IS REINDUSTRIALIZATION A REALISTIC PATH? AN EMPIRICAL INSIGHT FROM SOUTH-EASTERN EUROPE

Miroljub Hadžić[1] , Singidunum University, Faculty of Business, Belgrade, Serbia
Slavka Zeković , Institute of Architecture and Urban & Spatial Planning of Serbia, Belgrade, Serbia

The global economy has been faced with two dramatic crises (the global financial crisis and the pandemic), and it is still suffering. As an answer to the first crisis, the European Union formulated reindustrialization as a development approach, by which it wanted to strengthen its position on the world market, with the aim of manufacturing achieving a 1/5 share of the GDP. During the last decade, results have differed among the member countries, as well among the candidates for membership. Some countries have continued the trend of deindustrialization, while others have succeeded in starting reindustrialization. However, what is clear is the fact that achieving the goal defined is a challenge for all. There are economists who argue that this goal is not only unrealistic, but even not useful. The paper presents a comparative analysis exploring the development characteristics of several countries in South-Eastern Europe (SEE): Albania, Bosnia and Herzegovina, Croatia, Montenegro, North Macedonia, Kosovo and Serbia, using a meta-analysis in a synthesis of the results of this empirical research. It also shows a regression analysis and correlation analysis using the IBM SPSPS 28 software package. The paper analyzes whether the countries considered follow the trend of deindustrialization or reindustrialization, and it examines and tests whether a higher share of manufacturing within the GDP results in a higher rate of growth. The results show that all the countries under consideration have already fulfilled the aim of manufacturing having a 20% share of their GDP (except Montenegro). At the same time all of the countries, except two (Bosnia and Herzegovina and North Macedonia), have experienced a deindustrialization trend. The paper could be useful for policy makers in South-Eastern European Countries as well other transitory/transitional countries as they create reindustrialization policies in line with the EU industrial policy.

Key words: transition, reindustrialization, industrial policy, correlation analysis, South-Eastern Europe.

INTRODUCTION

Deindustrialization is usually understood as a decreasing trend in the share of manufacturing within the GDP, as well as a decreasing trend in the share of manufacturing workers in the total employment. This is recognized as an understandable outcome of development restructuring in predominantly developed countries. It has also been recognized as a trend among countries in transition. Reindustrialization, on the other hand, is considered as a useful and plausible recipe by the European Union for strengthening its position on the Global market, and at the same time as a useful tool for fighting the economic crisis which started in 2008. Savić and Zeković (2004) indicated

that (even before the global crises) deindustrialization was already affecting European countries at the end of the 20th century (including the SEE region). Mazzucato (2015) argued that countries with a large share of industry in their GDP appeared more resilient during the crisis and in the after-crisis period. She also believes, contrary to entrenched neoliberal claims, that markets are far from perfect, and that without strong state intervention the economy can be unsuccessful; she emphasized the role of industrial policy for growth, expansion of technology, entrepreneurship and productivity.

The impact of the global economic and financial crisis is reflected in the loss of 20 million jobs in European industry between 2007 and 2016 and the decline of production and competitiveness (Dabrowski and Myachenkova 2018), which also included the Western Balkans. The global pandemic has

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[1] Danijelova 29, 11000 Belgrade, Serbia
mhadzic@singidunum.ac.rs.

also contributed to the loss of almost 7 million jobs in the EU (CEDEFOP, 2021).

An important development goal for the EU was defined as manufacturing reaching a 20% share of the GDP (EC, 2010).

Among economists, there is no clear answer about reindustrialization policy. Some of them argue that this goal is a unique chance for the EU to fight successfully with competitors on the global market (Kotynkova, 2017), while others have doubt regarding the feasibility of this goal (Ambroziak, 2015), especially after a new crisis started at the beginning of 2020 caused by COVID-19 and its negative economic outcomes. There are economists who argue that this goal is an artificial one, and not appropriate for all member countries, since they are very different regarding their economic condition (Kozarzewski, 2021). Some of them are not so strict, arguing that the problem is related to the statistical treatment of services which are closely linked with manufacturing, especially those with a high involvement of information technologies and digitalization (Ambroziak, 2015).

Like in the EU, deindustrialization of SEE countries took place in conditions of weak GDP growth and a declining GVA of industry (Hadžić and Zeković, 2019), parallel with reforms towards a market economy and mainstream ideological and political changes based on the Washington Consensus (privatization, liberalization, and stabilization). The foreign direct investment (FDI) inflow was insufficient in Balkans countries (Demekas *et al.*, 2005), with a lack of intra-regional integration and other resources. Although international actors have been supporting the European integration processes in this region, SEE countries face challenges such as: a low development level, industrial lagging, the impact of global factors on the flows of capital, market and knowledge, the lack of leverages for a new development cycle (Zeković and Vujošević, 2015).

Bearing in mind the transitional context of SEE countries during the last decades, this paper examines the role and dynamics of industrial development, and its effects on total development. More precisely, the paper focuses on the comparative analysis of industrial development, particularly considering the macroeconomic aspects of regional industries in the post-socialist period.

The subject of the analysis is to explore whether there has been a trend of deindustrialization or a trend of reindustrialization among the seven so-called Western Balkan countries: Albania, Bosnia and Herzegovina, Croatia, Montenegro, North Macedonia, Kosovo[2] and Serbia, during the last two decades. It is important to note that these countries (except Albania) used to be part of the unique market of the former Yugoslavia (with the same or a similar industrial policy), so not very different by their economic structure, and at the same time all of them are countries in transition. Only Croatia has become an EU member, while all of the others are still candidates for membership. Secondly, the aim is to estimate, using a regression analysis and correlation analysis framework, the relations between

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[2] We follow a conventional notion: 'Designation is without prejudice to positions on status (under UNSCR 1244/99)', and keep to it throughout this paper.

trends in the share of manufacturing within the GDP, the overall development tempo, unemployment, total employment and employment in manufacturing.

After the introduction, section 2 is a literature review, section 3 explains the methodology and data used, and section 4 focuses on a comparative quantitative analysis of the characteristics of industrial development and/by indicators in selected countries of South-Eastern Europe.

THE LITERATURE REVIEW

Deindustrialization is considered as a decreasing trend in the share of manufacturing within the Gross Domestic Product (GDP), together with a decreasing share of manufacturing employment in the total employment (Hadžić and Zeković, 2019). This development path was mainly recognized among developed countries, and was explained as a consequence on the one hand of the restructuring process, in which manufacturing production is moved to less developed economies, due to a less expensive labor force and lower costs of environmental preservation, and on the other hand, due to reorientation toward services and high-tech industries in developed economies (Rowthorn and Ramaswamy, 1997). Unfortunately, a trend of deindustrialization was also recognized in the group of countries in transition, with the negative outcome that these countries do not have not enough marketable products to offer on the global market, thus producing a worsening balance of payments (Milivojević, 2015; Božić, 2009). During the global economic crisis that began in 2008, economies with a higher share of manufacturing in their GDP were more resistant to economic shock and experienced a lower rate of economic recession, if any, like Poland (Moczadlo, 2020). All in all, European authorities defined reindustrialization as the development approach which is recommended for fighting economic recession and strengthening the competitiveness of European countries on the Global market (Europe 2020 Strategy: EC, 2010). The goal was defined as manufacturing achieving a 20% share of the GDP by 2020 (EC, 2010; EC, 2020a; Lojpur, 2016; Zeković and Hadžić, 2020; Zacharchenko, 2019).

One group of economists advocates the goal of manufacturing achieving 20% of the GDP as a rational development approach (Kotynkova, 2017; Zaborova, 2018). These economists are those who emphasize the important role of industrial policy in economic development. They are right in the sense that if the share of manufacturing in the GDP decreases, then the national economy would have fewer and fewer marketable products for export, with an inevitable negative outcome for the national external balance, as it would be negative in the long term. So, the idea is to define and implement industrial policy measures by which the national economy can transform the trend of deindustrialization into reindustrialization (Mengoli and Russo, 2017; Zeković and Vujošević, 2015). It is important to bear in mind that it is not only a matter of increasing the share of manufacturing in the GDP and the total employment, but rather, it should also include introducing environmentally neutral production, energy savings, and a high involvement of knowledge and information technologies (EC, 2011; Nawratek, 2017; Neagua *et al.*, 2018; Popescu *et al.*, 2015). This platform

is based on the existing comparative advantages of the national economy (static approach) with development of new comparative advantages, over time (dynamic aspect) (Bazhal, 2017; Hadžić and Zeković, 2019; Taplin and Ngyen, 2016).

This school of thinking is criticized by those who are biased toward the (neo) liberal approach, who argue that any aggressive involvement of the state in the economy is not welcome and not useful (Ambroziak, 2015). In particular, they criticize industrial policy measures, as these measures are based on subsidies or the preservation of developing industries, known as the infant industry argument. There is also an argument that among the EU countries who adopted the goal of having manufacturing as 20% their GDP, there was no practical majority of member countries, and more importantly, more countries see this goal as questionable (Ambroziak, 2015). It is interesting to note that the most aggressive in this school of thinking are economists from the former communist countries of Central and Eastern Europe, who are near to the position of so-called market fundamentalism (Kozarzewski, 2021).

There are also economists who are not completely against the goal, considering it to be plausible, but they assess it as unrealistic over a short period of time (Kozarzewski, 2021). It is similar to the neo-liberal approach toward the transition process, known as a "one step jump" (Sachs, 1998), and considering the difficulties, and especially opposition by transition losers, this approach during the second half of the 1990s was softened and transformed into a more pragmatic one, the so–called gradualist approach, which recommended a more flexible and step-by-step approach (Fisher and Sahay, 2000; Stiglitz, 2001). Assessing the results of the restructuring among EU countries, it was recognized that a few of them (Poland, Czech Republic) succeed in increasing the share of manufacturing in their GDP, and total employment. This concern was even stronger because of the economic recession caused by COVID 19, which was deeper than the previous one (Moczadlo, 2020).

Some economists argue that the problem is in the wrong computation of what we can consider as manufacturing industry in the modern economy (Ambroziak, 2015). So, the problem from this point of view is of a statistical nature. They advise that manufacturing should not only include production, but also industries and sectors which have a high involvement of information technologies. These sectors are counted or classified as service in a strict sense, but they rather belong to manufacturing, servicing them. By including these kinds of services in the manufacturing sector, it would gain higher value added and higher employment, so in this way its share of the total GDP and total employment would be higher, as well as having an increasing trend (Ambroziak, 2015).

METHODOLOGY AND DATA

Seven countries from South-Eastern Europe, the so-called Western Balkans, were included in the comparative empirical analysis of industrial/economic development. The analysis relies on former empirical research of the industrial development in this region (Zeković and Vujošević, 2015).

It is important to bear in mind that until the 1990s, these countries were part of the former Yugoslav single market (except Albania), and were therefore not so different from the point of view of economic policy, or from their level of development and economic structure. One can also take into account that only Croatia from this group has become an EU member (2013), while the others are still candidates for membership (in the long term). This means that all of them, whether they are members or candidates, follow the goals of EU economic policy, including industrial policy (Moczadlo, 2020; Ambroziak, 2015). In the empirical analysis, as a controlling cluster group, we used some indicators of the EU countries. The period under consideration is statistically long enough, 2000-2019. The analyzed period does not include the beginning of transitional changes (1990s), since Serbia (including Kosovo) started with reform changes from 2000 onwards, not earlier like the others. During the 1990s, Serbia faced a serious drop in its GDP, due to non-economic factors. Also, an important fact is that we tried to see the tendencies and development path during the process of transition. Considering the economic crisis started in 2008, we need to bear in mind that all these countries faced recession – more or less deep – and several years long. From this point of view, our analysis was not perfect, as we did not separate the two decades into subperiods.

We applied a meta-analysis as the conventional approach to synthesize the results of the empirical economic research in the Western Balkans. The meta-analysis included the research questions, literature review and compilation, and modelling issues (key variables, datasets, regression analysis and correlation analysis). Our first aim was to examine what happened with the GDP, unemployment and total employment in terms of the growth rate and other tendencies, as well as the share of manufacturing value added to the GDP, and the share of manufacturing employment in the total employment. In order to understand the tendencies better, we compared the results for SEE countries with the EU figures.

We also examined whether there were any statistically significant conditionalities among these variables. A regression analysis was used (in the equation MiGDP = A0+A1GDP+A2UNM+A3EMPT+A4EMM) in order to find out the relationship between the share of manufacturing within the GDP (MiGDP), as a dependent variable, and the independent variables, like the Gross Domestic Product (GDP), Unemployment (UNM), Total employment (EMPT) and Manufacturing employment (EMM). Another aim was to see the form of the regression, and whether the relationship is a positive or negative one. The correlation analysis was used to measure the strength of relationship between the variables mentioned above. The regression and correlation analyses were applied using the IBM SPPS 28 software package. The statistical package IBM SPSS, Statistical Package for the Social Sciences, is among the most used programs for statistical analysis, with a wide range of solutions for scientific and management problems (George and Mallery, 2019; Pallant, 2002).

In order to be correct from a statistical point of view, data were collected from the same source, from the World Bank.

For data missing from this source during the defined period, we used data from national statistical offices.

Several questions were raised: Can Western Balkan countries reach 20% of manufacturing value added (VA) in their GDP, and if so, when? Can a higher share of manufacturing VA in the GDP produce a higher rate of growth? What recommendations could be derived from the investigation for policy makers?

EMPIRICAL ANALYSIS, RESULTS AND DISCUSSION

Industrial development in SEE countries

A comparative analysis of the industrial development indicators in SEE countries measured by the industrialization intensity index and CPI index indicates the dynamics of change and the level of industrial development reached (Table 1). The Industrialization Intensity Index is measured by a simple average of the share of manufacturing value added (MVA) in the GDP and the share of medium and high-tech industries in the MVA (UNIDO, 2020). The first share shows the significance of industry in the total economy, and the second its technological complexity. A comparison of the decline of this index in the SEE region for the given period (1990-2018) indicates deindustrialization (Table 1) and large differences in the industrialization level in the SEE countries.

The Competitive Industrial Performance (CIP) index considers the national productive capacities, intensity of industrialization, and their impact on the market as the main components of industrial performance (UNIDO, 2020), and it shows a measure of the national competitive industrial performance. The regional CIP index indicates deep differences between SEE countries, even up to 5 times (Table 1). The values of both indices in the SEE countries indicate a lag in the level of economic development and a technological gap/divergence of industrial development in comparison to the EU.

The results of the comparative research are discussed according to the specificities of the contextual frame in the SEE region. After the break-up of the former Yugoslavia, the newly established countries started economic redevelopment by means of transition towards neoliberal economics. The key problems of economic development in the SEE region are the consequences of the transitional recession and global changes (e.g., low economic growth, a low competitive economy, high unemployment, the "grey" economy, inadequate institutional conditions for new development, poor technical infrastructure, poverty, refugees, and further lagging behind the EU economies). The main problems in relation to industrial development are strong deindustrialization, low industrial growth, weak competitiveness, slowness of structural changes, further decline in industry's share of the GDP and GVA, a low level of investment despite the inflow of FDI, a significant lag in the application of innovations and new technologies, and inefficient use of material inputs and energy.

The neoliberal concept of development in this region induced the devastation of industrial development. In the period from 1989 until 2012, the reforms led to a strong reduction in industrial employment (1.33 million employees), parallel with a decline in industry's share of the GDP, from 44.5% to 18.43% (Zeković and Vujošević, 2015). The industrial renewal was stimulated through the implementation of the Central European Free Trade Association, CEFTA, regional rules in the energy sector and infrastructure, trade agreements, duty-free exports, and the so-called "mini-Schengen" (the initiative on regional economic cooperation between Serbia, Albania and North Macedonia). In 2020, the industries in the SEE region had a 17.6% share of the total employment, with industry having a 20.7% share in the regional GDP, and 18.9% in the GVA.

The SEE countries have adopted both the South East Europe Strategy 2020 (RCC, 2013) and the South East Europe Strategy 2030 (RCC, 2021) that focus on fostering innovation, skills, trade integration, and smart, sustainable and inclusive growth. The strategies propose changing the actual model of growth by accelerating socio-economic reform, and speeding up measures to modernize the economy.

The Strategy for the Western Balkans (EC, 2018) gives support to the perspective of regional integration into the EU. Also, the European Commission (EC) has adopted an Economic and Investment Plan for the Western Balkans until 2024 (EC, 2020b), with the aim of long-term recovery of the region, green and digital transition, economic cooperation, economic growth, and support for reforms that lead to progress and EU integration. The EC supports the economic convergence of the Western Balkans and the EU,

Table 1. Comparison of Industrialization Intensity Index and CIP index (2019)
(Source: UNIDO (2020); World Bank (2021))

	Industrialization intensity index	**Competitive industrial performance index (CIP)**	**Level from 1990 to 2018**
Albania	0.11	0.01	Bottom to lower middle
BiH	0.28	0.03	Lower middle to middle
Croatia	0.34	0.04	Upper middle
N. Macedonia	0.34	0.03	Lower middle to bottom middle
Montenegro	0.14	0.01	Lower middle to bottom middle
Serbia	0.38	0.04	Upper middle to middle
Kosovo[2]	-	-	-
SEE Region	0.265	0.028	Middle to lower middle

through investments for competitiveness, inclusive growth, sustainability, and green and digital transition. This implies regional integration into the EU market and its industrial systems that are being transformed according to the European Green Deal ("green" modernization of enterprises, industrial innovations, FDI, export and development according to national Smart Specialization Strategy, S3). The obligation to develop S3 as a new industrial policy was introduced for the EU candidate countries in 2018. S3 has been adopted in Croatia, Serbia and North Macedonia.

The main empirical comparison is based on the regression and correlation analysis of several macroeconomic indicators of industrial development in the period from 2000 to 2019/2020 (see Figures 1 to 4).

The Manufacturing share of GDP

Regarding the first question: can countries of the Western Balkans reach a 20% share of manufacturing in their GDP, the answer is that they are already above this goal, except Montenegro (Figure 1). So, it is not a problem, but there is a problem of another sort – deindustrialization, instead of the recommended reindustrialization. The high share of manufacturing seems not to be related to industrial policy oriented toward reindustrialization, but rather to the common legacy of the socio–economic system of the former Yugoslavia (except Albania). Namely, for several decades industrial development was forced. Serbia had, and still has, the highest share. However, there is a tendency towards deindustrialization among the group, as on average, the share of manufacturing in the GDP has slightly declined, from 22.6 to 22.3%. The tendency of deindustrialization in the SEE region, as a decreasing share of manufacturing in the GDP, was proved using the LINEST function, as it was slightly negative for the whole period for the countries in question (LINEST: -0.1, Figure 2).
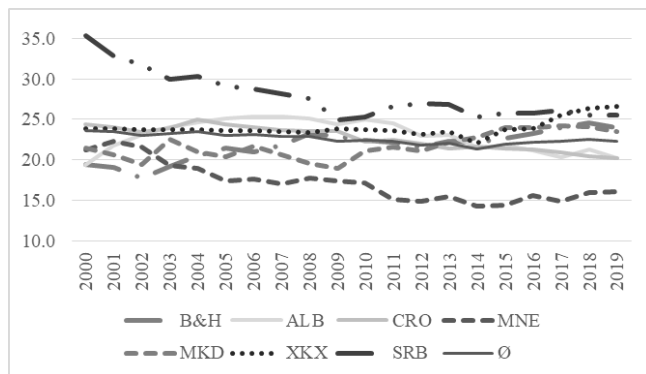

Figure 1. The share of manufacturing in GDP (%)
(Source: World Bank, World Development Indicators)

One can recognize that after the crisis that started in 2008, the recovery of manufacturing was slower than the recovery of services, so the share of manufacturing in the GDP further decreased, but more slowly than the decade before. It is important to note that Serbia was faced with the deepest drop, from 1/3 to 1/5 for the whole period (LINEST: -0.42). Among the countries considered (Figure 1), only Bosnia and Herzegovina and North Macedonia had an increasing share of manufacturing in their GDP, or in other words reindustrialization – during the period (2000-2019) (LINEST: 0.72 and 0.19, respectively).
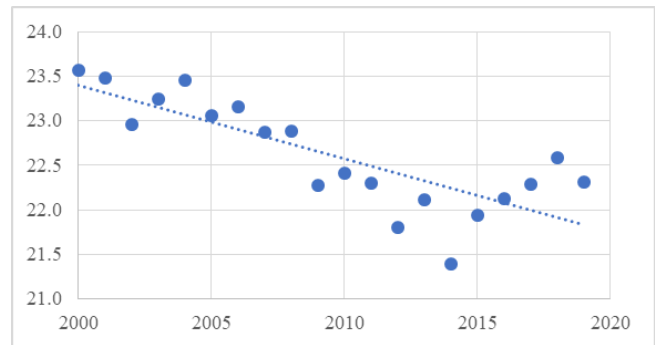

Figure 2. The average share of Manufacturing in GDP (LINEST -0.1)
(Source: World Bank, World Development Indicators)

If we compare these results with EU countries, there is on one hand a difference regarding the share of manufacturing in the GDP, because all of the SEE countries, except Montenegro, still had the manufacturing share of the GDP above 20%, while among EU members just a few of them, like Ireland, Germany, Romania, Poland, Slovakia and Czech Republic had a share of manufacturing higher than 20%. On the other hand, there is a similarity regarding a slight trend of deindustrialization among both the SEE countries, except Bosnia and Herzegovina and North Macedonia, and EU members (Moczadlo, 2020).

GDP Growth Rate

All SEE countries experienced a high rate of growth during the first decade of the 21st century, at 4-5% per year on average, with the less developed countries having a higher rate of growth than others, like Albania, Kosovo, and Bosnia and Herzegovina (Figure 3). All countries in the group faced a recession trend during the crisis, as they had a strong negative influence from EU countries, especially regarding less and more expensive capital and scarce Foreign Direct Investments (FDI) on the one hand, and decreasing demand for export products on the EU market on the other (Boljanović and Hadžić, 2017).
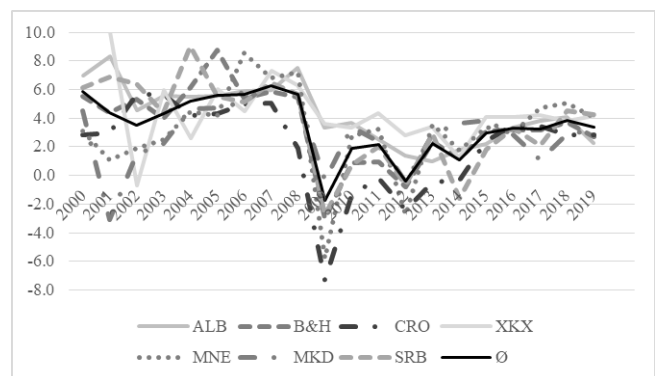

Figure 3. GDP Growth Rate (%)
(Source: World Bank, World Development Indicators)

It is clear that like EU countries, the SEE countries experienced the so–called "W effect", which means a drop in GDP immediately after the crisis started, in 2009, followed by a modest recovery, and again a drop in GDP in 2012, as a negative outcome of the sovereign debt crisis among countries in the PIGS group (Portugal, Italy, Greece, Spain) from the south of the EU (Labus, 2020). During the last

decade, the recovery of the GDP growth rate seems to have been more equal among the countries in the group and modest in comparison to the previous decade, 1-3% per year on average.

If we look at the whole period under consideration, some SEE countries doubled their GDP, or even more. Serbia experienced a cumulative growth of 102% in its GDP in the period 2000-2019, Kosovo 129% and Albania 147%, while Bosnia and Herzegovina had 98% growth, Montenegro 84% and Croatia 48%.

Comparing the rate of growth in the group with the rate of growth in EU countries, one can recognise a higher rate of growth in the SEE countries in both subperiods, or decades. It means that SEE countries over time reduced their lag in the level of development behind the developed EU countries, but the discerpancy is still big. The modest recovery in the Eurozone during the last decade can be explained by the hesitation of the European Central Bank to introduce an aggressive expansive monetary policy, as the Federal Reserves (FED) and the Bank of England (BoE) have done, starting a monetary expansion policy, from 2016 on, with economic recovery slower than expected.

If one looks at the cumulative growth of the gross VA and manufacturing VA during the period under consideration (2000=100), then it is clear that manufacturing value added in the SEE countries experienced a higher growth rate than the Gross Value Added. However, as noted before, this is due to the higher rate of manufacturing growth during the first decade, because during the second decade, the growth rate of manufacturing VA slowed down, as the recovery of services gained momentum and generally speaking, services and GDP increased more than manufacturing. Bosnia and Herzegovina and North Macedonia had a much higher rate of manufacturing growth than GDP growth, while Montenegro and Albania had a similar cumulative growth of both variables. At the same time, Serbia, Kosovo and Croatia faced a lower rate of manufacturing growth than GDP growth.

Unemployment, Employment

Generally speaking, the SEE countries faced a high level of unemployment. Bosnia and Herzegovina, North Macedonia, Montenegro and Kosovo experienced a higher-than-average share of unemployment in the total labor force. This high rate of unemployment during the last two decades has been caused by the restructuring process related to the market reforms introduced. It means that former socially owned companies faced problems of labor surpluses, and at the same time new companies, predominantly small and medium scale, were not strong enough to absorb these surpluses of employees. It also implies that the restructuring process of existing companies needs time to become profitable and capable of growth. During the 2008 crisis, the reaction of companies to new, worse business conditions and to the drop in demand for their products was late, or rather later than it should have been in a market economy.

One can recognize a positive trend of decreasing unemployment in all SEE countries. With economic recovery after the crisis which started in 2008, the unemployment

rate went down. For instance, unemployment decreased in Kosovo from 54% to 26%, in Bosnia and Herzegovina from 26% to 16%, in North Macedonia from 32% to 17% and Montenegro from 31% to 15%. In other words, SEE countries need a higher rate of economic growth in an attempt to curb high unemployment.

It is possible to achieve an interesting result by measuring the share of manufacturing employment in the total employment (Figure 4). Of course, it is closely related to the share of manufacturing (value added) in the GDP, and to the characteristics of the main industries within the manufacturing industry. North Macedonia had the highest share of manufacturing employment in the total employment (34-31%), followed by Bosnia and Herzegovina (30-32%) and Croatia (27-28%). At the same time, Serbia experienced a drop in the share (35-27%).
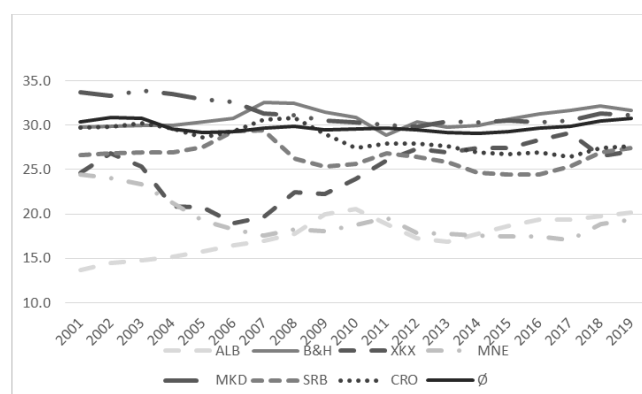

Figure 4. Employment in Manufacturing (% of Total)
(Source: World Bank, World Development Indicators)

In the SEE countries during the period of market reforms and restructuring, industrial employment grew faster than total employment (on average total employment in 2019 was 21% higher than in 2000 and industrial employment 34%, respectively). So, it is similar to the relation between manufacturing VA and GDP. Albania experienced the highest cumulative growth and a high discrepancy (87% and 19%, respectively), followed by North Macedonia (82% and 45%), Bosnia and Herzegovina (37% and 29%), Croatia (14% and 9%) and Kosovo (3% and -22%). Montenegro and Serbia experienced slower growth of manufacturing employment than the total employment (38% and 74% and -26% and -7%). Regarding Serbia, one has to bear in mind that the drop in the total and industrial employment is mainly caused by legal reasons. Namely, during the 1990s, officially (by law) no employees could be fired, while at the same time the GDP and production dropped by half. This hard administrative measure was annulled at the beginning of the 2000s, so companies started to adjust by dismantling the number of employees, and the drop was deeper than it would have been in normal circumstances.

The regression and correlation analysis

In order to clarify the previous results, the regression and correlation analyses were performed using the IBM SPPS 28 software package. Firstly, the regression analysis was used to find out the relationship between the share of manufacturing in the GDP (MiGDP), as a dependent variable, and independent variables, as follows: Gross Domestic

Table 2. The regression results for the whole group of SEE countries

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.763[a]	.581	.470	15.5768

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5055.651	4	1263.913	5.209	.008[b]
	Residual	3639.549	15	242.637		
	Total	8695.200	19			

		Unstandardized Coefficients		Standardized Coefficients		
	Model	B	Std. Error	Beta	t	Sig.
1	(Constant)	801.329	464.515		1.725	.105
	VAR00002	.436	.108	.688	4.047	.001
	VAR00003	-.193	.120	-.444	-1.605	.129
	VAR00004	.252	.267	.173	.941	.362
	VAR00005	-.282	.312	-.258	-.905	.380

Product (GDP), Unemployment (UNM), Total employment (EMPT) and Manufacturing employment (EMM) in the equation MiGDP = A0+A1GDP+A2UNM+A3EMPT+A4EMM. It was also useful to see the form of the regression and whether the relationship was positive or negative. Secondly, the aim was to measure the strength of influence between these variables using correlation analysis.

Firstly, we used regression analysis in order to find out the relationship between MiGDP and the other variables GDP, UNM, EMP and EMM, the shape of this relationship and whether the influences were positive or negative. So, the proposed equation was MiGDP = A0+A1GDP+A2UNM+A3EMPT+A4EMM, where MiGDP is dependent and the others are independent variables.

For the whole group of countries under consideration we obtained the following equation: MiGDP=801+0.4GDP-0.1UNM+0.2EMT-0.2EMM. The results show a satisfactory value of R^2 (R^2 = 0.581), which shows how much of the total variations in the dependent variable can be explained by independent variables. More precisely, it means that 58% of variations can be explained. Also, the data fit well, as the statistical significance of the regression model is 0.035 (less than 0.05 as a statistical limit).

The results were mixed for each country. For Albania the equation was MiGDP = 960+0.53GDP-0.124UNM+0.175EMPT-0.034EMM. The R^2 value was 0.478 which is modest, while the coefficient for significance

fits well as it is 0.035. For B&H the equation was MiGDP = 648+0.428GDP-0.028UNM-0.01EMP-0.026EMM with an R^2 value of 0.47, which is modest, and the coefficient for significance fits well, as it is 0.035. The equation for Croatia was MiGDP = 559+0.492GDP-0.061UNM+0.075EMP-0.051EMM with a high R^2 value of 0.789 and the coefficient for significance fits well, as it is 0.001. For Kosovo the equation was MiGDP = 817+0.229GDP-0.063UNM-0.093EMP+0.018EMM with a low R^2 value of 0.272 and the coefficient for significance is too high, as it is 0.282. The equation for Montenegro was MiGDP = 1414+0.128GDP-0.356UNM+0.060EMP-0.221EMM with a very high R^2 value of 0.823 and the coefficient for significance fits well, as it is 0.001. For North Macedonia the equation was MiGDP = 1079+0.006GDP-0.024UNM-0.192EMP+0.112EMM with an R^2 value of 0.426, which is modest, and the coefficient for significance is too high, as it is 0.066. For Serbia the equation was MiGDP = 1024+0.451GDP-0.089UNM-0.060EMP-0.303EMM with a high R^2 value of 0.626 and the coefficient for significance fits well, as it is 0.004.

Secondly, we used a correlation analysis to measure the strength of relationship between the variables under consideration, and not surprisingly the results were mixed. It means that there were different tendencies in the manufacturing share of the GDP during the period under consideration among the SEE countries, as explained before. Only two countries experienced an increasing trend of reindustrialization, North Macedonia

Table 3. Correlation of the average of SEE countries

Variable	Variable2	Correlation	Count	Lower C.I.	Upper C.I.
MiGDP	GDP	-.469	26	-.725	-.100
	UNM	.490	26	.126	.737
	EMPT	-.821	26	-.917	-.637
	EMM	.972	26	.937	.987

and Bosnia and Herzegovina, but the majority of them experienced a decreasing trend, or in other words, a deindustrialization trend. On average there is a slight tendency of deindustrialization, as well. As stated before, it can be understood as the legacy of the previous socio-economic system rather than the outcome of a defined industrial policy. On average (Table 3) there is a very strong positive correlation between the share of manufacturing in GDP (MiGDP) and manufacturing employment (EMM) (0.972) for the SEE countries, which is understandable, and a strong negative correlation with total unemployment (EMPT) (-0.821). There is a significant negative correlation between manufacturing share and GDP growth (-0.469) and a significant positive correlation with unemployment (UNM0.49).

For the discussion of the correlation results, we made two groups: the first, Bosnia and Herzegovina and North Macedonia, as countries with an increasing share of manufacturing in their GDP, and the second with the other SEE countries, with a trend of deindustrialization, a decreasing share of manufacturing in the GDP over the period considered. For B&H we found a significant and strong positive correlation between MiGDP, GDP and EMM, proving the trend of reindustrialization. For North Macedonia, we found a positive weak correlation between MiGDP and GDP, and negative weak correlation for the others variables.

The second group of SEE countries experienced even more mixed results of correlation between the variables under consideration. Most of them had a negative correlation between the most important variables for the investigation proposed, between the share of manufacturing in GDP (MiGDP) and GDP growth (GDP). Serbia and Montenegro had a strong negative correlation coefficient between these variables (-0.609 and -0.718, respectively), while other countries had a modest negative correlation coefficient. It is interesting to note that this group of SEE countries, except Serbia, had a positive correlation between the share of manufacturing in GDP (MiGDP) and unemployment (UNM), which for some was strong (Montenegro 0.809) and for others weak. Serbia, on the other hand, had a medium strong negative correlation between these variables (-0.504). This can be partially explained by a strong decreasing trend of the share of manufacturing in the GDP, or in other words a strong tendency towards deindustrialization. For this subgroup, correlation coefficients between the share of manufacturing and the total employment and manufacturing employment were rather mixed, strong and weak, positive and negative. Albania had negative relations for both variables, Croatia had both positive correlations, Kosovo and Montenegro mixed, and lastly, Serbia had a positive correlation for both total employment and (very strong) manufacturing employment (0.223 and 0.960).

CONCLUSIONS

Facing its weak position on the global market, together with a trend of deindustrialization, the European Union tried to define the reorientation of its economic structure towards higher manufacturing involvement in the GDP, by adopting a reindustrialization policy. The goal is to achieve 1/5 of manufacturing in its GDP, together with greater involvement of environmentally neutral production, and higher involvement of knowledge and information technologies.

Our research was focused on a comparative analysis of the development characteristics of the South East European countries which used to be part of the unique market of the former Yugoslavia (plus Albania). They had experienced a specific mix of a planned market economy in the past, but for last twenty years tried to fully introduce a market economy. The period under consideration was the last twenty years of transition.

Research into industrial development in SEE countries, measured by the share of manufacturing value added in GDP, pointed to a declining trend, or in other words, deindustrialization. The competitive industrial performance index indicated differences among the SEE countries, a lag in economic development, and a technological gap in relation to EU countries.

Another aim of the study was to find out whether these countries experienced deindustrialization or reindustrialization. Answering the question with regard to achieving the goal of a 20% share of manufacturing in the GDP, our finding is positive. All SEE countries, except Montenegro, have already achieved this goal. At the same time, not many EU countries have achieved this goal. However, the first problem in this regard is that the share of manufacturing in the GDP is decreasing, namely these countries, except Bosnia and Herzegovina and North Macedonia, are faced with a trend of deindustrialization. This has produced a negative outcome for their national balance of payment, as they have fewer and fewer marketable products for the global market. The second problem is that the high share of manufacturing and the tendency of decreasing this share is not a matter of consistent industrial policy, e.g. a reindustrialization policy, but rather a legacy from the past, related to the specific characteristics of the former non-market economy and forced industrialization policy for decades.

All SEE countries experienced a high rate of growth in their GDP in the first decade of the century until the global economic crisis, while less developed countries experienced higher growth rates. Recovery after the crisis was modest and more equal among these countries. A structural path of the recovery perpetuated deindustrialization, as service activities could recover faster and more easily.

All SEE countries faced a high level of unemployment during the last two decades, due to transition shock, restructuring problems in existing companies and a weak SME sector. A positive trend of decreasing unemployment was recognized, especially during the recovery period.

The tendency of manufacturing employment was understandably closely linked to the manufacturing VA share in the GDP. During the period under consideration, it grew faster than the total employment.

The results of the regression analysis for the whole SEE group of countries gave us the equation MiGDP = 801+0.4GDP-0.1UNM+0.2EMT-0.2EMM, with a high value of R^2, which shows that 58% of the total variations in the dependent variable (MiGDP) can be explained by independent variables, and they fit well.

The results of the correlation analysis are in line with previous results. On average, for the whole group of SEE countries, a very strong positive correlation between MiGDP and EMM was found, and a strong negative correlation with EMPT, and at the same time a significant negative correlation with GDP and significant positive correlation with UNM.

Policy makers in SEE countries have to be aware that a decreasing share of manufacturing in the GDP produced a negative outcome in the balance of payment for SEE countries, and in future this will put the share below 1/5 of the GDP (the EU's policy goal). So, the introduction of reindustrialization policy measures could be useful to stop this trend with negative implications, and reshape the trend to an increasing one. It seems that this step, including creating and introducing policy measures, can strengthen the position of these economies on the global market and, more importantly, dismantle a lag in economic development and technological level behind EU countries.

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ORCID

Miroljub Hadžić   https://orcid.org/0000-0002-8009-2026

Slavka Zeković   https://orcid.org/0000-0003-3755-6064

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