**Analysis of the tobacco production impact on the economic situation in the country**

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**Abstract**

Agriculture is exceptionally important economic industry and it enjoys a very important treatment in the global EU policy. The contribution of agriculture to the Union's gross domestic product (GDP) is below 3%, but this industry employs about 5% of the employed working age population of the Community and is a major source of income in many rural communities. Food, beverages and tobacco represent about 20% of the average household expenditure in Europe and their contribution in the Union's international trade and export is very significant.

The EU own production of basic agricultural products is vital both for its citizens and the political independence of its member countries. The economic, social and political importance of agriculture outweighs the contribution to the Union's GDP.

Tobacco cultivation and tobacco production are part of the most important economic activities in Macedonia. Our country is a well-known producer of high-quality oriental type of tobacco, which is part of the recipes for manufacturing best quality cigarettes. Tobacco production is of economic importance and it should be sustained, despite the reduced production imposed by the EU in many countries. Many types and varieties of tobacco which are well-known for their specific properties, participate in obtaining the expected properties. According to the aroma, tobacco is divided into aromatic and non-aromatic. The term “aromatic tobacco” usually refers to the oriental types and they contain essential oils and other aromatic substances, due to which, their leaves become fragrant after the process of drying.

The Balkan countries, including Macedonia together with Greece, Bulgaria, and Turkey, are the largest traditional producers and exporters of quality oriental tobacco. That is why the primary production of oriental small-leaf aromatic tobacco is of great economic and social significance for us. Due to its high quality, the Macedonian oriental tobacco is highly valued on the international market and together with the tobacco products, it is a significant export product that provides foreign exchange inflow into the state budget.

**Key words:** tobacco production, economy, income, export, international market

**Introduction**

Macedonia has a long history and tradition of growing and exporting raw tobacco, especially oriental type, mainly of the varieties “Prilep”, “Jaka” and “Basma”. As such, Macedonia is an important producer of raw tobacco leaf and ready-made cigarettes in the region. Tobacco production enjoys a very important place in the Macedonian economy, due to economic and social reasons. With an estimated share of 3%, it is among the eight countries with the major tobacco production in the world. The area under tobacco covers 3.4% of the total arable land in the country, while the area under energy crops represents about 81.1% of the total area. The area under industrial crops is 9% of the total sown agricultural land, while the area under cereals, vegetables and forage crops is 91%.

Tobacco, as one of the most important industrial crops for the country, occupies about 70% of the areas under industrial crops and a share of approximately 30% in the total export of agricultural products, which represents 1% of GDP. According to the Food and Agriculture Organization (FAO), Macedonian tobacco production in tons would represent more than 11% of total EU tobacco production. Tobacco production employs about 35,000 agricultural households in the primary production and it is traditionally focused on exporting to world markets, especially after the independence of the country. This trend was strengthened after 2000, when 90% of the tobacco was exported to the world market, and the remaining 10% was used for domestic production of cigarettes.

The importance of tobacco production in Macedonia can be seen in the number of registered producers, i.e. families that produce tobacco. On average, 33,000 registered households are engaged in the tobacco production per year, which means that there are about 130,000 people engaged in the tobacco production. This number represents about 6.5% of the total population in Macedonia. The main factors that bring to oscillations in the number of tobacco leaf producers are the weather conditions, changes in procurement prices, the tobacco subsidies, as well as the global demand for tobacco.

**Current situation with tobacco production in Macedonia**

During the last ten years (2010 - 2019), the production of tobacco in Macedonia mainly consists of oriental tobacco from the aromatic types “Prilep”, “Jaka”, ”Basmak” and “Dzebel”, while the large-leaf tobacco of the types “Virginia” and “Burley” are not grown at all. The type “Prilep” participates with the largest share in the production (84%), then comes the type “Jaka” (14%), and the type “Basmak” which participates with the smallest part (1.8%). The participation of the types “Dzebel” and “Tola” with only 0.2%.is insignificant.

The tobacco production has fluctuated in the years, both in the world and in our country. In recent years, Macedonia is ranked around the 30th place in terms of the amount of tobacco production (2014 30th, 2015 30th, and 2016 28th). The data below regarding the production of cultivated area under tobacco in hectares and the yield per unit area (kg/ha) in the period from 1953 to 2019, as well as the information on total production and concluded contracts, is obtained from the State Statistical Office:

**Table 1. Total production in tons, tobacco cultivated areas in hectares, average yield and number of concluded contracts in Macedonia**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Year | Cultivated area  (hа) | Yield  (kg/ha) | Production (t) | Number of concluded contracts |
| 1953 | 17,361 | 790 | 13,715 | 78,296 |
| 1954 | 18,704 | 710 | 13,280 | 78,311 |
| 1955 | 21,856 | 900 | 19,670 | 79,327 |
| 1956 | 21,061 | 660 | 13,900 | 76,876 |
| 1957 | 28,447 | 1030 | 29,300 | 92,987 |
| 1958 | 25,352 | 710 | 18,000 | 85,267 |
| 1959 | 23,953 | 860 | 20,600 | 78,481 |
| 1960 | 20,435 | 690 | 14,100 | 60,343 |
| 1961 | 14,105 | 570 | 8,040 | 62,409 |
| 1962 | 20,286 | 700 | 14,200 | 74,809 |
| 1963 | 28,523 | 880 | 25,100 | 101,375 |
| 1964 | 32,632 | 950 | 31,000 | 104,697 |
| 1965 | 32,184 | 870 | 28,000 | 96,507 |
| 1966 | 34,342 | 760 | 26,100 | 103,910 |
| 1967 | 31,599 | 870 | 27,491 | 98,420 |
| 1968 | 30,103 | 670 | 20,169 | 79,584 |
| 1969 | 27,160 | 810 | 22,000 | 77,558 |
| 1970 | 28,833 | 820 | 23,643 | 69,586 |
| 1971 | 26,986 | 800 | 21,589 | 65,392 |
| 1972 | 28,983 | 1000 | 28,983 | 69,770 |
| 1973 | 28,962 | 1120 | 32,437 | 71,886 |
| 1974 | 30,084 | 930 | 27,978 | 69,913 |
| 1975 | 33,132 | 1030 | 34,126 | 78,776 |
| 1976 | 32,739 | 1030 | 33,721 | 79,408 |
| 1977 | 31,355 | 1030 | 32,296 | 74,313 |
| 1978 | 29,116 | 1070 | 31,154 | 67,536 |
| 1979 | 27,016 | 1090 | 29,447 | 59,677 |
| 1980 | 26,502 | 890 | 23,587 | 55,355 |
| 1981 | 25,442 | 1230 | 31,294 | 50,831 |
| 1982 | 26,984 | 1260 | 34,000 | 60,259 |
| 1983 | 27,096 | 830 | 22,490 | 58,757 |
| 1984 | 25,923 | 1185 | 30,719 | 53,692 |
| 1985 | 28,505 | 1078 | 30,728 | 71,033 |
| 1986 | 30,216 | 1159 | 35,020 | 80,256 |
| 1987 | 25,465 | 1125 | 28,648 | 57,826 |
| 1988 | 18,534 | 1201 | 22,259 | 54,440 |
| 1989 | 24,456 | 1126 | 27,537 | 49,135 |
| 1990 | 20,825 | 790 | 16,452 | 38,809 |
| 1991 | 18,324 | 1375 | 25,195 | 40,750 |
| 1992 | 22,497 | 1178 | 26,502 | 49,348 |
| 1993 | 21,373 | 1123 | 24,002 | 53,809 |
| 1994 | 14,864 | 1269 | 18,862 | 35,416 |
| 1995 | 10,891 | 1440 | 15,683 | 24,752 |
| 1996 | 11,738 | 1313 | 15,412 | 27,110 |
| 1997 | 19,290 | 1312 | 25,308 | 33,050 |
| 1998 | 25,016 | 1309 | 32,746 | 54,661 |
| 1999 | 24,700 | 1189 | 29,368 | 44,822 |
| 2000 | 22,790 | 973 | 22,175 | 37,617 |
| 2001 | 20,067 | 1157 | 23,217 | 33,906 |
| 2002 | 20,530 | 1116 | 22,911 | 26,971 |
| 2003 | 18,008 | 1332 | 23,986 | 32,000 |
| 2004 | 17,715 | 1221 | 21,630 | 27,343 |
| 2005 | 18,485 | 1498 | 27,691 | 38,000 |
| 2006 | 17,507 | 1436 | 25,036 | 29,230 |
| 2007 | 17,183 | 1287 | 22,056 | 29,771 |
| 2008 | 17,064 | 1001 | 17,087 | 30,519 |
| 2009 | 17,809 | 1355 | 24,122 | 38,710 |
| 2010 | 20,300 | 1492 | 30,280 | 40,743 |
| 2011 | 19,693 | 1348 | 26,537 | 33,234 |
| 2012 | 19,656 | 1392 | 27,333 | 29,090 |
| 2013 | 19,178 | 1453 | 27,859 | 42,367 |
| 2014 | 17,758 | 1553 | 27,578 | 34,445 |
| 2015 | 16,128 | 1503 | 24,237 | 28,454 |
| 2016 | 16,379 | 1554 | 25,443 | 27,380 |
| 2017 | 15,961 | 1643 | 22,885 | 29,132 |
| 2018 | 16,582 | 1541 | 25,547 | 34,104 |
| 2019 | 14,127 |  | 26,700 | 24,854 |

Source: State Statistical Office of the Republic of North Macedonia

The data in the tables above provides better global picture about the tobacco production in our country throughout a period of six and a half decades. The table shows that tobacco production compared to the cultivated area is stable, and, besides some oscillations in certain years, it is around 20,000 hectares. During the last several years there is a decrease, and it occupies around 16,000 ha. Regarding the volume production, besides certain oscillations, it is around 25,000 tons. There are changes in the number of the concluded contracts, and there is a drastic decrease compared to the first years, and now there are around 30,000 concluded contracts. During the last several years, this number was also stable. Concerning the last component, yield per ha, we can notice significant increase in the present compared to 60 years ago, so the yield has increased from 700 kg/ha to around 1500 kg/ha. This shows that the tobacco production follows the world trends, since they also show increase of the yield. However, our country is behind the world average volume, which is 1800kg/ha.

Tobacco production is an important branch of the Macedonian agriculture, which brings foreign exchange inflow of about 100 million euros per year and thus directly affects the improvement of the economic situation of the country. The situation with the import and export of tobacco in the period 1998-2019 can be seen from the following data.

**Table 2. Tobacco and tobacco products export**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Product** | **Unit** | **1998** | **2002** | **2004** | **2005** | **2008** | **2010** | **2011** | **2012** | **2013** | **2014** | **2019** |
| **Fermented tobacco** | **Tons** | 14,612 | 17,378 | 15,248 | 15,117 | 19,305 | 16,546 | 21,495 | 22,462 | 25,444 | 22,558 | 22,493 |
| **Average price**  **USA $/kg** | **3.39** | **3.28** | **3.7** | **3.8** | **5.03** | **5.7** | **5.5** | **5.3** | **6.1** | **5.6** | **4.2** |
| **Cigarettes** | **Tons** | 3,760 | 3,000 | 2,317 | 2,315 | 2,547 | 3.,523 | 4.431 | 3,057 | 3,032 | 2,160 | 1,478 |
| **Average price**  **USA $/hg** | **8.20** | **6.36** | **6.34** | **6.34** | **10.07** | **7.5** | **7.9** | **7.8** | **9.2** | **8.3** | **7.5** |

Source: Economic Chamber of The Republic of North Macedonia

In 2019, 23,971 tons of tobacco were exported and processed which shows mild decrease of 4% compared to 2014 when 24,720 t were exported and processed, or decrease of 14% compared to 2013, and decrease of 4% compared to 2012. The total financial result from tobacco and tobacco products export in 2018 is USA$ 106,700,000 [which is decrease of 28% compared to 2014 (USA$ 146,213,000), or 40% compared to 2013 (USA$ 180,876,036)].

In the other hand, 3,480 tons of tobacco and tobacco products were imported, which is 9% more compared to the previous year (3,190 t), or 25% less compared to 2013 (4,595 t).

**Table 3. Tobacco and tobacco products import**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Product** | **Unit** | **1998** | **2002** | **2004** | **2005** | **2008** | **2010** | **2011** | **2012** | **2013** | **2014** | 2019 |
| **Fermented tobacco** | **Tons** | 6,665 | 3,381 | 4,125 | 2,683 | 3,260 | 2,911 | 3,625 | 4,968 | 3,197 | 1,463 | 1,216 |
| **Average price**  **Price**  **USA$/kg** | **2.35** | **2.48** | **2.04** | **3.04** | **3.22** | **4.67** | **4.09** | **4.52** | **5.4** | **5.3** | **4.8** |
| **Cigarettes** | **Tons** | 400 | 502 | 266 | 266 | 619 | 724 | 980 | 1,268 | 1,398 | 1,724 | 2,260 |
| **Average rate**  **USA$/kg** | **6.67** | **5.80** | **13.8** | **13.8** | **9.49** | **10.8** | **11.6** | **10.4** | **12.1** | **13.7** | **7.84** |

Source: Economic Chamber of North Macedonia

As a product which is completely exported, its purchase depends directly on the needs of the multinational companies who have their own companies registered in Macedonia, while the volume of the agreed production and the market price result from the needs of the world cigarette industry for raw material. Hence, the entry of one the largest world’s industries “Philip Morris” in the “Tobacco Factory – Prilep” is evaluated as an event with positive impact of the industry in the following period, while the global activities for reducing the consumption of cigarettes may be a factor with negative impact on the tobacco production in the country. Furthermore, there are the obligations that the country has undertaken by signing the FCTC (Framework Convention on Tobacco Control) in 2006 for non-investment in the tobacco production and promotion, and gradual reduction of areas under this crop. However, given the fact that tobacco production has both economic and social impact in the country, for the time being it is not expected to decrease, but on the contrary, the thesis that tobacco has no other alternative that could hire such a large workforce and bring significant income for the country is being more and more emphasised, while respecting the fact that it is inevitable to follow the world trends and the trends in the industry.

**Conclusion**

The Republic of North Macedonia is considered as a high-quality tobacco producer on the world market, both regionally and globally. Tobacco production participates with 5% in the total export and with nearly 30% of the export in the agricultural sector.

The production and trade of tobacco and tobacco products in GDP participates with about 3.2%, and the tobacco industry participates with 4% in the total industry of the country, and over 4% of the total number of people employed in Macedonia are in this sector. However, the value of tobacco production in Macedonia is much higher than expected. Tobacco production has a huge social and economic importance, and the number of about 35,000 families for which it is the main source of existence supports this fact.

The favourable climatic and soil conditions, as well as the culturological basis, have contributed to turning the tobacco production into a Macedonian tradition and lifestyle. Tobacco has been a daily preoccupation and basic existence for approximately 150 thousand citizens for years.

Although the existence from tobacco mainly depends on the weather conditions in the current year, thanks to the good strategy and favourable subsidy policy, tobacco production retains its stability which is of great importance, given the fact that it is both a perspective for the country and opportunity for economic growth.

**References**

1. Miceski Trajko, (2004), “Развој на тутунопроизводството во Р. Македонија согласно интенциите на Европската унија”, Association of Agricultural Economists of Republic of North Macedonia and GRZ- Agro Promocija Skopje
2. Poposki Ljuben (2008), “За или против тутунот – антипушачка пропаганда”, Association for Science and Art - Prilep
3. Paul Newbold, William L. Carlson, Betty Thorne (2010),"Statistics for business and economics”, USA
4. State Statistical Office of the Republic of North Macedonia, 2020
5. Economic Chamber of North Macedonia, 2020
6. FAO ( Food and agriculture organization of the United Nations ), 2020
7. National Strategy for Agriculture and Rural Development 2014 – 2020, Ministry of Agriculture, Forestry and Water Economy of Republic of north Macedonia