

# IMPACT OF THE ECONOMIC SYSTEM ON THE ECONOMIC DEVELOPMENT OF THE SLOVAK REPUBLIC

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## ABSTRACT

The economic system is the result of the interaction of economic, political, ideological, social, cultural and other elements. It consists of businesses, institutions, management and control mechanisms, motivation factors, information flows, and so on. It also depends on the geopolitical position in the world, the cultural level and traditions, the originality of development, the different levels of national property status, the size of the territory, the size of the markets, the population, the extent of natural resources, and so on. The economic system (ES) is subject to constant changes in its elements and structures due to changing climate, political, social, environmental conditions. The adaptive ability of the ES, the building of flexible institutional structures and the ability to adapt to changed conditions is the key to long-term sustainable growth. The development of information and communication technologies, the global integration of goods and services markets as well as financial markets, the growing specialization of companies in the field of activities with an emphasis on added value, new demanding organizational forms and the increasing differentiation of demand, represent a challenge for the world. The Slovak Republic has gone through a difficult path of transition from a centrally controlled to a market-based economic system, implying a fundamental transformation of the economic, legal and institutional framework. A precondition for economic development is the efficient functioning of markets that require institutional quality, ensuring the fairness of transactions between entities, protection of property relations, compliance with contracts and law enforcement. The aim of the paper is to analyze the economic development of the Slovak economy on the basis of the development of selected macroeconomic variables and to find out whether the Slovak Republic is ready to adapt to technological, demographic and climatic changes, and to what extent the labour market, the state or the business sphere is adequately prepared.

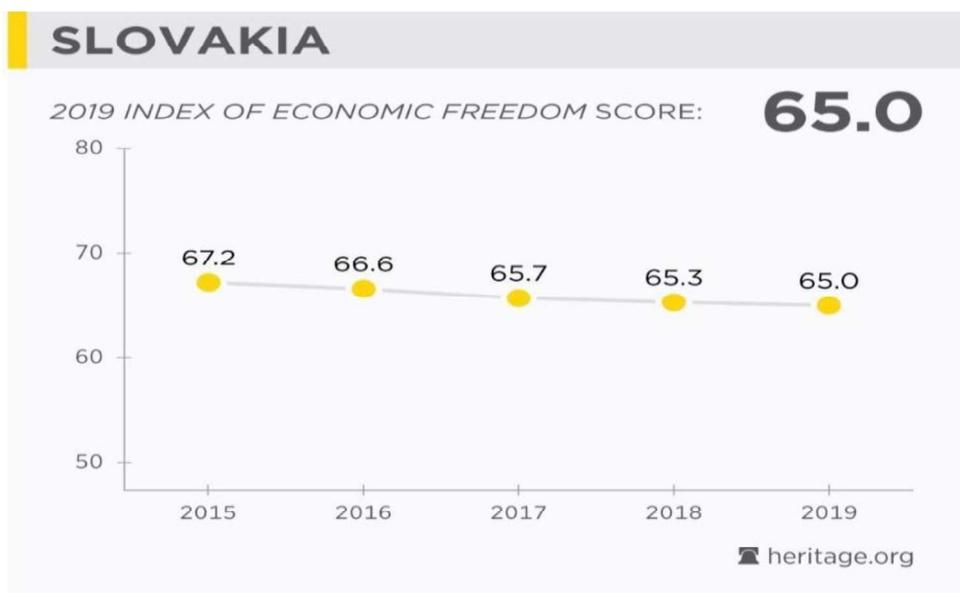
**Keywords:** *Economic system, economic development, Industry 4.0, technological changes*

## INTRODUCTION

The development at the end of the 20th century and the beginning of the 21st century is connected with the gradual transformation of the world economy into a single market ES. At the same time, there is a growing differentiation within this system, with differences in individual countries increasing depending on their social and economic level. The importance of international institutions is growing to ensure that global challenges are addressed more effectively, including climate change, population aging or the threat of a global economic crisis. After becoming independent, the Slovak Republic (SR) entered the path of reforms aimed at transforming the centrally managed economic system into a market-based economic system (ES) in 1993. It has gradually integrated into European economic and political structures. In particular, the accession to the European Union member countries in 2004 followed by the entry into the single monetary union and the Schengen area. The Slovak Republic is the only Visegrad Four country (V4) using the euro common currency. As a relatively small country with a high open economy, it has built up a competitive country in recent years, with one of the highest industrial share of GDP in the EU [1], mainly due to cost competitiveness and skilled labour.

The European Commission forecast [2], [7] confirms the sound growth pattern of the economy and assumes that Slovakia will be among the fastest-growing euro area economies in 2019 and 2020. Max Weber [3] has defined these basic prerequisites for the functioning of the market ES: firmly grounded law, personal freedom - a free workforce that has to trade its personal capital (work), limit state powers, free-market economic freedom, political freedom - without it, economic freedoms are not sustainable. To what extent has the Slovak Republic succeeded in transforming the economic, legal and institutional framework creating the preconditions for the efficient functioning of the market ES can be quantified through the Economic Freedom Index, which links the economic maturity of the country with the functioning of its institutional framework, respectively. prosperity and economic freedom [4].

**Graph 1** 2019 Economic Freedom Index – Slovakia



Source: <https://www.heritage.org/index/ranking>

The SR economy in the 2019 index became the 65th freest. The Slovak Republic ranked 32nd among 44 countries in the European region and its overall score is below the regional average but above the world average. The acute and current problem is the long-neglected area of education and the declining level of the Slovak education system with insufficient linking of study fields to the needs of practice. The Constitution provides for an independent judiciary, but the judicial system is vulnerable to corruption. Public confidence in the courts is among the lowest in the EU. In addition to the judiciary, there is corruption in the public procurement sectors. Insufficient transparency of inflated bureaucracy is an obstacle to business. Nevertheless, it can be stated that Slovakia has a sound economic growth structure and Slovakia is expected to be among the fastest growing euro area economies in 2019 and 2020.

## TECHNOLOGICAL CHANGE

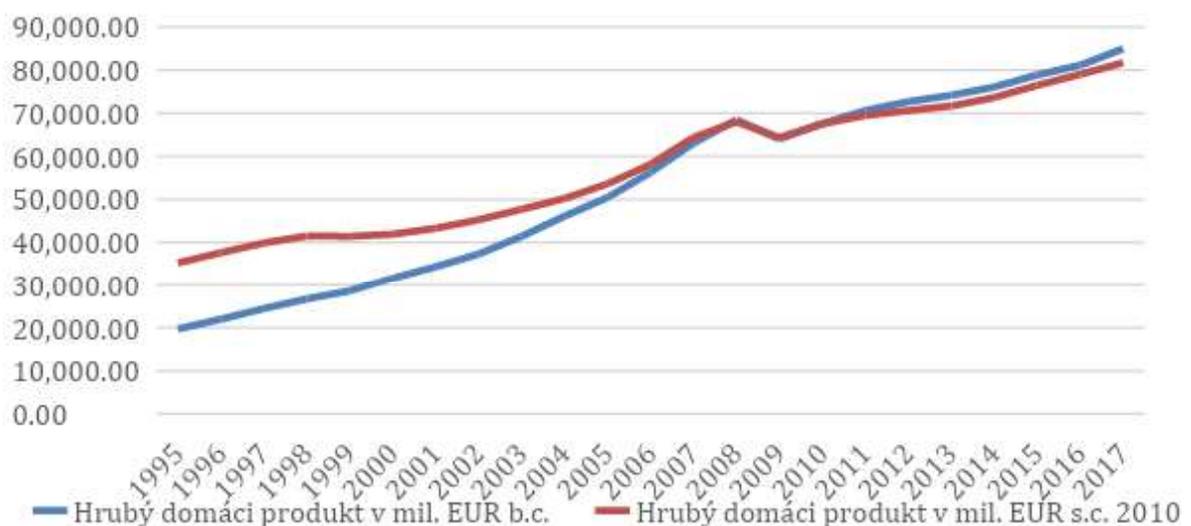
Industry is a significant part of both European and Slovak economies, producing direct but also indirect employment and is responsible for a significant part of GDP growth. In addition to environmental concerns, it is also facing a new conceptual challenge that Industry 4.0 is seen as a new industrial revolution. Its starting point lies in the new socio-economic behaviour of society, and the steps and technological preconditions of the latest technologies and methods are essential. Industry 4.0 represents a vast transformation of the entire manufacturing industry, through the interconnection of digital technologies and robotics with conventional industries

(suppliers, factories, distributors, even the product itself), into a highly integrated value chain. This is a completely new philosophy bringing a societal change and affecting a whole range of areas from industry, through technical standardization, security, education system, legal framework (eg intellectual property or defining the legal status for artificial intelligence), science and research to the market work and social system. Advantages of Digitization and Migration Industry 4.0, according to the Global Industrie 4.0 Survey [5], [8] (PwC), will translate into a broader range of digital goods and services with significant added value and greater personification, quality growth, simpler logistics and faster end-to-end traffic, increased productivity and more efficient planning. Technological progress has considerable potential for productivity gains, but in order to fully exploit it, it is essential to focus primarily on education, infrastructure, regulatory and economic rules, and the consistent and effective functioning of legal instruments aimed at protecting intellectual property rights and personal data. It will be important for the Slovak economy to diversify and selectively support new investments in high-tech areas with high added value. It is also necessary to focus on building a pro-innovation infrastructure. It also intensively encourages business collaboration with science and research organizations, implement measures to stabilize quality workforce in enterprises, and improve the quality of secondary and tertiary graduates through a fundamental reform of the learning needs of learning disciplines, by promoting and improving the dual learning system as well as the business environment [6].

## ECONOMIC DEVELOPMENT OF THE SLOVAK REPUBLIC

Between 1995 and 2017, real GDP growth in Slovakia increased by 2.32-fold and nominal by more than 4.3-fold. As shown in Graph no.2 the average annual real GDP growth rate was approximately 3.73% (nominally 6.57%).

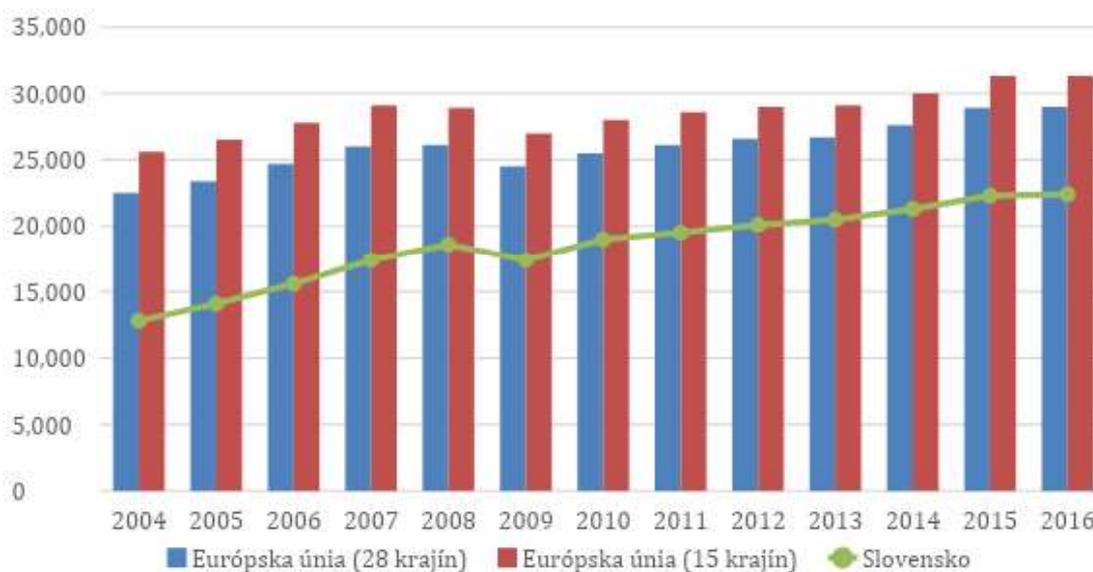
**Graph 2** GDP 1995 - 2017 at constant and current prices



Source: SÚ SR; 2018

Gross domestic product per capita from 1995 to 2016 increased 2.21 times. Only in 1999 and 2009 did this indicator decrease.

**Graph 3** HDP per capita in purchasing power parity 2004 – 2016

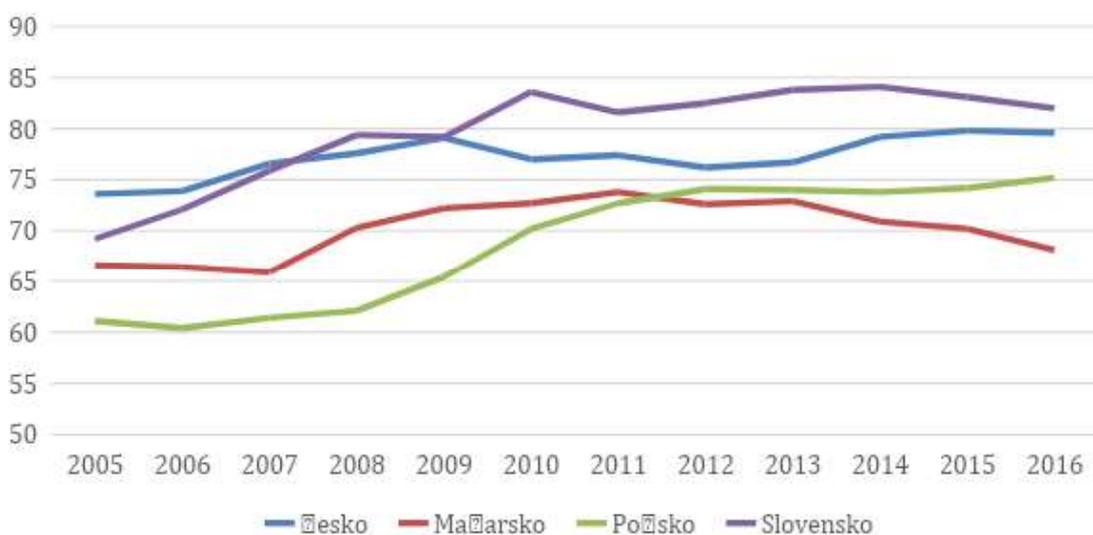


Soucre: Eurostat; 2017

In 2016 GDP per capita was EUR 14.9 thousand at current prices and EUR 22.3 thousand (available for 2015) in purchasing power parity (Eurostat). In comparison with the average of EU28 countries it reaches 51.38% in current prices and 77, 24% in purchasing power parity. A positive trend is the gradual real convergence of Slovakia towards the EU average.

Slovakia is an industrial country - industry generates a quarter of real GDP. The gross value added of Slovakia's industry in nominal terms represents more than a quarter of the total value added of the economy (26.93% in 2016). The value added structure by industry also shows that services are the second most important sector. From the point of view of the development of total GDP, as well as the added value, the share of industry and the share of services are decreasing.

**Graph 4** Nominal labour productivity per capita - EU28

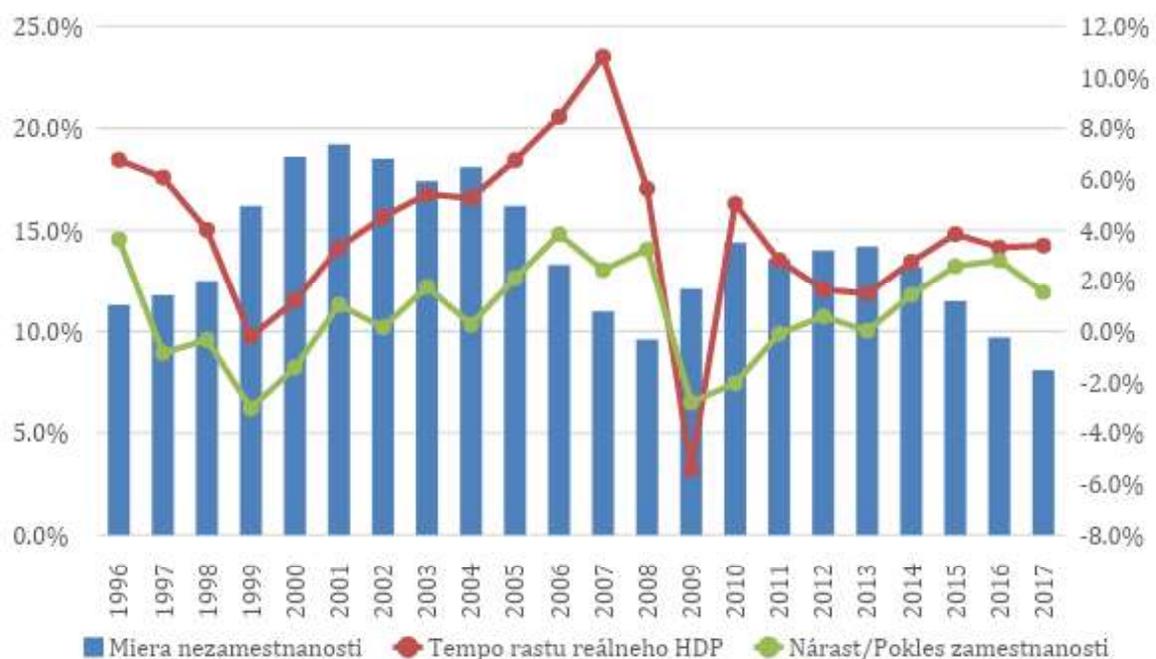


Soucre: Eurostat

However, the positive fact is that the nominal labour productivity index (per capita as well as per hour worked) has been growing in Slovakia more than in 2010, compared to the average of the V4 countries as well as the EU28 or Eurozone countries. Slovakia still does not achieve gross value added at the level of the EU28 average (expressed in purchasing power parity). In 2016, it reached 83.2% (per person) and 77.2% per hour worked. However, among the V4 countries, Slovakia is achieving the best results.

The biggest problem of the Slovak Republic almost throughout its existence is the unemployment rate. The transition to a market economy, the change in structure in connection with the emergence of an independent Slovak Republic in the early 1990s was accompanied by an increase in the number of unemployed. Graph 5 can be seen that by 2007, despite the GDP growth, the unemployment rate has only been slowing down. The rate of employment growth has risen relatively slowly, and the pace difference has even increased. Since 2012, both indicators are beginning to converge, which means that the GDP growth rate is reflected in approximately the same employment rate.

**Graph 5** Unemployment rate (left axis), real GDP growth rate and increase, respectively, decrease in employment (right axis)



*Soucre: ŠÚ SR; 2017*

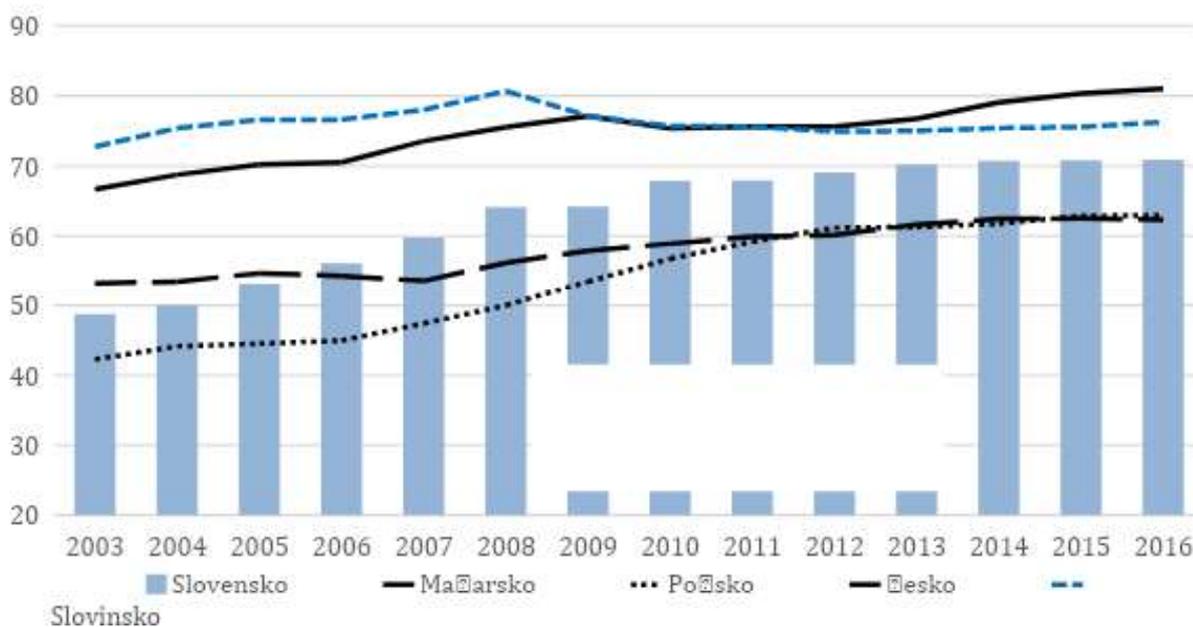
Based on the above, we can conclude that the nature of GDP growth was different in the pre-crisis and post-crisis periods, and the labour market also had different characteristics. Although the unemployment rate has been falling since 2010, it is still one of the highest in the EU. Its specificity is the relatively high number of hard-to-employ groups of the population (unwillingness to work, high rates of execution, marginalized groups, or low educational level). This is a challenge for education policies, work with marginalized populations and legal regulation of executions.

Graph 6 we see the course of real V4 convergence. It is possible to observe a slowdown in the rate at which the Slovak economy catches up with the level of the most developed European countries. It is not excluded that the applied growth trajectory (based on the existing

competitiveness factors, especially low labour costs) will gradually be exhausted as it is increasingly hitting its limits.

We are arguing that after reaching a certain threshold, growth stops. Despite economic growth, Slovakia is one of the poorer ones and there is a risk of so-called. Middle-income trap. For example, Spain, Portugal and Greece have stuck in such a trap, with Ireland being the only country to overcome it. The catching-up of poorer EU countries will stop around 80-90% of the EU average GDP by purchasing power parity. Although Slovakia is currently growing faster, there is still a risk that growth will stop when it reaches the mentioned threshold and will always be among the poorer EU members. Among the V4 countries, Slovakia is the only country that pays the euro, but also has the slowest wage growth.

**Graph 6** Convergence of real convergence (GDP per capita in PPS, EU 15 = 100)



Source: Eurostat

## CONCLUSION

A new perspective on economic growth and its factors can be the basis for building a modern and competitive economy today. As our analysis of the development of selected macroeconomic data has shown, the Slovak economy has created good baseline assumptions. Further development should be determined by the benefits of an innovative economy, the exploitation of an educated workforce, the reduction of negative environmental impacts, the sustainable use of natural resources. It is a structural reallocation of production factors towards sectors with higher labour productivity and higher added value, which means generating new, technically and research-intensive research, development and innovation activities in order to strengthen research links and production. Sustainable economic growth is associated with the ability to diversify the domestic production structure, where labour productivity is declining as a result of continuous labour productivity increases. The level of innovation performance of the Slovak Republic, characterized by the IUS (Innovation Union Scoreboard), is low in comparison with other EU countries. Slovakia is still among the countries of moderate innovators with the lowest innovation performance, far below the EU average. Among the 28 EU countries, the Slovak Republic ranked 21st in terms of innovation performance for 2016 (a slight deterioration compared to 2015 by 1). The lack of skilled labour, in addition to demographic trends, is mainly

due to the long-neglected field of education and the declining level of the Slovak education system with insufficient linking of the unions to the needs of practice, which represents its acute and current problem. Looking ahead to the Slovak government, the challenge is to adapt the education area to the dynamically changing needs of the modern labour market and the fourth industrial revolution. However, the development of the share of R&D expenditure in GDP is deplorable in this respect, with only 1.18% in 2015 and even falling to 0.79% in 2016. One of the most important challenges is the fourth industrial revolution that has already begun. The Slovak Republic will face the necessity of adapting it to all levels, from the level and system of education, through innovation and the digitization of sectors, to impacts on the labour market, or the demands on the quality of the business environment.

## ACKNOWLEDGEMENTS

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