

THE AGRICULTURAL ECONOMIC HISTORY AND THEIR MODERNIZATION PROCESS IN SLOVAKIA

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Abstract

The history of economics categories and laws related to agriculture in the countries of Europe was mainly conditioned by the existing political and social conditions. It was established when the development of the national economy achieved such a degree that agriculture provided the maximum profit for its owner or agricultural businessmen in the conditions of capitalist production on the principle of the neoclassical theory of the firm. The Marxist theory of economics by K. Marx and F. Engels provided the foundations for the socialist reconstruction of Slovak agriculture after the Second World War. At the level of macroeconomics, it provided a reason for the collectivisation of agriculture and the existence of state and cooperative state ownership of land. It was the basis for the methodology of calculating the price of production factors, prices of agricultural production, differential land rent, intensity of production, labour productivity and profitability of production. The transformation of the Slovak economy to market conditions after 1989 also impacted agriculture through the tools of market economics, the analysis of supply and demand and market balances. The 2012 Bioeconomy strategy EU aims to pave "the way to a more innovative, resource efficient and competitive society that reconciles food security with the sustainable use of renewable resources for industrial purposes, while ensuring environmental protection".

Keywords: agricultural economy, capitalism, socialism, market economy, bioeconomy

1. INTRODUCTION

The agricultural sector performed an important social function from a society-wide perspective until 1990, particularly in employment. Agriculture was often the only possible employment option in the rural regions of the Slovak Republic. The development of industrial sectors in the 1940s and 1950s as well as the use of available new technologies, which led to an increase in labour productivity, caused a significant decline in the number of employees in agriculture (Valach - Balážová, 2013). Before 1990, approximately 12-14% of the economically active population worked in agriculture and agriculture itself was seen as a stabilising factor in the economy due to its high share in GDP. However, over the past more than 30 years, agriculture and within it the business entities, as well as the entire agricultural economy, have undergone major transformational changes. For example, the share of agriculture in total employment fell to 6.2 % in 1995, representing roughly 155 000 active agricultural workers. In 2019, approximately 48,000 people were employed in agriculture, accounting for 1.9% of the employed people in the entire economy. The proportion of women employed was at 26% (compared to 45% for the economy as a whole).

In the EU, the share of employees in agriculture is around 3.8%. Poland, Greece, and Romania have the highest share of agricultural employment. In Slovakia, there are around 25 employees per 1 000 ha of land, one of the lowest in the EU. This is due to the structure of farms in Slovakia and the relatively low employment in agriculture. While in 1995 the level of employment in agriculture in Slovakia was above the EU level, it is now significantly below the EU average. The agricultural employment rate in Slovakia is declining at the fastest rate among EU countries. Employment in agriculture has been on a long-term downward trend in the EU-28. While in 2012, 10.3 million people were employed in agriculture in the EU-28 countries, in 2017 this figure was only 9.4 million, which, on average, equates to 5.4 workers per 100 hectares of agricultural land (p.a.). Romania (18.2%), and Italy (11.9%), Greece (12.4%), Lithuania (11.3%) Croatia (11.1%), Poland (10.6%), Hungary (10.1%) accounted for the largest share of agricultural employment in the EU-28 countries, which was related to the scale of agricultural production and the larger number of smaller individual farms in these countries. Slovakia's share was

0.5%. As a result, restructuring and processes aimed at improving the competitiveness of the agricultural and agri-food sector are being hampered.

The decline will mainly concern older and low-skilled workers and will be linked to the gradual introduction of innovation in this sector of the economy. Wage levels in agriculture vary considerably between Member States. In EU-15 countries, e.g., Denmark, Sweden, the Netherlands, the average wage exceeds 15 €/hour, while in countries that joined the EU after 2004, e.g., Bulgaria, Romania, Poland, Lithuania or Latvia, the wage is less than 3 €/hour (Hill, Bradley; 2015). According to the 2018 Green Report, the average monthly wage in agriculture was 763,0 € which represents 75.3% of the wage in the national economy (Ministry of Agriculture and Rural Development, 2018). This is a significant problem in the context of the obligation to implement the Common Agricultural Policy, especially when it comes to the quality requirements of food producers. Meeting these requirements implies the necessity to recruit staff with the latest knowledge and skills in agri-food. The reduction in the number of people working in agriculture will continue in the period ahead. Agricultural production in the EU-28 countries was worth €409.7 billion in 2019. The four largest producers contributing to the EU-28 output were the four production-critical countries, namely France (16.9%), Germany (13.5%), Italy (12.3%) and Spain (11.9%). Slovakia accounted for roughly 1.0% of EU-28 production. Green Report of the Ministry of Agriculture and Rural Development, 2021).

2. MATERIALS AND METHODS

Compared to agriculture of the past, agriculture simultaneously performs several other functions in addition to its production function, including social, environmental and landscape functions. Those who carry out other activities in addition to traditional agricultural activities are said to be diversifying their production. Diversification promotes the multifunctionality of agriculture. Rural development policy, as the second pillar of the EU's common agricultural policy, contributes to the development of diversification activities, especially non-agricultural activities. Diversification promotes employment in rural areas by preserving existing jobs and creating new ones. It further contributes to increasing or maintaining farm profits. As a result of successful diversification, both the entity and the region become more competitive and the quality of life in rural areas improves (Németh, 2020). According to preliminary data for 2018, gross agricultural output declined due to a decrease of both gross crop production by 1.04% and gross livestock production by 0.99%. The structure of gross agricultural output at current prices remained unchanged year-on-year, with the share of crop production accounting for 59.9% and the share of livestock production accounting for 40.1%.

Rural development and the diversification of agricultural production are areas where European Union funding will continue to be directed in the future. Large farmers are mainly focused on growing cereals, oilseeds, or livestock in large numbers, but small and family farmers are more involved in specialised crop and livestock production and thus contribute more to the diversification of agricultural production. The European Union sees the diversification of agricultural production not only as an advantage for the farmers themselves, but also as an added value for the rural economy and the creation of new jobs. It sees agriculture as a sector that is closely linked to the food industry, tourism, and trade (Némethová - Jadud'ová 2018).

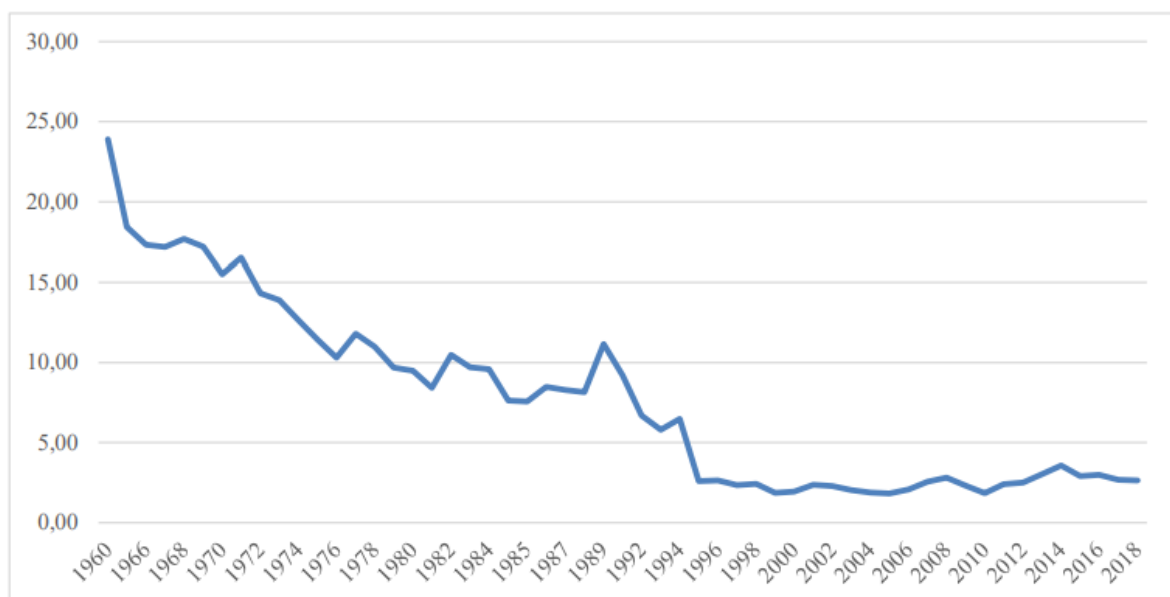


Figure 1: Share of agriculture in GDP 1960-2018 in %

Source: ŠÚ SR, 2020

After 1990, processes of transformation and restructuring of the existing enterprise base started to take place in Slovak agriculture. These affected not only state-owned enterprises and agricultural cooperatives, but also rural households. They resulted not only in the creation of trading companies, but also in the development of private land management, which became the main source of income for many households. In 2000, there were more than 21 000 privately farming peasants registered in Slovakia, farming an average of 10,4 ha of agricultural land. In addition to this group, a large group of rural households, the so-called unregistered private farms, also earn income from agricultural activities (Kováčik - Gubáňová 2018).

A typical characteristic feature of the enterprise structure before 1989 can be described as duality - on the one hand, large state and cooperative enterprises and, on the other hand, only a small number of privately farmed peasants. Although the process of transformation has partially reduced these differences legislatively, we can expect that in the future the process of self-regulation will be active in corporate entities. Its essence will be that, under the influence of achieving production efficiency, large enterprises will seek their optimal size and structure, while small producers will try to eliminate high production costs by economies of scale, i.e., by increasing their market share. Despite these tendencies, it is expected that large producers will have a decisive share, while the orientation of small producers will be towards self-supply on local markets.

3. RESULTS AND DISCUSSION

The changes taking place as part of the transformation of the corporate base to the new economic conditions have been very dynamic. The number of legal entities operating in agriculture increased significantly after the application of the transformation law, while the average size of enterprises decreased to about 50% of the original size. The form of state-owned property ceased to exist gradually. Even after more than thirty years since the application of the Transformation Act, cooperative enterprises have retained a significant position in Slovak agriculture, although their share of the total agricultural area has declined. The share of commercial companies on land has increased to 25%.

In 2020, commercial companies continued to dominate among legal entities, with limited liability companies having the strongest representation. Their average area and number were most affected by the privatisation of state-owned enterprises and their transformation into joint-stock companies. Co-

operatives have also contributed to the formation of trading companies, which often took the form of limited liability companies when the original agricultural co-operatives were established. A special group of the newly emerging business structure is represented by private peasants. Their development was conditioned by the restoration of land ownership rights. Government Resolution No 869/1993 approved the concept of land ownership, under which the registration of land and legal relations to it was renewed. The conditions for the establishment of privately farmed peasants (SHR) were regulated by Act No 219/1991 Coll. The adopted legislation defines SHR, regulates the relations between SHR and each other, whether they operate as a natural person with a reporting obligation to the municipal authority or as a legal person registered in the Commercial Register.

Already in 1990, to restore and expand private land management, peasant entrepreneurship was more significantly promoted and favoured compared to the then cooperatives and state-owned enterprises. These were mainly special subsidies, such as interest rebates on loans granted for farm building, the renovation of housing facilities and the purchase of biological material. In the field of taxation, these were mainly exemptions from agricultural income tax, income tax on the income of people starting SHR, land tax, etc. These advantages are now considered to be a thing of the past, but they have had a significant impact on the formation of the largest business group, which is the SHR in Slovak agriculture. The development of entrepreneurship of natural persons on agricultural land is characterised by the following facts. In 1990, 2347 SHR farmed 0.25% of the land, with an average farm size of 2.6 ha. In 1997, 16 909 SHRs were already registered, with a 7.88% share of agricultural land and an average farm size of 11.4 ha. In 2000, according to Infostat data, there were more than 21 thousand registered SHRs in the Slovak Republic with an average farm area of 10.4 ha. Except for the group of small land holders with an average area of 0.21 ha of agricultural land in 1997, there were more than 279 thousand SHRs. In general, however, it can be stated that the structure of holdings has been maintained to some extent. In 2020, trading companies accounted for 26%, cooperatives for 6% and other legal entities for 3% of the legal entities engaged in agriculture, and natural persons accounted for 65%.

According to the area of agricultural land, the contribution of agriculture to the gross domestic product (GDP) and the percentage of economically active persons employed in agriculture, the agricultural sector was much more important in Slovakia than in EU countries before the economic transformation. The share of agriculture in GDP was relatively high in the past compared to most developed EU countries (average 3.5%), reaching as high as 9.4% in 1989. The share of agriculture in the gross domestic product (GDP) in the Slovak Republic in 2020 was 1.1%. Since 2005, the share of agriculture in GDP in the Slovak Republic has shown a fluctuating trend between 1-3 % and in 2020 it is approximately at the same level as in 2005.

Even though in the current period in the agricultural sector in Slovakia there are positive signs of recovery /e.g., a decline in loss-making enterprises/, the economy as well as the agricultural output is still below the level before the reform period.

The causes of the current problems are most often linked to:

- a reduction in demand for domestic agricultural products.
- the opening of price scissors between the level of prices of inputs and outputs of production, e.g., the 1994/89 price index for agricultural products was only 141.7%, while for fuel it was as high as 428%, for energy 291%, for fertilizers 176%, etc. The evolution of the price parity of crop products to fertilisers is 80.8% and that of livestock products to feedstuffs is 78% - with the decline in subsidies and the process of changes in the functionality and mechanisms of their provision, with a view to orienting towards EU policy.
- with external influences, such as the desire to adapt quickly to countries with developed market economies, with the lack of clarity in agricultural policy until 1992.

These problems were accompanied by a deep marketing and financial crisis in primary agricultural production enterprises, which reached its peak in 1992 and, following the adoption of the concept of agrarian policy in Slovakia, the situation in the agro industry is gradually but slowly improving. One of the main objectives of the transformation process in agriculture in its transition to a market mechanism

was the decollectivisation of agriculture with a view to restoring private property rights. Land and other assets became the object of transformation of property relations and the source for the emergence of new enterprise forms with different internal structures.

The area of agricultural land is continuously decreasing, with a variable annual loss of between 1,000 and 7,500 ha of agricultural land; according to the Statistical Yearbook, in 2019 there were 2,376,712 ha in the Slovak Republic, a year-on-year decrease of 2,389 ha. Utilised agricultural land was 1 910 038 ha in 2020, 0.30% lower than in 2019. Utilised arable land and home gardens also fell by 0.21% and almost 12% respectively. In contrast, the area of permanent grassland and permanent meadows and pastures increased by 0.20% and 0.14%, respectively.

The future of the agricultural economy, but especially the economic prerequisites for the prosperity of agricultural primary production enterprises can be characterized from two points of view:

- a) the internal conditions for the economic prosperity of the sector, which consist in the efficient and economical use of existing production factors, agricultural land, and human resources,
- b) the stabilisation of economic policy instruments in agriculture, as a prerequisite for prospective agricultural production and the successful course of restructuring in the realisation of socially important agricultural functions.

In addition to the price level, the degree of utilisation of assets and the optimum level of indebtedness, the efficiency of agriculture is influenced above all by the costs incurred in a particular production activity. In agricultural economics, cost efficiency is of particular importance because almost every managerial decision is based on a comparison of costs and returns. The monitoring of the optimal relationship between variable costs, fixed costs and production volume has a decisive influence on cost efficiency. Knowledge of this regularity is of great importance for making decisions on the scale of output produced. If fixed costs account for a high proportion of total costs, then a change in output volume does not bring a large change in total costs but may bring a larger increase in profits if product prices remain unchanged. Reducing the cost of production is one way of increasing profit. The other way of profit growth is possible through revenue growth. Both variables as well as profit are highly complex variables and are influenced by other factors such as economy, efficiency, and productivity. One of the basic tasks of the agri-food market will be to revive financial flows using specific financial institutes, in particular the State Market Regulation Fund and the State Support Fund. The necessary restructuring of agriculture and the growth of competitiveness of domestic producers should be supported by a subsidy policy concept, which will focus primarily on:

- supporting the stabilisation of farming in less favourable natural conditions,
- payment of part of the interest,
- support for the intensification of production,
- support for the gene pool, breeding, and breeding,
- support for pro-export activities,
- balanced regional development, etc.

The active role of the State will also be manifested around active regulation and protection of the domestic market through:

- tariff /tariff/ protection,
- countervailing levies on imports of selected products,
- a licensing system for the import or export of selected commodities.

Currently, Slovakian agriculture is facing a new challenge in connection with the EU initiative regarding the implementation of the bioeconomy. Launched in 2012, Europe's Bioeconomy Strategy addresses the production of renewable biological resources and their conversion into vital products, ranging from food and feed to bio-based products and bio-energy. As such, the core of the EU bioeconomy

encompasses agriculture, forestry, fisheries, food processing and parts of the energy, chemical and biotechnology sector, while the impacts go much wider.

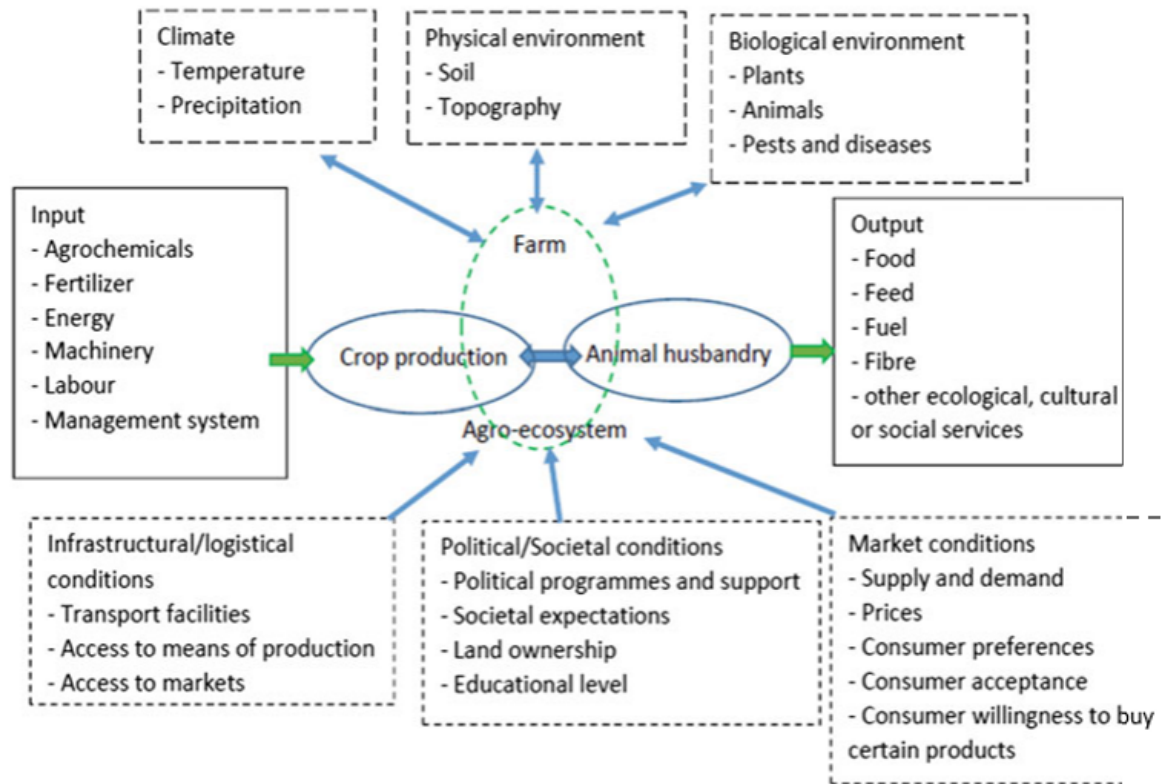


Figure 2: Bioeconomy: Agricultural production systems and their determinants

Source: Lewandowski, 2018

4. CONCLUSION

The crucial role in stabilising the agricultural economy in Slovakia is played by the Common Agricultural Policy of the EU, without which most farms in Slovakia would be loss-making. Support represents a stabilising component of farmers' incomes. Almost 72 % of the financial support for Slovak agriculture is provided from EU sources and part of the expenditure was co-financed from the Slovak state budget. The share of total support in revenue was 30.1% and of direct payments 14.9%. Differences between the level of support for Slovak agriculture and that of EU countries persisted.

Direct payments form a significant part of EU agricultural expenditure and represent direct income support to farmers according to predetermined eligibility conditions. They are implemented in the form of current transfers to direct land holders. The direct payment system is based on the principle of decoupling, whereby payments are made per hectare of the applicant's agricultural area. In 2020, direct payments were granted in the form of:

- Single Area Payment Scheme (SAPS) - a transitional simplified basic payment scheme of €120.16 per hectare,
- a payment for agricultural practices beneficial for the climate and the environment of €64.32 per hectare,
- a payment for young farmers of €112.66 per hectare.

Actively combat climate change and help achieve the UN Sustainable Development Goals and support EU competitiveness and growth. Cooperation and strengthening the impact of research and innovation in the development, support and implementation of EU policies in solving the complete challenges of the present is the latest activity of Slovak agriculture in relation to the future.

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