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## THE WORLD AND DOMESTIC MARKETS FOR TOBACCO AND TOBACCO PRODUCTS<sup>1</sup>

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### Summary

*This paper presents a regional comparative analysis of the major indicators of both the world and domestic markets of tobacco and tobacco products. Namely, for the last 21 years, for the observed sub-periods, the method of comparative analysis were used to study quantitative and structural differences in the production and trade of analyzed product groups, at both the world and at the level of continents and some countries. The leading manufacturers and flows of international trade and the leading exporters and importers of tobacco and tobacco products were defined, with special emphasis on the importance of Serbia, i.e. its position in the global market for these products.*

*Pursuant to the above, and importance of analyzed product groups for the domestic market, i.e. agriculture, agro-industry and the economy as a whole, this paper specially studies balances, structure, dynamics and regional orientation of foreign trade exchange in tobacco and tobacco products. In addition, the paper points to the needs, capabilities, measures and directions of further development of domestic production and export of products analyzed.*

**Key words:** *tobacco, tobacco products, manufacture, market, trade, exports, imports, balance.*

**JEL:** *F19, E21*

### Introduction

As part of the agro-industrial commodity fund, tobacco and tobacco products represent a special group of products, which, in the population's consumption, are used as means for delighting in. their production and trade are characterized by a very rich assortment and a

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wide regional distribution. Apart from that, the production and trade of tobacco and tobacco products have a significant impact on the flows of the economic development in general, especially when it concerns those countries which are considered to major producers and exporters of these products. Due to this and also to more and more evident international economic and other integration processes, this research is aimed at the exploration of more important characteristics of the international, and especially the domestic market for tobacco and tobacco products, by means of the comparative analysis method. As extremely significant market indicators, the tendencies, i.e. the volume, dynamics and structure of the production and trade of the subject products have been researched, not only at the level of the world but at the level of continents and the individual country level as well. Together with a broader analysis of these phenomena in the domestic market, we have gained an insight into the place, importance and possibilities of Serbia in the international market for tobacco and tobacco products. Simultaneously, we have specially highlighted the characteristics of the domestic foreign-trade exchange of all the analyzed products.

The research has covered the time period from the year 1989 to the year 2010. The phenomena have most frequently been analyzed through the values of three-year or two-year averages. The sub-periods have been accorded in time with the emergence and impact of very complex historical, economic, political and other events in the country. The research results have both theoretical and practical value. First of all, they will be useful to the creators of the economic and agro-economic policy at the level of the state; however, in the same way, they will be useful to business decisions makers at the level of economic subjects, i.e. family holdings, as well as various institutions and establishments which, in an appropriate manner, deal with problems in agriculture, agro-industry and rural development on the whole.

As data sources, apart from the national ones, we have also used international statistical publications significant for the production and trade of food, beverage, tobacco and tobacco products. The Internet has been used to a great extent, as well as appropriate scientific and professional literature and, especially, the results of the research of the authors of this paper made so far. And ultimately, in compliance with the sources and characteristics of the data, in this work, we have applied quantitative and qualitative methods of market research.

### **The production and trade of tobacco and tobacco products in the world**

At the level of international economy, and within the range of agro-industrial products, tobacco and tobacco products take significant positions, not only in their production and trade but also in the population's consumption. The tendencies of the world production and trade of these products are very illustratively accounted by the Table 1.

**Table 1.** The volume, dynamics and structure of the production and trade of tobacco and tobacco products in the world

- In thousand tons -

| Product           | Ø 1989 –<br>1991 | Ø 1998 –<br>2000 | Ø 2008 –<br>2010 | index                |                      |
|-------------------|------------------|------------------|------------------|----------------------|----------------------|
|                   |                  |                  |                  | Ø1998/00<br>Ø1989/91 | Ø1998/00<br>Ø1989/91 |
| <b>Production</b> |                  |                  |                  |                      |                      |
| Tobacco           | 7,255            | 6,871            | 6,912            | 94.7                 | 95.3                 |
| Tobacco products  | 5,332            | 5,509            | 4,031            | 103.3                | 75.6                 |
| - cigarettes      | 4,989            | 5,143            | 3,614            | 103.1                | 72.4                 |
| - other products  | 343              | 366              | 417              | 106.7                | 121.6                |
| <b>Export</b>     |                  |                  |                  |                      |                      |
| Tobacco           | 1,532            | 1,994            | 2,752            | 130.2                | 179.6                |
| Tobacco products  | 783              | 1,244            | 1,361            | 158.9                | 173.8                |
| - cigarettes      | 603              | 902              | 989              | 149.6                | 164.0                |
| - other products  | 180              | 342              | 372              | 190.0                | 206.7                |
| <b>Import</b>     |                  |                  |                  |                      |                      |
| Tobacco           | 1,503            | 2,118            | 2,610            | 140.9                | 173.7                |
| Tobacco products  | 605              | 1,020            | 1,311            | 168.6                | 216.7                |
| - cigarettes      | 452              | 736              | 942              | 162.8                | 208.4                |
| - other products  | 153              | 284              | 369              | 185.6                | 241.2                |

Source: the site [www.fao.org](http://www.fao.org) and the calculation made by the authors.

*Tobacco.* In the observed time period, with relatively weaker oscillations, the world production of tobacco is characterized by a negative rate of growth of – 0.2%, and is at the level of around 7 million tons. In the second sub-period of time, compared with the first one, the production decreased by 5.3%, and in the third one, i.e. the last sub-period of time, by 4.7%. Observed from the regional point of view, Asia (64.5%) is the most important player in the world production of tobacco, being followed by America (23.0%). The share of the other continents is significantly more modest: Africa 7.8%, Europe 4.7% and Australia and Oceania 0.04%. Observed per country, within the 15 biggest producers, around 85% of the world production of tobacco is realized. The leader in the production of this product is China, with a 41.2% share. Apart from China, in the world production of tobacco, there is also a relatively big share of Brazil 12.9%, i.e. India 7.4% and the USA 5.0%. The share of the other countries belonging to the group of the fifteen biggest producers is significantly smaller and totals: Iran 2.8%, Argentina and Indonesia with 2.5% each, Malawi 2.4%, Pakistan 1.5%, Italy 1.4%, Turkey 1.3%, Zimbabwe, Thailand and Mozambique with 1.0% each and DR Korea 0.9%. The share of Serbia in the world production of tobacco is a modest one and only amounts around 0.1%.

Compared with the structure and share of individual countries in the total world production, the structure and order of the countries in the production of tobacco per

capita, and compared with the world average of 1.0 kg (Table 2), are significantly different. Namely, according to this, the leading positions in the production of the analyzed product are taken by Malawi, Macedonia, PDR Lao, Bulgaria, Zimbabwe, etc. In Serbia, around 1.4 kg of tobacco is produced per capita, what is by around 40% more than the world average.

Differently from production, the world trade of tobacco is characterized by a positive rate of growth of 2.8%, and is at the level of around 2.7 million tons, which accounts for around 40% of the production of the subject product. In the second sub-period of time, compared with the first one, the trade is increased by 30.2%, and in the third one even by 79.6%. The leading world, i.e. regional exporter of tobacco is America (41.0%), only to be followed by Asia (23.9%) and Europe (20.2%), whereas the share of Africa (14.9%) is significantly smaller, and especially Australian and Oceania's (0.04%) is almost symbolical. When we discuss the import of tobacco, the biggest portion of the world import of this product is absorbed by Europe (51.9%), then come Asia (23.9%), America (14.4%) and Africa (8.9%), whereas the share of Australia and Oceania is modest and totals around 1.0%.

Observed by country, the fifteen countries-biggest tobacco exporters realize around 78% of the world export of this product. With a 28.7% share in the world exports, Brazil is the leader in the world in tobacco exporting. The shares of the remaining fourteen countries are significantly smaller, namely: China 7.1%, India 6.9%, the USA 6.6%, Malawi 4.9%, Argentine and Turkey with 4.0% each, Greece 2.9%, Germany 2.7%, Zimbabwe and Belgium with 2.1% each, Bulgaria 2.0%, Indonesia 1.7%, France 1.0% and Canada 0.8%. Serbia's share in the world export of tobacco is very modest and totals 0.2%.

Simultaneously with export, around 68% of the total world import of tobacco is absorbed by the 15 biggest importers of this product. The leading importers are the Russian Federation (12.3%), the USA (8.9%) and Germany (8.4%), only to be followed by Holland 4.8%, China 4.3%, France 3.9%, Belgium 3.8%, Ukraine and the Philippines with 3.2% each, Poland 3.1%, Egypt 2.8%, Indonesia 2.6%, Japan 2.2% and South Korea and Great Britain with 2.1% each. In the world import of tobacco, Serbia has a 0.3% share.

*Tobacco products.* In the world, around 4 million tons of the most diversified products from tobacco are made. With a negative rate of growth of -1.3%, in the second sub-period of time compared with the first one, the total production of these products is increased by 3.3%, whereas in the third one, i.e. the last sub-period of time it fell by 24.4%. In the structure of the production, the predominant position is taken by cigarettes, with a 90% share, whereas the subgroup of other products only has a 10% share.

Differently from production, the total trade of the products made from tobacco has a positive rate of growth of 2.7% and is at the level of around 1.4 million tons, which accounts for around 35% of the total production of the subject group of products. As

well as it is the case with production, in the structure of the trade, the leading position is taken by cigarettes, with an around 70% share, whereas the subgroup of other products has an around 30% share.

*Cigarettes.* As well as it is the case with tobacco, with a falling tendency, the world production of cigarettes is at the level of around 3.6 million tons. With a negative rate of growth of  $-1.5\%$ , in the second sub-period of time compared with the base one, the production of this basic tobacco product is increased by symbolical  $3.1\%$ , whereas in the third sub-period of time, i.e. the last sub-period of time, the same accounted for a decrease by significant  $27.6\%$ . With an around  $42\%$  share in the total world production, Europe is the leading regional cigarettes producer. Besides Europe, the great producers of this product are also America ( $29.2\%$ ) and Asia ( $25.2\%$ ), whereas the share of Africa ( $3.6\%$ ) and especially Australia and Oceania ( $0.1\%$ ) in the total world production of cigarettes is significantly smaller. Observed per country, the 15 biggest producers account for around  $79\%$  of the world production of this product. Namely, the leading producers of cigarettes are the USA ( $18.5\%$ ), the Russian Federation ( $13.1\%$ ) and Japan ( $9.0\%$ ), then to be followed by: Brazil  $6.2\%$ , Germany  $5.8\%$ , Ukraine  $4.2\%$ , Turkey  $4.1\%$ , South Korea and Great Britain with  $3.5\%$  each, Poland  $3.0\%$ , India  $2.3\%$ , Egypt  $1.6\%$ , Switzerland  $1.5\%$ , Spain  $1.4\%$  and France  $1.2\%$ . In the world production of cigarettes, Serbia has a share of around  $0.6\%$ .

The structure and order of the countries in the production of cigarettes per capita, and in comparison with the world average of  $0.5$  kg (Table 2), are significantly different if compared with the structure and order of the countries from the aspect of their share in the total world production of this product. Namely, the leading producers of cigarettes per capita are Switzerland, Cyprus, Croatia, Bulgaria, the Russian Federation, Ukraine, and so on. In comparison with the world average, Serbia has a bigger production of cigarettes per capita by high  $480\%$ .

Differently from production, the world trade of cigarettes is characterized by a positive rate of growth of  $2.4\%$  and is at the level of around 1 million tons, which accounts for over  $27\%$  of the total world production of this product. In the second sub-period of time, compared to the first one, the trade increased by around  $50\%$ , and in the third one by around  $64\%$ . With an almost  $60\%$  share in the total world export, Europe is the leading regional exporter of cigarettes. Back to back with Europe, there are significant exporters such as Asia ( $26.0\%$ ) and America ( $11.4\%$ ), whereas Africa's share ( $2.6\%$ ) and the share of Australia and Oceania ( $0.2\%$ ) are significantly more modest. Simultaneously with exporting, Europe ( $45.5\%$ ) and Asia ( $43.4\%$ ) are, at the same time, the biggest players in the total world import of cigarettes. Africa's share ( $5.6\%$ ) and America's share ( $5.0\%$ ) in the world import of this product are significantly smaller and almost equalized, whereas the share of Australia and Oceania is distinctly modest and only totals  $0.5\%$ .

**Table 2.** Comparative review of 15 biggest producers of tobacco and tobacco products per capita, in the world

- Ø 2008/2010, Level Index: the World = 100.0 –

| Tobacco    |      |       | Cigarettes  |     |       | Other tobacco products |     |       |
|------------|------|-------|-------------|-----|-------|------------------------|-----|-------|
| Country    | Kg   | Index | Country     | Kg  | Index | Country                | Kg  | Index |
| The World  | 1.0  | 100.0 | The World   | 0.5 | 100.0 | The World              | 0.1 | 100.0 |
| Malawi     | 10.7 | 1,070 | Switzerland | 7   | 1,400 | Macedonia              | 9.2 | 9,200 |
| Macedonia  | 8.3  | 830   | Cyprus      | 5.7 | 1,140 | Bulgaria               | 6.9 | 6,900 |
| PDR Lao    | 7.1  | 710   | Croatia     | 3.5 | 700   | Croatia                | 3.1 | 3,100 |
| Bulgaria   | 5.8  | 580   | Bulgaria    | 3.4 | 680   | Moldavia               | 2.7 | 2,700 |
| Zimbabwe   | 5.7  | 570   | Russ Fed.   | 3.4 | 680   | Tanzania               | 1.1 | 1,100 |
| Brazil     | 4.6  | 460   | Ukraine     | 3.3 | 660   | Kirgizstan             | 1.1 | 1,100 |
| Argentina  | 4.3  | 430   | Denmark     | 3.1 | 620   | Sweden                 | 0.9 | 900   |
| Zambia     | 3.7  | 370   | Serbia      | 2.9 | 580   | Algeria                | 0.7 | 700   |
| Mozambique | 2.9  | 290   | Portugal    | 2.8 | 560   | Egypt                  | 0.6 | 600   |
| Croatia    | 2.8  | 280   | Poland      | 2.8 | 560   | Montenegro             | 0.6 | 600   |
| DPR Korea  | 2.6  | 260   | Macedonia   | 2.8 | 560   | Denmark                | 0.6 | 600   |
| Iran       | 2.6  | 260   | Uruguay     | 2.7 | 540   | Syr Ar Rep.            | 0.5 | 500   |
| Paraguay   | 2.6  | 260   | S. Korea    | 2.7 | 540   | Germany                | 0.4 | 400   |
| Greece     | 2.4  | 240   | Greece      | 2.6 | 520   | Cyprus                 | 0.4 | 400   |
| Kirgizstan | 2.3  | 230   | Japan       | 2.6 | 520   | Lebanon                | 0.3 | 300   |
| Serbia     | 1.4  | 140   | Serbia      | 2.9 | 580   | Serbia                 | 0.3 | 300   |

Source: site [www.fao.org](http://www.fao.org) and the calculation made by the authors.

Almost 77% of the world export of cigarettes is realized by the 15 countries-biggest exporters of this product. Germany (19.1%) has the biggest share in the world export, i.e. it is the world leader in the export of cigarettes. Apart from Germany, Holland 8.8%, Poland 8.6%, the USA 6.8% and Switzerland 5.8% have a high share in exporting as well, only to be followed by Indonesia and South Korea with 5.1% each, Austria 4.0%, Great Britain and Singapore with 2.1% each, Turkey 2.0%, Greece 1.9%, Japan and the Russian Federation with 1.8% each and China 1.6%. In the world export of cigarettes, Serbia has a modest 0.2% share.

Around 62% of the total world import of cigarettes is absorbed by the 15 countries-biggest importers of this product. The leading world importers of cigarettes are Spain (12.1%), Japan (10.0%) and Italy (6.9%), only to be followed by: France 4.9%, the United Arab Emirates 3.9%, Germany 3.2%, China 3.1%, Saudi Arabia 2.9%, Iran, the Czech Republic and Cambodia with 2.5% each, Iraq 2.4%, Singapore 1.6% and Azerbaijan and Belgium with 1.5% each. In the world import of cigarettes, Serbia has a 0.5% share.

*Other products made from tobacco.* This subgroup of products includes: cigars, tobacco for smoking, tobacco for chewing and tobacco for sniffing. The total world production of this subgroup of products is at the level of 417,000 tons, which makes around 10% of the total world products from tobacco. With an annual growth rate of 0.9%, in the second sub-period of time compared to the first one, the production increased by 6.7%, and in the third one by 21.6%. In comparison with the other groups and subgroups of products, the other products from tobacco are the only one subgroup which has a positive growth

rate for the duration of the whole observed time period and especially in the second sub-period of time. The leading regional producers, i.e. the biggest holders of a share in the world production of the other tobacco products are Europe (39.3%) and Africa (30.2%). A significantly smaller share in the subject production is held by Asia (18.0%) and America (12.5%), whereas the share of Australia and Oceania is distinctly modest and totals 0.09%. Observed per country, within the 15 biggest producers over 85% of the world production of the analyzed subgroup of products is produced. Namely, the biggest share in the world production of the so-called other tobacco products are held by Bulgaria and Brazil, with an 11.5% share each, Egypt 11.3% and Tanzania 11.1%. They are followed by: Bangladesh 8.4%, Germany 7.7%, Algeria 5.5%, Macedonia 4.2%, Croatia 3.1%, Syrian Arab Republic and Moldavia with 2.2% each, Ukraine and Sweden with 1.8% each, Iran 1.5% and Poland 1.3%. Serbia's share in the world production of other tobacco products is a very modest one and totals 0.4%.

In comparison with the structure and order of the shares of individual countries in the total world production, the structure and order of the countries in the production of other products from tobacco per capita against the world average of 0.1 kg (Table 2) are significantly different. According to this base, the leading positions in the world production of the so-called other tobacco products are held by Macedonia, Bulgaria, Croatia, Moldavia, Tanzania, Kirgizstan etc. Compared with the world average, Serbia realizes three times as big a production of tobacco products per capita.

Compared to production, the world trade of other tobacco products has a more dynamic rate of growth. With a 3.5% rate, the trade of this subgroup of products is at the level of 372 thousand tons. In the second sub-period of time as compared with the first one, the trade increased by 90%, and in the third one by 106.7%. With a 59.7% share, Europe is the biggest world exporter of the subject products, only to be followed by: Asia (20.7%), Africa (10.4%), America (7.8%), and finally Australia and Oceania (1.4%). Simultaneously with exporting, Europe (46.5%) and Asia (38.5%) are, at the same time, the biggest regional importers of other tobacco products. America (8.8%) in the third import place, and is followed by Africa (5.5%) and Australia and Oceania (0.7%).

Almost 90% of the world export of the so-called tobacco products is realized by the 15 countries-biggest exporters of this subgroup of products. The leading exporters are France (14.5%), Holland (12.1%) and Belgium (8.6%), only to be followed by: India 7.8%, Germany 7.5%, the Russian Federation 7.0%, Malaysia 5.6%, South Africa 4.8%, Poland and the USA with 4.6% each, Brazil 3.0%, Great Britain 2.7%, China and Luxembourg with 2.4% each and Turkey 2.2%. Serbia's share in the world export of other tobacco products is modest and totals 0.3%.

Simultaneously with exporting, over 65% of the total world import of the so-called tobacco products is absorbed by the 15 countries-biggest importers of this subgroup of products. The leading importer is Germany (13.0%), only to be followed by: the Russian Federation 5.1%, Turkey 4.9%, Saudi Arabia 4.6%, Jordan 4.3%, Holland 4.1%, Yemen, Ukraine, Japan and Poland with 3.5% each, Spain and Belgium with

3.3% each, the United Arab Emirates and Iran with 3.0% each and France 2.7%. In the world import of other tobacco products, Serbia has a 0.4% share.

The manifested regional distribution in the production and trade of the analyzed products, not only according to the volume but also according to the structure, is the resultant of numerous natural, social and economic factors. However, the following are said to be the most important factors: land, climate, the volume and structure of the production of tobacco; the number, structure and purchase power of the population; the level of a country's economic development; the development of agriculture, agro-industry and especially the tobacco processing industry; the level of scientific, technical and technological achievements; the volume of tangible investments in the production of the subject products and the measures of a country's economic, i.e. state policy.

Serbia's share in the world production and trade of the analyzed products is a modest one. Depending on the product, it has a share ranging from 0.1% to 0.6% in production, and in exporting it is from 0.2% to 0.3%, and in importing it ranges between 0.3% and 0.5%.

A relatively modest presence of tobacco and tobacco products in the international trade, compared with their volume of production, is, first of all, the resultant of specific characteristics in the consumption of these products, a broad distribution of their production and intentions on the side of all countries, especially those undeveloped and those developing, to satisfy their domestic needs for the subject products primarily by means of their own production.

### **The production and trade of tobacco and tobacco products in the domestic market**

In Serbia, there are favourable, however not sufficiently used up, both natural and other resources for the achievement of a significantly bigger, more stable, more quality and structurally more adequate, i.e. better-adapted-to-the-market production of tobacco and tobacco products. The tendencies, i.e. the volume, dynamics and structure of the domestic production and trade of these products are very illustratively accounted by the Table 3.

**Table 3.** The volume, dynamics and structure of the production and trade of tobacco and tobacco products in Serbia<sup>1</sup> (in 000 t)

| Product                                | Ø 1989 - 1991 | Ø 1998 - 2000 | Ø 2008 - 2010 | Index                  |                        |
|--|---------------|---------------|---------------|------------------------|------------------------|
|  |               |               |               | Ø 1998/00<br>Ø 1989/91 | Ø 2008/10<br>Ø 1989/91 |
| Production                             |               |               |               |                        |                        |
| Tobacco                                | 9             | 12            | 10            | 133.3                  | 111.1                  |
| Tobacco products                       | 18            | 14            | 23            | 77.8                   | 127.8                  |
| - cigarettes                           | 15            | 12            | 21            | 80.0                   | 140.0                  |
| - other tobacco products <sup>2)</sup> | 3             | 2             | 2             | 66.7                   | 66.7                   |
| Sale and purchase                      |               |               |               |                        |                        |
| Tobacco                                | 6.5           | 5.6           | 7.1           | 86.2                   | 109.2                  |

Source: site: [www.webrzs.stat.gov.rs](http://www.webrzs.stat.gov.rs); internal materials of the Republican Agency for Statistics of Serbia, Belgrade, and the calculation of made by the authors.

1) Production in the Republic of Serbia, without figures for Kosovo and Metohija.

*Tobacco.* With a modest growth rate of 0.5%, the production of tobacco in Serbia is at the level of around 10,000 tons. With noticeable oscillations, the production in the second sub-period of time compared with the first one increased by 33.3%, and in the third one by merely 11.1%. At the same time, for the reason of complex social and economic circumstances in the country, the sale and purchase of tobacco almost stagnated. Namely, in the second sub-period of time in comparison with the first one, the sale and purchase of this product decreased by 13.8%, whereas in the third sub-period of time there was a slight increase of 9.2% and is at the level of around 7,000 tons, which make around 70% of its production. At the same time, the trend of the sale and purchase of tobacco was growing at an average annual growth rate of only 0.4%.

*Tobacco products.* This analysis includes two basic subgroups, namely: cigarettes and the so-called other tobacco products. The common volume of the production of these both groups in Serbia is at the level of around 23,000 tons, while cigarettes have an absolutely predominant position with a 91.3% share, whereas the remaining 8.7% accounts for other tobacco products.

*Cigarettes* as the leading tobacco product reach the production level of around 21,000 tons. With an average annual growth rate of 1.7%, the production in the second sub-period of time comparing with the base one shrank by 20%, whereas in the third one, i.e. the last sub-period of time, it increased by 40%.

*Other tobacco products,* a special subgroup, cover a greater number of products (cigarettes, tobacco for the pipe and chewing, and homogenized and reconstituted tobacco), with very modest total production of about 2,000 tons. With a negative rate of growth of -2,0%, the production of this subgroup in the second and third sub-period of time stagnates and is at a lower level compared with the base i.e. the first sub-period of time for significant 33.3%.

The demonstrated tendencies in the production and trade of tobacco and tobacco products are a resultant of a direct and indirect impact of numerous causes and circumstances, both those from the 1990's and those from the most recent time period. As specially important causes, the following ones are stated: the aggressive collapse of the SFR Yugoslavia, the war in the environment and in the country, sanctions introduced by the international community, the NATO aggression in the year 1999, the interrupted process of social reproduction, the economic recession, a fall in agriculture, i.e. agro-industry and, especially in the second sub-period of time, a fall in the production of cigarettes, the inefficient process of transition, insufficient investments in the development of agriculture and especially in the production of tobacco, the inadequate fiscal policy, the lack of an adequate integral program for the development of the production and processing of tobacco, the inadequate organization and insufficient material and technical equipment of family holdings, a low level of work productivity, an inadequate organization of purchase, an inefficient application of international standards, traditionalism in production and slowness in the changing of the production structure, i.e. assortment, specificities in consumption and low purchase power of the consumer, unstable social-political relations and so forth.

The removing of the current causes of unfavourable trends of the observed phenomena will significantly contribute not only to a faster development of the domestic production, market, trade and foreign-trade exchange of the analyzed products but also the domestic agriculture, i.e. agro-industry, family holdings and rural areas in the country on the whole.

### **Serbia in the foreign-trade exchange of tobacco and tobacco products**

The stated causes of unfavourable trends in the domestic production and trade of tobacco and tobacco products also had an important impact on the current state of affairs in the foreign-trade exchange of not only these products but overall agriculture, i.e. agro-industry and economy on the whole. The data in Table 4 very clearly and reliably account for the characteristics of the subject exchange.

In the observed time period from 2003 to 2010, with a tendency of increasing deficit, the balance of the domestic foreign-trade exchange of overall agriculture was permanently negative. In the last, i.e. second sub-period of time (Ø 2009/10) compared with the first one (Ø 2003/04), the deficit was increased by even around 23%, thus reaching a level of over 7 billion USD. For the reason of a markedly lower starting base, the export had a more dynamic increase than it was the case with the import. The export covers the import with only 55.3%. In the same sub-period of time, agriculture and the food industry have a 23.1% share in the total export structure, and in the import, they have a 6.2% share.

Differently from the overall economy, the negative balance of the domestic foreign-trade exchange of agriculture and the food industry from the first sub-period of time transformed into a positive one in the second sub-period of time with a surplus of over one billion USD. For the reason of a lower starting base, the export had a significantly

more dynamic increase than the import. The coverage of the import with the export increased from 91.1% to 206.2%. At the same time, in the structure of the export, i.e. import of overall agriculture and the food industry, the share of the export, i.e. import of the group of products tobacco and tobacco products is 2.6%, i.e. 8.5%.

With a tendency of significantly decreasing the deficit, the balance of the domestic foreign-trade exchange of the group of products tobacco and tobacco products is negative in both sub-periods of time. In the last one, i.e. in the second sub-period of time compared with the first one, the deficit of this group of products shrank by almost 69% and is around 31 million USD. In the structure of this deficit, the deficit from tobacco products, with an 84.14% share markedly predominates, while the share of the deficit from the subgroup tobacco has a significantly smaller share and totals 14.85%. Simultaneously, in the same sub-period of time, and correspondingly to the structure of the deficit, the structure of the total export and import of the analyzed group is also characterized by a predominant share of tobacco products. Their share in the subject export is around 57%, and the one of tobacco is around 43%, whereas in the import, the products have an around 67% share, and tobacco around 33%. With all this in mind, the degree of the coverage of the import with the export of 6.6% in the first sub-period of time increased to 64.1% in the second sub-period of time.

**Table 4.** The balance, dynamics and structure of the domestic foreign-trade exchange of tobacco and tobacco products

| Product                              | In thousand USD  |                  |                   |                  |                   |                   | Index                  |                        |
|--------------------------------------|------------------|------------------|-------------------|------------------|-------------------|-------------------|------------------------|------------------------|
|                                      | Ø 2003 – 2004    |                  |                   | Ø 2009 – 2010    |                   |                   | Ø 2009/10<br>Ø 2003/04 | Ø 2009/10<br>Ø 2003/04 |
|                                      | Export           | Import           | Balance<br>(+ -)  | Export           | Import            | Balance<br>(+ -)  | Export                 | Import                 |
| <b>Total economy</b>                 | <b>3,140,000</b> | <b>9,115,000</b> | <b>-5,975,000</b> | <b>9,069,400</b> | <b>16,395,000</b> | <b>-7,325,600</b> | <b>288.8</b>           | <b>179.9</b>           |
| <b>Total agric. and food ind.</b>    | <b>688,000</b>   | <b>755,000</b>   | <b>-67,000</b>    | <b>2,093,200</b> | <b>1,015,250</b>  | <b>1,077,950</b>  | <b>304.2</b>           | <b>134.5</b>           |
| <b>Tobacco and products total</b>    | <b>7,000</b>     | <b>106,409</b>   | <b>-99,409</b>    | <b>55,355</b>    | <b>86,313</b>     | <b>-30,958</b>    | <b>790.8</b>           | <b>81.1</b>            |
| <b>A. Tobacco</b>                    | <b>3,698</b>     | <b>16,717</b>    | <b>-13,019</b>    | <b>23,820</b>    | <b>28,419</b>     | <b>-4,599</b>     | <b>644.1</b>           | <b>170.0</b>           |
| 1. Tobacco, partly or fully threshed | 2,016            | 10,890           | -8,874            | 20,082           | 23,238            | -3,156            | 996.1                  | 213.4                  |
| 2. Tobacco unthreshed                | 1,516            | 5,369            | -3,853            | 3,383            | 3,492             | -109              | 223.2                  | 65.0                   |
| 3. Tobacco waste                     | 166              | 458              | -292              | 355              | 1,689             | -1,334            | 213.9                  | 368.8                  |
| <b>B. Tobacco products</b>           | <b>3,302</b>     | <b>89,692</b>    | <b>-86,390</b>    | <b>31,535</b>    | <b>57,894</b>     | <b>-26,359</b>    | <b>955.0</b>           | <b>64.5</b>            |
| 1. Cigarettes                        | 2,718            | 82,529           | -79,811           | 26,815           | 50,394            | -23,579           | 986.6                  | 61.1                   |
| 2. Tobacco for smoking               | 1                | 5,344            | -5,343            | 47               | 322               | -275              | 4700.0                 | 6.0                    |
| 3. Other products                    | 583              | 1,819            | -1,236            | 4,673            | 7,178             | -2,505            | 801.5                  | 394.6                  |

Source: site [webrzs.stat.gov.rs](http://webrzs.stat.gov.rs) internal materials of the Republican Agency for Statistics of Serbia, Belgrade, and the calculation made by the authors.

As with the previously analyzed group of products tobacco and tobacco products, the balance of the subgroup tobacco is also negative in both sub-periods of time. With a falling tendency, the negative balance from the first sub-period of time or around 13 million USD decreased in the second sub-period of time by 64.67% and is around 4.6 million USD. In the same sub-period of time, in the structure of the subgroup's export, tobacco partly or

fully threshed, with the share of around 84%, takes the leading position, whereas the share of un-threshed tobacco (around 14%) and tobacco waste (around 1.5%) is significantly more modest. Correspondingly to this, in the structure of the import too, tobacco partly or fully threshed takes the leading position, with an around 82% share, while the share of un-threshed tobacco (around 12%) and tobacco waste (around 6%) is significantly smaller. The degree of the coverage of the import with the export of the subject subgroup increased from 22.1% to 83.8%. Observed per separate items within the subgroup, the coverage of the import with the export moves, with tobacco partly or fully threshed, from 18.5% to 86.4%, with tobacco un-threshed from 28.2% to 96.9%, and with tobacco waste from 36.2% to 21.0%.

Most frequently, tobacco was exported towards Belgium, Holland, Italy, Germany, Bosnia and Herzegovina, the Russian Federation, Macedonia, Greece, Poland, Switzerland, Montenegro, Ukraine, Croatia, Hungary, Turkey, France, Great Britain and Japan. At the same time, the import of this product was most frequently realized from Brazil, the USA, Italy, Malawi, India, Tanzania, Mozambique, Greece, Spain, Bulgaria, Mexico, Turkey, Macedonia, Zambia, Zimbabwe, Argentina, Germany, China, Uganda, Lebanon, Kazakhstan, Guatemala, Kenya, Poland, Montenegro, Canada, Portugal, Bosnia and Herzegovina and Pakistan.

The negative balance of the foreign-trade exchange of the subgroup of tobacco products had a crucial impact on the negative balance of the group of products on the whole – tobacco and tobacco products. Namely, with the tobacco products group, with a falling tendency, the negative balance from the first sub-period of time of over 86 million USD fell in the second sub-period of time by 69.48% and is over 26 million USD, which is an absolutely predominant negative item within the total deficit for the whole group of products – tobacco and tobacco products. In the same time period, in the structure of the export of the subgroup tobacco products, cigarettes take the leading position, with a share of around 85%, whereas the share of the so-called other products (around 15%) and especially tobacco for smoking (around 0.2%) is significantly more modest. In the same order, as well as with the export, cigarettes also have the biggest share in the import, with around 87%, only to be followed with the so-called other products with a significantly smaller share (around 12%) and tobacco for smoking (0.6%). The degree of the coverage of the import with the export of the subject subgroup from the first sub-period of time of 3.7% increased to 54.5% in the second sub-period of time. Such a low degree of the coverage of the import with the export of the subgroup is the resultant of the very low degree of the coverage of the import with the export of cigarettes, which increased from 3.3% to 53.2%. At the same time, the degree of the coverage of the import with the export of tobacco for smoking in the first sub-period of time was 0.02%, and in the second one it was 14.6%, whereas the same coverage with the so-called other products was to a certain extent more favourable and moved from 32.1% to 65.1%.

The export of cigarettes and other products from tobacco was most frequently to Bosnia and Herzegovina, Montenegro, Macedonia, Ukraine, Croatia, Hungary, Iran, Germany, Switzerland, the USA, Romania, Holland, the Philippines, South Africa,

Albania, Great Britain, Bulgaria, India and Greece. At the same time, the import of the subject products was most frequently absorbed from France, Holland, the USA, Germany, the Russian Federation, Croatia, Macedonia, Poland, Cuba, the Dominican Republic, Great Britain, Italy, Bosnia and Herzegovina, Sweden, Greece, Turkey, Malaysia, Switzerland, Indonesia, Costa Rica, Belgium, Austria, Brazil, Lithuania, Romania, Denmark and Canada.

The negative balance sheet positions of the domestic foreign-trade exchange of tobacco and tobacco products were most directly impacted by the manifested tendencies in the very production of these products. It is obvious that, in spite of available resources and market needs, their production is insufficient and unstable. Therefore, in order to achieve more favourable and more stable export results, it is necessary that, with bigger material investments and a more adequate credit and fiscal policy, the production of the analyzed products should not only increase but structurally better adapt to the market needs as well. The production must be standardized and highly productive, and the product must be competitive for its quality and price. The export should be diverged towards as many countries as possible and especially towards markets with bigger consumer purchase power.

### **Conclusion**

In the observed time period, the world production of tobacco and tobacco products are characterized by slightly negative growth rates, whereas, contrary to this, the trade records relatively modest positive development trends. The regional distribution of the production and trade, i.e. the surplus and deficit of all the analyzed products, is very different and imbalanced, not only per continents by per countries as well. The manifested tendencies of the observed phenomena are the resultant of not only numerous natural, agricultural and social factors, but also specially emphasized specificities in the production and consumption of the subject products as well as the strengthening of the awareness of the consumer of their damaging impact on the man's health. At the same time, Serbia's share in the total world production and trade of the analyzed products is very modest, because in both phenomena, it has a share within the framework from 0.1% to 0.6%.

In the same time period, the domestic production of tobacco and cigarettes is characterized by extremely modest positive growth rates, whereas the so-called other products have a negative movement trend. At the same time, simultaneously with a slight increase in the production of tobacco, an even slighter pace of growth and purchase of this product is noticeable.

The balance of the domestic foreign-trade exchange of the group of products tobacco and tobacco products is negative in both sub-periods of time. In the same sub-periods of time, the negative balance is noticed with both subgroups of products. In the total deficit of the group of products, the negative balance of the subgroup tobacco has an around 15% share, whereas the subgroup tobacco products has a share of about 85%,

while the share of cigarettes only, as the main, i.e. leading product, is over 76%.

The demonstrated unfavorable condition in the domestic production, i.e. the trade and foreign-trade exchange of the analyzed products, is a consequence of numerous causes which have already been mentioned in the paper. However, given the available resources and market needs, the measures mentioned in the wording of the paper should be used to eliminate the current causes of the unfavorable condition and maximally adapt the production of the subject group of products to the market needs not only in the volume but also in the structure, i.e. assortment, and do that in as short a time period as possible. At the same time, the production of export products should be especially stimulated, and it must be stable, standardized, highly productive and competitive. The export should be directed towards as many countries as possible and primarily towards those markets with bigger consumer purchase power.

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## SVETSKO I DOMAĆE TRŽIŠTE DUVANA I PRERAĐEVINA OD DUVANA

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### Rezime

*U radu je data regionalno-komparativna analiza važnijih pokazatelja svetskog i domaće tržišta duvana i prerađevina od duvana. Naime, za poslednjih 21 godinu, po posmatranim podperiodima, metodom komparativne analize izučene su kvantitativne i strukturne razlike u proizvodnji i prometu analizirane grupe proizvoda, kako na nivou sveta tako i na nivou kontinenata i pojedinih zemalja. Definisani su vodeći proizvođači, odnosno tokovi međunarodnog prometa i vodeći izvoznici i uvoznici duvana i prerađevina od duvana, s posebnim osvrtom na mesto i značaj Srbije, odnosno njenu poziciju na svetskom tržištu ovih proizvoda.*

*Shodno prethodnom i značaju analizirane grupe proizvoda za domaće tržište, odnosno poljoprivredu, agroindustriju i privredu u celini, u radu su pojedinačno izučeni bilansi, struktura, dinamika i regionalna usmerenost domaće spoljnotrgovinske razmene duvana i prerađevina od duvana. Osim toga, ukazano je i na potrebe, odnosno mogućnosti, mere i pravce daljeg razvoja domaće proizvodnje i izvoza predmetnih proizvoda.*

**Ključne reči:** *duvan, prerađevine od duvana, proizvodnja, tržište, promet, izvoz, uvoz, bilans.*

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