1365	3187	863	977
'6103	Men's suits, jackets, trousers etc & shorts, knit/croch	1262	1280	555	535	623
Code	Product label	Exported value in 2008	Exported value in 2009	Exported value in 2010	Exported value in 2011	Exported value in 2012
'6203	Men's suits, jackets, trousers etc & shorts	55753	38133	35774	46352	41868
'6204	Women's suits, jackets, dresses skirts etc & shorts	57693	34253	29770	38973	36535
'6212	Brassieres, girdles, corsets, braces, suspenders etc & parts	21433	14904	15126	17876	28646
'6206	Women's blouses & shirts	11886	10005	9788	12707	13972
'6202	Women's overcoats, capes, wind-jackets etc o/t those of hd 62.04	13717	7951	9708	13417	9403
'6205	Men's shirts	9979	6389	6129	8265	7837
'6211	Track suits, ski suits and swimwear; other garments	9175	11520	7910	8397	7345
'6210	Garment made up of fabric of heading no 56.02,56.03,59.03,59.06/59.07	54170	125657	3570	9784	6370
'6201	Men's overcoats, capes, wind jackets etc o/t those of hd 62.03	6865	4486	8308	7820	4705
'6208	Women's singlets, slips, briefs, pyjamas, bathrobes etc	4780	3316	2777	3322	3182
'6207	Men's singlets, briefs, pyjamas, bathrobes etc	5033	2763	2793	2994	2731
'6214	Shawls, scarves, mufflers, mantillas, etc	2333	1706	1900	2442	1639
'6209	Babies' garments and clothing accessories	1373	919	838	1256	968
'6215	Ties, bow ties and cravats	1937	843	635	890	679
'6217	Clothing accessories nes; o/t of hd 62.12	549	356	522	270	553
'6216	Gloves, mittens and mitts	165	161	177	268	227
'6213	Handkerchiefs	39	70	71	38	223

Sources: ITC calculations based on COMTRADE statistics until January 2012 and ITC calculations based on Statistical Office of the Republic of Serbia statistics since January 2012 [8]. Unit: US Dollar thousand

minute, with even lower rates reported by many surveyed companies of 0.06 and 0.007 EUR per minute. The average gross monthly salary in Serbia's apparel sector is 265 EUR [19, p. 62], with higher salaries of 350-400 EUR reported in knitwear subsector and lower than average salaries of around 200 EUR reported in other subsectors and South Serbia, i.e. Leskovac region), as confirmed by field research.

Moreover, Serbian companies' competitive advantages include design, full package and private label capabilities, as well as ability to offer collections to customers, with reliable, high quality production. The quality of apparel labour force is a current strength, but also a threat if the education system does not quickly reform to adapt to market needs. There are many local technical schools that have textile programs and universities that teach relevant skills such as design or chemical engineering but they have not aligned their curricula to market needs and education and industry have initiated some modest forms of cooperation to bridge this gap. Management skills for apparel industry could also be enhanced with further trainings as well as improved organizational structure.

While Serbia has traditionally cooperated with many foreign partners and has been one of the leading garment manufacturers for high selling brands (clients have included Zara, Mango, Benetton, Hugo Boss and many more), its goal should be to move from semi-finished production (cut-make-trim – CMT) to full package whenever possible (which has occurred in great part simply because CMT operations moved to Asia) and then to export of branded collections. One way to achieve this is to improve the quality of current apparel production, and another is to attract more foreign investment. The latter has already proved beneficial for Serbian exports since stockings now dominate exports as noted above, as a result of several Italian investments (Pompea, Golden Lady), as well as one local brand Rang. Another key investment is one of Benetton, which has contributed to greater employment, as well as expected future export growth.

It can be concluded that Serbia is a relatively inexpensive country for labour-intensive activities in Europe, especially apparel production. According to Organisation for economic cooperation and development – OECD, Serbia's productivity is also increasing as a result of

privatisation, new investments and restructuring that led to shedding of a considerable amount of labour as noted above: "Assuming that output remains the same, Serbia can expect brisk productivity increases in the future in the textile and apparel industries" [15]. Increasing foreign investments in the sector, which bring new technology and skills, and hence higher productivity levels, further substantiate this optimistic forecast.

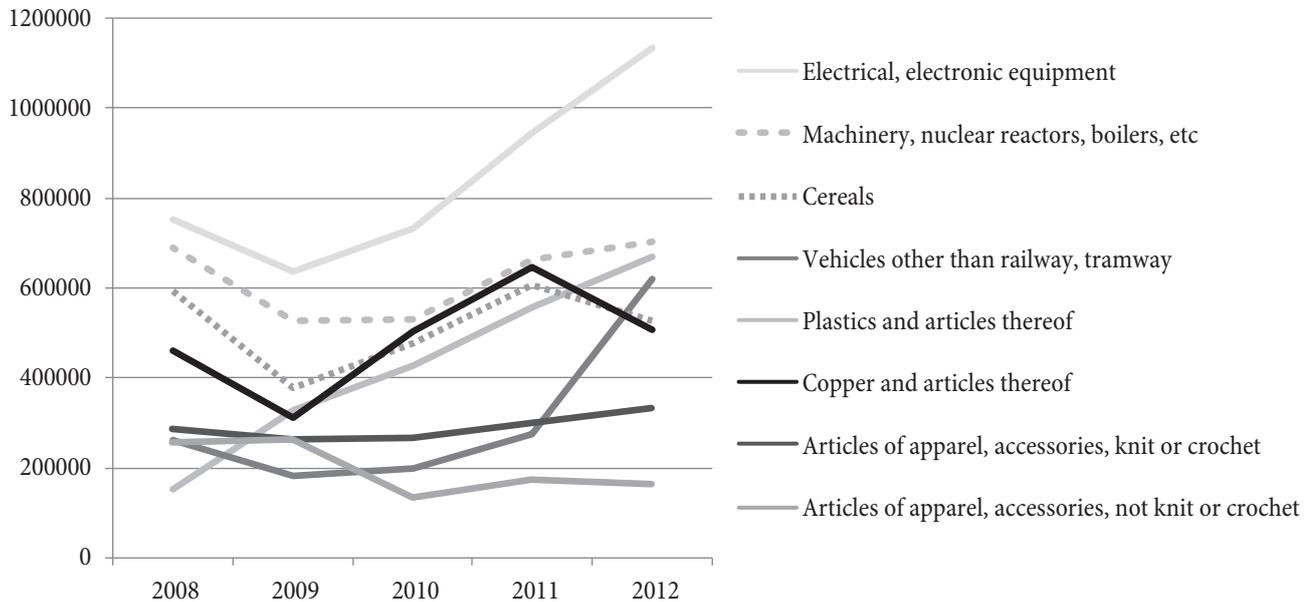
## Production and exports figures

In 2012, apparel products (HS codes 61 and 62) in Serbia were the twelfth (61) and twenty-second (62) largest HS two-digit categories, representing 4.1% of total exports in 2010 and reaching USD 403.3 million. The country had a trade surplus in apparel industry of USD 131.6 million in 2010. In 2012 export for category 61 reached around USD 333.6 million, while export for category 62 in 2012 was around USD 167 million – totalling USD 500 million. This high export growth is attributed to foreign direct investment in this subsector of the apparel industry. Apparel, overall, has exhibited steady growth as shown in Figure 1.

Serbia's exports are almost exclusively to European countries. In 2012 the top destinations were in Europe and most were EU Member States, followed by CEFTA countries. The revealed comparative advantage of the apparel manufacturing industry in Serbia in 2007 was 2.6, indicating that the country has an advantage in apparel exports to the EU compared with the other Western Balkan economies. According to a World Bank study: "Serbia also appears to be improving its comparative advantage relative to the EU market: in the past few years the RCA [revealed comparative advantage] has gradually increased, indicating that apparel manufacturing firms are taking advantage of their advantages to supply European markets" [25].

As shown in Table 4, top five export destinations for category 61 in 2012 were: Italy, Russian Federation, Germany, Croatia, and Romania (see Figure 2). Italy is the primary export destination, and not coincidentally this is also the country of origin of the greatest FDI in apparel industry in Serbia. For category 62 top five export countries were: Germany, Italy, France, Bosnia and Herzegovina and Montenegro (see Table 5 and Figure 3).

Figure 1: List of products exported by Serbia



Sources: ITC calculations based on COMTRADE statistics until January 2012 and ITC calculations based on Statistical Office of the Republic of Serbia statistics since January 2012 [8]. Unit: US Dollar thousand

As succinctly concluded in a study done by USAID: The apparel sector had traditionally provided a large amount of Serbian jobs and exports. Prior to sanctions, Serbian companies produced garments for a wide range of US and Western European companies. Production was mostly conducted on a cut-make-trim (CMT) basis, where the materials are imported and only labour is added before re-export. Though Serbia was able to compete in these markets at the time, it was not high-value work. During the time of the sanctions, the global situation changed radically. With China becoming a major trading powerhouse, mass markets have been swamped with very-

low-cost apparel. Serbia struggled to compete over the long run in this market. Jobs and exports dropped and firms were put at serious risk [23, p. 27].

Notably, since the trade liberalisation in 2001 it has become more profitable for many Serbian companies to import from Asia than to produce, which was even openly stated by one of the interviewed companies which shifted its business to less production and more imports although it had already made an investment into garment production. This explains in great part the disappearance of almost two thirds of the industry. On the other hand, imports are also a saturated business, and a competitive

Table 4: List of importing markets for a product exported by Serbia  
Product: 61 Articles of apparel, accessories, knit or crochet

Importers	Exported value in 2008	Exported value in 2009	Exported value in 2010	Exported value in 2011	Exported value in 2012
World	288811	265166	267589	300140	333566
1 Italy	183901	169814	168663	170924	151262
2 Russian Federation	251	122	731	761	58446
3 Germany	48855	47162	45910	58481	53191
4 Croatia	2080	1869	1387	2815	14410
5 Romania	5359	7065	11438	17710	12514
6 Bosnia and Herzegovina	12044	10579	10044	8900	7896
7 Montenegro	11794	7524	5864	6648	7643
8 Netherlands	5689	5363	8275	12204	7020
9 France	3220	2438	4640	5026	3814
10 Slovakia	1023	70	298	2661	2893

Sources: ITC calculations based on COMTRADE statistics until January 2012 and ITC calculations based on Statistical Office of the Republic of Serbia statistics since January 2012 [8]. Unit: US Dollar thousand

**Table 5: List of importing markets for a product exported by Serbia  
Product: 62 Articles of apparel, accessories, not knit or crochet**

Importers	Exported value in 2008	Exported value in 2009	Exported value in 2010	Exported value in 2011	Exported value in 2012
World	256879	263432	135796	175072	166884
1 Germany	50999	39247	39173	46269	44180
2 Italy	46719	26794	29458	36633	42523
3 France	20963	17294	14721	17720	18332
4 Bosnia and Herzegovina	11478	9506	10701	9668	9270
5 Montenegro	20866	10863	8890	8709	8736
6 Austria	6270	7773	7076	9503	8370
7 Slovenia	9990	7222	6759	7017	5609
8 China	731	1134	997	2598	2658
9 Poland	357	81	2367	4116	2504
10 Greece	4362	3825	2242	1585	2488

Sources: ITC calculations based on COMTRADE statistics until January 2012 and ITC calculations based on Statistical Office of the Republic of Serbia statistics since January 2012 [8]. Unit: US Dollar thousand

advantage of Serbia compared to Western Europe is attracting new investments and new source of growth for the apparel sector.

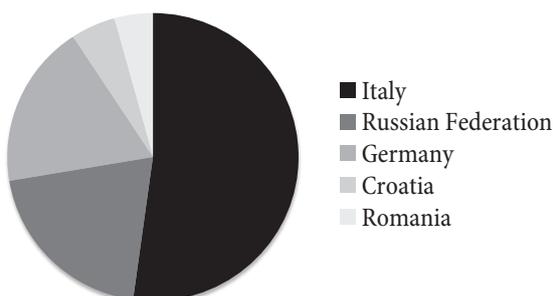
The value-added of the Serbian apparel manufacturing industry has been about 1% of the industry total since 2004, falling since 2008 as a result of the World economic crisis, and experiencing moderate growth in 2011[2], which can only be attributed to foreign investments in the sector (see Table 6 and Table 7).

Our research identified a number of obstacles that should be tackled to improve competitiveness of Serbian apparel industry. First, while the infrastructure in Serbia is relatively satisfactory, it should be improved to enable further cost competitiveness since the railways and Danube shipping are so dilapidated that they are not used, and while some parts of the country have better road infrastructure and access to cargo airports (especially in

vicinity of Belgrade and Nis), Southwest part of Serbia has poor roads with a five-hour drive to Belgrade and the North of the country which connects Serbia with rest of European corridors. Energy is generally not an issue but there are electricity shortages that lead to waste, and some SMEs have been forced by the public electricity provider to invest into a transformer that becomes public property and is used for street lighting in addition to supplying electricity to the plant. The border management has improved, especially in the North allowing for efficient border crossing (once paperwork properly completed) but borders in the Southwest are particularly porous, allowing for unregulated trade, which is both a source of underreported exports and irregular imports.

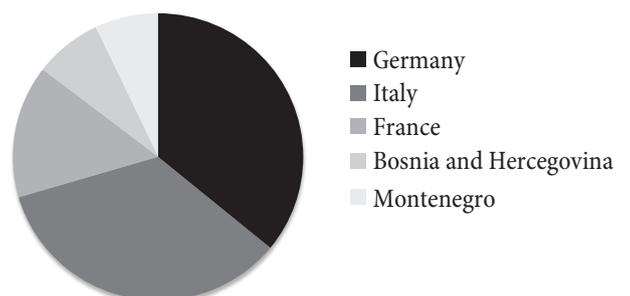
Serbia's small and medium size apparel producers complain of increasing and unpredictable government charges, complicated customs procedures (significant

**Figure 2: Top five importing markets for product 61' exported by Serbia in 2012**



Sources: ITC calculations based on COMTRADE statistics until January 2012 and ITC calculations based on Statistical Office of the Republic of Serbia statistics since January 2012 [8]

**Figure 3: Top five importing markets for product 62' exported by Serbia in 2012**



Sources: ITC calculations based on COMTRADE statistics until January 2012 and ITC calculations based on Statistical Office of the Republic of Serbia statistics since January 2012 [8]

**Table 6: Industrial products in Serbia, 2010 and 2011**

Manufacture of Textiles	Total 2010	Total 2011	Manufacture of Apparel	Total 2010	Total 2011
Cotton yarn, tons	1016	828	Leather clothing, thous. units	12	10
Woolen yarn, tons	33	24	Working clothing, thous. units	965	1021
Cotton fabrics, thousa sq m	8797	6019	Other clothing, thous. units	1579	2107
Woolen fabrics, thous. sq m	7	3	Underwear, thous. units	9534	8427
Household underwear, thous. sq m	966	834	<b>Hosiery, thous. pairs</b>	<b>200746</b>	<b>226395</b>
Carpets and floor coverings, thous. sq m	6430	5437			

Source: [19, p. 230]

amount of paperwork, difficulty in re-exporting procedures) and expensive access to finance. They acknowledge but do not seem to highly value assistance received in terms of grants for new employees distributed mainly in 2011 and inexpensive land available for those who decided to build plants in local industrial zones; instead, garment company managers are generally bitter and state to have insufficient support and increasing burden from the government. In terms of assistance, they are looking for good agents and direct contacts with buyers and distributors rather than general attendance in trade fairs without such prepared meetings. Certification does not seem to be required since most of the raw materials are imported (around 90%) and this is only an issue with some jeans producers whose buyers sometimes seek guarantees that environmental protection is ensured in processing, especially in dyeing, stone wash and sandblasting. As a result, most apparel producers consider quality standards too expensive and not worth the investment; several who have obtained ISO standard in the past do not plan to get recertified and only more successful companies developing own brands wish to introduce ISO.

At present, the apparel industry of Serbia has many unemployed textile workers, predominantly women, who lost their jobs through the privatization process. Sewers and technicians are educated in specialized secondary schools, evenly spread throughout the country while higher levels of education at specialized vocational schools

and universities offer post-graduate education in related fields such as textile technology, fashion design, apparel technology, and management in the textile industry. Nonetheless, the surveyed companies claim that they need at least three months and often up to one year to fully train staff to use the new machinery (on-the-job training) and that there is a skills gap between what is taught in vocational high schools and what is required at workplace, mainly related to new technologies. The higher education also has some deficiencies, for instance producing designers who are artistic and creative but have insufficient knowledge of how the design could be used in the production process to produce a certain garment.

There are very few links between the education and business sector, with some positive examples emerging. For instance, one of the knitwear companies in Ada has established cooperation with the local technical high school, organizing seminars with a visiting lecturer from a German factory producing top knitwear machinery, who has been training both company employees and students based on new programs and machinery, with one machine physically located at the Ada technical high school. Another company from Novi Pazar has provided scholarships for two designers to attend the University of Novi Pazar, while the Novi Pazar jeans cluster ASSTEX also emphasizes cooperation with the local university since it has introduced programs relevant for this industry – textile and chemistry study programs (latter important

**Table 7: Value added structure, 2010**

	Value added at factor costs		Personnel costs		Gross operating surplus
	mil. RSD	%	mil. RSD	%	mil. RSD
Total	1.373,900	100	699,655	100	674,245
Manufacturing	399,389	29.1	229,170	32.7	170,219
Manufacturing Textile	4,533	0.3	3,448	0.5	1,085
Manufacturing Apparel	12,069	<b>0.9</b>	8,258	1.2	3,811

Source: [19, p. 186]

for the jeans dying process). Several companies from Arilje attested to have appreciated trainings for improvement of production supported by the German aid agency GIZ, while companies from Novi Pazar equally praised the trainings organized by USAID for the local apparel sector. Since such compliments are rare among managers of small and medium size enterprises in Serbia it could be concluded that the recognition of the value of these skills is genuine.

According to the Serbian Investment and Export Promotion Agency – SIEPA, the state of technological modernization in domestic textile enterprises is as diverse as the products themselves. High-level technological modernization is present in medium and large privately owned enterprises, which constantly introduce new machines and have begun introducing computer-aided systems for product design and production control. The machinery used is predominantly imported from Italy, Germany, and Japan and on average is less than 10 years old. The use of computerized systems for product manufacturing in small and medium sized companies is a positive sign of recovery and further promotes a dominant role of

these companies in the overall industry. Socially owned enterprises, however, have machines, which are on average 10 to 30 years old. In these enterprises many operations within production lines are done manually [18, p. 9].

Surveyed companies in knitwear production and jeans production report a medium to high level of technology (for instance, many of the companies use Syrix, M1plus programming; large ZSK machines for embroidery, knitting machinery from Japan – Shima Sheik and German Stoll, German sewing machines, Turkish also, iron is Alberto Angelli, Gerber for jeans, etc.), and the same stands for new Italian investors producing stockings, while other apparel producers report low to medium level of technology. Interviewed companies across the board consider technology to be “very important” and new investments tend to be investments in technology, with some investments in new, enlarged production space and seldom investments made in other areas such as certification or promotion.

Figure 4 maps the Serbian apparel sector, accompanied by SWOT analysis presented in Table 8.

Figure 4: Serbian apparel sector mapping

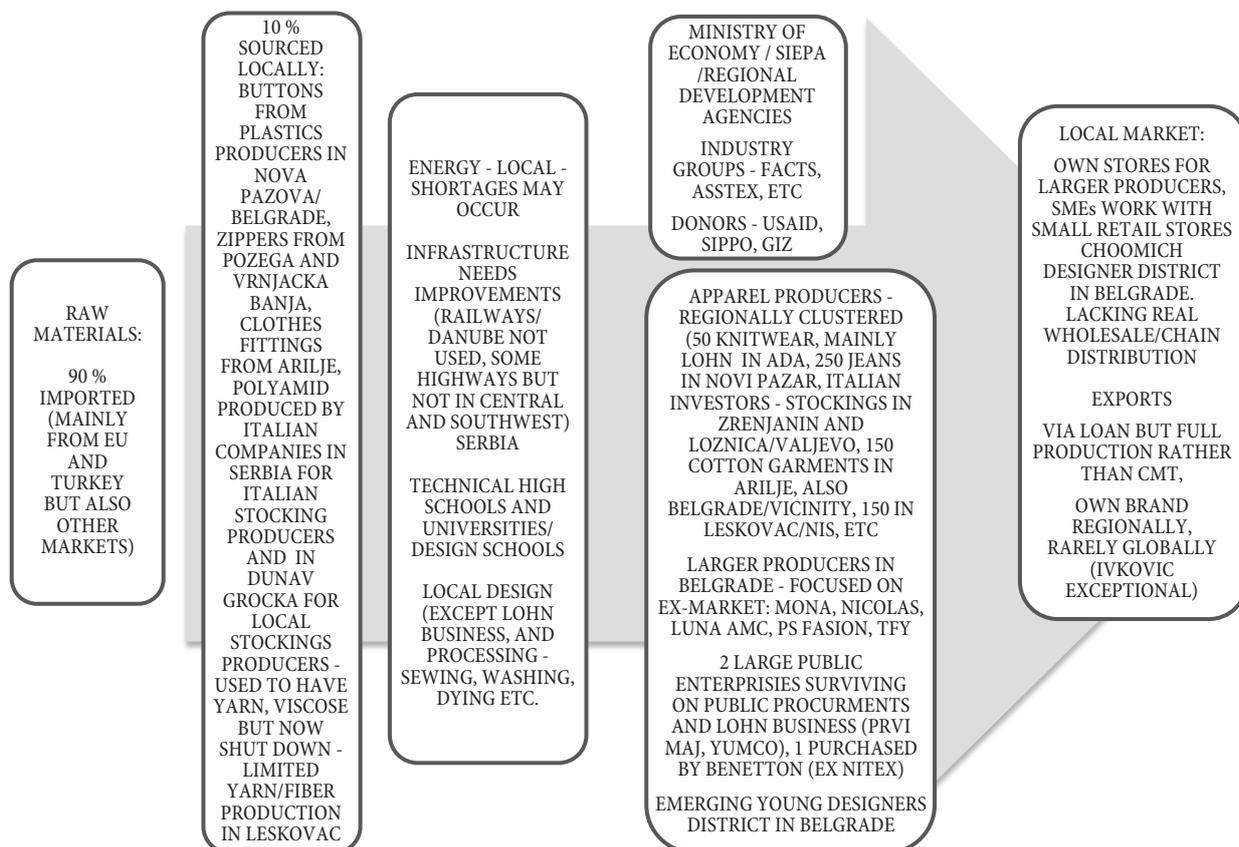


Table 8: SWOT analysis of Serbian apparel industry

Strengths	TREND
Low cost skilled labor force	↓
Quality manufacturing (tailor made not mass production)	–
Flexibility in manufacturing (small scale production possible)	↑
Competitiveness in price and controlled expenses – one production minute in EUR without transport costs – 0.08-0.09 (Weiss Consulting Assoc. GmbH)	–
Strong tradition of textiles sector in Serbia	–
Geographic proximity to export markets (region and the EU) – quick delivery, transportation costs according to SIEPA 0.23 EUR per garment	–
Textiles agreement with the EU, CEFTA and a Free Trade Agreement with Russia, Turkey, etc.	–
Development of SME sector (some becoming more competitive and some closing after crisis)	–
Weaknesses	TREND
Gaps in pattern making and marketing – non existence of Serbian brand identity	↑
Highly dependent on imported fabrics (cotton, denim, wool) 90% of raw materials are imported, no or symbolic local production of quality raw materials, EURO 1 regulation demands – at least 70% of resources must be either local or EU origin	↓
High fixed costs (inadequate exploitation of large production capacity) higher than competitors	–
Serbia is not an EU member	↑
Government is slow to adapt to the needs of exporters	↓
16% large companies in social ownership-unprepared to compete with private companies (Jefferson Institute) [10]	↓
State-owned companies have old machinery 10-30 years old, too many employees, inefficient, price is not competitive, need for reconstruction and restructuring (Jefferson Institute) [10]	–
Low profit margins	↓
Rigid Labour Law	↓
Lack of Euro customs certification/skills in many companies	–
Expensive financing	–
Low level of cooperation both within industry and with government; low donor activity	–
Opportunities	TREND
Export to EU market (already exporting 70%) and Russia, as well as other markets with free trade access such as Belarus, Kazakhstan, Turkey...	↑
Secondary sources of high quality apparel for European retailers	–
Margins can be higher if logistics and quality needs can be met for full package market at the higher end	↑
Wage growth in central and eastern Europe countries increased prices in textile and garment – opportunity for Serbia	↑
Tax incentives and government funds to support industry growth, government incentives for exports	↓
Strategic partnerships with EU companies – easier access to market, better distribution channels	↑
Increased FDI in Serbian apparel industry	↑
Additional knowledge relative to design and more links between producers and designers	↑
Competitiveness through better operational procedures (some trainings held with support of donors)	↑
Branding strategies	–
Implementation of new technology in order to enhance productivity, quality and sophistication	↑
Improved access to finance can become a source for growth	↓
Better country branding and more assistance with marketing of Serbian garment brands is key to higher value added exports	–
More open public procurement could be a source of growth	–
Threats	TREND
Fewer foreign investors in textiles and apparel than in other major industries	–
Grey economy – more than 2,000 unregistered micro garment companies – mostly operating as home businesses. (SIEPA)	↓
Insufficient business linkages with foreign companies	–
Expensive commercial lending and red tape	↓
Strong global competition and continued imports of low quality and price products into domestic market (Turkey, China)	–
Labour cost increase	↓
Increased burden in terms of various government, especially local charges	↓
Some garment producers are relying on one partner and need to diversify to hedge risks	–

↑ = IMPROVING    – = UNCHANGED    ↓ = WORSENING

### Foreign direct investment in Serbia’s apparel industry

Foreign Direct Investment (FDI) inflows into the apparel industry in 2007 were EUR 4.8 million, or about 3% of total FDI inflows into Serbia, down from a peak of almost EUR 8 million in 2006. Total FDI inflow in Serbia from 2003 to 2011 showed that FDI reached its peak in 2006 with 3.4 billion EUR investments in that year (see Figure 5). Henceforth the FDI inflow decreased for four consecutive years. The first recovery and increase was seen in 2011 when FDI were around 2 billion EUR. The year-on-year growth rate indicates that FDI inflows into the apparel manufacturing industry are increasing: the compound annual growth rate (CAGR) between 2004 and 2007 was 53%, and this trend continued after 2009.

The largest foreign investors in textile industry are: Calzedonia, Pompea, Golden Lady, Falke and Benetton.

In document “Foreign Investments in Eastern Serbia 2011” [17], it is cited that Italy invested around 2.3 billion EUR in Serbian textile industry, thus ranking first among foreign investors in Serbia’s textile industry. Germany is on the second place with around 780 million EUR of investment in the sector.

If we analyse FDI inflow in the sector of “textile, apparel, leather and related products” we find that around 160 EUR million was invested in Serbia from 2007 to 2011

(see Figure 6). FDI in this sector peaked in in 2007 (54 million EUR), decreasing in 2008-2010 but then rising again. In 2011, FDI in textile industry amounted to 21.8 EUR million [7, p. 124].

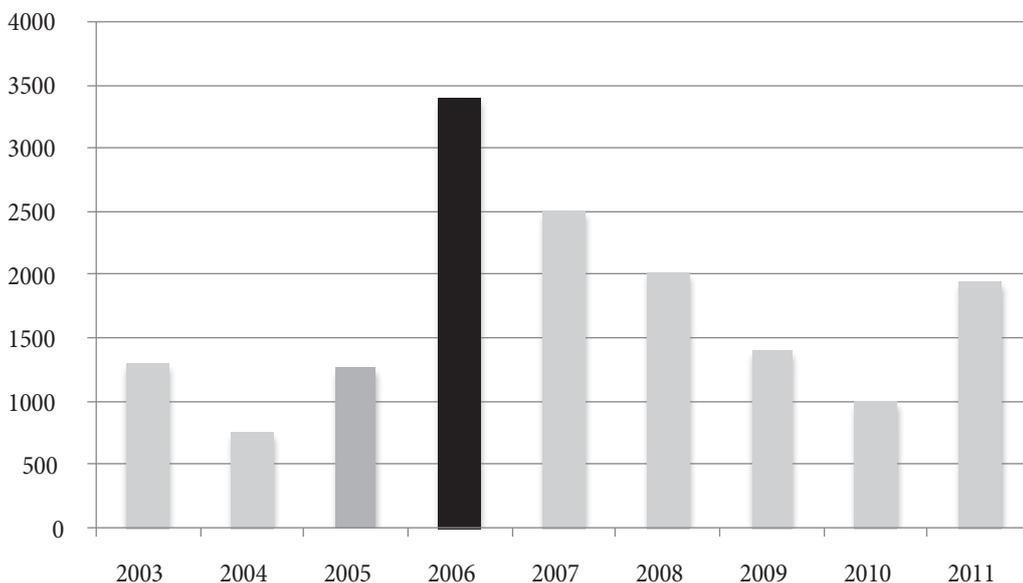
If we juxtapose the FDI in Serbia’s textile industry to export of apparel, we see a strong correlation, presented in Figure 7.

### Conclusion: Apparel competitiveness prospects for Serbia

OECD considers the apparel-manufacturing sector to be “undeniably attractive in the Western Balkans. This region is increasingly becoming a key location for the production of fast fashion and replenishable products for European markets and is of interest retailers and buyers looking to spread their sourcing activities across several geographic areas to reduce political and economic risk. For these reasons, the region can be expected to have a strong industry for quite a few years into the future. An advantage for this sector in the Western Balkans is its strong regional presence, including high export values, respectable levels of foreign direct investment and a large percentage of output, as well as competitive labour costs and close proximity to EU markets” [15, p. 50].

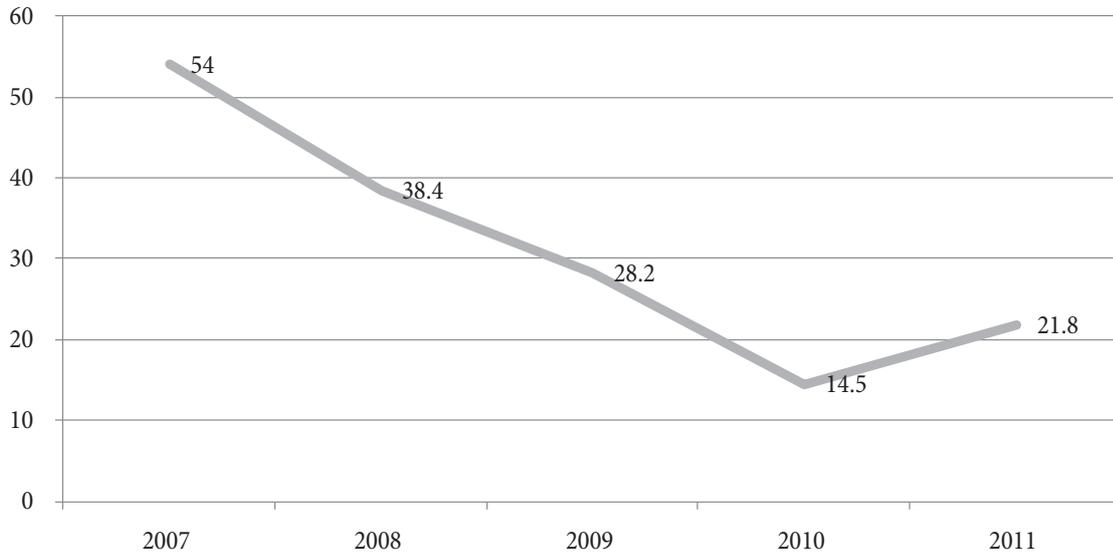
We concur with the World Bank consideration that, because of the close economic linkages, the Western Balkan

Figure 5: FDI inflow in Serbia in EUR million



Source: [7, p. 124]

**Figure 6: FDI inflow by economic activity: Textiles, apparel, leather, related products, 2007-2011 (EUR million)**



Source: [7, p. 124]

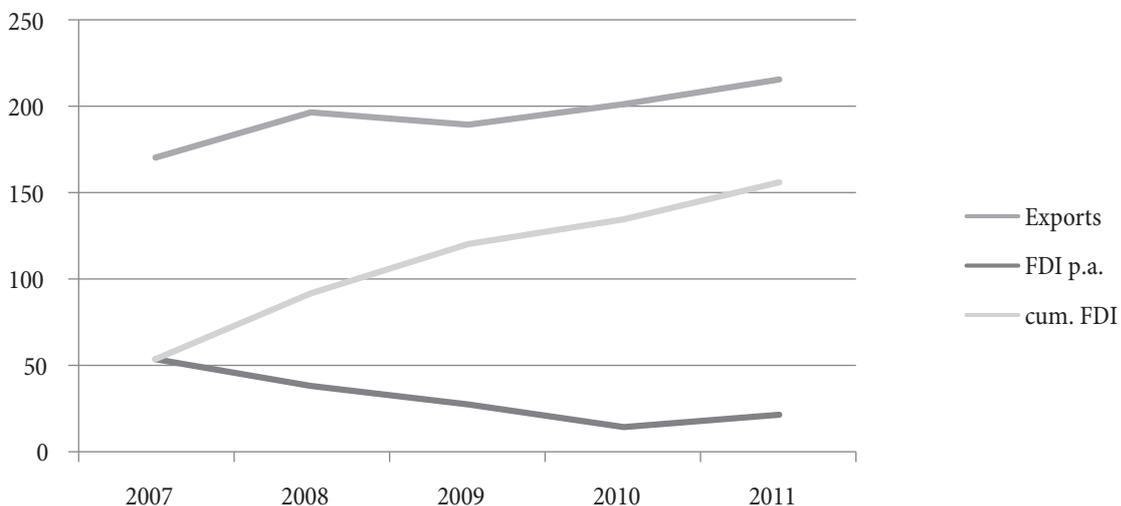
trade is highly correlated with developments in the EU. In Serbia, “in the first quarter of 2013, exports, driven by FDI and improved EU economic performance, have recovered noticeably, bringing hope for a better external position in 2013”, and “although the region’s exports to EU as a whole fell, Serbia’s trade with the EU went up” [24, pp. 8-9].

According to Ernst & Young’s attractiveness survey Europe 2013, “Coping with the crisis, the European way,” Serbia is ranked 11<sup>th</sup> by number of FDI projects and 6<sup>th</sup> by jobs created:

Serbia performed well in terms of FDI in 2012, attracting 78 projects, up 16.4% year on year. FDI created 10,302 jobs

in the country, which ranked sixth in Europe for FDI job creation. Serbian projects are among the most labor intensive in Europe, creating 132 jobs each on average. Nearly 90% of projects in Serbia came from European companies. Italian firms provided more than half of the resulting jobs, and companies from Germany and Austria were also big investors, mostly in manufacturing, with automotive components and machinery and equipment the leading sectors. Italian carmaker Fiat SpA announced plans for a €1.3b plant in Serbia, employing 2,400 workers, and applauded Serbian government participation in the joint venture and its provision of incentives, including tax breaks, infrastructure and training [5, p. 17].

**Figure 7: FDI in textile industry and export of category 61', 2007-2011 (EUR million)**



Source: wiiw Database on Foreign Direct Investment in Central, East and Southeast Europe, 2012, Short-lived recovery (analysis by authors of this article)

One more interesting data from survey is investors perceived attractiveness of one location versus actual number of FDI projects. The results show that only 1% of interviewed investors (808 international decision makers) from survey picked Serbia as the most attractive destination in CEE but in practice Serbia scooped 11% of CEE FDI projects in 2012. As stressed in the survey: “This glaring mismatch suggests these countries (Serbia and Turkey – perception 2%, actual number 13%) [5, p. 21] face perception problems among foreign investors. The governments of Turkey and Serbia may need to do more to educate business leaders about the opportunities their countries offer.”

To conclude, this article confirms a strong correlation between foreign direct investment and export growth based on an analysis of the Serbian apparel industry, and specifically the subsector of “panty hose, tights, stockings & other hosiery, knitted or crocheted”. It further identifies obstacles and prospects for development of the Serbian apparel industry, highlighting the need for improved branding in addition to continued investment incentives and policies aimed at advancing infrastructure, education and general business climate.

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