# **Export Performance of Southeastern European Countries**



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Abstract Over the last decades, the European Union (EU) member states have been subject to intensive globalization and international competition, a fact that poses both challenges and opportunities. Additionally, the recent global financial crisis implied a fall in output across economies that was accompanied by a severe contraction in international trade. As a result, countries and firms have had to adjust and actively participate in this new market environment. This paper examines the export dynamics of four Balkan EU member states over the period 1999-2014. The results revealed that there is a tendency for an increase in exports, that persistent trade deficits have decreased since 2008 and that the share of high and medium-high technology manufactured goods has increased, particularly in the case of Romania. The results also indicate some specificities of export performance of Greece, Croatia and Bulgaria, which have had a trade surplus for services throughout the period, suggesting the importance of the tourism sector. We further discuss the main factor that could contribute to enhancing the competitiveness of European countries. Higher foreign demand is found to lead to more exports as is a depreciation in the real foreign exchange rate, although price and income elasticities vary across studies and according to the estimation technique adopted. The evidence also suggests that non-price factors (such as quality, variety, innovation and institutions) are value drivers of exports.

**Keywords** Exports • Competitiveness • Economic and Monetary Union • Europe's periphery

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### 1 Introduction

Over the last decades, European Union (EU) member states have been subject to an intensive globalization and international competition, a fact that poses both challenges and opportunities. Additionally, the recent global financial crisis has shown that macroeconomic imbalances can seriously undermine a country's resilience to international economic shocks. Enhancing external competitiveness has thus become of increasing importance, particularly to Southeast European (SEE) countries whose economic growth models have been challenged in recent years and because, in order to join the Economic and Monetary Union (EMU), continued economic converge is required.

In the economic literature on the sustainability of a monetary union—the theory of optimum currency areas  $(OCA)^1$ —the issue of adjustment mechanisms to asymmetric shocks by individual member states plays a crucial role. According to Wierts et al. (2014, p. 928), "If countries in the eurozone frequently face asymmetric shocks, the resulting external imbalances may become persistent. As countries no longer have the possibility to devalue their currency or to use national monetary policy to respond to asymmetric shocks, external balance can be restored by improving competitiveness".

On the other hand, it is well accepted in economic literature that exports are of fundamental strategic value in economic development. With them, the market grows, while opportunities for specialization and outlets for overcapacity are increased. Moreover, exports are the prime source of foreign exchange which is necessary for obtaining imports (Malhotra and Pinky 2012).

The present paper aims to examine export dynamics of the Balkan EU member states of Bulgaria, Croatia, Greece and Romania<sup>2</sup> over the period 1999 to 2014. From the perspective of their European integration, comparisons are drawn with the export performance of the oldest EMU (EMU12) countries.

In line with OCDE, this paper adopts a broader approach to competitiveness, which is defined as "the extent to which a country is able to compete in global markets". In our analysis we focus on various indicators of export performance: (i) trade openness, (ii) trade balance of goods and services, (iii) the country's world market shares, and (iv) export composition by technological content.

Furthermore, we survey the literature dealing with the factors driving export performance in European countries. Various factors have been put forward that may influence export dynamics, ranging from foreign demand, domestic demand, real exchange rates, foreign direct investment (FDI), composition of exports and institutions. However, despite the theoretical and empirical analyses to date, it seems

<sup>&</sup>lt;sup>1</sup>First developed by Mundell (1961) and enriched with contribution from McKinnon (1963) and Kenen (1969), amongst others. For an empirical application of the theory of OCA to the Balkan countries, see Gouveia (2014).

<sup>&</sup>lt;sup>2</sup>In January 2007, Bulgaria and Romania joined EU and in July 2013, Croatia. Greece joined EU in 1981 and is an EMU member since 2001.

fair to say that there is no consensus on the important determinants of export performance.

The remainder of this paper is structured as follows. Section 2 contains an analysis of the evolution of export performance focusing on Southeast European Union member states. Section 3 discusses factors that drive export performance. The final section offers some concluding comments.

#### **2** The Developments of SEE Countries' Exports

The aim of this section is to analyse the recent evolution of export performance of the four SEE economies. Firstly we characterize the degree of openness and the trade imbalances of Bulgaria, Croatia, Greece and Romania compared with the EMU12 member states; then we examine the effects of big changes in world market shares, comparing SEE market shares with major world exporters; and we conclude by focusing on changes in the composition of exports of manufactured goods in the sample countries.

#### 2.1 Degree of Openness and Trade Imbalances

Table 1 presents the ratio of exports of goods and services to GDP for SEE countries and for EMU12 member states. Over the period 1999–2013, all countries under study increased their export openness. The largest ratio amongst SEE countries, in 2013, is observed for Bulgaria (70%), which has improved 26 percentage points (p.p.). Romania and Croatia have both a ratio of 43% to GDP, with different magnitudes of increase during 1999–2013, being 16 and 8 p.p., respectively. An increase in exports as a percentage of GDP indicates that the economy is geared to exports rather than domestic consumption.

Looking at the differentiation amongst EMU12 economies in 2013, we can see that Greece reported the lowest ratio of exports to GDP (28%). By contrast Luxembourg recorded the highest degree of export openness, followed by Ireland, with 159% and 107%, respectively.

Figure 1 shows the contribution of goods and services trade to total trade balance, as a percentage of GDP, for SEE countries. Between 1999 and 2013, the four SEE countries reported large trade deficits, although these have narrowed since the onset of the financial global crisis. In the case of Croatia, trade balance has in fact turned positive since 2010, but the remaining countries continued to report trade deficits, between -0.2 and -0.7% in 2013.

When disaggregating the trade balance into services and goods, we observe that Croatia, Greece and Bulgaria report trade surpluses for services over all the period. Conversely, these countries consistently report substantial trade deficits for goods, most notably shortly preceding the financial global crisis. The largest deficit in

Table 1 Export	s of goo	ds and se	rvices (%	of GDP)	for SEE c	ountries ¿	ind EMU	12 memb	er states,	1999–201	3				
	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
SEE															
Bulgaria	43.8	54.2	52.5	47.3	48.6	55.2	56.0	61.2	59.4	58.0	47.6	57.1	66.5	66.8	70.2
Croatia	35.2	40.2	41.9	39.9	43.6	42.9	42.3	42.3	42.2	41.7	36.0	40.1	42.5	43.5	42.8
Greece	18.1	23.5	22.9	20.3	19.0	21.5	21.6	21.3	21.9	23.1	18.3	20.5	23.4	25.6	27.7
Romania	27.4	32.4	33.0	35.2	34.8	35.8	33.1	32.2	29.2	30.3	30.6	35.4	40.0	40.6	43.0
EMU12															
Austria	41.1	45.6	47.4	47.9	47.4	50.7	53.2	55.2	57.8	58.3	49.3	53.5	56.3	56.3	56.3
Belgium	88.5	102.1	103.5	76.1	73.4	75.3	78.5	79.9	81.3	82.5	72.1	78.8	83.8	85.5	86.2
Finland	37.2	43.9	41.8	40.7	38.9	40.2	42.1	45.4	45.9	47.2	37.8	40.8	41.2	41.1	40.5
France	26.3	28.4	27.9	26.9	25.6	26.0	26.2	27.1	26.9	27.0	25.6	27.8	29.6	29.8	29.7
Germany	29.2	33.3	34.8	35.5	35.9	38.6	41.5	45.5	47.3	48.3	42.6	47.9	51.0	51.9	50.9
Greece	18.1	23.5	22.9	20.3	19.0	21.5	21.6	21.3	21.9	23.1	18.3	20.5	23.4	25.6	27.7
Ireland	85.5	93.0	97.2	91.6	82.1	82.0	80.4	79.0	80.2	82.7	89.5	99.3	102.4	107.4	106.9
Italy	24.4	26.9	26.9	25.4	24.4	25.2	25.8	27.6	28.8	28.5	23.7	26.5	28.7	30.2	30.5
Luxembourg	Ι	1	I	132.7	124.7	139.1	146.6	157.8	162.2	163.2	148.0	153.5	156.8	160.4	158.8
Netherlands	61.0	67.4	64.0	60.8	62.6	65.6	68.9	72.3	73.7	75.1	66.5	76.6	82.6	87.2	88.3
Portugal	27.3	29.1	28.5	28.0	28.0	28.6	28.1	31.4	32.8	33.2	28.7	31.8	36.4	39.1	41.2
Spain	26.8	29.0	28.4	27.2	26.2	26.0	25.8	26.4	27.2	26.7	24.2	27.6	31.0	32.8	34.1
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Source: United Nations (UN) Conference on Trade and Development (accessed in April 2016)



Fig. 1 Trade balance (% of GDP) for SEE countries, 1999–2013. Source: UN Conference on Trade and Development (accessed in April 2016)

goods is reported for Bulgaria in 2008, with -24% of GDP and a total deficit of -21% of GDP. The largest surpluses for trade in services are recorded by Croatia (about 17% in 2003 and 16% in 2013). While Romania registered deficits (in services trade) during almost all of the period, reaching its highest level for trade in services in 2013 at 2% of GDP.

Despite the relevance of service exports in SEE countries, the subsequent analysis concentrates on goods exports due to problems of data availability.

In Appendix, Fig. 3, we can see the trade imbalances in the EMU12 countries, from 1999 to 2013. Member states have widely divergent trade balances with different patterns of evolution, verifying a great inequality between countries. On the one hand, there are countries such as Greece, Portugal and Spain that stand out with deficits over most of the analysis period. On the other hand, countries such as Germany, Austria, the Netherlands, Ireland and Luxembourg have consistent trade surpluses.

## 2.2 SEE Shares in Global Exports Compared with Major World Exporters

In Table 2 we summarize recent shifts in exports of goods shares in total world exports for SEE countries, EMU12 member states, the United States (USA), Japan and China. The columns 1 and 2 present export market share in 1999 and in 2014, respectively, and the third column gives the p.p. changes in export market shares for the whole period.

We can observe that SEE countries have small export shares, ranging from 0.1% to 0.4% of world exports in goods in 2014 for Croatia and Romania, respectively. We also notice that Romania and Bulgaria more than doubled their export market share while Greece and Croatia did not change.

Concerning the EMU12 members states, China, the USA and Japan, the most remarkable development is that China has quadrupled its world market share (from 3.6 % of world market in 1999 to 14.3% of world market in 2014) and surpassed the USA, as the larger exporter, whose ratio decreased from 12.7% in 1999 to 9.9% in 2014. In 1999, Germany had a 9.9% export share of the world exports in goods and in 2014 had a 9.2% (occupying the 3rd position in the world's largest exporters).

**Table 2** Exports of goods(% of total global exports)for SEE countries, EMU12member states, the USA,Japan and China, in 1999 and2014

	Market sh	are (%)	Δ p.p.
	1999	2014	1999–2014
SEE			· · ·
Bulgaria	0.07	0.18	0.11
Croatia	0.08	0.08	0.00
Greece	0.20	0.22	0.02
Romania	0.16	0.43	0.27
EMU12	31.99	27.17	-4.82
Austria	1.08	1.04	-0.04
Belgium	3.27	2.88	-0.39
Finland	0.76	0.45	-0.31
France	5.41	3.46	-1.95
Germany	9.92	9.23	-0.69
Greece	0.20	0.22	0.02
Ireland	1.30	0.72	-0.58
Italy	4.30	3.23	-1.07
Luxembourg	0.14	0.09	-0.05
Netherlands	3.12	3.51	0.39
Portugal	0.45	0.39	-0.06
Spain	2.04	1.95	-0.09
USA	12.67	9.90	-2.77
Japan	7.64	4.18	-3.46
China	3.56	14.31	10.75

Source: Authors' calculations using UN Comtrade database (accessed in April 2016)

Japan lost 3.5 p.p. of the world market from 1999 to 2014. In the same period, the EMU12 lost 4.8 p.p. of its world market share (from 32.0 to 27.2%). With the exception of the Netherlands and Greece, all EMU12 member states had followed such trend: the largest losses in exports shares were posted by France and Italy, 2 p.p. and 1.1 p.p., respectively. As Krugman (1989, p. 1039) points out, "Fast growing countries expand their share of world markets, not by reducing the relative prices of their goods, but by expanding the range of goods that they produce as their economies grow".

#### 2.3 Composition of Manufactured Exports

The new trade theory of Krugman (1983) and of Grossman and Helpman (1995) is an analysis of imperfect competition, product differentiation and intra-industry trade and highlights the relevance of technological competitiveness. Next, we analyse the development of the composition of exports of manufactured goods differentiated according to the intensity of research and development (R&D). We distinguish four categories of products based in the International Standard Industrial Classification (ISIC) of the OECD: high-technology (HT) products, mediumhigh-technology (MHT) products, the medium-low-technology (MLT) products and low-technology (LT) products.

Figure 2 presents the share of these four categories of exports in total exports for SEE countries in the period 1999–2011. The SEE countries export mainly MLT products and LT products. In 2011 these two categories represented about 56–68% in Bulgaria, Croatia and Greece while the figure is much lower in Romania (a decrease from 72% in 1999 to 44% in 2011). The share of HT manufactured goods represented about 7–8% for Bulgaria, Croatia and Greece, and for Romania the share has increased from 3% in 1999 to 11% in 2011. Also in Romania, between 1999 and 2011, the share of MHT exports increased by 19 p.p., reaching a share of 35% in 2011.

Shares of the four categories of exports (LT, MT, MHT, HT) in total exports, calculated from EMU12 countries, can be found in Fig. 4 from Appendix. The analysis of EMU12 member states shows wide differences in the share of these categories. In 2011, the countries with the highest shares of the HT manufactured exports were Ireland (52%), France (24%), the Netherlands (21%), Germany (17%) and Belgium (16%). In contrast, the share of high-technology manufactured goods exports in total exports was lowest in the countries of southern periphery (Portugal, with 7%; Greece with 8%; Italy and Spain, with 10%).



**Fig. 2** Decomposition of exports by technological content (share in %) for SEE countries, 1999–2011. Source: Authors' calculations using OECD STAN Bilateral Trade Database (accessed in April 2016). Notes: *HT*, high-tech products; *MHT*, medium-high-tech products; *MLT*, medium-low-tech products; *LT*, low-tech products; *NMG*, non-manufactured goods

## **3** Factors Driving Export Performance

Many factors have been suggested that may drive export performance. The traditional models of trade specify foreign demand and price competitiveness. Goldstein and Khan (1985) whose export demand equations model has been widely used in analysing the impact of the macroeconomic environment on exports in many empirical investigations (e.g. Bayoumi et al. 2011; ECB 2005) point out that an increase in foreign demand has a positive influence on exports. According to Algieri (2011), there are different views on what to include in time-series behaviour models. The desired model would require information on the type of traded commodity, the main purpose to which the traded product is destined, the institutional and legal structure where the trade occurs and the aim of the modelling analysis as well as the availability of data.

Focusing in the five peripheral countries of the EMU (GIIPS), Algieri (2014) finds that income elasticity ranges between 1.0 for Spain and 3.7 for Ireland. As purchasing power across the world increases, so does the demand for imports, resulting in growth in GIIPS exports. Greater elasticity of demand for GIIPS causes stronger export performance, leading in turn to further economic growth in those

countries. Of this group, Ireland presents the highest income elasticity. This is possibly due to the relatively high value-added of their exported goods and services.

Most studies estimating demand elasticities and their results vary across countries, sectors, indicators, methodologies and periods. For instance, Bayoumi et al. (2011), using a sample of 11 EMU countries, found similar patterns for the aggregate trade data and for intra-euro area trade. Wierts et al. (2014) conclude that the effect of partner income on exports becomes larger the higher the share of HT exports in total exports is. Table 3 summarizes these and other studies.

Various indicators for foreign demand have been used in the studies summarized in Table 3. For instance, Algieri (2011, 2014) employs a weighted average of the import volumes of main trading partners, with weights defined as the share of each destination in total exports. Algieri (2014) also uses foreign income constructed as real-world gross domestic production corrected to exclude the GDP of the country in question. Bayoumi et al. (2011) constructed a real foreign demand variable for each country by weighting real GDPs of trading partners using trade weights.

Price competitiveness is another of the key determinants of export performance. The price advantage that a country has over its competitors is usually approximated by the real effective exchange rate (REER). Other conditions being equal, depreciation will decrease the relative price of its products, thus increasing demand for exports (Esteves and Rua 2015). The REER is a weighted geometric average of nominal exchange rates of a country's main trading partners, deflated using alternative price (consumer price indices, producer price indices and GDP deflators) and cost (unit labour costs for manufacturing and total economy) as deflators. There is also little agreement on which of them better reflects a country's price and cost competitiveness; each of them has its own advantages and weaknesses.<sup>3</sup>

Numerous studies have deeply investigated trade elasticity, and their results show that price elasticities fall in a range of 0 to -4.0 (Algieri 2014). Since the values of price elasticities vary greatly, some authors (Rose 1991; Ostry and Rose 1992) have questioned the effectiveness of real devaluation in affecting exports.

Adopting an unobserved components model, Algieri (2011) reports that price elasticities are relatively small (in the range 0.3–0.8%) for EA, the UK, the USA and Japan. Chen et al. (2013) found that 36% appreciation of the euro relative to the US dollar from 1999 to 2008 implied a 12–15% decrease in exports of EA countries to the USA on average and a 20–25% decrease in exports of the debtor countries (Greece, Italy, Portugal and Spain) on average. Also Algieri (2014) reports for Greece, Ireland, Portugal and Spain estimated price elasticities greater than unity. This means that there will be a relatively large reaction in terms of exports to price changes. For greater price elasticity, there will be more competition internationally for a country's exports. It therefore follows that depreciation will lead to higher income from exports.

<sup>&</sup>lt;sup>3</sup>For a discussion of advantages and shortcomings of each deflator for the measurement of a country's external competitiveness, see Giordano and Zollino (2015).

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Table 3 Summary of	the literature on determinants	of export performance in EM	IU countries	
Study	Countries and time period	Export indicators	Model	Conclusion
Algieri (2011)	EA as a whole, France, Germany, Italy, the Netherlands and Spain, the UK, the USA and Japan; 1978:Q1–2009:Q1	Exports volumes of goods and services	Export equations with unobserved components model. Foreign demand, price and non-price competitiveness export	The estimated price elasticities are generally small (in the range 0.3–0.8%) The non-price factor is a valuable driver of export volumes
Bayoumi et al. (2011)	11 EA countries; 1980–2009	Bilateral manufacturing exports, intra- and extra-EA exports	Manufacturing exports explained by REER (four different indica- tors), foreign demand and EMU dummy	Elasticity of exports with respect to foreign activity is estimated at around 1.7–1.9; the coefficient on the REER varies widely. In the long-term, intra-EA exports are at least two times more sensitive to changes in relative prices than extra-EA exports
Chen et al. (2013)	11 EA countries, 1990–2009	Total bilateral exports of goods, bilateral trade at the sec- toral level (HT, MHT, MLT and LT goods)	Exports explained by REER, domestic and foreign real economic activity	Demand elasticities of exports of the EA debtor countries are different for three trade partner regions (China, CEE countries and oil exporters) from the EA average
Algieri (2014)	Five countries of the euro area's periphery for 1980: Q1–2012:Q4	Exports of goods and services	Vector autoregressive error correction model (ECM) including as explained drivers of export demand: REER, foreign demand, real capital stock	Foreign demand and price and non-price competitiveness are all relevant drivers of real exports In the short-term, exports are dominated by movements of foreign demand, while changes in price and non-price competitiveness take longer to affect export performance

Christodoulopoulou and Tkačevs (2014)	16 EA countries; 1995:Q1–2013:Q1	Exports of goods and exports of services	Exports explained by foreign and domestic demand, price competitiveness	Price competitiveness has a larger marginal effect on exports of goods The foreign demand elasticity of exports of goods and exports of services appears to be significant for most EA countries, with an average value of 1.1 and 0.9, respectively
Wierts et al. (2014)	12 EA countries, 1988–2012	Total exports of goods	Exports explained by REER, real income of partner country, compo- sition of exports (HT, MHT, MLT and LT goods), EU and EMU dummies	Export composition has an important direct and indirect effect on exports Higher share of HT exports in total exports is positively related to total exports
Esteves and Rua (2015)	Portugal; 1980:Q1–2012:Q2	Export of good and services index	ECM; the export market share depends on REER, foreign and domestic demand	Negative relationship between lagged domestic demand developments and export performance in the short run, being strong only when domestic demand declines
Giordano and Zollino (2015)	Italy, Germany, France and Spain over the period 1993:Q1-2012:Q4	Exports of goods	Exports explained by price and non-price competitiveness and foreign demand	Price competitiveness plays a significant role in explaining exports in Italy, Germany and France; in Spain export performance appears to be insensitive. Also non-price competitiveness contributes to export growth
Sertić et al. (2015)	27 EU member states; 2000–2011	Total manufacturing exports	Exports explained by domestic and foreign demand, REER, industrial production, labour cost and eco- nomic crisis	Foreign demand, industrial production and domestic demand have a positive effect on exports

For instance, Christodoulopoulou and Tkačevs (2014), estimating a separate regression for exports, within the Euro area, for goods on the one hand and for services on the other, found them to be insensitive to changes in price competitiveness or at least with a relatively low level of sensitivity. In general, they found that the marginal effects of price changes on exports overall are higher than those affecting the manufacturing sector only. This would suggest that the reasons for a country's tendency towards higher exports are more than the mere fact of cost and price changes in trade sectors. It was found, moreover, that price competition was a less significant determinant in the exporting of services than it was for that of goods, for most countries in the EA.

Also non-price competitiveness has been argued to affect export performance. The new trade theory suggests that non-price determinants are relevant for export flows and empirical evidence strongly supports this view. According to Verheyen (2015), non-price factors could be split in two groups: (i) quality, variety or innovativeness of the country, and (ii) institutional factors which represent the reliability, stability or similarity of countries.

Quality can be defined as any tangible or intangible attribute of a good that increases all consumers' valuation of it (Hallaf and Schott 2011). Export performance can be affected by the products and the destination market that exporters specialize in (Cheptea et al. 2014). Countries that specialize in products with high demand growth will be able to increase their exports and will specialize in the most competitive products. A country that exports a wide range of products will be less affected by asymmetric shocks because it is not so dependent on one or certain products. A country that has a wide range of market export destinations will suffer fewer shocks caused by the shift of the destination market. Furthermore a country that holds export destinations with high growth in demand for imports can more easily see its exports increase and have more competitive export markets. Technological competitiveness can be defined as the ability to innovate, increase efficiency and reduce costs (ECB 2012). Technological aspects of competitiveness could affect export behaviour in different ways. Highly innovative countries can be expected to export more. Innovation is crucial to the development of new varieties of goods and services as well as in producing products of higher quality than those already available in the market.

Regarding the institutional factor, theoretically, good institutions can be seen as a comparative advantage, and particularly notable differences between institutional frameworks seem to influence exports. Bad institutional quality in destination countries can discourage exports and may have an influence both in the intensive margin of exports (increased volume of exports of incumbent exporting companies) and the extensive margin in exports (increase in the number of companies exporting), but it is expected to have a greater influence on the latter rather than the former (Briggs 2013).

Several studies confirmed a positive impact of innovation—through an analysis of factors such as patenting activity and R&D expenditure—on export performance. The ECB (2005, p. 51) concludes that "technology seems to be increasingly important in determining export performance in world markets". Using a variety

of non-price competitiveness variables, Algieri (2011) reports evidence which would suggest that FDI inflows, high technology, R&D and investment have a positive effect on exports.

In a later study, Algieri (2014) finds that the size of real capital stock elasticity varies between countries, with the higher effect being seen in Greece, Italy and Spain (elasticity ranging from 3.8 to 4.4). In particular, with the exception of Ireland, non-price competitiveness elasticities are higher than price competitiveness elasticities. One explanation for this is that the more cohesive the trading area is, given more intra-industry trade, the greater will be the competition in terms of product differentiation and the quality of the goods or services. Giordano and Zollino (2015) found that non-price competitiveness has played a role in export performance in recent years. Wierts et al. (2014) investigated to what extent the composition of exports is related to the export performance of EA countries. Their results suggest that export composition has an important direct and indirect effect on exports. A greater share of high-technology exports has a positive effect on exports overall. Moreover, their results suggest that export composition has a bearing on the effects of the real exchange rate and partner income growth regarding exports.

Some studies, summarized in Table 3, have examined whether domestic demand matters for export performance. From a theoretical point of view, a negative relationship between domestic demand and exports can be explained by the following arguments: (i) when domestic demand is growing, the associated inflationary pressures can lead to a decline in the price competitiveness of exports; (ii) during the business cycle, the availability of resources for the exporting sector is affected, which can influence export performance; (iii) in the presence of very different developments for domestic and foreign markets, investment will be most probably be oriented to activities that draw more heavily on the most dynamic market.

Christodoulopoulou and Tkačevs (2014) analyse the effect of domestic demand on exports. The results suggest that during a period of economic contraction exports appear to be a substitute for falling domestic demand. In a study for the Portuguese economy, Esteves and Rua (2015) found that the evolution of domestic demand is relevant for the short-run dynamics of exports. Furthermore, they found that this relationship is asymmetric so that when domestic demand is falling, the effects are stronger and more statistically relevant than when it is increasing.

#### 4 Conclusions

In this paper we have examined the evolution of export performance of the Balkan EU member states of Bulgaria, Croatia, Greece and Romania over the period 1999–2014, by computing different indicators of export competitiveness. Additionally we surveyed various factors that may influence export dynamics of European countries.

The results of this paper show that, since the inception of EMU in 1999, export performance has been heterogeneous across the countries under study. Bulgaria experienced the highest increase of the ratio of exports of goods and services to GDP, followed by Romania. Meanwhile, Greece and Croatia have shown little increase. These four countries, along with other countries on the periphery of EMU, suffer from persistent trade deficits, with the exception of Croatia, which since 2010 has shown a surplus. However, Croatia, Greece and Bulgaria reported a trade surplus for services throughout the period.

In a globalizing world, improving external competitiveness is a major concern to countries and their economic policymakers. This especially refers to small economies, such as the SEE countries, which have small export market shares (0.1–0.4% of total world exports in goods in 2014). Concerning the quality of manufacturing exports, these four countries export mainly medium-low-technology and low-technology products, despite their increased share of high- and medium-high technology, particularly regarding changes in Romania.

The sustainability of the SEE countries' external position is dependent on improved competitiveness and their ability to export. It is thus imperative to understand the main factors that determine a country's export success. Our survey shows that price competitiveness and external demand are the conventional determinants in explaining export growth. However, foreign demand elasticities and price elasticities vary widely. Furthermore, the survey also demonstrates that price competitiveness and external demand only explain a fraction of export growth in EA countries.

There is a broad category of determinants under the heading of non-price competitiveness. It includes technological innovation, quality of product, workforce competency, the regulation of product markets, business environment factors, patents, FDI, the gross fixed capital formation, industry specialization, efficiency of sales networks, the characteristics of export enterprises and institutions, amongst others. Most studies suggest that one important feature of a country's export success has been the ability to diversify its export market towards economies that are growing faster or for which there are growth prospects. Finally, according to some authors when modelling export performance, one should take into account not only the driving forces of external demand but also domestic demand.

In countries including Greece, Croatia and Bulgaria, whose exports are driven primarily by services centred on the tourist industry, policy could be directed towards appropriate investment strategies focusing on infrastructures, internal logistics and IT systems which would boost tourism.

Various extensions of this study are possible in the future. For instance, a variety of empirical trade studies have analysed the determinants of the export performance of EMU countries. Therefore investigating export demand for SEE countries and other EU countries remains an avenue for future research. Finally, the results of export performance developments could also be considerably improved upon in the future as longer and more disaggregated data, especially for services, become available.

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# Appendix



Fig. 3 Trade balance (% of GDP) for EMU12 countries, 1999–2013. Source: UN Conference on Trade and Development (accessed in April 2016)



**Fig. 4** Decomposition of exports by technological content (share in %) for EMU12 countries, 1999–2011. Source: Authors' calculations using OECD STAN Bilateral Trade Database (accessed in April 2016). Notes: *HT* high-tech products; *MHT* medium-high-tech products; *MLT* medium-low-tech products; *LT* low-tech products; *NMG* non-manufactured goods

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