

ANALYSIS OF THE STATE OF INDUSTRIAL SECTOR AND DEVELOPMENT OF INDUSTRIAL CAPACITIES IN SERBIA

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Abstract—This paper deals with macroeconomic analysis of the state of industrial sector in Serbia, since the Second World War until today. In previous period, industry of Serbia was burdened by numerous structural weaknesses. Structure of Serbian industry is currently in such a state that it cannot answer global requirements of contemporary market of the 21st century. The aim of this paper is, on one hand, to point to the significance of the development of contemporary industrial sector, having in mind that primary strategic developmental goal of Serbia is sustainable and dynamic development of industry which might stand the competitive pressure of its members. On the other hand, without the stable growth of industry it is impossible to achieve sustainable economic growth and macroeconomic stability.

Keywords—macroeconomic analysis, industrial sector, market of European Union, sustainable development, economic growth, macroeconomic stability.

I. INTRODUCTION

IN European Union, common industrial policy is one of the most controversial fields of economic policy. Entrance of Serbia to European Union represents real possibility for solving key developmental issues. This entrance conditions the implementation of precisely defined activities, but simultaneously induces certain problems that need to be solved and difficulties that need to be overcome. In addition, it is necessary for our industry to be able to stand competitive game with other members of EU. Selection of relative measures and instruments for development of Serbian industry should be determined by current phase of the development of our country's market economy. In addition, it is necessary to include the measures whose implementation has already begun within particular legislative frameworks, programmes and projects and which by their nature and content make a part of industrial policy. All existing policies, measures and activities need to be constantly and systematically corrected and improved in order to raise the competitiveness of Serbian industry, as well as in accordance with requirements and obligations

that are imposed by status of candidate and member of EU.

II. DEVELOPMENT OF INDUSTRIAL CAPACITIES IN SERBIA AFTER THE SECOND WORLD WAR

Period after the Second World War until the beginning of the 1980's is characterized by dynamic development of industrial capacities. Industrialization is applied as main method of accelerated economic growth. Owing to it, radical changes in the structure of economy are achieved, as well as in economic structure of population and overall development of Serbia. Domination of sectoral over structural and spatial criteria in previous period has led to uneven development, irrational regional distribution of economic activities, depopulation of rural areas, big polarization of wider areas, i.e. to the creation of big economic centres and increasingly stronger inflow of population in them. Territorial expansion of industrialization process wasn't even, it didn't follow the configuration of available natural resources, and it wasn't in accordance with requirements of social rationality. The biggest number of significant industrial capacities is located in relatively small number of cities and industrial centres. Growth of industrial production has enabled radical changes in many fields, but this growth wasn't in harmony with parallel processes of deagrarianization and urbanization. This has led to a series of disorders of structural type, which were manifested in economy as a whole, as well as in industry itself, i.e. in its branch and territorial structure. Concentration of industrial capacities was a key factor of territorial polarization of population. Searching for job, population moved towards industrially developed areas. As D. Marsenić points out, arrival of rural population to cities has created numerous and complex problems of their acceptance and, in return, there was no production result from newcomers which would cover the expenditures in material and financial aspect. Thus, during our industrialization, village has performed greater, mostly negative impact on the city, while the impact of city on

economic and overall cultivation of village didn't exist. And it should have been vice versa [12, pp. 307].

In the territory of the Republic of Serbia, in addition to traditionally undeveloped municipalities (border municipalities, South of Serbia, Stari Ras territory), new areas of underdevelopment were created, as well as devastated areas where transition has deepened the existing differences and problems. These processes had a negative impact on regions – centres of traditional industry in which dominant sectors that have engaged a great number of working age population were the most affected (automotive industry, production of transport means, metal complex, mining, textile industry). Uneven regional structure of investments was main cause of excess concentration of industry in big regional centres, so for e.g. in the period from 1973-1982 in industry of Belgrade 27,7% of all industrial investments were implemented, which is by 77% higher than in insufficiently developed municipalities. In fact, in industry of regional industry centres we have invested 75,9%, while the industry of insufficiently developed municipalities received the rest of total investments in industry in the territory of narrower Serbia [10, pp. 170]. Industrial production was mainly based on huge production systems, financed by expensive foreign loans, protected by high customs barriers, oriented on domestic, and much less on foreign market, with big redundancy. Examples of approximation of macroeconomic indicators of Republic of Serbia are shown in paper [4], using methodology shown in papers [4-5].

III. MAIN SOURCES OF CRISIS OF SERBIAN INDUSTRY

As B. Babić points out, main sources of crisis in which our industry is found, consist of:

- economic and non-economic reasons, as well as
- external blows [1].

Economic causes of slowing the industrialization down are: non-existence of appropriate policy of encouraging the export and low cumulative productivity of production factors, which resulted in faster and greater export of raw materials and reproduction materials in comparison to the export of end products.

Non-economic reasons include: inability of managerial top of the country to monitor the dynamics of economic development; liquidation of enlightened leadership and the most successful economists in a country; institutional changes such as Constitution from 1974, Law on associated Labour from 1976 and introduction of balance of payments' positions of republics and provinces and its right to borrow abroad, which have determined the fate of both industry and the state. Big economic systems are broken, making business decisions was made difficult, connections between economic units were torn and unique market was broken.

External blows that have deepened the crisis of industry are: disintegration of Yugoslavia in the beginning of 1990's; economic sanctions of WB, UN and NATO aggression on FR Yugoslavia in 1999, which devastated big production facilities and great part of infrastructure.

IV. DEVASTATION OF SERBIAN INDUSTRY

Slow recovery of Serbian industry is a consequence of perennial devastation of Serbian economy and implemented privatization process. "Non-existence of export-oriented and highly competitive industry has practically stopped its development and led to further devastation" [3, pp. 249]. Industrial sector in the Republic of Serbia after the year 2000 was, and it still is, in the process of restructuring and privatization.

By accepting new transitional concept of reforms (liberalization, deregularization and privatization), Serbia has practically stopped the development of industry, i.e. reduced the ability of economy to create income. By accepting neoliberal rule of leading economic policy, state and position in which Serbian industry was found was neglected. „Developmental models of „free market“ and „shock therapy“, which were chosen from 2001 to 2009 in order to establish market system, are more the “regional chaos” and “economic liberalism” from 1920's than experiences with “economic miracles” from 1950's in Western Europe“ [18, pp. 150]. In Serbia, in this phase of transition, completely wrong concept was applied and strategy of its development. Instead of performing a thorough process of restructuring and recovery of industry, we have moved the opposite direction. Serbian industry couldn't stand market game with powerful foreign industries, which is created by opening a country for free competitiveness. Many industrial companies have gone bankrupt [17, pp. 330]. Inefficient privatization has stopped the growth of industry and significantly changed the structure of economy. Share of industry in Serbia has dropped below 20% of total GDP.

Problems that global economic crisis brings along lead to further devastation of Serbian industry. However, global economic crisis is not the main cause of bad condition in which Serbian economy is found, although politicians try to assure us that it is so. Condition of Serbian economy is a consequence of deep crisis of industrial development and negative tendencies in industrial sector. Adopted concept, of privatization has, apart from some positive results and success in implementation of structural reforms in industry (growing impact of private and sector of small and medium enterprise), put greater part of industrial companies in difficult position. Only a smaller part of privatized companies works efficiently, while foreign owners prefer only those industrial productions that bring big profits. Funds from privatization are not adequately aimed for investments, crediting of

developmental and export projects of industry and restructuring and revitalization of carriers of industrial development in previous period. Process of structural changes (low level of technical-technological equipment; domination of filthy, work- and resource-intensive industries; low level of competitiveness; insufficient export range etc.) is slowed down because significant improvement of business environment lacks. Structural changes and privatization needed to have a key role in: fixing the situation which Serbian industry is found in; growth of the export of industry and greater attraction of foreign direct investments for the purpose of technological modernization of industry. However, privatization has only accelerated the process of devastating the industry in Serbia.

Our industrial production is characterized by technological-economic lagging of great majority of capacities, low investment level, poor utilization of capacities, low competitiveness, inefficiency of business, low level of product and service quality according to world standards, redundancy, high production costs, losses, illiquidity etc. There is a tendency of creating a contemporary, developmental, competitive industrial structure with significant share of high-technology industrial branches. It is necessary to create such industrial structure that will be gradually harmonized with economic flows of region and that will no longer be a constraining factor of the export of industrial products. Goals of industrial development are aimed at: increase of competitiveness; change of industrial structure – increase of high-tech subsectors share; encouragement of the development of industrial clusters, industrial parks and zones; international cooperation in all big industrial systems; encouragement of export, particularly those

branches in case of which there is big newly-acquired value; increase of energy efficiency; harmonization of national regulations in the field of industry and EU legislation. As for export orientation, our industry should be specialized for narrower range of products and services, having in mind that export dependence will be reduce and export capacity of domestic industry with products of higher level of processing and services increased. As a country, we suffer great losses because current export is based on production of primary and work- and resource-intensive products and products of lower phases of processing that have low newly-accomplished value.

V. OVERVIEW OF THE STATE IN INDUSTRIAL SECTOR

Average growth rate of physical volume of industrial production in the period from 2001-2010 is 0,5% for overall industry and 0,4% for processing industry (table 1). In 2010, a growth by 2.5% in relation to 2009 was registered. Growth of production was accomplished in two industrial sectors: mining 5,8% and processing industry 3,9%, while drop was recorded in the sector of energy, gas, steam, climatization supply 4,4%. The greatest impact on growth of industrial production in 2010, in relation to 2009, had the industrial fields: production of basic metals (21,0%), production of chemicals and chemical products (21,9%), extraction of raw oil and gas (34,9%) and production of electric equipment (14,6% - in this industrial field 2010 was marked by effectuation of foreign investments, which resulted in production growth and export).

Table 1: Industrial production in Serbia [16, pp. 27]

	2009/ 2008	2010/ 2009	Avr. growth rate (2001-2010)	2010 (2005=100)
Total	87.4	102.5	0.5	98.5
Mining	96.2	105.8	0.4	111.8
Processing industry	83.9	103.9	0.4	96.4
Production of food products	94.2	101.4	1.6	102.8
Beverage production	86.9	98.0	0.5	102.6
Tobacco production	97.9	107.7	2.8	114.0
Coke and oil derivatives production	90.5	96.9	7.8	86.3
Production of chemical and chemical products	74.4	121.9	4.5	100.4
Production of basic pharmaceutical products and preparations	83.8	98.9	6.1	106.6
Production of rubber and plastic	80.9	100.8	1.7	84.7
Production of products made of other non-metals	80.3	100.2	-2.8	81.6
Production of basic metals	71.2	121.0	6.2	107.2
Production of electric equipment	89.9	114.6	2.9	132.4
Energy, gas, steam and climatization supply	100.8	95.6	1.3	103.9

Purposefully observed, growth was recorded in case of intermediary products 9,2%, durable consumption

products 2,9% and non-durable consumption products 1,9%, while drop was made in energy 2,3% and capital

products 6,4% (due to investments crisis and reduction of construction works both in domestic market and EU countries market).

The following figure presents graphical overview of movement of industrial production in the period from 1946-2010 (figure 1).

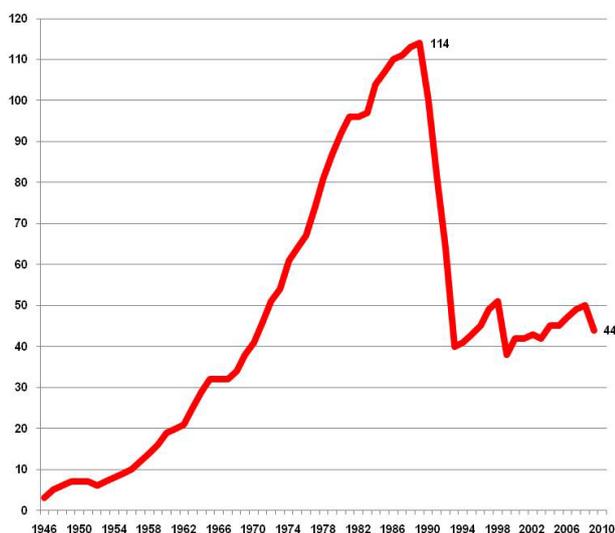


Fig. 1: Movements of industrial production in Serbia 1946-2010 [14, pp. 7]

Serbian industry wasn't ready for technological and structural changes in global economy (table 2). The existing technological structure and its inclusion in contemporary market flows needs to be implemented through the development of high technologies in all fields.

The biggest share in the structure of processing industry belongs to the groups of low technological (47,1%) and medium technological intensity (27,6%). Trend of changes is unsatisfactory in the period mentioned. High technologies increase their share in slow pace (0,8% in 2000 to 1,0% in 2008).

The biggest growth in 2010 was recorded by industrial production in Hungary (10,5%), than Romania follows (5,5%), Bosnia and Herzegovina (4,2%) and Serbia (2,5%). Bad results in relation to Serbia are recorded in Bulgaria (2,1%) and Croatia (-1,4%) [16, pp. 27]. Countries with greater growth of industrial production have "in addition to consistency in implementation of market reforms, increased inflow of foreign direct investments and structural changes in production and export, increased their export performances and made a significant progress in transition process" [11, pp. 198].

Table 2: Structure of processing industry – technological groups [15, pp. 165]

	2000	2001	2002	2003	2004	2005	2006	2007	2008
High-technology	0,8	0,6	1,6	0,7	2,7	2,3	1,4	1,2	1,0
Medium-high-technology	25,0	25,6	26,4	23,2	24,8	24,7	22,7	23,4	24,3
Medium-low-technology	25,5	25,5	26,2	27,7	25,4	27,0	28,3	27,4	27,6
Low-technology	48,7	48,3	45,8	48,4	47,1	46,0	47,6	48,0	47,1

VI. SIGNIFICANCE OF REINDUSTRIALIZATION FOR BALANCED DEVELOPMENT OF REGIONS

As M. Bošnjak [2, pp. 1] points out, Serbian economy is still in the phase of recovering from deep fall occurred in the last decade of 20th century. In 2008, Serbia has about 50% of industrial production from 1990. E. Jakopin and J. Bajec [9] state that 34 industrial centres have disappeared from industrial regional map of Serbia (1990-2008) and that today in Serbian industry there are 250.000 (35%) workers less than in 1990. Such big drop in employment in the biggest industrial centres, which were the carriers of the development of entire regions, has caused dramatic changes in economic, social, demographic and spatial dimension of the development of Serbia.

If a country wants all regions to progress economically and to reduce regional imbalances, it needs to return industrial production to previous industrial centres, as well as to form new driving branches of development, i.e. to implement the reindustrialization. Through new industrial policy and reindustrialization process, Serbia could specialize its productions and

adapt its structure to the needs of foreign import demand. New form of industrial policy on which reindustrialization should be based should precisely be the development of regional clusters that will not implicate polarization only, but certain spatial extension of economic activities as well.

Serbia needs regional development strategy that will primarily rely on formation of regions as clusters with one or more branches as poles or carriers of growth. Carriers of economic policy need to integrate the "cluster concept" within national strategy for FDI attraction. In addition, new promotional policy, which is carried out in order to attract and promote investments, needs to be based on specific activities at the level of industrial clusters. Elimination of obstacles to growth and development of already existing and new clusters needs to be a priority of state policy. It is necessary to initiate the process of changes that will mobilize state bodies, economy, institutions and citizens to improve both general business environment and different local clusters. Measures of economic policy need to be aimed at creation, development and improvement of clusters (especially export-oriented), and to include the search for competitive advantage and specialization.

FDI can have important role for encouragement of growth and cluster development in Serbia. Cluster theory advocates for the attraction of FDI. Clusters provide each location the biggest chances for the attraction of FDI and encouragement of export. On the other hand, foreign investors are more interested in investments on locations that have developed or developing clusters. Thinking based on clusters aims state policy towards the improvement of business environment for the attraction of as greater FDI volume. Cluster concept should be integrated within national strategy for FDI attraction. "Experiences of highly developed countries show that clusters are an efficient instrument of strengthening the competitiveness of industrial companies" [13, pp. 72]. Development of undeveloped areas should be the most important segment of overall country's development, mostly where we wish to achieve some other goals, in addition to economic ones, (demographic development, country's defence, connection of border areas for the centre of the country etc.) by measures of economic policy. Activities of regional policy should be aimed primarily on stopping the expansion of regional differences, and afterwards gradual reduction of regional imbalances, as well as mitigation and stopping unfavourable migration flows of population, particularly depopulation of border region. More balanced regional development, in addition to economic efficiency and greater competitiveness, is one of the main goals of regional development policy. "Competitiveness can be used for qualification of some development options" [6, pp. 144]. Increase of the competitiveness of entire Serbian economy implies strengthening of overall competitiveness of industrial economic subjects. This can be achieved by parallel increase of their price, technological and entrepreneurial competitiveness.

VII. CONCLUSION

From above-mentioned, we can conclude that Serbian economy is in rather difficult situation. For that reason, it is necessary for new model of industrial growth of Serbia to be export-oriented, which would imply dynamic growth of investments, high rate of goods export and growth of industrial employment.

In order to implement reindustrialization, the state must, on one hand, perform the turn of structural character with focus on industrial growth, investments and export. On the other hand, it is necessary to accelerate reform processes and processes of European integration. Key to success is in creation of a more attractive investment environment, which would be more attractive for foreign investors and finding strategic partners from developed markets in the world, who would invest in sectors of processing industry with high value added. Package of measures that are aimed at implementation of reindustrialization will provide accelerated economic growth, increase of employment,

revitalization and development of industry, change of industrial structure in favour of more profitable high-technology industries, increase of exports and foreign trade surplus, and thus the maintenance of macroeconomic stability.

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