

## **COMPETITIVENESS AND DEVELOPMENTAL TRENDS OF THE NEW INDUSTRIAL POLICY OF THE REPUBLIC OF SERBIA**

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**Abstract.** *The achieved level of economic development determines the degree of industrial development in one country. The aim of this paper is to identify the key determinants of the new industrial policy of Serbia, in the context of European integration processes. The same is based on the analysis of strategic documents of Serbia and the European Union, governing the industrial development for the period up to 2020. Particular attention is paid to the monitoring of developmental dynamics and trends in improving industrial competitiveness. It has been noted that the achieved level of industrialization defines the industrial competitiveness of a national economy. Serbia needs an efficient, industrially competitive economic structure that will be able to meet the growing demands and challenges of the market. Only a properly designed and consistently applied industrial policy can follow the European developments in the future.*

**Key words:** *new industrial policy, the European integration process, The Competitive Industrial Performance Index (CIP), the development and competitiveness of the industry.*

### INTRODUCTION

Plenty of theoretical insights and empirical examples have confirmed that the achieved level of economic development to a large extent determines the degree of industrial development. Industrial policy is part of a broader economic policy, which specifies the place and determines the importance of industry in generating economic growth and development of a country. In order to achieve the strategic goals of a country, a high level of coordination and integration of the industrial policy with other relevant policies is required. Adequate implementation of appropriate industrial policy is a necessity and a need of all economic systems in order to overcome developmental limitations, on the road from the comparative advantages to the strategic objectives.

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Industrialization is a central strategy for achieving the economic transformation of underdeveloped countries. Based on empirical data and general theoretical knowledge, large disparities have been observed in the industrial development across countries. Convergence between the industrially most competitive countries and less developed countries is in stagnation. On the one hand, middle-income countries are trying to achieve industrial progress in the sustainable environment. Industrialized countries, on the other hand, tend to overcome the consequences of the economic crisis and point to the dangers of de-industrialization through “industrial renaissance”. Serbia belongs to the group of industrially developing countries.

The analysis of the economic results, achieved in the previous period, shows that the Serbian industry has not contributed to economic growth to the expected extent, despite the available industrial capacities. The causes that led to this state of affairs should be sought both in economic and in non-economic spheres. In order to create a new, more efficient economic structure, it is necessary to reduce developmental limitations to a minimum. In this regard, the purpose of long-term and continuous adjustment of sectoral policies to the concept of accelerating economic growth requires the transformation of consumer-oriented demand into pro-investment demand, thereby putting the emphasis on tradables. It is essential to point out the necessity of selecting a pro-investment and export-oriented development path. Selecting the correct development orientation is not simple, as it requires recognition of all specific features of our country and appreciation of the strategic documents of the European Union.

The first part of this paper will provide foundations of industrial policy. The second part will include detailed analysis of the situation, objectives, and measures of the new industrial policy of Serbia. Strategic developmental directions of Serbian industry until 2020 and changing trends will be shown in the third part of the paper. The fourth part will focus on *The Competitive Industrial Performance Index*, viewed in the context of industrial development indicators.

## 1. FOUNDATIONS OF INDUSTRIAL POLICY

In the aftermath of the 2008 global economic crisis, a number of public interventions have been initiated, in order to ensure economic recovery, job creation, and foster much-needed transitional sustainability. The package of stimulus initiatives differed among countries affected by the global economic crisis, but each of them contained the two key pillars: the massive investment plans in respect of infrastructure, which reflects the classic remedy for the economic crisis, and industrial policy (Aggarwa & Evenett, 2012). Industrial policy is an important instrument of the private sector and economic development based on the production of new goods with new technologies and the transfer of resources from traditional activities to these new ones. Besides, it is a central instrument for improving economic transformation. Theorists have come up with a number of definitions of the concept of industrial policy and its scope, depending on the viewing angle.

UNCTAD (*The United Nations Conference on Trade and Development*) defines industrial policy as “a concerted, focused, and conscious effort on the part of the government to encourage and promote a specific industry or sector with an array of policy tools”. The World Bank sees the industrial policy as “government efforts to alter the industrial structure to promote productivity-based growth”. Pack and Saggi give a more detailed definition, stating

that it is any type of selective intervention or government policy that attempts to alter the structure of production towards sectors that are expected to offer better prospects for economic growth than would occur in the absence of such intervention, i.e. in the market equilibrium. The most famous advocate of industrial policy, Rodrick, implies that it can be viewed as a means of coordination for stimulating socially profitable investment (Rodrick, 2013).

Industrial policy represents a conscious action of the state in setting goals and establishing instruments to achieve these goals in the field of industry. The main objective of industrial policy is the development of the economy and determining the place and role of industry in this development. The effects of industrial policy are reflected in the realization of the objectives (Gligorijević, 2008).

Generally, industrial policy can be defined as any policy affecting the industrial activity of a country. Regardless of which definition is considered, it is clear that the main objective of the industrial policy is raising productivity, profitability, and international competitiveness of national industries, through the construction of an optimal industrial structure (Jurčić, 2013). According to a number of theorists, governments should be directly involved in the establishment of national industrial objectives, and be held accountable for achieving goals. Specifically, governments are the ones that should determine which industries would be most likely to be competitive in the future global economy, and focus on them in setting industrial policy objectives.

## 2. ANALYSIS OF THE SITUATION, OBJECTIVES, AND MEASURES OF THE NEW INDUSTRIAL POLICY OF THE REPUBLIC OF SERBIA

1. On the way to full membership in the European Union, Serbia is faced with a task of harmonization of industrial policy with the principles of the EU and its member states. The development of industrial policy in the European Union and Serbia is regulated by the long-term strategic documents, which lay down the main goals and priorities of further development, incentive measures, and development policy. Our country has adopted the Strategy and Policy of the Industrial Development of the Republic of Serbia for the period 2011-2020. The strategy is aligned with the industrial policy of the European Union and the goals of the new European strategy, Europe 2020. This strategy is a general document that directs the further course of the Serbian industry, with proposed measures to improve the current situation. The potential that Serbia has needs to be used effectively, through the application of the well-structured Strategy. Accordingly, the objectives and priorities of future development are designed within the framework of the above-mentioned document, which validates the concept of sustainable development and seeks to strengthen the role of industry in the economy and society. The objectives of the Serbian strategy should be aligned with the objectives of the industrial policy of the European Union, presented in the Lisbon strategy, which was defined in 2000 and revised in 2005 and 2008.

Future trends in the Serbian industry are heading towards sustainable and dynamic development that fits the needs of the markets of the European Union, and is able to withstand the pressures of competition originating from other European Union member states. In order to make the industry more competitive, Serbian Strategy provides for essential strategic goals and directions that should be followed in the future. The primary objective is to increase the competitiveness of the industry, and make the overall industrial

policy proactively oriented towards export competitiveness of industrial products and services with high added value, based on knowledge, innovation, research and development (Strategy and Policy of the Industrial Development of the Republic of Serbia 2011- 2020, p. 29).

2. In accordance with the intended orientation of industrial policy, the Strategy presents the following strategic objectives: a dynamic and sustainable industrial growth and development, the proactive role of the state, improving the investment environment, strengthening competitiveness, accelerating the development of entrepreneurship, increase and restructuring of exports, reform of the education system in accordance with the needs of the economy, active and dynamic cooperation between science and industry, fostering innovation, reform of the labor market and employment policy, balancing stabilization, development and social role of the state, the development of regional industrial centers and regional business infrastructure, improving energy efficiency, and environmental protection (Strategy and Policy of the Industrial Development of the Republic of Serbia 2011- 2020, p. 52).

Indicators of dynamic and sustainable industrial growth and development are higher living standard, as well as the reduction of unemployment and poverty. The proactive role of the state, as one of the goals of the Strategy, is reflected in the institutional establishment, with emphasis on knowledge and skills for finding the optimal solution for the development of the industry. To improve the investment environment, it is necessary to attract more foreign direct investments, and invest them in development of small and medium-sized enterprises, which will take the workforce of existing unsuccessful companies. In order to strengthen the competitiveness, it is necessary to carry out the transition and reform processes that will enhance the development potential of the country. Faster development of entrepreneurship is only possible through the support for the establishment of new enterprises, employment, and human resource development.

In order to increase and restructure exports, special attention must be given to: increasing the competitiveness of products of Serbian industry, their placement on the EU market, and restructuring of exports towards high technology branches. Based on the data given in Table 1, it can be seen that the high-tech industry is the sector with the highest projected growth rates in Serbia until 2020, which, in 2008, accounted for 7.5% of gross value added. However, one should not ignore the fact that the low-technology-intensive sector has dominant share in the structure of the Serbian industry, which accounts for over 50% of gross value added of the Republic of Serbia. The average projected growth rate of low-technology-intensive industrial sector by 2020 is 6%.

To make responses of the economy as efficient as possible, a reform of the education system is essential. The reform of the education system involves compliance with the current and future needs of the labor market. Industrial policy objectives should involve active and dynamic cooperation between science and industry, relating to innovation in all fields. In order for this goal to be achievable, it is necessary to produce a long-term program of technological development that will be compatible with the strategic development priorities, the real situation, and perspectives of technological development in Serbia.

Encouraging innovation is important for increasing industrial growth and employment, as well as for the creation of new industrial products with added value. In this respect, there are investments in new products, which may stand for competitive products on the market,

and ultimately improve the industrial growth. The reform of the labor market and employment policies should be implemented to reduce the fiscal burden of work, maintain a responsible policy of minimum wage, and increase the proportion of funds for active labor market programs in GDP. Strategic documents governing the industrial development for the period up to 2020 map out a harmonized relationship between stabilization, development, and social role of the state, because the privatization and restructuring of the industry, which should be done in the future, involve significant social costs. For the purpose of better regional development and reducing regional differences that have been present for several decades, it is necessary to develop regional industrial centers and regional business infrastructure. The economic competitiveness and energy efficiency are closely related. In accordance with this, energy efficiency can be improved through the most rational use of energy. Environmental protection, as the goal of the Strategy of industrial development, emphasizes that efforts should be directed towards cleaner modes of production and reducing environmental pollution.

**Table 1** Projected share of sectors and fields in gross value added and projected growth rates

| Subsectors                  | Share in gross value added |      | Growth rates 2008-2020 |
|-----------------------------|----------------------------|------|------------------------|
|                             | 2008                       | 2020 |                        |
| Low-tech                    | 50.7                       | 43   | 6%                     |
| Food                        | 29.9                       | 24.4 | 1%                     |
| Textile                     | 4.9                        | 5.2  | 8%                     |
| Medium-low-tech             | 25.4                       | 22   | 6%                     |
| Coke and petroleum products | 0.3                        | 0.4  | 8%                     |
| Rubber and plastics         | 6.0                        | 5.5  | 5%                     |
| Other minerals              | 6.0                        | 5.6  | 6%                     |
| Metal                       | 13.1                       | 10.5 | 5%                     |
| Medium-high-tech            | 16.4                       | 23   | 10%                    |
| Chemical                    | 7.7                        | 10   | 10%                    |
| Machines and equipment      | 5.0                        | 7    | 8%                     |
| Means of transport          | 3.8                        | 6    | 11%                    |
| High-tech                   | 7.5                        | 12   | 12%                    |
| Electronics                 | 7.5                        | 12   | 12%                    |

Source: *Serbian Post-Crisis Economic Growth and Development Model 2011-2020* (2010). Foundation for the Advancement of Economics – Faculty of Economics, Macroeconomic Analyses and Trends and Konjunktur-Barometer – Economic Institute, USAID. Belgrade, p.29.

The overall objective, which is presented within a new policy of industrial development, is the strengthening of the competitiveness of the national industry, as well as ensuring its growth and development. The achievement of this objective is possible through general measures and instruments of economic policy, reducing the barriers that hinder the successful operation, and orientation towards new knowledge, technology, and innovation.

**3.** To achieve the set objectives, specific measures and activities need to be strictly followed and enforced. The set of related actions are the result of the current phase of development of the Serbian market economy, and obligations that country has on the basis of international agreements, membership in the World Trade Organization, and the

Stabilization and Association Agreement with the European Union (Strategy and Policy of the Industrial Development of the Republic of Serbia 2011- 2020, p. 66). A number of measures should be aimed at improving the competitiveness of Serbian industry, with particular emphasis on the processing industry, with respect to its current capacities and circumstances in the environment. Accordingly, the task of industrial policy is to contribute to the efficient functioning of the market, with possible direct intervention in the event of deficiencies, and creating a favorable business environment. Special emphasis in the concept of a new industrial policy has been placed on the horizontal incentive measures that emphasize equal chances for the success of all enterprises, whose success is rewarded by the market which is the driving force of the modern processing.

The Strategy and Policy Development of the Industrial Development of the Republic of Serbia 2011-2020 highlights the following measures and activities, aimed at:

- 1) building the institutional framework and the business environment;
- 2) strengthening competitiveness and productivity;
- 3) development of entrepreneurship, i.e. the sector of small and medium-sized enterprises;
- 4) effective restructuring and privatization;
- 5) strengthening the competitiveness of certain sectors by using horizontal and vertical measures.

Given the situation in the industrial sector, it is necessary to make reforms, in order to strengthen its competitiveness. The new Serbian policy of industrial development for the period 2011 – 2020 provides for reforms within specific industrial policy goals, set for the future. The changes are aimed at achieving a higher level of competitiveness and strengthening the economy of Serbia, primarily industry.

Dynamic and competitive development of Serbia requires a reform of education in the first place, because the highly educated people are the basis of higher phase of sustainable development. The emphasis is placed on the transformation of vocational education, concerning the identification of professional competences acquired earlier. Certainly, it is necessary to increase investment in education, which ultimately refers to investment, which, besides creating human capital, contributes to the development of society. Continuing the started modernization, reform of the education and training system is a primary task for our country, in order to provide quality workforce, able to work with new technologies and ready to respond to new market conditions. The problem that arises with the education of the people is non-compliance with labor market needs. Instead of giving subsidies to foreign investors for each new job, it is much better to invest that money in the continuous education of the workforce. In addition, education should be oriented towards the market structures of the future, which is the way to successfully attract foreign investors. The main competitive advantage of Serbia lies in the knowledge, and may be used only through the reform of education. The education reform process is based on the establishment of a system of social partnership, the improvement of educational institutions, providing quality systems in education, and research system in the education.

In terms of technological development, Serbia is characterized by backwardness, which refers not only to the highly developed countries, but also to the level of technology that the Serbian industry had in the late 20<sup>th</sup> century. Industrial policy and strategy for the period up to 2020 focus on three strategic priorities, which are instruments of technological policy of recovery of Serbian industry. Their implementation is organized in the form of phases, and refers to revitalization, re-engineering, and development. Revitalization is the instrument,

which should in the short term (2011-2015) activate the current technological resources and bring them to the normal state, with a focus on quantitative aspects. At this stage, the state has a key role in implementing and launching initiatives. The next phase, re-engineering, refers to the technological reconstruction of industry in the period from 2013 to 2020, through technological modernization and introduction of high-tech content. Development expansion (2018-2030), as the last stage in the technological development of the Serbian industry, seeks to alter the technological profile of the industry, by building new high-tech sector and increasing the innovative potential.

The initiator of industrial development in the future is innovation, which is the most important factor of industrial competitiveness. In addition, innovation is the driver of economic growth, which is imperative for Serbia in the future. Innovative policy aims to reach a greater number of scientific discoveries that the industrial sector will transform into commercial products. Research and development policy is part of the innovative policy, which should enable the transformation of scientific research into new technologies and innovations. In Serbia, the situation in this respect is very bad, which requires greater investment in knowledge and innovation, greater number of companies engaged in research and development, and better programs that encourage investment in science and technology. Allocation of only 0.3% of GDP for science is very low, and new industrial policy emphasizes that the level of budgetary allocations from GDP by 2015 should reach 1%.

Reforms in the context of information and communication technology, which are the initial spark of economic growth on a world scale, are related to the digitalization of telecommunications infrastructure, enabling the widespread availability of the Internet, encouraging the development of web economy, and a higher level of development of electronic communication. In order to achieve the planned changes, of primary importance is the training of a scarce number of professionals in this area, expansive development of e-government, health care, and a host of other activities that are closely associated with better functioning of information and communication technologies. All this is aimed at modernizing and increasing the competitiveness of the industry, as information and communication technologies are the means to achieve them.

Strategy and Policy of the Industrial Development of the Republic of Serbia from 2011 to 2020 provides for the changes in terms of competition, i.e. promoting economic openness, by strengthening ties with foreign countries. Although foreign trade is expanding, a trade deficit still exists, which can be overcome only by export growth, which is one of the main goals of Serbian industrial policy. To increase exports, it is necessary to remove or reduce barriers and ensure membership in the World Trade Organization, which would help Serbia increase its export volume. Membership in the World Trade Organization is a crucial goal for Serbia this year. In addition to increasing exports, the focus should also be on the attraction of foreign investments, which is highlighted by the industrial policy by 2020. For their attraction, the status of candidate for membership in the European Union is of particular importance, which Serbia achieved in 2012. In addition, it is noted that Serbia lacks relatively strong companies, which will be future carriers of economic growth, employment, and driving force of economic development, so that efforts should be directed towards their establishment. When it comes to regional development, the transformation should focus on institution building, the construction of regional economic infrastructure, recognition of the strategic planning of regional development, endogenous regional development, and regional integration in the European Union (Strategy and Policy of the Industrial Development of the Republic of Serbia 2011-2020, p. 109).

Environmental protection is an important objective of industrial policy if one takes into account the environmental degradation that comes from industrial production. Pollution is present in the air, water and soil, and there is also hazardous waste from industrial production. In this regard, the focus should be on cleaner industrial production, reducing pollution and environmental pressures, along with the development of infrastructure systems to support industrial development.

### 3. ANALYSIS OF THE STRATEGIC DIRECTIONS OF INDUSTRIAL DEVELOPMENT OF THE REPUBLIC OF SERBIA UNTIL 2020

The presented scenario of future industrial growth for the period up to 2020 is characterized by a shift in relation to the transitional period, and a host of ambitious, but achievable goals. The most important agents of industrial growth for the coming period have been identified, which primarily relate to the dynamic growth of investment, the growth of industrial employment, and export-oriented industries. The model of industrial growth takes into account some of the important changes in the environment. First of all, this refers to growing macroeconomic risks, the struggle with recession, falling exports, rising unemployment, and instability in the international economic relations. Future industrial growth, in addition to the obstacles encountered in the environment, also faces a number of inherited internal problems and challenges. First, the recovery of the industry and upcoming changes face falling employment, resulting in a drop in earnings, which ultimately leads to social problems and political upheavals, which indicates the orientation towards achieving short-term goals. Second, the industrial infrastructure is underdeveloped in all respects. The third problem is the long-standing inflation, which greatly complicates the betterment of the industry. Last but not least, there is the problem of deficit in the budget and the current balance of payment, and the growth of the foreign debt, which is a major threat to economic stability and growth. The new industrial growth model points to two milestones, reflected in the focus on industrial growth, innovation, and exports, and accelerated process of reform and European integration (Strategy and Policy of the Industrial Development of the Republic of Serbia 2011–2020, p. 131).

The next period of industrial growth of Serbia must be pro-innovation-oriented and export-oriented, whereby the focus should be on the growth of investment, rather than expenditure growth. What is more, Serbia needs to be more committed to European integration, in order to become a member of the European Union as soon as possible, and thus acquire the right to use the economic benefits provided by this community. The predicted average growth of GDP per annum by 2020 will amount to 5.8%, internal demand to 7.7%, while the productivity will experience a cumulative increase by 50% and employment by 17% (Strategy and Policy of the Industrial Development of the Republic of Serbia 2011–2020, p. 132).

The increase in gross domestic product over time should be conditioned by the dynamics of investment. Better results of economic development can be expected only with the recovery of industry and construction, i.e. when their combined share in GDP reaches the level of 25.5%. The key parameters of the new model of economic growth from 2011 to 2020 are (Strategy and Policy of the Industrial Development of the Republic of Serbia 2011–2020, p. 133):



- 1) Increasing the share of fixed investment to 25% in 2015 and 28% in 2020;
- 2) Reducing the share of government expenditure in GDP from 20.5% in 2009 to 12.4% in 2020;
- 3) Increasing the share of exports of goods and services in GDP from 27.6% in 2009 to 65% in 2020;
- 4) A significant reduction in the deficit of current transactions in the balance of payments from 7.1% in 2010 to 3.3% of GDP in 2020.

**Table 2** Average growth rates of target variables of industrial policy in the period 2011-2020

| Target variables                                 | Average growth rate 2011-2020 (%) |
|--|-----------------------------------|
| GDP  | 5.8                               |
| Investment                                       | 9.7                               |
| Internal final demand                            | 4.7                               |
| Expenditure                                      | 3.5                               |
| Export of goods                                  | 14.2                              |
| Processing industry                              | 7.3                               |
| Construction                                     | 9.7                               |
| Employment in processing industry – total growth | 18                                |

Source: Strategy and Policy of the Industrial Development of the Republic of Serbia 2011- 2020

The amount of budget expenditure allocated for industrial policy by 2020 should be about 1% of gross domestic product. This practically means that around 527 million euros should be allocated for industrial policy in 2020, or about 1% of GDP. In order to use it in an efficient manner, it is necessary to design the dynamics of spending, compliant with the guidelines of the (new) industrial policy (Serbian Post-Crisis Economic Growth and Development Model 2011-2020 (2010). Foundation for the Advancement of Economics – Faculty of Economics, Macroeconomic Analyses and Trends and Konjunktur-Barometer – Economic Institute, USAID. Belgrade. p.31).

The new model puts particular emphasis on the inflow of foreign direct investment, which serves as the basis of important structural changes and economic recovery, primarily in the field of industry. Within a macroeconomic model of economic growth and development, three assumptions overlap. They point to the recovery of the industry, which is based on investment and exports, the necessity of joining the European Union, as well as the risk that originates from large external debt burden. Accordingly, in order to achieve sustainable economic growth, it is necessary to redirect the economy from exports and expenditure to imports and investment.

The inflow of foreign direct investment in the Serbian processing industry between 2004 and 2010 was 25.4% of the total foreign direct investment. The most attractive areas for foreign investments in processing industries were the food and beverages industry and the industry of chemicals and chemical products. Based on the inflow of foreign direct investments in processing companies, there were positive effects, i.e. productivity growth. The production of cement, lime and plaster, and the production of tobacco were the most productive fields, and in these fields, foreign ownership is the most prominent. This is supported by the fact that 31% (Strategy and Policy of the Industrial Development of the Republic of Serbia 2011- 2020, p. 139) of the capital value of companies in the processing industry in Serbia is in foreign ownership.

According to the projections of the industrial growth model for the coming period, the inflow of foreign direct investments should amount to 5.8% of GDP per year, while the share of processing industry in total inflow should exceed 40%. For the sake of attracting foreign investors, Serbia widely uses tools (tax exemption, subsidy for each new job, free sites), which are not popular in economics. Our strongest argument for attracting foreign investors is educated workforce, offered at a low price. The current structure of foreign direct investment is incongruous in Serbia, and causes a structural imbalance. Foreign investments are mostly focused on the financial sector (banks, insurance companies, and other financial intermediaries), real estate, and retail chains. On the other hand, in developed countries, investment in industry and infrastructure prevails, where investment in the industry accounts for about 40% (Reindustrialization Strategy of Serbia: A Draft Version, 2012) of foreign direct investment.

Furthermore, the growth of industrial production has been projected at 6.9% annually, and increase in the share of processing industry in total industrial production should be at the rate of 7.3% per annum. By achieving anticipated growth rates, the share of industry in GDP of 17.6% in 2011 will increase to 19.1% in 2020, while the trend in the processing industry will also rise from 13% to 14.7%. Therefore, the processing industry should amount to 20% of GDP in 2020. Within the processing industry, the highest average annual growth rates for the next period are projected in high-technology field. In addition to these fields, it is expected that the automotive, as well as pharmaceutical industry, will have high annual growth rates. According to currently available data, Serbia is experiencing the decline in industrial production by 4.3% compared to last year (Statistical Office of the Republic of Serbia).

The holder of future industrial growth and economic sustainability is employment. In recent years, employment has significantly lagged behind economic growth, due to transition, restructuring, and institutional and structural constraints. With the advent of the global economic crisis, unemployment has deepened, and in 2010 unemployment rate reached a level of over 20%. Currently, according to data from the Statistical Office of the Republic of Serbia, the unemployment rate is 21.2%, and the expectations of the International Monetary Fund are that by the end of the year it will reach 21.8%. Serbia is facing a difficult task, given such a high unemployment rate, and the desire to join the European Union, which sees a substantial obstacle to Serbian accession in the unemployment rate. Changes in employment policy are necessary so that Serbia could meet expectations for entry into the Union. Projections of the sectoral structure of employment reflect the equal importance of the quantitative increase in employment and changes in the sectoral structure, which, simultaneously observed, suggests the improvement of its quality. The analysis of the current sectoral structure of employment shows that employment in Serbian agriculture is high, and that employment in the industry is low, compared with countries with similar levels of economic activity. The transition to a new model of development means, among other things, the revitalization of industrial employment (Serbian Post-Crisis Economic Growth and Development Model 2011-2020, 2010, p. 93-94). Judging by projections of industrial employment by 2020, it should increase by a quarter, while the share of employees in the industry in total employment should reach 26.4%. Given the growth of the processing industry by 2020, the projected number of employees should amount to nearly 500,000, an increase of 13% compared to 2009 (Strategy and Policy of the Industrial Development of the Republic of Serbia 2011- 2020, p. 137).

For export-oriented industrial growth, important goals for the period up to 2020 are achieving an average annual growth rate of exports of goods and services of 13.5%, increasing the share of tradable sectors in GDP formation by export growth, reducing the trade deficit to 12%, and changing the structure of exports in terms of increasing the share of tradable goods with higher share of value added. As the most important objective among other objectives, there is an increase in export competitiveness. The effort in the coming period is to bring the share of exports of goods to the level of 47.1% of the gross domestic product of Serbia. Serbia's foreign trade partners in the field of export will not change significantly but the number of partners from the EU should increase. Strengthening Serbian exports is only possible if transnational companies are encouraged to invest or assist in technological reconstruction of large production capacities. Regarding the export of the products of processing industry, it is projected that it should account for about 94.1% of total exports of goods, which will result in reducing the trade deficit. Within the processing industry, export is focused on the automotive industry, followed by the food and chemical industries. The automotive industry is expected to account for more than one-fifth of total export growth of the processing industry by 2020.

#### 4. THE INDICATOR OF INDUSTRIAL DEVELOPMENT ACCORDING TO UNIDO METHODOLOGY – THE COMPETITIVE INDUSTRIAL PERFORMANCE INDEX

*The United Nations Industrial Development Organization* (UNIDO) is a specialized organization of the United Nations that promotes industrial development, poverty reduction, globalization, and environmental sustainability. As an organization that puts special emphasis on inclusive and sustainable industrial development, it is responsible for the promotion and improvement of industrial development in developing countries and transition economies. Serbia joined this organization in 2000, which had 171 member countries on 1 January 2014 (UNIDO, [www.unido.org](http://www.unido.org)).

*The Competitive Industrial Performance Index* (CIP) has become a major diagnostic tool adopted by UNIDO for benchmarking and measuring industrial competitiveness of countries. The CIP index can also be used as an analytical tool for designing policies and assessing the effectiveness of the chosen policy. Despite being a composite index, the CIP index provides a possibility of analysis of the relative performance of countries over time, through different sub-indicators which are included in the index structure. Therefore, national economies can compare their industrial structure, technological level of development, and achieved export performance (Competitive Industrial Performance Report 2012/2013, 2013).

“The CIP index provides complex analysis and follows the developmental trend of competitiveness of one industry. It provides a comparative analysis with other industries, based on absolute and relative indicators and dimensions of competitiveness. Based on its comparison and trends, it is possible to draw conclusions about the state and prospects of the industrial development, which can be a basis for defining economic, industrial, and trade policies, and concrete measures within them” (Mičić, 2014).

According to UNIDO methodology, the CIP index consists of eight sub-indicators, grouped into three dimensions of industrial competitiveness. The first dimension relates to a country's ability to produce and export the product. Indicators of this dimension are the value added per capita (MVApc) and exports per capita (MKSpC). The second

dimension refers to the level of technological development and technological upgrading. This dimension is observed through two composite sub-indicators: a) the intensity of industrialization (INDint) and b) the quality of exports (MXQual). The intensity of industrialization is calculated as a linear aggregation of the share of medium and high technology in the production of value added in total value added produced, and is calculated as:  $(MHVAsh + MVAsh)/2$ . The quality of the country's exports is obtained as linear aggregation of the share of medium and high-tech manufactured products in total manufactured exports, and is calculated as follows:  $(MHXsh + MXsh)/2$ . Finally, the third dimension of competitiveness includes the impact of the country in world production, both in terms of its share in world manufacturing value added (ImVMVA), and in terms of the impact of the country on the world trade (ImVMT). The CIP index is a composite index, derived as geometric aggregation of these six sub-indicators that have equal relative importance.

What characterizes this index and makes it different from other competitiveness indices is the fact that it provides a unique comparative analysis of industrial performance (*Industrial Benchmarking Performance*) and ranking on the basis of quantitative indicators and a selected number of indicators that are used as a measure of industrial performance. Comparisons and rankings are available at both global and regional level. The analysis included 135 countries in 2010. Based on empirical data and general theoretical knowledge, large disparities were observed in the development of industries around the world. According to UNIDO methodology, the countries were classified according to the level of industrial development into five categories: *top* (most advanced), *upper middle*, *middle*, *lower middle*, and *bottom* (undeveloped).

**Table 3** Overview of the values of CIP ranking/index of South East European countries

| CIP ranking 2010 | CIP Index 2010 | Country   | MVApc   | MXpc     | MHVAsh % | MVAsh % | MHXsh % | MXsh % | ImWMA % | ImWMT % |
|------------------|----------------|-----------|---------|----------|----------|---------|---------|--------|---------|---------|
| 76               | 0.0262         | Serbia    | 146.024 | 771.86   | 20.05    | 15.97   | 32.82   | 78.21  | 0.020   | 0.071   |
| 50               | 0.0603         | Croatia   | 999.359 | 2356.28  | 31.77    | 16.19   | 49.46   | 90.42  | 0.063   | 0.099   |
| 32               | 0.1152         | Slovenia  | 2716.24 | 11094.26 | 45.52    | 20.89   | 62.96   | 90.83  | 0.075   | 0.206   |
| 29               | 0.1402         | Hungary   | 1210.31 | 8291.96  | 53.47    | 21.08   | 77.99   | 87.04  | 0.166   | 0.763   |
| 59               | 0.0460         | Bulgaria  | 398.788 | 1958.22  | 25.57    | 15.52   | 35.40   | 70.99  | 0.041   | 0.135   |
| 46               | 0.0675         | Romania   | 341.552 | 2111.40  | 33.88    | 13.06   | 54.69   | 90.36  | 0.100   | 0.413   |
| 83               | 0.0219         | B&H       | 210.547 | 885.83   | 29.17    | 10.14   | 23.00   | 72.69  | 0.011   | 0.032   |
| 84               | 0.0214         | Macedonia | 388.821 | 835.51   | 14.60    | 17.69   | 18.08   | 63.35  | 0.011   | 0.019   |
| 94               | 0.0144         | Albania   | 214.538 | 359.49   | 14.36    | 11.34   | 15.42   | 75.26  | 0.010   | 0.011   |

Source: The Industrial Competitiveness of Nations-Looking back, forging ahead, Competitive Industrial Performance Report 2012/2013 (2013). The United Nations Industrial Development Organization, Vienna.

Based on the data presented in Table 3, it can be seen that Serbia occupies the 76<sup>th</sup> place in the world according to the level of industrial development, which puts us in the upper-middle category of countries. Compared to neighboring countries, we can say that only Bosnia and Herzegovina, FYR Macedonia, and Albania have a lower level of

industrial development, measured by the CIP index. This unenviable data indicates that, in the coming period, Serbia must focus its efforts on improving industrial development and competitiveness.

#### CONCLUDING REMARKS AND RECOMMENDATIONS

Industrial policy, as part of the general economic policy of a country, plays a key role in the development of the economy. From the theoretical point of view, there are good reasons to believe that industrial policy can play an important role in promoting development. As the foundation of economic and social development, a country's industrial policy is a benchmark for the regional, educational, technological, financial, monetary, and other policies. The outcome of industrial policy depends on the mindset of the policy makers, attitude of international institutions, as well as compliance with the conditions of development that are present in a country. The implementation of industrial policy and the achievement of its objectives require the networking of companies and cooperation between the private and public sector due to the trends of globalization and technological changes.

The primary objective of the industrial policy of Serbia is to improve, i.e. increase the competitiveness of this sector. Serbia has proactive industrial policy, based on export-oriented competitiveness. The comparative advantage of Serbia lies in labor-intensive industries, and focus should be placed on the development of the knowledge economy, which should be part of the future competitive advantage of our country. Besides, much greater investment in research and development is needed, because only innovation can stimulate industrial development, and thus indirectly affect the increase in exports of products of high-tech intensive industries to the world market. In particular, the focus should be on the processing industry, because orientation towards the service sector is not a favorable option for further long-term stable and sustainable development of the country.

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## **KONKURENTNOST I RAZVOJNI TOKOVI NOVE INDUSTRIJSKE POLITIKE REPUBLIKE SRBIJE**

*Dostignuti nivo privrednog razvoja determiniše stepen razvoja industrije u jednoj zemlji. Cilj ovog rada je sagledavanje ključnih odrednica nove industrijske politike Srbije u kontekstu evropskih integracionih procesa. Isti se bazira na analizi strateških dokumenata Srbije i Evropske unije kojima se uređuje razvoj industrije za period do 2020. godine. Posebna pažnja u radu posvećena je praćenju razvojne dinamike i uočavanju tendencija u unapređenju industrijske konkurentnosti. Uočeno je, da dostignuti nivo industrijalizacije opredeljuje industrijsku konkurentnost jedne nacionalne ekonomije. Srbiji je potrebna efikasna, industrijski konkurentna privredna struktura koja će biti u stanju da odgovori sve većim zahtevima i izazovima na tržištu. Samo adekvatno koncipirana i dosledno primenjena industrijska politika može pratiti evropske razvojne tokove u budućem periodu.*

Ključne reči: *nova industrijska politika, evropski integracioni procesi, The Competitive Industrial Performance index (CIP), razvoj i konkurentnost industrije*