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INDUSTRY OF THE REPUBLIC OF SERBIA: STRUCTURAL ASPECT OF DEVELOPMENT PROCESSES (Appendix for the economic history of the second half of the 20th century)

Abstract

Industry represents a very complex and heterogeneous area of material production, which consists of a large number of smaller, interconnected parts (complexes and branches) that make up its structure. The structure of the industry is extremely important, because the overall trends of growth and development, both of the industry itself and of the economy as a whole, depend on that structure. Bearing in mind that fact, the analysis of development processes and changes in the structure of the industry of the Republic of Serbia is a key research question on which this paper focuses. In this sense, in this work, based on relevant theoretical knowledge and reference statistical data, the development processes and structure of the industry of the Republic of Serbia are monitored and analyzed over a relatively long period of time (during the second half of the 20th century) in which large and specific changes took place. As a consequence of those changes, structural inconsistencies, which arose at the very beginning of accelerated development after the Second World War, were continuously present and represent the basic characteristic of development processes in the industry of the Republic of Serbia in the entire analyzed period.

Keywords: *Industry, industry structure, development processes, structural changes in industry, 20th century, Republic of Serbia*

JEL classification: *L16, N00, O11.*

ИНДУСТРИЈА РЕПУБЛИКЕ СРБИЈЕ: СТРУКТУРНИ АСПЕКТ РАЗВОЈНИХ ПРОЦЕСА (Прилог за привредну историју друге половине 20. века)

Анстракт

Индустрија представља веома сложену и хетерогену област материјалне производње која се састоји из великог броја мањих, међусобно повезаних, делова (комплекса и грана) који чине њену структуру. Структура индустрије има изузетно велики значај, јер од те структуре зависе свеукупни токови раста и раз-

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воја, како саме индустрије, тако и привреде у целини. Имајући у виду ту чињеницу, анализа развојних процеса и промена у структури индустрије Републике Србије представља кључно истраживачко питање на које се овај рад фокусира. У том смислу, у раду се, на основу релевантних теоријских сазнања и референтних статистичких података прате и анализирају развојни процеси и структура индустрије Републике Србије у релативно дугом временском периоду (током друге половине 20. века) у коме су се у структури индустрије одиграле крупне и специфичне промене. Као последица тих промена структурне неусклађености, настале на самом почетку убрзаног развоја после Другог светског рата, континуирано су биле присутне и представљају основну карактеристику развојних процеса у индустрији Републике Србије у целокупном анализираном периоду.

Кључне речи: *Индустрија, структура индустрије, развојни процеси, структурне промене у индустрији, 20. век, Република Србија.*

1. Introductory remarks

The basic and most significant characteristic of the economic development of the Republic of Serbia during the second half of the 20th century is contained in the very dynamic development of industry. Thanks to such development in the structure of the industry, and under its influence also in the structure of the economy, major changes took place (Gligorijević et al, 2021, 28). Namely, the dynamic development of the industry, in the period from the end of the Second World War until 1990, led to rapid and profound changes in the structure of the economy, which were accompanied by high annual rates of economic growth. This made it possible for the average annual growth rate of the national product in the period from 1953 to 1990 to be 7.7% and for the Republic of Serbia, in a very short period of time, from an agrarian and poorly developed country to become a medium industrially developed country (Savić, 2009, 2). However, in the last decade of the mentioned period, unfavorable development tendencies appeared.

Unfavorable development tendencies, which are a consequence of extremely unstable macroeconomic conditions (high trade deficit and galloping inflation rate), especially marked the functioning of the industry and economy of the Republic of Serbia during the last decade of the 20th century (Arandžević & Gligorijević, 2008, 232).

The negative effect of economic factors, at the same time, was reinforced by the action of non-economic factors (breakup of the common state, introduction of international sanctions that caused huge direct and indirect losses, first of all, through the reduction of the social product and further destabilization of economic flows).

The partial recovery that followed the mentioned events was stopped in 1999 by the bombing of the country by the member countries of the NATO pact. The destruction of industrial capacities and infrastructure, the interruption of production and human casualties further reduced the material basis of development and destabilized the functioning of the state and the economy (Gligorijević, 1999, 21-30).

Starting from the previous remarks, this paper aims to analyze the development processes in the industry of the Republic of Serbia during the second half of the 20th century - a time period in which, in the process of industrial development, major changes in the structure of the industry took place.

The work consists of four parts. After the introductory remarks, the second part of the paper presents a theoretical-methodological approach to the problem (an overview of the

relevant literature is given, as well as the methodological procedure used in the analysis). In the third part of the work, first of all, a brief analysis of the development processes and structural changes in the industry of the Republic of Serbia in the period that includes the time of the initial stage of development (from 1947 to 1965) when, after the period of reconstruction, the emphasis was placed on the development of branches heavy industry and energy, and then the analysis of the mentioned processes and changes in the twenty-five-year period (from 1965 to 1990), that is, in the period in which the process of wider branch diversification and territorial dispersion of the industry took place. In the fourth part of the paper, the development processes and structural changes in the industry of the Republic of Serbia in the last decade of the 20th century (from 1990 to 2000), i.e. in a period characterized by very unfavorable development conditions created under the influence of numerous, first of all, factors of a non-economic nature.

2. Theoretical-methodological approach to the problem

The process of development of modern industry, that is, industry in today's sense of the word, began in the second half of the 18th century. Namely, the development of industry as a special economic activity, in the material and technical sense, began with the first industrial revolution, and as the beginning of its development, i.e. as the turning point from which that development begins to be counted, is considered 1784 when James Watt, a Scottish engineer, discovered the steam engine. "In other words, the industry has left behind a period of development of almost two and a half centuries. That period is long, especially from the point of view of its contribution to economic development, and on that basis to overall development" (Gligorijević, 2021, 15).

The process of the development of the industry covered all parts of the world and played the biggest, i.e. decisive, role in the economic development of a large number of countries that, in doing so, used different methods of its development, depending on the level of development reached and the specific conditions they dealt with at the time of entry to the path of industrial development (Pack & Westphal, 1986, 87-128). "Many of these countries have, precisely thanks to industry, achieved a high rate of growth and raised the level of their economic and, on that basis, their overall development to an extremely high level." Those countries, in fact, became highly (industrially) developed countries" (Gligorijević & Bošković, 2021, 64). However, in contrast to them, countries whose industry has not undergone the necessary structural changes are lagging behind in development and very difficult to move away from production that is predominantly based on extractive industry branches, as well as from production that is realized in traditional industrial branches (Lin & Chang, 2009, 483-502). The high pace of economic growth, today, of highly developed countries, to a large extent, was achieved thanks to changes in the structure of industry that lead to a change in the relationship "...in the composition of production factors, production, employment, supply, demand, investment and trade" (Doyle, 1997, 59-71).

The development of industry, at the same time, is a key driver of structural changes and transformation of a country's economy, which is of particular importance for developing countries. This means that without the development of the industry there is no dynamic and efficient growth and development of the economy as a whole. However, such a role - the role of the bearer of growth and development "...industry can only be realized under the condition that maximum rationality is ensured in its development, that is, its optimal branch and territorial structure, which, over time, must be changed and adjusted" (Gligorijević, 2021, 211).

Between economic growth and changes in the structure of the economy, and on that basis also in the industry, there is a close and highly pronounced two-way, cause-

and-effect relationship: changes in the structure of the economy represent the most important consequence of its growth, but at the same time, in the long term, it is its most significant factor. Changes in the structure of the economy "...can slow down growth if they are slow or inefficient, but they can also contribute to growth if the allocation of resources is improved" (Kuznets, 1957, 1-111).

In numerous researches related to changes in the structure of the economy, during the fifties and sixties of the 20th century, economic growth was presented in a historical context and as a result of changes in the structure of the economic system. Thus, in a two-sector model, economic growth is explained by the transfer of labor from the agricultural sector to the industrial sector (Lewis, 1954, 139-191).

In the analysis of the economic growth of European countries, during the first half of the twentieth century, economic growth and structural changes are also analyzed using a historical approach. The results of the analysis show that long-term economic growth is associated with numerous structural changes, such as: mechanization, changes in the ratio of inputs and outputs, changes in distribution and consumption, changes in imports and exports and redistribution of labor between different sectors (Svennilson, 1954).

Changes in the structure of the economy and its growth in the Republic of Serbia, during the second half of the 20th century, were a subject of significant interest in economic research. At the same time, special attention was paid to: theoretical analysis of factors and models of economic growth (Čobeljčić, 1972; Stojanović, 1977), structural changes that in the sixties of the 20th century caused serious mismatches between the production of raw materials and energy, on the one hand, and processing capacities, on the long side (Gligorijević, 1984, 32-34; Gligorijević & Ilić, 1995, 238-245; Rosić, 2002), the pace of economic growth and structural changes in the three-sector model (Arandelović & Gligorijević, 2008, 197-206), branch and territorial structure of the industry (Gligorijević, 1993, 64-67; Gligorijević, 1994, 147-152) et cetera.

Viewed from the methodological aspect, in this work, a structural approach was applied, which emphasizes that economic growth is closely related to the process of transformation of the production structure (in order to start and accelerate it) through: removing bottlenecks and other factors responsible for slow growth and ensuring the redistribution of resources into so-called engines of growth, i.e. into highly competitive sectors and activities (Kuznets, 1973, 248).

Changes in the structure of the industry, in this paper, are interpreted and observed as a change in the participation of certain parts (branches or complexes) of the industry in the total industrial production. The analysis of the structure of the industry, i.e. the changes in that structure, was carried out on the basis of theoretical knowledge, with the use of relevant statistical data from the documents of official statistical institutions - the Federation and the Statistical Office of the Republic, namely: *first*, by determining the participation of certain industrial branches *i secondly*, by determining the participation of individual industrial complexes, formed according to development criteria, in total industrial production. By the way, the structure of the industry according to the development criterion consists of its three parts: advancing (propulsive) industry, auxiliary (intermediate) industry and traditional (stationary) industry.

The role of the *advancing industry* is played by: electricity production, mechanical engineering, production of transport vehicles, production of electrical machines and devices (especially electronics) and production and processing of chemical products. The mentioned branches of industry are very technologically intensive, with a high content of knowledge and with a lower consumption of energy and material substances per unit of product. That is why they are of great importance for the spread of technical and technological progress and changing the structure of the economy. These branches of industry also have high growth rates and make a huge contribution to increasing business effectiveness and the efficiency of industry

development. They are, in fact, the carriers of development and the main factor in the induced development of all other economic and non-economic activities of a country.

Ancillary industry includes: coal and oil production, ferrous metallurgy, non-ferrous metallurgy, building materials industry and pulp and paper industry. These branches deal with the production of raw materials and reproductive material and have a special importance as a condition for the development of a thriving industry. They are characterized by extensive development, a lower degree of processing and have lower growth rates compared to branches of advanced industry.

Traditional industry includes: textile industry, leather and fur industry, rubber industry, tobacco industry, food industry, etc. Here we are talking about labor-intensive and low-accumulative branches of industry. They have a wide product range and low growth rates, and they deal, above all, with the production of consumer goods that are subject to rapid changes.

The structure of the industry determined according to the development criterion enables one to gain very important knowledge about the relationship between those branches of industry that are the carriers of development, on the one hand, and those branches of industry that provide raw materials and reproduction material for the previous branches, i.e. that produce consumer goods, on the other side.

3. Results and discussion

3.1. Industry of the Republic of Serbia in the period from 1947 to 1990

The most significant characteristic of the economy of the Republic of Serbia immediately after the Second World War, in addition to the dominance of agriculture in the sectoral structure, is contained in the underdevelopment of the industrial structure,³ with the predominant participation of branches of the light processing industry. Namely, after a period of accelerated restoration of industrial potential,⁴ destroyed during the Second World War, the production of food and beverages, together with the production of textiles and clothing, accounted for more than 50% of the social product of the industry of the Republic of Serbia (Gligorijević & Ćorović, 2019, 28). In addition, certain beginnings of the development of the metalworking industry and the processing of chemical products were also present, but without an adequate raw material basis. Production of construction materials, leather and footwear, and tobacco also played a significant role.

In order to overcome the above-mentioned situation, the initial phase of industrial development was characterized by efforts to sharply increase the volume of accumulation and investments and to direct investments into the development, first of all, of heavy industry and energy. The goal was to create, in the shortest possible time, with great pressure on personal consumption and the standard of living of the population, a sufficiently broad long-term material basis for the further development of the industry and the filling of the industrial structure with the necessary elements.

Thanks to the aforementioned development orientation and achieved high growth rates of industrial production, especially after 1953⁵, there were the fastest and most extensive

³ According to the first classification of activities, which was developed in 1947 by the then Federal Planning Commission (founded on May 25, 1946, and abolished in 1951), there were only 20 industrial branches.

⁴ "In the strategy of the country's economic reconstruction, industry occupied a prominent place, and the rapid reconstruction of other branches of the economy depended on its successful reconstruction" (Rakonjac, 2018, 87-100).

⁵ The average annual growth rate of industrial production in the period from 1953 to 1960 was

changes in the structure of the industry,⁶ and specialization in the production of food and beverages was also visible. The share of textile, clothing, leather and footwear production, despite the tendency to fall, was at the level of about 6% (Gligorijević & Ćorović, 2019, 28-29). The highest growth, in this period, was recorded by branches belonging to the complex of advancing industry (mechanical engineering, metalworking industry, electrical industry), but also the production of final wood products and clothing production, and new industrial branches also appeared (processing of non-ferrous metals, production of non-metallic products and production of vehicles). At the same time, the growth of the relative contribution of the mentioned industrial branches in the creation of the social product of the industry was achieved, mainly, at the expense of the reduction of the contribution of food and textile production.

In the following period of industrial development, which lasted until the end of 1961, there was a radical turn in the development priorities of the industry. The mentioned turn consists in creating conditions for the faster development of branches of light processing industry and agriculture, with a gradual decrease in the share of accumulation and economic investments, as well as an increase in the share of personal consumption and non-economic investments in the distribution of the social product. The resolution on the prospective development of industry envisages a change in the structure of industrial production in the sense that the average annual growth index of production for personal consumption and the production of reproduction material should be above the growth index of the industry as a whole (About our economic policy, 1955, 4). The goal was to balance the economic structure, by reducing the gap between agriculture and industry, but also within the industry itself: between the production of goods, on the one hand, and the production of consumer goods, on the other. However, the radical turn and sudden break with the logic of rapid development of branches in which basic raw materials and energy are produced contained the germ of new disturbances in the structure of the industry (Marsenić, 2003, 84).

The consequences of the aforementioned change in the center of gravity of industrial development were felt relatively quickly. The increase in the relative participation of the branches of the processing industry resulted, in some complexes, in a faster growth in the production of products of a higher, compared to products of a lower stage of processing. This process of changes in the relations between branches of the processing industry and branches that produce raw materials resulted in a shortage of raw materials, an increase in their import, incomplete use of certain processing capacities, and the creation of inconsistencies and disproportions in the material structure of industrial production.

In the period from 1961 to 1965, with the emphasized need to stop lagging in the growth of production of basic industrial raw materials, there was a partial redefinition of development priorities (Social Plan of Economic Development of the National Republic of Serbia, 1961-1965, 1961). With a slight increase in the share of investments in the social product and an overly broad list of development priorities, there was a gassing of investment efforts, with little or no corrective effects on the already established direction of movement of the industrial structure.

At the end of this period, the Republic of Serbia had a relatively developed metal complex dominated, above all, by the metal processing industry and mechanical engineering, with the growing production of electrical machines and means of transport, while the participation of the very important metallurgy in the social product of the industry remained without significant changes, whereby iron ore production had symbolic proportions.

14.0% (See: Savić, 2009, 9).

⁶ The development orientation focused on the accelerated development of heavy industry and energy "... according to all relevant indicators, led to rapid and deep structural changes, which in the first decade of post-war development were accompanied by high rates of economic growth" (Gligorijević & Ćorović, 2019, 26).

With the adoption of economic reform measures, the development orientation of the Republic of Serbia since 1965 was also aimed at increasing the production of raw materials, energy and food, on the one hand, and stimulating production for export, on the other hand (Economic and Social Reform 1965, Belgrade, 57-82).

The decline in the rate of growth of the social product and industrial production, along with the already evident balance of payments difficulties, directed the goals of the reform towards the decentralization of distribution, towards the transfer of disposal of accumulation and management of investments to economic enterprises, with the aim of increasing the effectiveness of the operations of individual economic entities and the economy as a whole and with the aim of stopping negative development trends. However, the freer functioning of the market in the country was not an adequate mechanism for eliminating the structural disproportions that arose earlier, that is, that arose in different institutional frameworks.

Data on the structure of industrial production in the period from 1970 to 1975 clearly illustrate the tendencies regarding structural disproportions between certain branches of the processing industry and their complementary branches that deal with the production of raw materials. In addition to the already mentioned, structural disproportion present between the metal complex (metal processing industry, mechanical engineering, production of transport vehicles and production of electrical machines), which participated in the structure of industrial production with about 25-26%, and metallurgy (ferrous and non-ferrous), whose participation is was only around 3%, the following disproportions in industrial production were also characteristic: the relative share of the production of sawn timber of 0.6%, is less than the relative share of the production of final wood products, which is around 3.5%; the relative share of non-metallic mineral production of 0.2% is less than the relative share of non-metal processing, which is greater than 1%; the relative participation of the production of textile yarns and fabrics of about 5%, is less than the relative participation of the production of finished textile products of over 7.5% and the relative participation of the production of leather and fur of about 1%, it is less than the relative participation of the production of footwear which is around 3%.⁷

The shown structural disproportions between certain complementary branches "... are the consequence of a large gap in the pace of growth ... between one part of the industry and another over a ... long period of time. The expansion of the industry was based on the construction of processing capacities, while the production of raw materials and reproduction materials and energy was neglected" (Gligorijević, 1984, 33). Although in the development documents the focus of development was placed on the faster growth of the production of raw materials, the processes in practice went in the other direction. The stated fact is best illustrated by the state of the industry structure observed by industrial complexes, determined according to the development criterion (**Table 1**).

Table 1 - Structure of the industry of the Republic according to development criteria in the period from 1970 to 1985 (in %)

	1970	1975	1980	1985
Industry - total	100,0	100,0	100,0	100,0
Advancing (propulsive) industry	36,0	38,8	43,0	45,4
Auxiliary (intermediate) industry	22,7	22,0	20,4	20,2
Traditional (stationary) industry	41,3	39,2	36,6	34,4

Source: Calculated on the database from the *Statistical Yearbook of Yugoslavia for the year 1992*, Belgrade: Federal Bureau of Statistics.

⁷ Calculated on the database from the *Statistical Yearbook of Yugoslavia for 1976*.

Based on the above data, it can be concluded that the structure of the industry, in the entire observed period, was extremely unfavorable and that there were serious problems in the industry of the Republic of Serbia, regardless of the fact that the participation of the advancing industry (as the carrier of development) was at a relatively high level. This, all the more so, since the participation of the auxiliary industry was at a very low level. This quite clearly and unequivocally confirms the already mentioned fact that in the industry of the Republic of Serbia there was a very pronounced structural disproportion in the relationship: processing industry - production of raw materials and reproduction material and that, over time, it took on greater and greater proportions.

In addition to structural disproportions in the industry of the Republic of Serbia, during the observed period, problems of another kind were also present. Here, first of all, we have in mind the fact that the advancing industry, viewed from the technological aspect, was to a significant extent outdated and dependent on foreign countries, while the traditional industry was burdened with numerous inconsistencies, as well as a lack of raw materials.

Structural mismatches especially culminated at the end of 1979, when the largest post-war deficit in the trade and balance of payments was realized, with long-term consequences for the country's economic development. Namely, the economy of the Republic of Serbia as a whole, as well as the industry as an integral part of it, achieved successful growth for the last time in 1979 thanks to borrowing abroad. From 1980, a period of continuous crisis began, which will last until the end of the observed period. The key indicator of the course of the crisis, certainly, is the absence of growth of the social product per capita. Namely, the national product of the Republic of Serbia, in the period from 1980 to 1990, increased at an average annual rate of only 0.7%. The number of inhabitants grew with the same dynamics, so that the social product per capita had a de facto zero growth. Such a long crisis period, with a continuous duration of ten years, was recorded in the Republic of Serbia for the first time in the 20th century. Until that period, the Republic of Serbia was reducing the development distance in relation to the developed countries of the world, and since that period, that distance has been constantly increasing, because slow economic growth, as a rule, preserves the found structural relations by the very fact that the most important parts of the economy are moving along approximately the same dynamics (Marsenić, 2003, 9). In this regard, in the eighties of the 20th century in the Republic of Serbia, the social and private sectors, industry and agriculture, as well as the largest part of the industrial sector, followed the same dynamics. This tendency is noticeable has been since the beginning of the 1970s, in order to become a dominant feature of the industrial structure in the later period.

Contrary to trends in the world, investments in the Republic of Serbia caused only cosmetic structural changes and worsened the position of industry and the entire economy on the international market. The extensiveness in development is best illustrated by the situation in the metalworking industry, mechanical engineering, the production of electrical machines and vehicles, that is, the branches that recorded above-average growth. However, the wide range of products of these branches was not, to a sufficient extent, harmonized with the needs of the market, nor did it have a support in ferrous metallurgy and other branches producing raw materials. "Relative to the world average, with the exception of the metal processing industry, there was a lag in the structural growth of these industrial branches. In contrast, the relative share of food and beverage production and textile, clothing, leather and footwear production remained at the level of almost 40% of the social product of the manufacturing industry, which is significantly higher than the world average in that year" (Gligorijević & Ćorović, 2019, 33).

The causes of crisis trends in the economy and industry of the Republic of Serbia in the eighties of the 20th century have been analyzed in numerous works. It is a unique

assessment that the key focal point of the crisis is the decline in investment efficiency and the appearance of continuity of negative values in this period of development. The efficiency of investments (increase in social product per 100 dinars of gross economic investment in fixed assets) has, after the initial period of development, declined in a series of decades, and in the last decade of the observed period, it moved into the negative zone (-2.7 in the period from 1981 to 1990. year) (Stamenković, et al, 2009, 15). In this period, there was also a slowdown in the growth of investments and employment, compared to the previous number of years, so there was an absence of their effects on the increase of the social product, which stagnated in per capita terms. In this regard, it is important to point out that that period was marked by the reduction of final consumption within the limits of the available social product, with the help of the sudden elimination of the deficit in the balance of payments and trade and its transformation into a surplus starting in 1983. This is, at the same time, a key indicator of the dependence of economic growth in the Republic of Serbia at that time on the growth of borrowing abroad and a deep structural crisis.

The established structure of the industry was aimed at satisfying domestic investment demand and realizing the model of extensive growth, through the quantitative increase of production capacities. As such, the industry was chronically dependent on the import of raw materials from abroad, which, due to pronounced inefficiency and non-competitiveness on the international market, generated an increase in indebtedness due to a constant lack of export revenues. When the culmination of borrowing turned into a crisis of external liquidity, the forced balance of payments surplus from 1983, in conditions of unacceptably low domestic accumulateness, halved the growth of investments. The deterioration of the structure of investments, to the detriment of the technological modernization of the industry, led to a further decline in business effectiveness, with consequences in the long-term trend of the absence of economic growth and development efficiency.

3.2. Industry of the Republic of Serbia during the last decade of the 20th century

The functioning of the industry of the Republic of Serbia during the last decade of the 20th century was marked by the continuation of unfavorable development tendencies that arose in the previous decade of development, characterized by extremely unstable macroeconomic conditions such as: a high trade deficit and an extremely high (galloping) inflation rate. The appearance of inflation, i.e. hyperinflation, is linked to the appearance of stagnant flows in the development of the economy at the beginning of the eighties. The negative effect of hyperinflation, at the same time, was reinforced by the action of non-economic factors. With the disintegration of the joint state, the decades-long economic ties between the republics, members of the Yugoslav federation, were broken. In addition to the loss of a large part of the domestic market for the placement of finished products, important channels of supply of raw materials and raw materials were also cut off, which increased the already high import dependence of the processing industry of the Republic of Serbia. Along with the disintegration of the common state and the creation of independent states from the former republics, there was the introduction of international sanctions against the Federal Republic of Yugoslavia, that is, against Serbia and Montenegro. First, at the end of 1991, the European Community introduced economic sanctions, and in the following year, a UN Security Council Resolution imposed a complete trade embargo, with a ban on oil deliveries and a suspension of traffic through the territory of the Federal Republic of Yugoslavia. In the short term, the sanctions had direct and indirect consequences and caused enormous measurable and immeasurable

losses, primarily through the reduction of the social product⁸ and further destabilization of economic flows (Arandelović & Gligorijević, 2008, 220).

The partial recovery that followed the aforementioned events was stopped in 1999 by the bombing of the Federal Republic of Yugoslavia, i.e. Serbia and Montenegro, by the member countries of the NATO pact. The destruction of industrial capacities and infrastructure, the interruption of production and human casualties further reduced the material basis of development and destabilized the functioning of the state and the economy as a whole, and above all, the industry. As a result of the aggression of the member countries of the NATO pact, in 1999 there was a drastic drop in the social product of almost 23%, so that, viewed as a whole, the effects of economic growth from several previous years were canceled (Gligorijević, 1999, 21-30).

During the nineties of the 20th century, there was a tendency of a decline in the participation of industry in the formation of the social product in the economy of the Republic of Serbia, on the one hand, and a slight growth of agriculture and the dominance of the service sector, on the other hand. This fact is unequivocally confirmed by the following data: in the formation of the social product in 2000, industry participated with 33.6%, agriculture with 19.9%, and the service sector with 46.5%.⁹ This was, quite obviously, the beginning of the deformation of the economic structure. As for the industry of the Republic of Serbia itself, its structure changed during the nineties under the influence of strong recessionary currents in this sector of the economy, present from the very beginning of this period, so the absolute decline in production was a general feature of the development of this activity.

The structural positioning of certain industrial branches depended, exclusively, on the intensity of the decline in production in them, so that some branches increased their relative participation on the basis of smaller negative growth rates compared to the average. The largest absolute drop in production in 2000, compared to 1990, was recorded by the metal sector: mechanical engineering achieved a lower production by 94%, shipbuilding by 89%, production of transport vehicles by around 66% and metal processing industry by around 54%. Footwear production also recorded a high drop in production by 78%, while the textile industry, furniture production and non-ferrous metal production had a drop in production close to the average of the entire industry, in the observed period. Relative growth in production was recorded by the following branches: rubber processing by 135%, ferrous metallurgy by 82%, production of construction materials by 46%, production of beverages by 25%, production of chemical products by 20%, processing of non-ferrous metals by 13%, processing of chemical products by 5% and electricity production by 3%.¹⁰

The structure of industrial production in the Republic of Serbia in 2000 was dominated by the food industry, which increased its relative share from 18% in 1990 to around 26.5%, despite the decline in the physical volume of food production. The chemical industry also increased its relative share from 7.8% to 12.2%, as well as electricity production from 6.4% to 9.5%. The metal complex, with a drop in relative participation from 21% to around 8%, equaled the textile industry.¹¹

The structural disproportion between the production of raw materials and the production of final products was also present in the chemical complex with a relatively

⁸ "At the lowest point of the economic downturn, in 1993, GDP was barely more than two-fifths (41 percent) of its 1989 value." (Simon, jr., 2003, 105).

⁹ The data refers to the Federal Republic of Yugoslavia (Serbia and Montenegro), (See: Arandelović & Gligorijević, 2008, 233).

¹⁰ Calculated on the basis of data from: *Statistical Yearbook of Yugoslavia for 1991*.

¹¹ Calculated on the basis of data from: *Statistical Yearbook of Yugoslavia for 1991 and Statistical Yearbook of Serbia for 2002*.

preserved development potential, as well as in the failing metal complex, textile and wood processing industry. The only exception was the food industry, which, thanks to the state of agriculture, recorded a relatively small drop in production in this period.

The aforementioned data show that the recessionary trends brought the structure of the industry of the Republic of Serbia, at the end of the last decade of the 20th century, to a state approximately equal to that of 1970. The structural imbalance between the raw material and processing branches, observed through the industrial complexes formed according to the development criterion, was still present and represented the main material basis of the import dependence of the processing industry of the Republic of Serbia (**Table 2**).

Table 2 - Structure of the industry of the Republic according to development criteria during the last decade of the 20th century (in %)

	1990	1995	2000
Industry - total	100,00	100,00	100,00
Advancing (propulsive) industry	47,5	37,9	38,5
Auxiliary (intermediate) industry	19,8	24,3	27,0
Traditional (stationary) industry	32,7	37,8	34,5

Source: *Statistical Yearbook of Yugoslavia for 1991*, Belgrade: Federal Bureau of Statistics and *Statistical Yearbook of Serbia for 1998 and 2002*, Belgrade: Republic Institute of Statistics.

The directions of structural changes in the processing industry during the last decade of the 20th century were completely opposite to the tendencies in the world. The production of food and beverages in the world recorded a decline in its relative share and remained at the level of about 12%, while in the Republic of Serbia this industry increased its relative share to about 31%.

The industrial branches most affected by technical progress (chemical industry, production of non-electrical machines, including the production of computing equipment, production of electrical machines and communication equipment and production of transport vehicles), viewed on a global scale, recorded the highest growth, with a relative share in the national product in 2000 of over 43%, while in the Republic of Serbia these industrial branches (with the exception of the chemical industry) recorded a drop in their relative share to around 23% (*Statistical Yearbook of Serbia, 2002 and 2003*), while classic industrial branches still had a slightly higher relative share of the world average.

4. Conclusion

The economic structure of the Republic of Serbia after the Second World War was formed under the influence of industrialization, as a general development concept of the SFRY. Industrialization in the Republic of Serbia, with a special focus on the development of heavy industry, according to all indicators, led to rapid and deep structural changes, which, especially in the first fifteen years of post-war development, were accompanied by high rates of economic growth. Until the beginning of the sixties of the last century, this development concept functioned as a unique and plan-coordinated process.

In the following period of industrialization, there is a radical turn in development priorities, in the direction of faster development of light processing industry and agriculture, but with a gradual reduction in the share of accumulation and economic investments, as

well as an increase in the share of personal consumption and non-economic investments in the distribution of the social product. The goal was to balance the economic structure, by reducing the gap between agriculture and industry, as well as within industry (between the production of production and consumption goods). However, the sudden break with the logic of rapid development of branches in which basic raw materials and energy are produced, contained the germ of basic structural disturbances: faster growth of consumption compared to the growth dynamics of the domestic product.

The consequences of a sudden change in the center of gravity of industrial development, through an increase in the relative participation of branches of the processing industry, resulted in a faster growth in the production of higher, compared to lower stages of processing. This process of changes in the relations between the branches of processing and branches of basic industry resulted in a shortage of raw materials, incomplete use of certain processing capacities, an increase in the import of reproduction materials and the gradual creation of disproportions in the material structure of industrial production. The consequences of that are very pronounced even in modern conditions.

The established industrial structure was aimed at meeting the domestic investment demand and realizing the model of extensive growth, through the quantitative increase of production capacities. As such, it was chronically dependent on the import of raw materials from abroad, which, due to pronounced inefficiency and non-competitiveness on the international market, generated an increase in indebtedness, due to a constant lack of export revenues.

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