

# GAZDASÁG & TÁRSADALOM

Journal of Economy & Society

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Freiheit als Grundlage der moralischen Verantwortung  
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Bringing back in the monetary fundamentals of finance

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Present Challenges of the International Business Ethics

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Working but poor – countries with different path in European integration

Olaf H. Bode - Frank Brimmen - Ute Redeker:

Festlegung von Lohnuntergrenzen – tariflich oder gesetzlich

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## TARTALOM

Table of Contents and Abstracts in English: See page 119

### STUDIES

<b>Freiheit als Grundlage der moralischen Verantwortung von Unternehmen und die Frage der Haftung</b> <i>Márk Joób</i> .....	3
<b>Present Challenges of the International Business Ethics</b> <i>Gabriella Dubcová</i> .....	22
<b>Monetary and Banking Reform. Bringing back in the monetary fundamentals of finance</b> <i>Joseph Huber</i> .....	38
<b>Festlegung von Lohnuntergrenzen – tariflich oder gesetzlich</b> <i>Olaf H. Bode – Frank Brimmen – Ute Redeker</i> .....	54
<b>National Competitiveness of Slovakia in the Context of Global Competitiveness Indexes</b> <i>Tomáš Dudáš</i> .....	74
<b>Working but poor – countries with different path in European integration</b> <i>Emese Bruder – Csilla Obádovics</i> .....	88
<b>Analysis of Commission Proposal on Direct Payments in 2014 - 2020</b> <i>Fekete Pál Győző</i> .....	98
<b>KÖNYVISMERTETÉS – Három új könyv Kulcsár László könyvtárából (ismerteti Kulcsár László)</b>	
<b>A társadalom, a jog, az intézmények és a mai problémák eredete</b> .....	112
[Francis Fukuyama: A politikai rend eredete. Az ember előtti időktől a francia forradalomig, Akadémia Kiadó Budapest. 2012. 688 oldal [ISBN 9789630591935]	
<b>Eltérések és hasonlóságok az európai urbanizációs folyamatokban</b> .....	114
[Viktória Szirmai (ed): Urban Sprawl in Europe. Similarities or differences?, Aula Kiadó, Budapest. 2011. 280 oldal [ISBN 9789633390153]	
<b>Minél jobban közeledünk feléje, annál inkább távolodik: Svájc és Magyarország esete.</b> .....	117
[Föderalizmus és Decentralizáció. Kézikönyv a svájci struktúrákról és a magyar hasznosíthatóságról. Szerk. Hajdú Zoltán és Kovács Sándor Zsolt. MTA Dunántúli Tudományos Intézet. Genfi Egyetem Európai Intézet. 2012.[ ISBN 978-963-9899-58-2] 239. Oldal.	
<b>Table of Contents/Abstracts</b> .....	119

# **National Competitiveness of Slovakia in the Context of Global Competitiveness Indexes**

***Tomáš Dudáš***<sup>32</sup>

*University of Economics in Bratislava, Faculty of International Relations*

**ABSTRACT** This article aims to describe the evolution of the national competitiveness of Slovakia in the context of the main global competitiveness indexes. The first part of the article focuses on the theoretical background of the national competitiveness and summarizes the most important theories and studies published in this field. The second part of the article presents the methodological background of the main global indices of competitiveness. The third part of the article then deals with Slovakia's position in the rankings of global competitiveness and with the analysis of sub-indices, with the aim to identify the main weaknesses of the Slovak economy. The conclusion of the article will try to give suggestions to remedy these weaknesses and will provide an outlook for Slovakia's competitiveness in the coming years.

## **Introduction**

The global economy is becoming a more competitive environment every year. At present, the competition is moving from the level of local, national and multinational corporations to the level of nation states. They compete for higher economic growth, technological innovation, or for key foreign investors. Not surprisingly, the concept of competitiveness has undergone some serious changes in the economic literature in the last two decades as the focus has slowly moved from the corporate level to the level of national economies. Today, the concept of national competitiveness is a very important research topic and several major organizations managed to constitute global rankings of national competitiveness based on various indexes of national competitiveness.

The concept of national competitiveness is a very important concept also for Slovakia, since our economy is trying to catch up with the most advanced economies in the global economy. Only an analysis of the national competitiveness is able to highlight the strengths and weaknesses of the Slovak economy and provide the policymakers a tool to eliminate these weaknesses in order to help further economic development of the country. Furthermore, global indexes of national

competitiveness allow a comparison of competitiveness of Slovakia with its closest economic rivals, which are other countries in Central Europe.

## **Objectives**

The aim of this article is to provide a picture of the national competitiveness of Slovakia in context of global competitiveness indexes. In this article, we focus on the two main global indexes of national competitiveness (Global Competitiveness Index and World Competitiveness Index), which are the most important and most recognized global indexes of national competitiveness in the present. The data used in the article is drawn from the on-line databases of organizations that compile and publish these indexes and from the published reports themselves.

The article itself consists of three main parts. The first part focuses on the theoretical background of the examination of national competitiveness and summarizes the most important theories and studies published in this field. The second part of the article presents the methodological background of the two main global indexes of national competitiveness that are used for the analysis of Slovak national competitiveness. The third part of the article then looks at Slovakia's position in the global rankings of national competitiveness and analyses the sub-indexes in order to identify its current main weaknesses. The last part of the article gives policy advice based on the previous analysis with the goal to improve the outlook for Slovakia's national competitiveness in the coming years.

## **The theoretical background of national competitiveness**

The concept of national competitiveness is a relatively new concept in economics. Competitiveness was originally studied on the corporate level in the 1970s and the 1980s and it was raised to national level only in 1990 by Michael Porter in his renowned book *The Competitive Advantage of Nations*. Porter belonged to those researchers who have devoted a lot of effort to examine the concept of competitiveness on the corporate level, so it was a logical step for him to raise the examination of competitiveness to the national level, since states and their institutions have a significant impact on the competitiveness of domestic corporations.

According to Michael Porter, national competitiveness is based on four key areas that can boost or reduce the competitiveness of domestic firms. These are as follows (Porter, 1990):

- (1) *Factor conditions*: the nation's position in factors of production such as skilled labour, infrastructure, physical resources and technologies, necessary to successfully compete in a given industry;

- (2) *Firm strategy, structure and rivalry*: the conditions in the nation governing how companies are created, organized and managed as well as the nature of domestic rivalry;
- (3) *Related and supporting industries*: the presence or absence in the nation of supplier industries and related industries and institutions (research, education) that are internationally competitive; and
- (4) *Demand conditions*: the nature (from a qualitative and/or quantitative point of view) of home demand for the industry's products or services.

This theoretical model of Michael Porter is also known as Porter's diamond of competitive advantage and, in principle, it explains the impact of domestic business environment on national competitiveness. The main factors of the model have a very strong mutual influence and are exposed not only government policies but also to external factors.

While exploring the concept of national competitiveness, Michael Porter states that it is a dynamic model and he identified the basic stages of its development. Porter distinguishes three main phases of the development of national competitiveness: *a factor-driven, investment-driven and innovation driven* (Porter, 1990, p. 545). In economies that are factor-driven, competitive advantage comes solely from the factors of production (available natural resources, land suitable for agriculture and a large number of less educated but cheap labour). Companies in these economies build their competitiveness on low prices and operate mainly in technologically undemanding sectors (Porter, 1990, p. 546-547). In investment driven economies, national competitiveness is based on the state's willingness to invest aggressively, with the use of new technologies acquired from abroad (through the purchase of licensing or joint ventures). The competitiveness of local firms is based not only on factors of production, but also on more advanced business strategies. The highest level of development of national competitiveness is the innovation-driven phase. At this stage of economic development competitiveness is based on innovation, unique business strategies of domestic companies and on globally recognized products and brands. Significant outward foreign direct investments emerge at this stage, as domestic companies seek to exploit their competitive advantages abroad (Porter, 1990, p. 552, 554).

Obviously, the reality of economic development does not always copy the assumptions of economic models, what is true also for the development phases of national competitiveness. This fact is ultimately recognized also by Porter himself, who admits that most countries did not fit exactly into the model (Porter, 1990, p. 545). However, it is a very interesting and useful tool for the analysis of national competitiveness. The importance of Porter's model is ultimately reinforced by the fact that the Global Competitiveness Report has largely taken over Michel Porter's methodology and also ranks countries in three stages of economic development,

which is very similar to Porter's phases – *factor-driven, efficiency-driven and innovation-driven* (World Economic Forum, 2010).

Of course, the examination of national competitiveness cannot be limited to the works of Michael Porter. Indeed, in recent years interesting alternatives to the model were created by various authors. However, currently the field of study is largely fragmented and there is not a universally accepted definition of national competitiveness today. The problem is that the concept of national competitiveness can be defined in different ways and can be influenced by a number of different factors. For example, Michael Porter defines national competitiveness strictly on the basis of productivity. According to him, this is the only relevant perspective to national competitiveness (Porter, 1998, p. 160).

Other authors have different approaches to the concept of national competitiveness. However, in the variety of definitions, we are able to find some unifying ideas and themes. For example, Scott and Lodge define national competitiveness as “a country's ability to create, produce, distribute, and/or service products in international trade while earning rising returns on its resources” (Scott and Lodge, 1985). Blaine uses a similar approach to national competitiveness when he describes it “a nation's competitiveness refers to its ability to produce and distribute goods and services that can compete in international markets, and which simultaneously increase the real incomes and living standards of its citizens” (Blaine, 1993). Lastly, a very similar definition of national competitiveness can be found in the World Competitiveness Yearbook. This defines it as the country's ability to create added value and thereby increase the wealth of the nation (IMD, 2006).

It is visible that the above definitions describe national competitiveness in the context of the ability to succeed in the global economy, with the ultimate goal to increase the nation's wealth and the standard of living of its inhabitants. It is also a dynamic category that is changing over time. The state is taking a major role in changes of national competitiveness, since economic policy can affect it both positively and negatively. That is why governments, economists and business entities became very interested in tracking the changes in the development of national competitiveness. The result of these efforts to define and compare national competitiveness on the global level was the emergence of global competitiveness indexes, which are trying to create a comparable marker on the international level. Currently there are two widely accepted yearly publications dealing with the topic of global comparison of national competitiveness - Global Competitiveness Report and World Competitiveness Yearbook.

Nevertheless, it should be noted that the publications offering global comparison of national competitiveness also have their opponents, who accuse them that they offer only a limited perspective of national competitiveness – a view through the prism of economic and political institutions. The Global Competitiveness Index is the most heavily criticised, which defines national competitiveness as “a

set of institutions, policies and factors that affect productivity in the economy” (WEF, 2010). The reality, however, is that currently there are no better tools for the analysis of national competitiveness.. These are the only global indexes of national competitiveness which include dozens of countries, thus they allow serious international comparison.

That is the main reason for the utilization of these two publications in this article to examine the current state and changes in the national competitiveness of Slovakia in an international context.

### **The methodological background of the global indexes of national competitiveness**

As it has been mentioned earlier, the gradual development of a global economy created a demand for such tools for global comparison of national competitiveness, which would be widely accepted. From the 80s the last century Since the 1980s, several concepts of measuring competitiveness at the global level began to develop and over time two indexes emerged, which are currently considered the most important and most widely accepted ones. The first is the Global Competitiveness Index and the second is the World Competitiveness Index. Both indexes are published annually and include all relevant national economies. Slovakia is included in both rankings; so it is therefore possible to evaluate the national competitiveness based upon two parallel independent resources. However, before we begin to evaluate the national competitiveness of Slovakia based on these two indexes, we will try to provide some methodological insight into their composition.

#### ***Global Competitiveness Index***

The Global Competitiveness Index (GCI hereafter) is a part of the Global Competitiveness Report, published annually by the Swiss think-tank World Economic Forum. The latest edition of the report bears the title 2011-2012 and also includes a current global ranking of national competitiveness based on the GCI. The current edition of the publication contains data on 142 countries. Slovakia and other countries in the region of Central Europe were included into the global ranking among the first states of the former Soviet bloc countries.

The GCI is a complex index, which in itself contains a large amount of numerical data, and also “soft” data that are acquired by an international survey carried out on the level of middle and top managers of large corporations. The actual index is based on twelve pillars, which are divided into three main groups - *basic requirements, efficiency enhancers and innovation and sophistication factors*. It is important to note that while the weight of each group in the resulting index is not static, the changes depend on the nature of the individual countries. For poor



developing countries, which are in the early stages of economic development, *basic requirements* are the most important group with a total weight of 60 % in the GCI. On the contrary, for economically developed countries the same group has a weight only of 20 %. On the other hand, the position of the innovation and sophistication factors is much more important. This approach allows a more realistic assessment of the competitiveness of less developed countries, since their economic conditions are quite different from the economically developed countries. The overall GCI index is finally obtained by aggregating the partial values in each category using the predefined weights.

### ***World Competitiveness Index***

The World Competitiveness Yearbook, the other highly respected publication examining national competitiveness, is published since 1989 by the Swiss non-profit organization and business school International Institute for Management Development. This publication has a narrower range; the latest edition from 2011 examines only 59 highly developed economies. This publication also contains an international ranking of national competitiveness based on World Competitiveness Index (WCI hereafter). After the collapse of the socialist bloc, countries from Central and Eastern Europe were added fairly quickly to this yearbook with Slovakia being among the first additions.

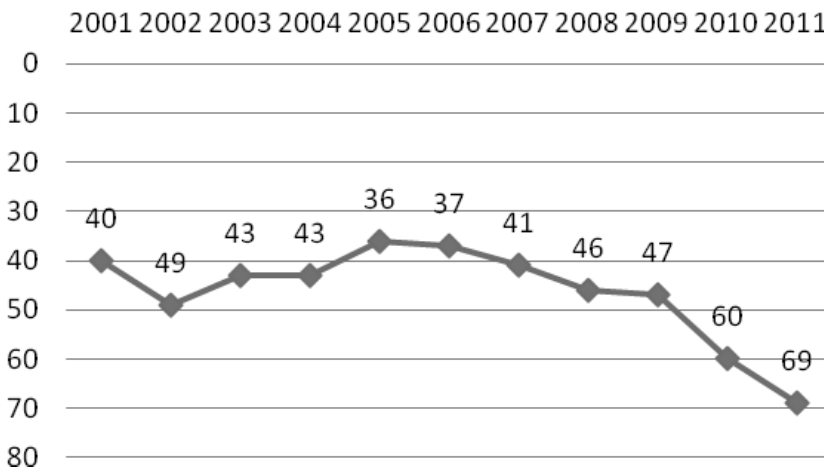
Like the previously mentioned GCI index, the WCI is also a composite index, which includes 246 primary and 81 supporting indicators in its current form. We have to mention, that WCI uses not only quantitative but qualitative indicators as well. The statistical data used in the calculations is obtained from various international and national institutions and these so-called “hard” data are used in 131 major and 81 supporting indicators. On the other hand, 115 indicators use “soft” data, which is gathered from a survey conducted among managers of major national and international corporations. These data are used to analyse areas where the availability of “hard” data is limited, such as management practices, corruption, bureaucracy or quality of life. The questionnaire survey is conducted in each state under review and the questionnaires are distributed among managers at middle and senior management level. The sample size for each state corresponds with the size of the economy. In the recent edition of the publication, 4,460 questionnaires from 59 countries were processed. Respondents evaluate each area on a scale from 1 to 6, which is subsequently transformed into a standardized scale of 1 to 10.

Unlike the GCI index, WCI works with fixed weights of the sub-indexes. Each area has an equal weight of 5 % in the final index, so the 20 main areas of analysis together provide 100 %. The report provides 327 sub-indexes and the 246 most important ones create the final WCI index. This index is then used to create an international ranking of national competitiveness of the countries included in the report.

### The Slovakian position in the global rankings of national competitiveness

In the first part of this chapter, we will analyse the national competitiveness of Slovakia in terms of the publication *Global Competitiveness Report and the GCI index*<sup>33</sup>. Slovakia has been included in this publication already in the 1990s, but for the purposes of this article, we have chosen to examine the position of Slovakia in the years 2001 - 2011. It allows us to stay up to date and a decade of economic development is more than enough to describe the dynamics of the national competitiveness of Slovakia.

**Fig. 1. Slovakia's position in the global rankings based on GCI in the years 2001 - 2011**



Source: On-line database of the Global Competitiveness Report

Figure 1 clearly reflects the development of Slovakia's national competitiveness in the global competitiveness ranking based on GCI in the years 2001 - 2011. The data on the chart clearly indicate that in this period, the development of national competitiveness of Slovakia can be split into three main phases. The first phase consists of the years 2002 - 2005, in which there was a significant improvement of the national competitiveness of Slovakia. The highlight of this process was 2005, when Slovakia reached the 36th position in the global rankings, which was the best position of Slovakia in its relatively short history. The improved efficiency of the public institutions was the main factor in this positive process, in which the economic reforms of the second Dzurinda government (2002-2006) played a vital role. The improving macroeconomic situation of the country played also a

33 The data in this section comes from various editions of the Global Competitiveness Report.

positive role, as Slovakia enjoyed a period of high economic growth during this period that was mainly driven by foreign-owned enterprises.

The second phase of development of the national competitiveness of Slovakia consists of the years 2005 – 2007 and this phase can be characterised as a period of stagnation. The reform process was gradually exhausted and the change of government in 2006 brought some reform fatigue also to the area of public institutions. Macroeconomic conditions, however, were still very positive and thanks to them, Slovakia managed to maintain its position in the global ranking.

In contrast, the third phase of development of the national competitiveness of Slovakia is characterized by its progressive deterioration. This phase began in 2009 and lasts till nowadays. However, Slovakia has experienced the biggest drop in national competitiveness in 2010 and 2011, when Slovakia dropped 22 places in the global rankings. The value of the GCI index for Slovakia fell from 4.31 in 2009 to 4.19 in 2011, whereas other countries in Central and Eastern Europe improved their national competitiveness in the same time period. It should be noted that in 2011 Slovakia was the least competitive of the V4 countries<sup>34</sup>. In that year the Czech Republic held the 38th position in the global ranking based on GCI, Poland the 41th position and Hungary the 48th position. Hungary's improvement is the most notable, as it moved in the opposite direction in the rankings between 2009 and 2011, as it improved 10 positions (from the 58th to the 48th place).

Undeniably, the central question is the following one - what factors caused the significant decrease of Slovakia's national competitiveness. In order to be able to answer that question, a deeper analysis of the partial components of the GCI index is needed. As it has been mentioned in the methodological section, the CGI index consists of 12 basic pillars, which are divided into three main parts - basic requirements, efficiency enhancers and innovation and sophistication factors. Comparing the results from 2009 and 2011 (see table no. 1), it is clear that the position of Slovakia deteriorated in all three core areas and 10 of the 12 foundations of national competitiveness in these years.

A deeper survey of the 12 pillars of the GCI index reveals that in the time period 2009 – 2011 we can easily identify three challenging areas for Slovakia. These are the following ones – institutions (loss of 23 positions), labor market efficiency (loss of 30 positions) and innovation (a loss of 28 positions). This development is very worrying, since exactly these factors are usually considered as the basis for modern, innovation-based economies. Without well functioning institutions and with a low level of innovation the transformation of Slovakia into a knowledge based economy is highly unlikely.

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34 Visegrad 4 countries – Slovakia, Czech republic, Hungary and Poland

**Table 1. Slovakian GCI competitiveness index ranks between 2009 and 2011.**

	2009	2010	2011
GCI index	47.	60.	69.
<b>Basic requirements (22,2 %)</b>	54.	53.	60.
1. <i>Institutions</i>	78.	89.	101.
2. Infrastructure	63.	57.	57.
3. Macroeconomic environment	40.	32.	56.
4. Health and primary education	48.	45.	43.
<b>Efficiency enhancers (50 %)</b>	34.	37.	44.
5. Higher education and training	47.	53.	53.
6. Goods market efficiency	32.	51.	51.
7. <i>Labour market efficiency</i>	29.	40.	59.
8. Financial market development	28.	37.	47.
9. Technological readiness	33.	34.	37.
10. Market size	57.	58.	58.
<b>Innovation and sophistication factor (27,8 %)</b>	57.	63.	71.
11. Business sophistication	51.	57.	63.
12. <i>Innovation</i>	68.	85.	96.

Source: *Global Competitiveness Report – volumes 2009, 2010 and 2011.*

Further decomposition of the available GCI data confirms the fact that public institutions and innovation are the weakest points of the Slovak national competitiveness. A closer look at the indicators in the sub-index *institutions* reveals that the results in the area of public institutions are abysmal. Slovakia has an especially serious problem in the following indicators – public trust of politicians (132<sup>nd</sup> position out of 142 countries surveyed), the efficiency of the legal system in settling disputes (139<sup>th</sup> position) or favoritism in decisions of government officials (135<sup>th</sup> position). These areas are highly vulnerable to government policies,

so any unfavourable changes are immediately mirrored in the indicators of the GCI index. Indicators affected by the labor code could be listed as an example, as Slovakia's position rapidly deteriorated in this area after the adoption of the new less flexible labour code in 2007.

As for the area of innovations, it is a long-term weakness of the Slovak economy. However, it seems that in the years 2009 - 2011 Slovakia's problems in this area even more intensified. A decline occurred in six of the seven indicators examined in this area, with government procurement of advanced tech products (129<sup>th</sup> position), university-industry collaboration in R&D (104<sup>th</sup> position) the weakest areas. Additionally, the innovation capacity the corporate sector and the quality of scientific research institutions also deteriorated in the same time period.

The important question for Slovakia is, whether the second global index of national competitiveness confirms its current decline. Slovakia has been included into the World Competitiveness Yearbook only in 2001, so we can follow the development of its national competitiveness only between 2001 and 2011<sup>35</sup>. The development of the national competitiveness of Slovakia in this time frame can be seen on the chart no. 2, which reflects approximately the same competitive position as the previously mentioned global ranking based upon the GCI index. In evaluating the results of the World Competitiveness Yearbook, we have to bear in mind that the group of countries analysed is rather limited in comparison with the competing publication (only 59 states in the latest edition).

Even a quick analysis of the available data of the WCI index confirms the trends that we identified earlier with the help of the data from the GCI index. From 2002 to 2008 we can see a gradual improvement of national competitiveness of Slovakia. This process culminated in 2008, when Slovakia became the 30<sup>th</sup> most competitive country in the world according to the World Competitiveness Yearbook. In the regional context this meant that Slovakia was the second most competitive country in the region of Central Europe, being a close second behind the Czech Republic (28<sup>th</sup> position).

After 2008, however, the WCI index reflected a sharp deterioration of Slovakia's national competitiveness. The largest negative change occurred in 2010, when the overall WCI index fell for Slovakia from 63.9 to 51.1. This development naturally resulted in a sharp drop in the international rankings based on the WCI index, as Slovakia fell from the 33<sup>rd</sup> position to the 49<sup>th</sup> position. In 2011, there Slovakia's decline stopped, but there has been no significant improvement in national competitiveness of Slovakia. Although the country has improved its position by

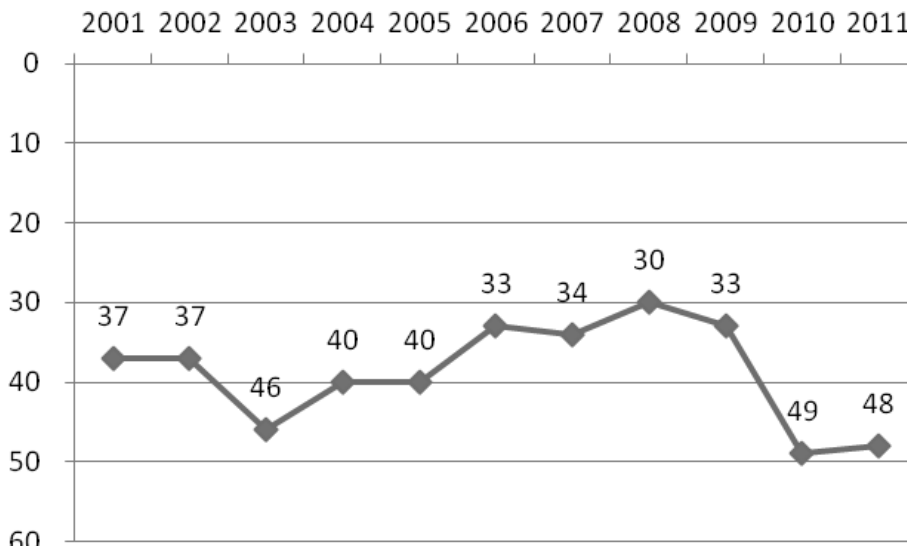
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35 The data in this section comes from various editions of the World Competitiveness Yearbook.

one place, it is still the least competitiveness country from the V4 countries<sup>36</sup>. Slovakia's current position means that its national competitiveness is the weakest since its inclusion into the World Competitiveness Yearbook in 2001.

To find out the reasons of the significant drop in Slovakia's national competitiveness based on the WCI index, an analysis of its four main parts of required - economic performance, government efficiency, business efficiency and infrastructure. A comparison of these four areas shows that between 2009 and 2011 there was a general deterioration in all the sub-indexes with the exception of infrastructure, which grew very slightly (27.54 in 2009 and 28.60 in 2010). Nevertheless, in 2011 Slovakia occupied the last position in the group V4 in all four main sub-indexes.

**Fig. 2. Slovakia's position in the global rankings based on WCI in the years 2001 - 2011**



Source: On-line database of the World Competitiveness Yearbook

However, Slovakia recorded the biggest drop in the sub-index *economic performance*, as its value fell from 36.40 in 2009 to 19.81 in 2010. This decrease could be attributed to the ongoing global economic crisis, but interestingly the other V4 countries improved their position in this area<sup>37</sup>. Slovakia is a small

36 The Czech Republic occupied the 30<sup>th</sup> position in the global ranking, Poland the 34<sup>th</sup> position and Hungary the 47<sup>th</sup> position.

37 In the case of the Czech Republic, the value of this sub-index improved from 43.13 in 2009 to 48.88 in 2010 and in the case of Poland it improved from 34.72 in 2009 to 53.37 in 2010.

and open market economy, so the global economic crisis played an important role in the decline of exports in 2009 with the subsequent fall of GDP and rising unemployment. The relatively swift economic recovery in 2010 improved Slovakia's situation, but the value of this sub-index was in 2011 still under the level of 2009.

In terms of long-term competitiveness of Slovakia the gradual deterioration of the *government efficiency* sub-index is much more upsetting. The WCI index confirms that after the economic reforms in the years 2002 – 2004 Slovakia was the leader in government efficiency in the Central European region. However, since 2006 the value of this sub-index is steadily declining for Slovakia. Unluckily, the other V4 countries were improving their public institutions in the same time period, so pending 2011 Slovakia fell to the third place in the V4 group. The evaluation of the indicators in this area confirms the known weakness of the Slovak economy, such as corruption (52<sup>nd</sup> position out of 59 countries surveyed), judicial system (53<sup>rd</sup> position), state of the business environment (52<sup>nd</sup>) and labor market flexibility (52<sup>nd</sup>).

Nevertheless, it should be added that the corporate sector has also a significant share in the overall slump of WCI index in 2010. The value of the sub-index *business efficiency* fell significantly from 46.58 in 2009 to 33.69 in 2010. It would be easy to link this fall to the ongoing global economic crisis, but a similar decline did not occur in other V4 countries. An analysis of the components of this sub-index reveals that there was deterioration in labor productivity, in the effectiveness of the financial sector, in the management practices and values and in the attitudes of managers. It is difficult to say whether the indicators expose a permanent reduction in the national competitiveness or it is only a temporary impact of the global economic crisis. The next issues of the WCI index will certainly help to resolve this important question.

Similarly to the GCI index, WCI also confirms the other long-term weakness of the Slovak national competitiveness - *science, research and innovation*. Data from the latest edition of the index in 2011 clearly show that Slovakia is among the weakest of the 59 countries evaluated in this area. The most significant weaknesses of Slovakia can be found in the following areas – attractiveness for scientists and researchers (58<sup>th</sup> position), quality of scientific research (57<sup>th</sup>), knowledge transfer between universities and the business sector (55<sup>th</sup>) and the quality of higher education (54<sup>th</sup>). These results clearly indicate the direction the Slovak government should direct its policies in this area in the future.

## Conclusions

Both major global indexes evaluating national competitiveness clearly confirm the deterioration of national competitiveness in Slovakia in the last years. Both indexes reported a strong deterioration of the national competitiveness in 2010

and according to the GCI index this trend continued also in 2011. In the same time period, the most direct competitors of Slovakia in Central Europe managed to improve their national competitiveness, so Slovakia gradually lost its leadership and became the least competitive nation in the V4 group.

Partial indicators of both indexes clearly show the weakest points of the national competitiveness of Slovakia, which are ineffective public institutions and poor performance in science, research and innovation. Both these factors are heavily dependent on government policies and decisions, so sensible economic policies can positively affect both areas. If the Slovak governments want to improve national competitiveness of the country in the coming years, they should primarily focus on the improvement of the public institutions. Top priority should be given to the following areas – improvement of business environment, fight against corruption, streamlining of the judicial system and increasing labor market flexibility.

However, if we want to improve the national competitiveness of Slovakia in a sustainable way, the area of education, science, research and innovation is an area that needs immediate government attention and intervention. This area has been neglected for a long time in Slovakia, despite frequent government statements that it is a area of top priority for the future. In this area, it will be necessary to improve the cooperation between universities and business sector, to increase the state and private funding of science and research and to align the output of the tertiary education with the real needs of the Slovak economy. Still, it must be noted that any improvement in research and innovation will take a long time and it will take at least several years until the positive results will be visible in the global indexes. However, if these processes will not start right now, it will be very hard build an innovation driven economy and society in Slovakia.

Looking ahead, the position of Slovakia in the global indexes of national competitiveness will significantly depend on two factors in the coming years. Firstly, the state of the macroeconomic environment it has a significant impact on both indexes. So, if Slovakia will be able to maintain a healthy economic growth, it can lead to an improvement in its position in the global rankings. Secondly, the future of Slovakia's national competitiveness will be greatly influenced by the policies of the Slovak government. Well-advised and reform-oriented economic policies can positively affect the country's national competitiveness, what was clearly demonstrated on the case of Slovakia between 2002 and 2006. Nonetheless, it should be noted, that all counties in the global economy are continuously working on the improvement of their national competitiveness, therefore no government is able to afford to relax their efforts. The example of Slovakia in 2010 and in 2011 clearly shows what happens in this case – a quick deterioration of the national competitiveness. Let that be a warning to all future Slovak governments.



## **References**

- Blaine, M. (1993). Profitability and competitiveness: lessons from Japanese and American firms in the 1980s. *California Management Review* 36(1), 48–74.
- Global Finance. (2011, October 25). Global Competitiveness. Retrieved from Global Finance website: <http://www.gfmag.com/tools/global-database/economic-data/10620-global-competitiveness.html#axzz1tLJmQYI>
- IMD (2006). *World Competitiveness Yearbook 2006*. Lausanne: IMD.
- IMD (2009). *World Competitiveness Yearbook 2009*. Lausanne: IMD.
- IMD (2010). *World Competitiveness Yearbook 2010*. Lausanne: IMD.
- IMD (2011). *World Competitiveness Yearbook 2011*. Lausanne: IMD.
- Porter, M. E. (1990). *The competitive advantage of nations*. Boston MA: Macmillan.
- Porter, M. E. (1998). *On competition*. Boston MA: Harvard Business School.
- Scott, B.R., Lodge, G.C. (1985). *U.S. competitiveness in the world economy*. Harvard Business School Press, Boston.
- World Economic Forum (2005). *The Global Competitiveness Report 2005–2006*. Geneva: World Economic Forum.
- World Economic Forum (2009). *The Global Competitiveness Report 2009–2010*. Geneva: World Economic Forum.
- World Economic Forum (2010). *The Global Competitiveness Report 2010–2011*. Geneva: World Economic Forum.
- World Economic Forum (2011) *The Global Competitiveness Report 2011–2012*. Geneva: World Economic Forum.