ECONOMIC ASPECTS OF SERBIAN MANUFACTURING INDUSTRY IN THE INTERNATIONAL TRADE

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Abstract
The research subject of this study is the analysis of the level of competitiveness of the Serbian manufacturing industry. The research has covered the period from 2002 to 2009. By using the Balassa index (RCA), Grubel-Lloyd index (GL) and Lafay index (LFI) the level of comparative advantages and specialization in international trade of the Serbian manufacturing industry was considered. The results of the research point to a general negative level of competitiveness of the manufacturing industry. However certain segments are achieving positive value of comparative advantages and an increase in specialization on the international market.
Keywords
economic analysis, manufacturing industry, comparative advantage.

Introduction

Industrial production of Serbia has not been accompanied by technical-technological and structural changes in the global economy. In the period 2002-2009 industry had a decreasing tendency of share in GDP, but its contribution has been still significant in regard to other sectors. The level of industrial production in Serbia in 2009 was reduced for -12% along with realized increase of labour productivity. Gross investments were reduced for -25%. By analyzing the structure it can be concluded that it is very uneven. Thus most common products in exports are from the food and beverage industry, as well as the chemical industry. Structure of the manufacturing industry classified according to the level of technological intensiveness is extremely unfavorable. Most frequent are the groups of products of low and medium-low technological intensiveness, making 71.4%. Such unfavorable production structure of the manufacturing industry negatively influences the structure of exports and the level of added value. There the development of a new assortment was missing, which has an adverse effect on sale and processing. The problems of obsolete equipment and outdated technology solution were present, with insufficient investments in development of assortments and applied scientific researches. There is insufficient transfer of technical-technological solutions in processing and in development of a high-final assortment. There is an unfavourable export structure, because agricultural products and products of lower stages of processing are mostly represented.

1. Research method

Level of comparative advantages and specialization of exports of products of the manufacturing industry was analyzed by RCA, GL, LFI index. In the research, data from RZS was used and the period from 2002 to 2009 was covered. Sectors of the manufacturing industry were classified according to RZS classification of activities.

Based on Buturac (2008) in the analysis of comparative advantages Balassa method was used (Balassa, 1965):

$$RCA = \ln\left[\frac{X_i}{M_i}\right] \times \left(\frac{\sum\limits_{i=1}^{n} X_i}{\sum\limits_{i=1}^{n} M_i}\right) \times 100$$

Where: X represents the export value, M is the value of import, i represents the sector of manufacturing industry of Serbia. Positive comparative advantages are in those sectors where the RCA indicator has positive values. If the RCA indicator is higher, the expressed comparative advantage of the specific products of a country is also higher.

Level of the specialization in intra-industrial exchange (export and import) is analyzed by using the Grubel-Lloyd's index.

Where: X_i^t represents the value of export, and M_i^t is the value of import. The index ranges from 0 to 1. The higher value of index points out to the higher specialization level in intra-industrial exchange, and the lower value of GL index show that foreign trade exchange is closer to inter-industrial exchange. The Grubel-Lloyd's index calculates using the form (Grubel, H., Lloyd, P., 1975):

$$GL_i^t = ((\sum_{i=1}^{n}\left(X_i^t + M_i^t\right) - \sum_{i=1}^{n}\left|X_i^t - M_i^t\right|) / \sum_{i=1}^{n}\left(X_i^t + M_i^t\right)$$

For analysis of the comparative advantage was used the Lafay index (LFI). In regard to the Balassa index of comparative advantage for the specific country, and for any product J, the Lafay index is defined as (Lafay, 1992):

$$LFI_j^i = 100\left(\frac{x_j^i - m_j^i}{x_j^i + m_j^i} - \frac{\sum\limits_{j=1}^{N}\left(x_j^i - m_j^i\right)}{\sum\limits_{j=1}^{N}\left(x_j^i + m_j^i\right)}\right)\frac{x_j^i + m_j^i}{\sum\limits_{j=1}^{N}\left(x_j^i + m_j^i\right)}$$

Where i are export and import of products J in the country i, to and from the rest of the world, while n is the number of items. The comparative advantage in the country and in production of products j measures aberration of products J from the total normalized trade balance. The Lafay index can be used for ranking different sectors concerning the status of their comparative advantage. The Lafay index tries to exceed some imperfections of the Balassa index, taking into consideration the internal trade flows and GDP.

2. Research results

The manufacturing industry connects primary production and market, while development goals of manufacturing industry are increase of productivity and economy in production and development of quality high-final assortment, competitive on the foreign market. The existing potential of oversized capacities for processing is a big problem. There is present an inadequate technical-technological equipment and low utilization of some processing capacities in industry, except concerning the production of non-alcoholic drinks and tobacco. Irrational use of processing capacities affects unfavourably to a cost price and

competitiveness of domestic production. It is necessary further modernization of technological procedures and adjustment of assortment to the foreign market requirements. The existing low utilization of processing capacities, lack of raw materials, under developed quality assortment in processing affects unfavourably to competitiveness in export.

The structure of export and import was represented with data on the total export and import and by the sectors of manufacturing industry.

Table 1 Production of the Serbian manufacturing industry
(2002-2009, growth rate in %)

	r_g
Manufacturing industry	-2.86
Food and beverages	-2.04
Tobacco manufactures	-2.76
Textile yarn and fabrics	-2.90
Clothing and dressed fur skin	0,86
Leather, leather manufactures and footwear	1.15
Processing and manufactures of wood and cork	-2.77
Cellulose, paper and paper manufactures	-1.04
Publishing, printing and reproduction	1.20
Coke and petroleum products	-4.96
Chemicals and chemical products	-3.93
Rubber and plastics products	-4.04
Other minerals products	-3.15
Basic metals	**-5.93**
Metal products, except machinery	-3.10
Other machines and devices	-4.79
Office and automatic data-processing machines	**-8.83**
Motor vehicles and trailers	**-9.06**
Other means of transport	-0.71
Furniture and similar products	**-5.22**

Source: SORS and the authors' calculation

The analysis shows that realized reduction of manufacturing industry production is by the rate of -2.86% in the analyzed period. Positive trends are present in Clothing and dressed fur skin and Leather, leather manufactures and footwear, which belong to work intensive sectors. Given values are in accordance with the conclusion that work intensive products with low level of technological intensiveness dominate. Data on the decrease in production of the high technological intensiveness supports this statements: Motor vehicles and trailers; Office and automatic data-processing machines and Furniture and similar products. The absence of structural changes of the economy and lack of investments in modernization of the existing production capacities of the manufacturing industry, lack of innovations and transfers of technology has influenced a low level of productive competitiveness of the manufacturing industry and with that an unfavorable export structure and competitiveness at the international level. Placing technology and complete plants for the production is possible through

technological engineering. Recognizing the possibilities of knowledge and technology transfer, it is necessary to emphasize that successful results can be achieved when we dispose with our own technology, technical-technological solutions and creative experts.

Table 2 The share of sectors in export/import of manufacturing industry (%)

	2002		2009		Δ	Δ
	Export	Import	Export	Import	Export	Import
Food and beverages	21.34	7.32	17.89	5.29	-3.45	-2.03
Tobacco manufactures	0.22	1.61	0.74	0.52	0.52	-1.09
Textile yarn and fabrics	3.74	4.42	3.77	4.46	0.03	0.04
Clothing and dressed fur skins	7.10	1.68	4.46	2.27	-2.64	0.59
Leather, leather manufactures and footwear	4.06	2.13	2.77	2.27	-1.29	0.14
Processing and manufactures of wood and cork	2.93	1.96	1.97	2.21	-0.96	0.25
Cellulose, paper and paper products	2.76	3.83	2.64	4.19	-0.12	0.36
Publishing, printing and reproduction	0.81	1.72	1.06	0.83	0.25	-0.89
Coke and petroleum products	2.49	2.20	2.20	4.26	-0.29	2.06
Chemicals and chemical products	9.10	18.66	8.08	18.53	-1.02	-0.13
Rubber and plastics products	8.99	3.87	6.87	4.18	-2.12	0.31
Other minerals products	3.63	2.20	1.70	2.38	-1.93	0.18
Basic metals	12.24	6.73	15.28	9.17	3.04	2.44
Metal products, except machinery	2.38	2.95	3.54	3.24	1.16	0.29
Other machines and devices	6.50	14.60	8.62	11.38	2.12	-3.22
Office and automatic data-processing machines	0.16	3.38	0.58	1.87	0.42	-1.51
Other electrical machines and apparatus	3.14	2.67	5.73	4.15	2.59	1.48
Radio, TV and communication equipment	0.38	4.49	2.01	4.86	1.63	0.37
Precision and optical instruments	0.81	3.19	0.97	3.05	0.16	-0.14
Motor vehicles and trailers	2.71	8.10	2.86	7.11	0.15	-0.99
Other means of transport	1.57	0.66	2.16	1.44	0.59	0.78
Furniture and similar products	2.22	1.61	2.52	2.15	0.30	0.54
Recycling	0.70	0.09	1.55	0.18	0.85	0.09

Source: SORS and the authors' calculation

In export structure of manufacturing industry dominate: Food and beverages, Basic metals, Chemicals and chemical products, Rubber and plastics products and Other machines and apparatus, jackets. In import structure the most represented were: Chemicals and chemical products and Other machines and apparatus.

However in the analyzed period a decrease in shares was achieved in Food and beverages for 3.45%, Clothing and dressed fur skins for 2.64%, Chemicals and chemical products for 1.02%, Rubber and plastics products for 2.12%. Share of exports of Basic metals sector was increased for 3.04%.

3. Analysis of comparative advantages of manufacturing industry

The table below contains the level of comparative advantages measured by Balassa (RCA) index. Twenty three sectors of the Serbian manufacturing industry were analyzed by years in

the period from 2002 to 2009. The degree of change of index's value was shown specially. A negative value of comparative advantages (RCA) index of the manufacturing industry is noted with value oscilations. However in 2009 that index is "less" negative, which points to a tendency of an increase in exports in relation to imports.

In production of food and beverages, tobacco manufactures, clothing and dressed furskins, plastics and rubber manufactures, basic metals and means of transport, there is a potential that should use in order to improve the competitive positions on the world market.

Table 3 RCA indicator of manufacturing industry according to classification of activities

	2002	2003	2004	2005	2006	2007	2008	2009	Δ 2002-2009
Manufacturing industry	-0.31	-0.31	-0.32	-0.29	-0.27	-0.19	-0.26	-0.17	0.14
Food and beverages	0.09	0.10	0.13	0.24	0.31	0.48	0.62	0.46	0.37
Tobacco manufactures	-1.05	-0.82	-0.90	-1.31	-0.96	-0.05	0.11	0.02	1.07
Textile yarn and fabrics	-0.37	-0.31	-0.46	-0.43	-0.42	-0.30	-0.40	-0.26	0.11
Clothing and dressed fur skins	0.23	0.09	-0.07	0.18	0.12	0.06	0.04	0.18	-0.05
Leather, leather manufactures and footwear	-0.07	-0.10	-0.28	-0.14	-0.15	-0.12	-0.17	-0.07	0
Processing and manufactures of wood and cork	-0.16	-0.20	-0.21	-0.31	-0.30	-0.18	-0.37	-0.23	-0.07
Cellulose, paper and paper manufactures	-0.43	-0.50	-0.47	-0.54	-0.53	-0.43	-0.63	-0.41	0.02
Publishing, printing and reproduction	-0.58	-0.51	-0.46	-0.24	-0.12	-0.02	-0.04	-0.04	0.54
Coke and petroleum products	-0.26	-0.32	-0.48	-0.64	-0.80	-0.95	-1.17	-0.51	-0.25
Chemicals and chemical products	-0.57	-0.48	-0.41	-0.45	-0.51	-0.39	-0.59	-0.60	-0.03
Rubber and plastics manufactures	0.00	0.05	-0.01	0.07	0.10	0.10	0.13	0.09	0.09
Other minerals products	-0.12	-0.20	-0.36	-0.41	-0.23	-0.22	-0.29	-0.35	-0.23
Basic metals	-0.09	-0.10	-0.02	0.10	0.17	0.11	0.23	0.10	0.19
Metal products, except machinery	-0.39	-0.40	-0.45	-0.54	-0.35	-0.21	-0.29	-0.12	0.27

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	2002	2003	2004	2005	2006	2007	2008	2009	Δ 2002-2009
Other machines and apparatus	-0.61	-0.56	-0.59	-0.56	-0.62	-0.47	-0.65	-0.31	0.3
Office machines and automatic data-processing machines	-1.43	-1.59	-1.24	-1.36	-1.18	-0.94	-1.25	-0.77	0.66
Other electrical machines and apparatus	-0.25	-0.31	-0.41	-0.45	-0.20	-0.13	-0.01	0.00	0.25
Radio, TV and communication equipment	-1.22	-1.13	-1.03	-1.29	-1.16	-1.11	-0.90	-0.63	0.59
Precise and optical instruments	-0.81	-0.88	-0.80	-0.87	-1.03	-0.79	-1.19	-0.77	0.04
Motor vehicles and trailers	-0.71	-0.77	-0.80	-1.00	-1.16	-0.77	-0.88	-0.64	0.07
Other means of transport	0.01	-0.04	-0.43	-0.39	-0.07	0.25	0.15	0.04	0.03
Furniture and other similar products	-0.19	-0.15	-0.21	-0.22	-0.21	-0.16	-0.27	-0.09	0.1
Recycling	0.44	0.58	0.52	0.76	1.21	1.02	0.93	0.94	0.5

Source: SORS and the authors' calculation

The analysis of comparative advantage index (RCA) showed that in year 2009 achieved *positive*, satisfying comparative advantage in sectors: *Food and beverages, Tobacco manufactures, Clothing and dressed fur skins, Rubber and plastics manufactures, Basic metals, Other electrical machines and apparatus, Other means of transport and Recycling*, in relation to 2002 where we had a *positive*, satisfying comparative advantage in sectors: *Food and beverages, Clothing and dressed fur skins, Rubber and plastics manufactures, Other means of transport and Recycling.*

The biggest positive values of comparative advantage have the following sectors:

- Food and beverages ($RCA^{2002} = 0,09$, $RCA^{2009} = 0.46$);
- Tobacco manufactures ($RCA^{2002} = -1,05$, $RCA^{2009} = 0.02$);
- Clothing and dressed fur skins ($RCA^{2002} = 0,23$, $RCA^{2009} = 0.18$);
- Rubber and plastics manufactures ($RCA^{2002} = 0,00$, $RCA^{2009} = 0.09$);
- Basic metals ($RCA^{2002} = -0,09$, $RCA^{2009} = 0.10$);
- Other electrical machines and apparatus ($RCA^{2002} = -0,25$, $RCA^{2009} = 0.00$);
- Other means of transport ($RCA^{2002} = 0,01$, $RCA^{2009} = 0.04$);
- Recycling ($RCA^{2002} = 0,44$, $RCA^{2009} = 0.94$);

The negative values of comparative advantage have the following sectors:

- Office machines and automatic data-processing machines (RCA^{2002} = -1,43, RCA^{2009} = -0.77);
- Precise and optical instruments (RCA^{2002} = -0,81, RCA^{2009} = -0.77);
- Motor vehicles and trailers (RCA^{2002} = -0,71, RCA^{2009} = -0,64);
- Chemicals and chemical products (RCA^{2002} = -0,57, RCA^{2009} = -0.60);
- Cellulose, paper and paper products (RCA^{2002} = -0,43, RCA^{2009} = -0.41);
- Coke and petroleum products (RCA^{2002} = -0,26, RCA^{2009} = -0,51);
- Radio, TV and communication equipment (RCA^{2002} = -1,22, RCA^{2009} = -0.63);

In foreign trade of these industries realizes a surplus. It is noticeable that in most of sectors in the analyzed period has been an increase of comparative advantage.

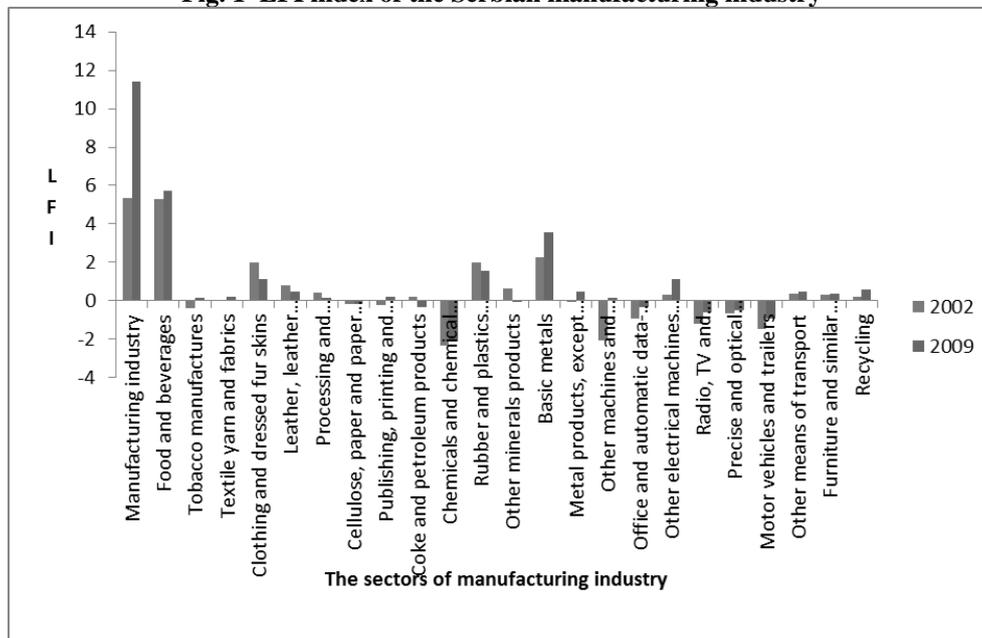**Table 3 Lafay index of manufacturing industry according to classification of activities**

	2002	2003	2004	2005	2006	2007	2008	2009	Δ 2002-2009
Manufacturing industry	5.34	5.69	4.31	5.94	6.08	12.10	0.29	11.43	6.09
Food and beverages	5.31	5.43	5.47	5.14	4.90	5.43	4.90	5.74	0.43
Tobacco manufactures	-0.40	-0.34	-0.34	-0.30	-0.24	0.07	0.09	0.15	0.55
Textile yarn and fabrics	0.00	0.20	-0.29	-0.22	-0.20	0.15	-0.31	0.23	0.23
Clothing and dressed fur skins	1.99	1.54	0.73	1.16	0.90	0.81	0.53	1.15	-0.84
Leather, leather manufactures and footwear	0.79	0.78	0.19	0.50	0.39	0.43	0.14	0.46	-0.33
Processing and manufactures of wood and cork	0.44	0.38	0.35	0.08	0.09	0.30	-0.15	0.16	-0.28
Cellulose, paper and paper products	-0.17	-0.38	-0.29	-0.46	-0.42	-0.16	-0.66	-0.15	0.02
Publishing, printing and reproduction	-0.23	-0.16	-0.10	0.08	0.13	0.20	0.12	0.19	0.42
Coke and petroleum products	0.22	0.09	-0.35	-0.98	-1.33	-1.37	-2.32	-0.35	-0.57
Chemicals and chemical products	-2.35	-1.49	-0.59	-1.11	-1.70	-0.36	-2.89	-2.14	0.21
Rubber and plastics manufactures	2.00	2.40	2.03	2.21	1.90	1.79	1.32	1.57	-0.43
Other minerals products	0.62	0.43	0.02	-0.10	0.23	0.24	-0.04	-0.01	-0.63
Basic metals	2.29	2.56	4.78	6.38	7.10	6.02	5.12	3.54	1.25
Metal products, except machinery	-0,04	-0.09	-0.26	-0.40	0.00	0.39	-0.07	0.49	0.53
Other machines and apparatus	-2.06	-1.82	-2.26	-1.62	-1.86	-0.75	-2.61	0.18	2.24
Office and automatic data-processing machines	-0.95	-1.11	-1.15	-0.86	-0.76	-0.58	-0.65	-0.31	0.64
Other electrical machines and apparatus	0.31	0.14	-0.10	-0.20	0.38	0.67	0.72	1.12	0.81

	2002	2003	2004	2005	2006	2007	2008	2009	Δ 2002-2009
Radio, TV and communication equipment	-1.20	-1.29	-1.19	-1.15	-1.11	-1.16	-1.21	-0.60	0.6
Precise and optical instruments	-0.66	-0.81	-0.75	-0.60	-0.73	-0.53	-0.99	-0.50	0.16
Motor vehicles and trailers	-1.46	-2.02	-2.13	-2.20	-2.59	-1.18	-1.96	-0.92	0.54
Other means of transport	0.35	0.50	-0.10	-0.01	0.18	0.47	0.46	0.46	0.11
Furniture and similar products	0.30	0.46	0.32	0.26	0.22	0.34	-0.01	0.39	0.09
Recycling	0.22	0.31	0.33	0.36	0.62	0.86	0.78	0.58	0.36

Source: SORS and the authors' calculation

Research results point that the level of the LFI index in 2009 was increased in regard to the year 2002 in most of sectors of manufacturing industry. A more significant increase in comparative advantages, measured by using the LFI index is present in: *Food and beverages, Tobacco manufactures, Clothing and dressed fur skins, Publishing, printing and reproduction, Basic metals, Metal products, except machinery, Other machines and apparatus, Office and automatic data-processing machines, Other electrical machines and apparatus, Other means of transport, Furniture and similar products and Recycling.*

Fig. 1 LFI index of the Serbian manufacturing industry

4. Specialization in intra-industrial exchange of manufacturing industry sector

Specialization level in foreign trade analysed by using the GL index.

Table 4 GL indicator of manufacturing industry according to classification of activities

	2002	2003	2004	2005	2006	2007	2008	2009	Δ 2002-2009
Manufacturing industry	0.61	0.57	0.54	0.67	0.73	0.79	0.82	0.84	0.23
Food and beverages	0.88	0.85	0.81	0.73	0.69	0.52	0.57	0.58	-0.3
Tobacco manufactures	0.11	0.16	0.12	0.09	0.25	0.95	0.92	0.98	0.87
Textile yarn and fabrics	0.54	0.57	0.39	0.53	0.59	0.69	0.72	0.76	0.22
Clothing and dressed fur skins	0.70	0.86	0.90	0.79	0.88	0.93	0.97	0.83	0.13
Leather, leather manufactures and footwear	0.91	0.85	0.60	0.84	0.85	0.87	0.88	0.94	0.03
Processing and manufactures of wood and cork	0.79	0.71	0.68	0.65	0.71	0.81	0.74	0.78	-0.01
Cellulose, paper and paper products	0.48	0.37	0.39	0.44	0.50	0.56	0.57	0.62	0.14
Publishing, printing and reproduction	0.34	0.36	0.39	0.73	0.87	0.98	0.97	0.96	0.62
Coke and petroleum products	0.66	0.56	0.37	0.36	0.33	0.23	0.31	0.54	-0.12
Chemicals and chemical products	0.35	0.39	0.45	0.51	0.52	0.60	0.59	0.48	0.13
Rubber and plastics manufactures	0.99	0.92	0.98	0.92	0.90	0.89	0.91	0.91	-0.08
Other minerals products	0.84	0.72	0.50	0.55	0.77	0.77	0.79	0.68	-0.16
Basic metals	0.88	0.85	0.96	0.88	0.82	0.88	0.83	0.91	0.03
Metal products, except machinery	0.52	0.46	0.40	0.44	0.66	0.77	0.79	0.88	0.36
Other machines and apparatus	0.33	0.32	0.29	0.42	0.44	0.53	0.56	0.71	0.38
Office and automatic data-processing machines	0.04	0.02	0.04	0.08	0.16	0.23	0.28	0.37	0.33
Other electrical machines and apparatus	0.68	0.57	0.45	0.52	0.79	0.86	1.00	1.00	0.32
Radio, TV and communication equipment	0.07	0.07	0.08	0.09	0.17	0.17	0.42	0.46	0.39
Precise and optical instruments	0.20	0.14	0.16	0.23	0.22	0.30	0.30	0.37	0.17
Motor vehicles and trailers	0.25	0.19	0.16	0.18	0.17	0.32	0.43	0.45	0.2
Other means of transport	0.98	0.95	0.43	0.57	0.93	0.73	0.89	0.96	-0.02

|	2002	2003	2004	2005	2006	2007	2008	2009	Δ 2002-2009
Furniture and similar products	0.75	0.78	0.69	0.75	0.79	0.83	0.81	0.92	0.17
Recycling	0.47	0.31	0.34	0.29	0.16	0.20	0.41	0.28	-0.19

Source: SORS and the authors' calculation

Research results of specialization of the Serbian manufacturing industry by applying Grubel-Lloyd's index points out that there prevails the intra-industrial specialization. The intra-industrial exchange of products of manufacturing industry shows that simultaneously run export and import and there speaks on openness of industry in foreign trade, also that the sectors with positively achieved RCA and LFI index are propulsive and competitive.

The analysis of intra-industrial exchange (GL) in 2009 showed next:

- Intra-industrial exchange of manufacturing industry sector (the presence of export and import): Tobacco manufactures, Textile yarn and fabrics, Clothing and dressed fur skins, Leather, leather manufactures and footwear, Processing and manufactures of wood and cork, Cellulose, paper and paper products, Publishing, printing and reproduction, Rubber and plastics manufactures, Other mineral products, Basic metals, Metal products, except machinery, Other machines and devices, Other electrical machines and apparatus, Other means of transport and Furniture and similar products.

- Inter-industrial exchange is in sectors (the presence of export or import): Office machines and automatic data-processing machines, Precise and optical instruments, Motor vehicles and trailers and Recycling.

- Simultaneous inter- and intra-industrial exchange is in commodity groups: Food and beverages, Coke and petroleum manufactures, Chemicals and chemical products, Radio and TV and communication equipment.

Graph 2 shows the comparison of the GL index of the Serbian manufacturing industry in the period from 2002-2009.
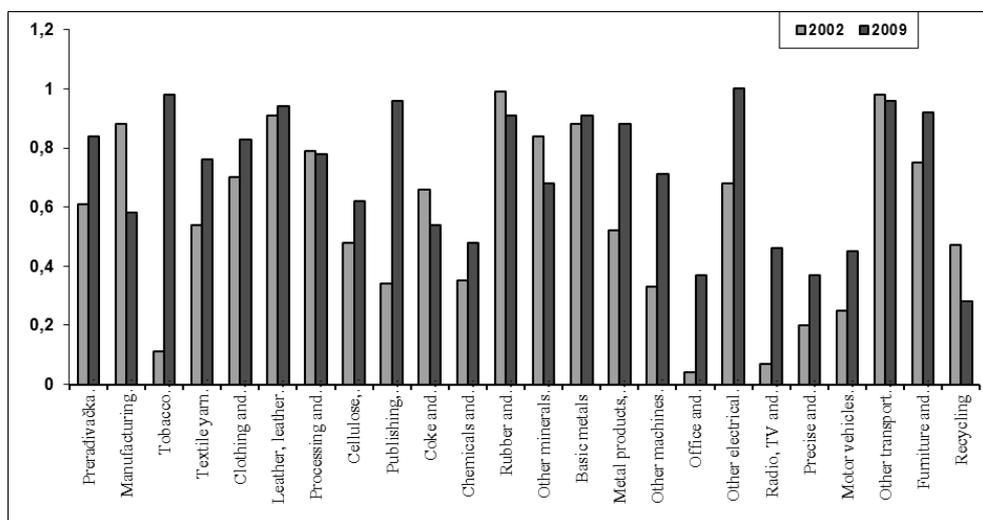
Source: Calculation of the authors

Fig. 2 GL index of manufacturing industry in the period 2002-2009

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Conclusion

Research results point to a conclusion that the Serbian manufacturing industry is insufficiently competitive in the analyzed and slowly adjusts to the needs of the foreign market. The products included in export are poorly differentiated, low level of technological intensiveness and low added value. The level of comparative advantage, of RCA index is followed by a fall in production by the manufacturing industry.

The research showed the existence of the positive satisfying comparative advantage of a small number of manufacturing industry sectors. In the analyzed period has come to more significant reduction of comparative advantage and competitiveness due to unfavourable production structure, export structure, slow structural adjustment to export needs and industry restructuring. In order to create competitive products the creative management is necessary, and application of modern technologies for specific knowledge and skills. Previous development and application of technology in highly developed countries has shown that there were possibilities for faster transfer of modern technologies and development of transitional countries. There can conclude that reduction of comparative advantage of manufacturing industry primary production was followed by intra-industrial character of exchange, which was the result of increased openness of the economy.

The limiting factors of greater competitiveness on the international market are: poor product range in regard to the same in developed countries, neglected research for greater use of raw materials and capacities by introducing new lines and products based on basic accompanying and secondary raw materials, lack of implementations of previous accomplishments and innovations in processing, fluctuations of products quality due to a lack of application of products quality standards, slow adjustment to market business criteria and a lack of modern marketing and management implementation in creation and sale of products in export. In order for products to be competitive, it is necessary to use rationally processing capacities and raw materials and along with the standard minimal costs, produce high-quality products competitive for export to foreign markets. It is necessary to organize the working process rationally, realize the maximum production of final products with the standard minimal investments and on this basis achieve the maximal economy and profitability in production of products unit, and with that to achieve adequate competitiveness on the market.

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