ANALYSIS OF THE TRADE RELATIONS BETWEEN THE REPUBLIC OF MACEDONIA AND THE FEDERAL REPUBLIC OF GERMANY

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ABSTRACT

Foreign trade represents an important factor for the economic development of a single country and a basic element in the system of forms through which the openness of the economy is being realized. Taking into account the fact that the Federal Republic of Germany (FRG) is the most important foreign trading partner of the Republic of Macedonia (RM), the paper brings an analysis of the value, dynamics and structure of the foreign trade between RM and FRG for the time period of 2001-2013. It also analyzes the competitiveness of Macedonian products on the German market so that the product categories having a comparative advantage can be determined. The results of the analysis point to the fact that in the past few years the RM has realized a trade surplus in the exchange with FRG as a result of the catalyst export of bearers of precious metals and their compounds, the product category which brings the country a comparative advantage in the exchange with FRG.

Keywords: comparative advantage, Republic of Macedonia, Federal Republic of Germany.

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1. INTRODUCTION

It is obvious that the development of international trade under modern conditions is one of the priorities of world economies. For many countries, export is the most relevant factor for a successful economy. The activities that Macedonia undertakes for export promotion are directed towards the use of the potentials being offered by bilateral, regional and multilateral agreements for free trade. For that purpose, the RM was the first of the countries in the region that signed the Stabilization and Association Agreement (SAA) with the European Union (EU) in April 2001. From an economic point of view, this agreement, opened doors to one of the largest and financially most powerful world markets. On the one hand, SAA and the Temporary Trade Agreement, through the preferential asymmetric treatment of Macedonian products, have provided favorable conditions for the Macedonian export and a better competitiveness of the Macedonian products on the EU market, whereas on the other hand, they have also provided the competitive blow on the Macedonian market to be amortized by developed high technology manufacturing of the EU (Secretariat for European Affairs 2014).

Hence, the EU remains the main market, with FRG being the most important trading partner of RM. Undoubtedly, the intensification of trade relations with the EU member states has been largely a result of the increased trade exchange with FRG, first of all, of the increase in the export of products from RM to FRG in the past few years. Despite the negative implications of the crisis in the euro zone, FRG, being a powerful economy with a large market potential, proved to be an important trading partner for marketing more than one third of the Macedonian export in 2013. Apart from the traditional export products of the textile and metal industry, FRG has been an important destination for export of products of the technologically developed industry zones in the past three years.

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2. THE SCOPE AND DYNAMICS OF EXCHANGE BETWEEN THE REPUBLIC OF MACEDONIA AND THE FEDERAL REPUBLIC OF GERMANY

According to the overall scope of trade exchange with the EU countries, RM trades the most with FRG as it can be seen in Chart 2.1, where the largest trading partners of RM are presented in the context of export in the period of the past ten years. From the data presented in this chart it can be seen that in the period after 2009, when Kosovo became independent and Serbia lost its primacy of being the largest trading partner of RM, that primacy was gained by FRG which was taking the second place right after Serbia until then. FRG has been the largest trading partner of RM since then, not only in relation to the EU countries, but also in relation to all trading partners. The situations with regards to import are the same.

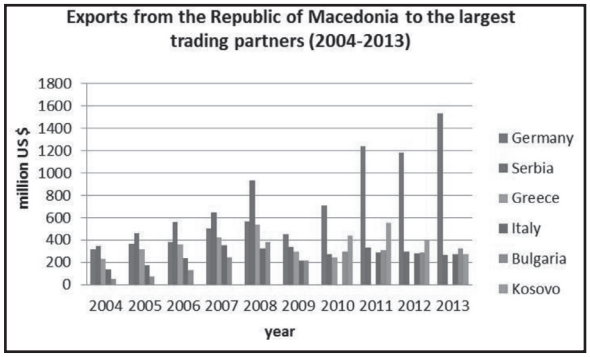

Chart 2.1. Export from RM to the largest trading partners (2004-2013)
Source: Authors' calculation based on data of NBRM

The value of trade exchange between RM and FRG for the time period of 2001-2013 is illustratively shown in Chart 2.2. As it can be seen in the chart, trade exchange of RM with FRG marks an increasing trend in the analyzed time period. In accordance with the available data of the State Statistical Office of RM, the export of RM to FRG increased from 237.4 million US dollars in 2001 to 1533.6 million US dollars in 2013. In 2009, the value of export fell to 455.8 US dollars, and this fall is due to the negative implications of the world financial crisis. In terms of import, it recorded an upward trend again. Namely, the value of import of 213.3 million US dollars in 2001 was increased to 693.6 million US dollars in 2013.

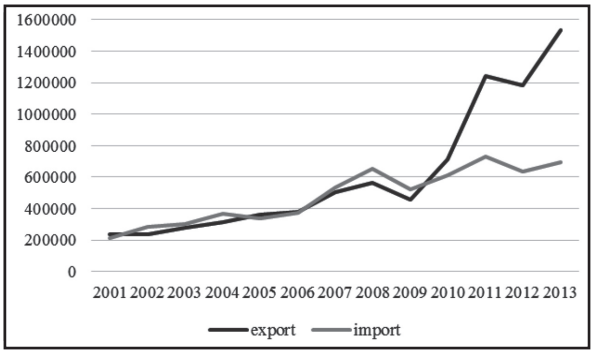

Chart 2.2. RM's trade with FRG (2001-2013) in thousand US $
Source: Authors' calculation based on data of the World Bank and the State Statistical Office of RM

Taking into account the fact that RM was an import-dependent country in the time period of 2002-2009, except in 2006, it realized a trade deficit in the exchange with FRG. But in the time period of 2010-2013, it realized a trade surplus which was generally a result of important investments in the automotive industry and the strengthened cooperation in the textile sector.

The trade surplus in the exchange with FRG was the highest in 2013 and it amounted to 840 million US dollars. The enormous surplus that RM has in the exchange with FRG generates a maintainable balance in the growing deficit in its trade exchange with the world.

The share of RM in the exchange with FRG is shown in percentage terms in Table 2.1:

Table 2.1. Percentage composition of exports and imports of RM with FRG in %

Year	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Export	20.52	20.98	20.36	18.83	17.83	15.78	14.77	14.15	16.83	21.26	27.75	29.41	35.94
Import	12.60	14.27	13.18	12.47	10.40	9.92	10.10	9.49	10.28	11.21	10.38	9.73	10.51

Source: Authors' calculation based on data of the State Statistical Office of RM

In accordance with the data presented in the table, the percentage share of the RM export in FRG has been increasing in the past few years, and that refers to the statement that the economic cooperation between the two countries is more than successful. In 2001, the export of

RM to FRG was about one fifth of the overall RM export of goods and services (20.52%), whereas in 2013 the share of the RM export to the FRG market was 35.94%, which presents more than one third of the overall RM export in the world. This trend is due to the fact that most of the leading export products of the country have been sold in FRG out of the free economic zones in the past few years.

Thus, the structure of export of RM has been also changing with that. Namely, the production of catalysts and other automotive equipment (used in the German automotive companies) by the companies located in free economic zones, is the main reason for increasing the export of RM to FRG and for changing its structure.

The insignificant variations in the percentile coverage of the RM import from the FRG market are a result of the fact that RM is an import-dependent country. Most of the companies import raw materials and equipment in order to be able to produce and sell their products abroad.

3. STRUCTURE OF TRADE EXCHANGE BETWEEN RM AND FRG

The commodity trade between RM and FRG has been analyzed according to the Standard International Trade Classification (SITC)[1] (revision 4). In that context, the export from RM to FRG is shown in table 3.1.

Table 3.1. Structure of the export of products from RM to FRG (2006-2012)[1] in thousand US $

Product	2006	2007	2008	2009	2010	2011	2012
0-Food products	5,509	842	8,498	7,590	13,065	14,848	14,616
1-Beverages and tobacco	16,486	17,632	19,471	20,341	15,136	22,614	29,179
2-Crude materials, except fuels	8,180	7,268	6,942	14,435	8,429	6,410	2,006
3-Mineral fuels, lubricants and related materials	845	87	286	68	176	797	874
4-Animal and vegetable oils and fats	98	99	43	88	32	/	/
5-Chemicals and related products	1,414	1,415	1,351	7,574	207,905	539,938	493,534
6-Manufactured goods classified mainly by material	46,899	68,914	92,939	22,410	58,326	76,093	34,514
7-Machinery and transport equipment	11,915	7,631	7,332	19,539	53,395	134,162	200,556
8-Miscellaneous manufactured articles	289,705	389,840	427,959	363,722	355,894	447,576	405,316
9-Special transactions and commodities not classified according to kind	120	49	45	96	65	112	153

Source: Authors' calculation based on data of the State Statistical Office of RM

The emergent state shows that there is a potential for increasing the added value in RM i.e. not only for exporting the basic production. In terms of import, no considerable changes were registered in the production percentage, i.e. in 2001 German products were represented on the RM market with 12.60% whereas in 2013 their share in the overall RM import was 10.51%.

Export of different product categories from RM to FRG is shown in percentage terms in Table 3.2.

1 Standard International Trade Classification (SITC) – hierarchical and economic classification of the products which take part in the commodity trade between the countries being developed by the Statistical Office of the United Nations.

Table 3.2. Structure of export of products from RM to FRG (2006-2012) in percentage

Product	2006	2007	2008	2009	2010	2011	2012
0- Food products	1.445	1.762	1.504	1.665	1.834	1.195	1.238
1- Beverages and tobacco	4.325	3.514	3.447	4.462	2.125	1.820	2.471
2- Crude materials, except fuels	2.146	1.448	1.229	3.167	1.183	0.516	0.170
3- Mineral fuels, lubricants and related materials	0.222	0.017	0.051	0.015	0.025	0.064	0.074
4- Animal and vegetable oils and fats	0.026	0.020	0.008	0.019	0.004	/	/
5- Chemicals and related products	0.371	0.282	0.239	1.661	29.183	43.454	41.798
6- Manufactured goods classified mainly by material	12.304	13.734	16.453	4.916	8.187	6.124	2.923
7- Machinery and transport equipment	3.126	1.521	1.298	4.286	7.495	10.797	16.986
8- Miscellaneous manufactured articles	76.004	77.692	75.763	79.788	49.955	36.021	34.327
9- Special transactions and commodities not classified according to kind	0.031	0.010	0.008	0.021	0.009	0.009	0.013
Total	100	**100**	**100**	**100**	**100**	**100**	**100**

Source: Authors' calculation based on data of the State Statistical Office of RM

The analysis of the structure of export of products from RM to FRG leads to the conclusion that in accordance with the SITC, dominant categories of products in different time periods are (6) manufactured goods classified mainly by material and (8) miscellaneous manufactured articles whose percentage share has been decreasing in the past few years.

This was a result of the fact that the export of clothes (a sub-category in the category of miscellaneous manufactured articles) was a dominant RM product on the FRG market until 2009, and the catalysts of the bearers of precious metals have been dominant in the export of RM to FRG since 2010 as a result of the investment of Johnson Matthey[2] in the free economic zone of Bunardzik in RM, which has enlarged the capacities by increasing the number of product lines. Therefore, the percentage shares of (5) the chemicals and related products in the export of RM to FRG has had a progressive trend since 2010 (from 29.1% in 2010 to 41.7% in 2012).

The import of products from FRG into RM is shown in Table 3.3.

Table 3.3 Structure of import of products from FRG into RM (2006-2012) in thousand US $

Product	2006	2007	2008	2009	2010	2011	2012
0- Food products	20,315	21,609	31,221	35,713	37,383	50,184	50,495
1- Beverages and tobacco	1,113	1,006	1,462	2,452	2,653	1,690	2,041
2-Crude materials, except fuels	4,511	5,969	7,590	7,662	10,224	12,581	12,345
3- Mineral fuels, lubricants and related materials	5,122	33,903	5,876	2,505	2,294	3,386	2,326
4- Animal and vegetable oils and fats	493	604	1,515	425	477	598	725
5- Chemicals and related products	43,009	55,288	66,316	65,914	68,324	104,979	97,347
6- Manufactured goods classified mainly by material	145,781	183,270	191,553	144,380	157,614	199,139	194,083
7- Machinery and transport equipment	118,250	189,676	293,987	220,217	282,037	299,400	228,743
8- Miscellaneous manufactured articles	33,668	41,672	53,326	42,300	52,420	57,647	46,178
9-Special transactions and commodities not classified according to kind	5	132	60	108	58	85	102

Source: Authors' calculation based on data of the State Statistical Office of RM

Import of different categories of products from FRG into RM is shown in percentage terms in

Table 3.4. Structure of import of products from FRG into RM (2006-2012) in percentage

Product	2006	2007	2008	2009	2010	2011	2012
0- Food products	5.457	4.053	4.782	6.846	6.094	6.877	7.960
1- Beverages and tobacco	0.299	0.189	0.224	0.470	0.432	0.232	0.322
2- Crude materials, except fuels	1.212	1.120	1.162	1.469	1.667	1.724	1.946
3- Mineral fuels, lubricants and related materials	1.376	6.359	0.900	0.480	0.374	0.464	0.367
4- Animal and vegetable oils and fats	0.132	0.113	0.232	0.081	0.078	0.082	0.114
5- Chemicals and related products	11.553	10.370	10.157	12.635	11.137	14.387	15.345
6- Manufactured goods classified mainly by material	39.160	34.376	29.339	27.676	25.692	27.291	30.594
7- Machinery and transport equipment	31.765	35.578	45.027	42.213	45.973	41.031	36.057
8- Miscellaneous manufactured articles	9.044	7.816	8.167	8.108	8.545	7.900	7.279
9- Special transactions and commodities not classified according to kind	0.001	0.025	0.009	0.021	0.009	0.012	0.016
Total	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Source: Authors' calculation based on data of the State Statistical Office of RM

In accordance with the presented data, dominant categories of products in terms of import are givens as follows: (7) machinery and transport equipment as a result of the import of motor vehicles for transport of persons, motor vehicles for transport of goods and other road vehicles, (6) manufactured goods classified mainly by material as a result of the import

2 The British Company "Johnson Matthey" is a specialized chemical company and a world leader in the technology of modern materials. The group focuses on the production of catalysts, precious metals, fine chemicals and on the technology of processes.

of fabrics of 85% cotton and (5) chemicals and related products. The percentage share of the products classified in the category (7) machinery and transport equipment was reduced to 36% in 2012 in comparison with other years, as a result of the fact that the petroleum oils take in the dominant share in the import of RM from FRG.

The analysis shows that there is an overlap between some categories of products being exported and imported as for instance: (6) tmanufactured goods classified mainly by material and (5) chemicals and related products. This is a result of the import dependence on the export (in order to export clothes, the import of fabrics of 85% of cotton) and it refers to the low value added to the products being exported.

4. COMPETITIVE ADVANTAGE OF THE MACEDONIAN PRODUCTS ON THE GERMAN MARKET

In order determine the product categories with a comparative advantage in the trade between RM and FRG, the Balassa-formula is applied (Balassa 1965, pp. 99–123):

$$RCA_{iy} = \frac{\frac{Ex_{iy}}{\sum Ex_{iy}}}{\frac{\mathrm{Im}_{iy}}{\sum \mathrm{Im}_{iy}}} \qquad (1)$$

where i is a product category, y is a trade partner, Ex is export, and Im is import. If RCA is bigger than 1, it can be assumed that the analyzed country obtains a comparative advantage in trade with the trade partner for the product category i. The results of the calculations are shown in Table 4.1.

Table 4.1. Comparative advantages in trade exchange between RM and FRG

Product	2006	2007	2008	2009	2010	2011	2012
0- Food products	0.265	0.435	0.315	0.243	0.301	0.174	0.156
1- Beverages and tobacco	**14.466**	**18.622**	**15.394**	**9.493**	**4.913**	**7.858**	**7.681**
2- Crude materials, except fuels	**1.771**	**1.294**	**1.057**	**2.156**	0.710	0.299	0.087
3- Mineral fuels, lubricants and related materials	0.161	0.003	0.056	0.031	0.066	0.138	0.202
4- Animal and vegetable oils and fats	0.194	0.174	0.033	0.237	0.058	/	/
5- Chemicals and related products	0.032	0.027	0.024	0.131	**2.620**	**3.020**	**2.724**
6-Manufactured goods classified mainly by material	0.314	0.400	0.561	0.178	0.319	0.224	0.096
7- Machinery and transport equipment	0.098	0.043	0.029	0.102	0.163	0.263	0.471
8- Miscellaneous manufactured articles	**8.404**	**9.939**	**9.276**	**9.840**	**5.846**	**4.559**	**4.716**
9- Special transactions and commodities not classified according to kind	**23.439**	0.394	**0.867**	**1.017**	0.965	0.774	0.806

Source: Authors' calculation

In the period of 2006-2012, RM had a comparative advantage in trade with FRG in the following product categories: (1) beverages and tobacco, (2) crude materials, except fuels, (5) chemical and related products, (8) miscellaneous manufactured articles and (9) special transactions and commodities not classified according to

kind. The comparative advantage of the product categories (1) beverages and tobacco (RM has a relatively high comparative advantage) and (8) miscellaneous manufactured articles was evident in all the years within the analyzed period, whereas the country's comparative advantage of the crude materials, except fuels, was constant in the period of 2006-2009, and the one of the chemical products was characteristic for the period of 2010-2012.

According to SITC, the comparative advantage of the last category of products of RM in trade exchange with FRG is given as follows: (9) special transactions and commodities not classified according to kind, was relatively high in 2006, and it was also predominant in 2008 and 2009. The successful cooperation and the realized surplus in the exchange can be confirmed by the obtained results in relation to the comparative advantage of RM products on the FRG market. Nearly more than a half of the examined categories show a comparative advantage, and those are basically the products which are exported the most, with the exception of the category (6) manufactured goods classified mainly by material. Regarding the category (5) chemical and related products, it can be stated that the high percent of export and the comparative advantage appeared in the past three years in the analyzed period as a result of the action and the enlarged production capacity of the "Johnson Matthey" company in the free economic zone Bunardzik.

5. CONCLUSION

FRG is the most stable and the largest trade partner of RM. The present trade exchange between RM and FRG is the only positive example in terms of the overall trade balance that RM has in trade exchange of goods and services.

This can also be a balance in relation to the negative trend of the growing trade deficit that RM has with other countries. The catalysts of the bearers of precious metals and their compounds have the biggest share in the export of RM to FRG as a result of the work of the "Johnson Matthey" company in the free economic zone Bunardzik. This product gives RM a comparative advantage in the exchange with FRG. The bilateral exchange between the two countries is significantly intensified, and the trade relations are positive and productive. The trade surplus in the exchange with FRG in the past few years is a real evidence of positive effects of large investments which have been carried out in RM by German companies.

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