

## Competitive advantages of Serbian industry sectors

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### Abstract

*This paper presents an overview of industry sectors in the Republic of Serbia, with their recent export and import data comparison. Being the country that is proceeding with the EU integration process, Republic of Serbia has to undertake major society and economic changes. In light of those changes, the country has to define its most important industries and to enforce progress within those flagship sectors. In our research, we will present a methodology that examines an industry's competitive advantage. According to our findings, we propose possible strategic alternatives on the national level in Republic of Serbia, which can be used by Serbian economic policy makers.*

**Key words:** *Competitive advantages, Export import ratio, Industry sectors, Methodology*

### 1. INTRODUCTION

Serbian economy is enduring a transition from socialist towards capitalist system. In other words, the modification from the system of "shared effort and shared resources" towards the system of "the survival of the fittest" is currently in place, shifting the decision making from planned economy towards the free market economy. This significant change, as well as the system previous to change, has left distinctive marks on the industries and the development of Serbian economy.

Being a transition economy, several different changes were performed at the same time. New laws were passed, majority of the state owned enterprises were privatized by national or international entities, significant inflow of foreign capital enhanced competition and the labour requirements in terms of skills and work expectations were rapidly modified.

The economy in transition is very lucrative to invest, as it has more growth potential than old capitalist economies that have already reached their peaks and are saturated with intense competition. All these facts made favourable climate for establishing new companies, while the old large heavy-industry

conglomerates were either partially privatized or shut down, leaving hundreds of workers unemployed.

Recent global trends have proven that the critical drivers of economic development are no longer national states, but regions. Every region has a different set of economic assets, a unique capacity to innovate, its own crop of entrepreneurs, and its own opportunities in global markets [1]. On the other side, regional development is almost always based on one core industry and its surrounding and supporting businesses. For that reason, it is important to distinguish the sectors that have the capacity of carrying economic development.

### 2. CHANGING DEVELOPMENT POLICY AND STRATEGY

Development Policy is the nucleus of any development in the economy. Thus it is important to understand the transformation of the development policy. In the planned economy, which characterized Serbia until two decades ago, all decisions were made at the top of decision making structure and planning for all important aspects of economic activities were done by the government. This meant that key industries selected by

government. This meant that key industries were selected by government for each part of the country and all necessary resources were invested to support these decisions.

The end result was creation of huge conglomerates and monopolization of sectors. The positive aspect of this practice was highly skilled labour force in a sector which was chosen for specific region. As it was extremely closed system, economy and development were controlled and external influence was negligible.

Breaking out of isolation imposed by planned economy introduced more competition, as a result of democratic changes in the country. That fact was fatal for most of the conglomerates that were protected and had monopolistic market position in the previous regime. Opening the economy introduced semi chaotic environment and only the most flexible and most competitive companies could survive. This change assumed the shift in development policy as well. Policy makers of transitional countries could use the experience of policy makers in well established market economies.

Serbian economy and its economic processes were driven by a focus on regulation and strong government directives and incentives that have lead to a very active role of government in shaping national industries. Nowadays, the government has been deprived of its pedestal in decision making and planning concerning economic development and market actors are now guided by competition, advantage and economic goals. Consequently, competitive advantage is gained by lower prices and quality of goods/services that serve to improve development and minimize risks. This becomes the most important element for policy makers.

### 3. REGIONAL DEVELOPMENT

Regional development, as it has been noted before, has become even more important since it is one of the mechanism of introducing overall development to the nation. Several theories of regional development should be kept in mind when trying to identify competitive sectors in a country.

What has been discribed as “*Growth Pole*” theory is what most of the policy makers are doing, when focusing on core industry sector and linked industries, in search for growth engine of the economy. Rooted in the work of English economist and academic Sir William Petty (1623-1687), and associated with French economist François Perroux (1903-1987), growth pole theory refers to the grouping of industries around a central core of other industries whose actions act as a catalyst to growth in the area<sup>•</sup>. The core idea is based on a fact that development and/or growth are not equally distributed or uniform across region or nation. Growth theory has been criticized for integrated uneven gain distribution or its concentration in the region/part where the core sector is. Nevertheless, growth pole theory still dominates all targeted development strategies.

Second, fairly influential theory is “*Accumulative Causation*” theory developed by Gunnar Myrdal (1898-1987) in late 1950s. This theory emphasizes a market focus and the way some places pull in capital, skills and expertise to accumulate competitive advantage, with backward effects preventing the disadvantaged locations from developing the internal capacity to compete and prosper [2]. Swedish economist used theory of accumulative causation to explain racial relations in USA. The theory was suitable for further understanding of uneven distribution of wealth and prosperity among countries, as accumulation of resources enables continuous increase of advantages, or accumulation of disadvantages on the other side. The theory is suitable for explaining disparities on a global level, as well as on the local. Figure 1 portrays the causal effects of accumulation according to Myrdal’s theory that was adapted to regional development by Simson, Stough and Roberts [2].

In next section, we will present a methodology that examines an industry’s competitive advantage.

• <http://www.economyprofessor.com/economictheories/growth-pole-theory.php>

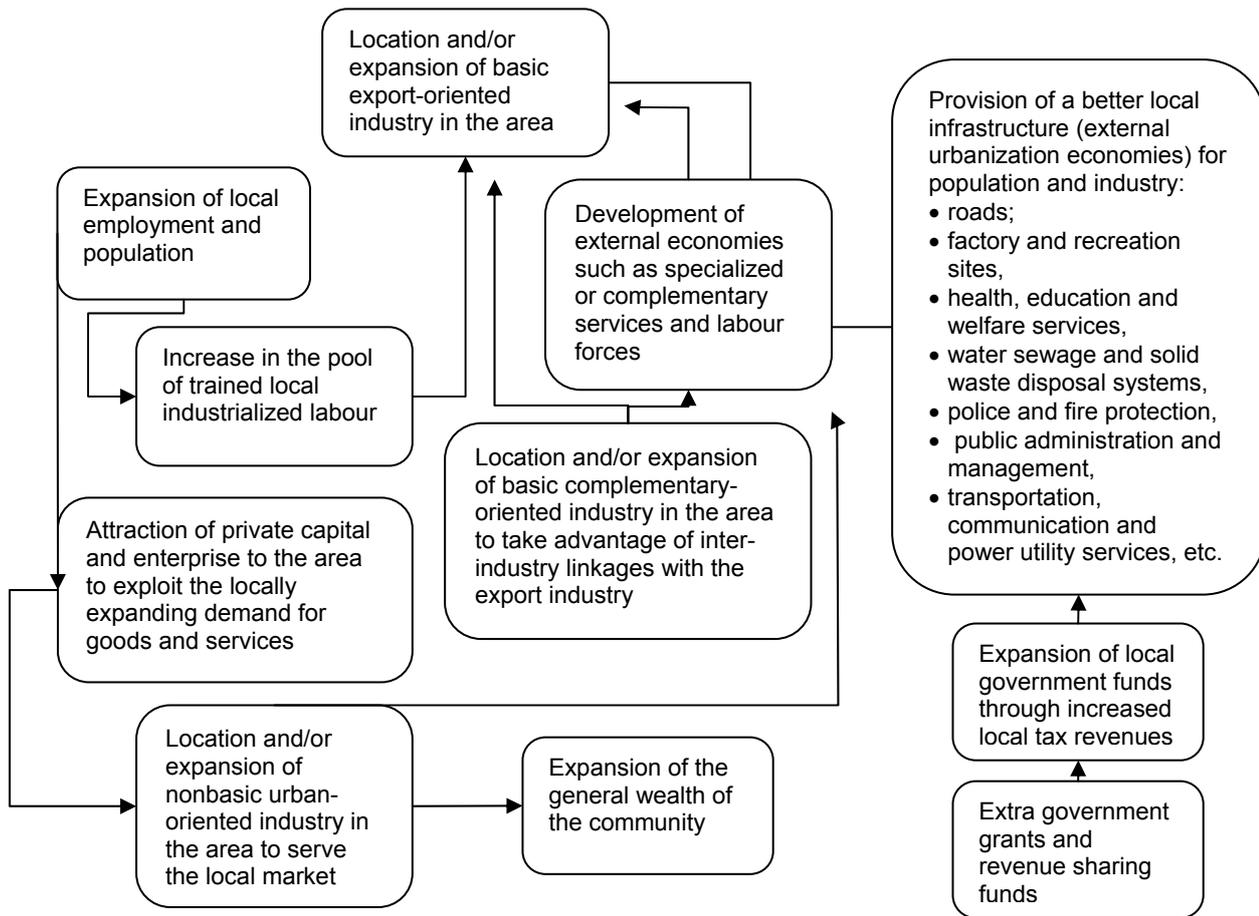


Figure 1. Myrdal's accumulative causation model

#### 4. METHODOLOGY FOR MEASURING COMPETITIVE ADVANTAGE OF INDUSTRY SECTORS

Within this section, we present the methodology that can be used when assessing industry sectors performances and measuring their competitive advantages. As every industry sector is determined by the most important supply side elements that add value to productivity, the following factors are proposed:

- labour cost (LC),
- availability of experienced labour (AEL),
- availability of raw materials (ARM),
- existence of production facilities (EPF), and
- capital availability (CA).

These factors represent the country's endogenous assets to take in consideration when deciding on strategic industry development. Each factor can take value from 1 to 5, where 1 represents the lowest and 5 the highest rate. The final grade of the sector is a mean value of all five ranks.

As for the major industry sectors used in our research, the official categorization given by the national Statistical Office was used. Industry sectors are divided based on EUROSTAT's end-use categories (Main Industrial Groupings, MIGs), based on the Nace rev.2 classification [3]. These categories are:

- intermediate goods (IG),

- durable consumer goods (DCG),
- non durable consumer goods (NDCG),
- capital goods (CG), and
- energy (E).

In Table 1 the ratings of previously mentioned five industry sectors, based on supply side factors (SSF), are estimated.

Table 1. Industry sectors ratings

	IG	DCG	NDCG	CG	E
LC	4	4	4	4	4
AEL	5	2	5	4	5
ARM	2	2	5	2	1
EPF	3	2	4	3	4
CA	3	3	3	3	4
<b>Total</b>	<b>3,4</b>	<b>2,6</b>	<b>4,2</b>	<b>3,2</b>	<b>3,6</b>

## 5. EXPORT IMPORT DATA COMPARISON

Considered as the fast growing emerging country, the Republic of Serbia definitely represents interesting business destination for many international investors who are deciding to locate their production facilities there. An optimal ratio between labour costs, productivity and quality of the workforce provides an attractive basis for successful business in Republic of Serbia. For example, one of the priority and key factors in making an investment decision for present foreign energy suppliers in the country was the availability and experience of the labour force in this branch of industry. Although many investment incentives (i.e. lower corporate profit tax, salary tax exemptions for various employees' categories, etc.) have been offered for foreign investors in previous decade, it has not attracted massive number of foreign companies.

Nevertheless, the country has negative export import ratio. According to the official data for January 2010 [4], the Republic of Serbia imports goods almost two times more than it exports.

Out of all export Republic of Serbia makes, nearly 63,5% are the products for the European Union member countries. It is very interesting to underline the fact that member states of MEDA association, which is the part of the Euro-Mediterranean Partnership program, represent the second largest destination (22,3%) for Serbian export. On the other hand, almost 53% of its imports have the origin in the EU, while 19,6% of goods are imported from the Commonwealth of Independent States (mainly Russian Federation). Therefore, EU and its countries represent the major foreign trade partner for the Republic of Serbia.

Once we take a close look at the export elements structure, it is noticeable that almost 48% of all exported goods belong to the group of intermediate goods. Such goods are defined in the literature as partly finished goods and goods that are used as inputs in the production of other goods [5]. Also, 27,4% of all goods exported belong to the group of non durable consumption goods, while energy, capital goods and durable consumption goods occupy 4%, 11% and 4% of total export, respectively.

Out of these facts it can be concluded that Republic of Serbia has not enough capacities for exporting highly sophisticated final consumption products, since it requires technological finishing and procedural know-how. Unfortunately, many government programs are based on promoting high-tech economy and significant public funds are spent on various technological attempts which have not produced expected results for more than several years.

Official import data and statistics on the national level show that the major element which is imported is intermediate goods, with approximately 28%. Considering the fact that Republic of Serbia has strong potential in exporting intermediate goods, the policy makers should direct the production capacities and enforce production of the intermediate goods that are widely exported for domestic final consumption products production needs. By doing so, they will

actively support domestic business cooperation (since companies will become able to order from domestic suppliers) and decrease significantly very high negative export import ratio.

The second biggest imported element is energy, with its share of slightly more than 23%, while 13,5% of all imported goods belong to capital goods. Only 2% of imported goods are durable consumption goods, while 11,2% are non durable consumption goods.

In Table 2 SSF ratings, export and import data by industry sectors are given. Net exports in Table 2 are calculated as exports and imports subtraction.

**Table 2.** SSF ratings and net export data (in EUR mil) by industry sectors

	IG	DCG	NDCG	CG	E
Exports	191,8	15	109	43,4	16,1
Imports	207,9	17,8	83,5	100,2	172,3
Net Exports	<b>-16,1</b>	<b>-2,8</b>	<b>25,5</b>	<b>-56,8</b>	<b>-156,2</b>
SSF rating	<b>3,4</b>	<b>2,6</b>	<b>4,2</b>	<b>3,2</b>	<b>3,6</b>

Presented brief overview of data comparison indicates that significant gaps in Serbian export and import structure exist, especially when supply side factors are taken into consideration. Policy makers have to put a lot of effort to overcome mentioned gaps and allocate the resources in proper way. Concluding section presents the possibilities that can be implemented in the Republic of Serbia.

## 6. CONCLUSION

Each country has to define its most important industries and to enforce progress within those flagship sectors. The presented research shows that supply side indicators can signal strategic, endogenous competitive advantages of the economy. The analysis of foreign trade data confirmed the calculated values of indicators. Three approaches may be useful for building sustain industry sectors competitive advantage in the Republic of Serbia:

- Making country competitiveness the goal of governmental development policy,
- Designing new efforts to help regions seize their best industry potentials,
- Creating a strong delivery system for sector development programs.

## ACKNOWLEDGEMENT

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## 7. REFERENCES

- [1] Drabenstott, M. (2006), *Rethinking Federal Policy for Regional Economic Development*, Economic Review, Federal Reserve Bank of Kansas City, USA.
- [2] Stimson R., Stough R., Roberts B. (2006), *Regional Economic Development: Analysis and Planning Strategy*, Springer, Berlin Heidelberg New York.
- [3] Official Journal of the European Union (2007), *Commission Regulation (EC) No 656/2007* of 14 June 2007, European Union.
- [4] Republic of Serbia Statistical Office (2011), *Foreign trade statistics*, Bulletin 63, Belgrade, Republic of Serbia.
- [5] Sullivan, A., Sheffrin, S.M. (2003), *Economics: Principles in action*, Pearson Prentice Hall, New Jersey, USA.

# Konkurentne prednosti srpskih industrijskih sektora

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## Apstrakt

*Ovaj rad predstavlja pregled industrijskih sektora u Republici Srbiji, sa poređenjem njihovih poslednjih podataka o uvozu i izvozu. Kao zemlja koja deluje u cilju pridruživanja Evropskoj Uniji, Republika Srbija mora da preduzme velike društvene i ekonomske promene. U svetlu tih promena, zemlja treba da definiše najvažnije industrije i da nametne progres u okviru ovih obeleženih sektora. U našem istraživanju predstavimo metodologiju koja istražuje konkurentnu prednost svake industrije. U skladu sa rezultatima, predlažemo moguće strateške alternative na nacionalnom nivou u Republici Srbiji koje mogu da koriste srpski kreatori ekonomske politike.*

**Ključne reči:** *Konkurentne prednosti, odnos uvoza i izvoza, industrijski sektori, metodologija*