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CHANGES OF COMPETITIVENESS RANKINGS IN THE CEE COUNTRIES - THE 2022 OUTLOOK

János Varga

Ph.D., Associate Professor, Keleti Károly Faculty of Business and Management, Óbuda University, Budapest, Hungary varga.janos@kgk.uni-obuda.hu

Mónika Garai-Fodor Habil

Ph.D., Associate Professor, Keleti Károly Faculty of Business and Management, Óbuda University, Budapest, Hungary fodor.monika@kgk.uni-obuda.hu

Ágnes Csiszárik-Kocsir Habil

Ph.D., Associate Professor, Keleti Károly Faculty of Business and Management, Óbuda University, Budapest, Hungary kocsir.agnes@kgk.uni-obuda.hu

Abstract

The study focuses on the competitiveness of the V4 countries. The aim of this study is to analyse the relative position of the V4 countries. This follows on from several comparative studies published in previous years, in which we have already dealt with the competitiveness situation of the V4 countries (Varga & Csiszárik-Kocsir, 2020; Varga, 2018; Varga & Csiszárik-Kocsir, 2015). Building on the previous data, we seek to answer the question to what extent the competitiveness of the countries in the region has changed in relation to each other and whether there has been a substantial change in the competitiveness ranking of the V4 countries. By comparing the results, we can see which of the V4 countries performs best and whether there has been a change in competitiveness at the top of the list. The comparison also makes it possible to identify the efforts made by the V4 countries to become more competitive. The 2022 snapshot is of particular interest, as the COVID-19 crisis or the Russian-Ukrainian war have had an impact on national competitiveness developments, although the effects of the latter will only be reflected in statistics and reports at a later stage. National competitiveness changes independently of these factors, so it may be necessary to determine the exact situation on a regular basis.

Keywords:

Competitiveness, Development, Rankings, Outlook, Comparison

1. Introduction

The analysis of competitiveness is not an easy task (Zhao & Qi, 2021). In most cases, to examine competitiveness, we need to compare at least two actors, as this is the only way to determine whether one is at an advantage or not (Berger, 2008). On the other hand, no two countries are the same, just as no two businesses are the same either (Collis & Montgomery, 2008). "Si duo idem faciunt, saepe non est idem.". If two make the same thing, it is not the same thing - as the Latin saying goes. These considerations highlight that the analysis of competitiveness has to be treated very differently for different economic actors, because the competitiveness of countries can be interpreted and explored somewhat disparately from that of companies (enterprises). This paper now focuses on the competitiveness situation of countries and seeks to answer the question whether the competitiveness of the Central and Eastern European countries (especially the Visegrad Four) has changed significantly in the recent period. First of all, it is important to clarify the concept of national competitiveness, which is also subject to various interpretations and definitions.

2. Literature Review

National economic or national competitiveness is one of the most crucial conditions for development and progress. It can be argued that without strengthening national competitiveness, we cannot make a meaningful contribution to fostering economic growth (Rungsrisawat, 2019). Therefore, we can consider it an essential question what we mean by national competitiveness and what resources we can identify to substantially improve it. National competitiveness is explained by the OECD in several ways (OECD, 1992). Competitiveness is the balance of advantages and disadvantages a country can achieve by selling its own products on international markets. Another definition, however, is that competitiveness is a measure of a country's ability to produce goods and services that can be sold on international markets under free market conditions, while maintaining and raising the living standards of its population in the longer term. The latter not only draws attention to the importance of markets or production, but also refers to the impact of competitiveness on society and welfare (Grilo & Koopman, 2006). Competitiveness is linked to market conditions too by Rapkin, who argues that a country should be able to sell products that can be sold on the world market, which may result in increasing the real income of its population (Rapkin, 1995). Competitiveness can be connected to productivity and employment, while later definitions, for example that of the European Commission from 2004, include factors such as the need to preserve a sustainable environment (Aiginger & Landesmann, 2002). Competitiveness can also be related to the state of employment and individual performance, as well as to the conditions under which a country supports the development of the former (Delgado et. al., 2012). Opinions on the measurement of competitiveness are very diverse. Some methods to infer the state of competitiveness (Shmygol et. al., 2020). Among the indicators they list are the World Happiness Report (Happiness Index), the Prosperity Index, the Human Development Index, the Global Innovation Index or major multidimensional competitiveness indicators such as the World Economic Forum (Global Competitiveness Report) or the IMD (Institute for Management and Development) report (World Competitiveness Yearbook). These are initiatives that use complex methodologies and broader studies to assess the situation of countries on the basis of numerous parameters. But there are simpler approaches too. Porter links competitiveness to productivity and export capacity (Porter, 1990). Fainshmidt and his co-authors emphasize benchmarking and improvement with GDP (Fainschmidt et. al., 2016). The role of productivity is also highlighted by

Bolouta and co-authors (Bolouta et. al., 2014). They use a simpler approach to define the state of competitiveness. The competitiveness research organization IMD (Institute for Management and Development) interprets the concept of national competitiveness in a much wider perspective. According to one of its prominent proponents, Garelli, the competitiveness of countries is the set of capabilities and conditions that enable economic actors to achieve their goals (Garelli, 2012). This strongly requires the support of national economic policies, measures of national economic policies and their pro-competitiveness characteristics. It can be stated that competitiveness must be genuinely strengthened, building in it the capabilities and conditions that are best able to promote the situation of individuals, businesses or any other economic actor. If the competitiveness of actors improves at the micro level and adds up, this can translate into aggregate progress at the national level. We can then detect an improvement in competitiveness and a positive shift in performance. There are therefore many different ways of interpreting competitiveness, and this paper does not aim to provide a complete list of them. Our study relies mainly on the IMD definition, as competitiveness is something that has to be promoted, not something that develops by itself.

3. Methods and Results

The comparison of national competitiveness in Central and Eastern Europe has been discussed in several articles (Varga & Csiszárik-Kocsir, 2020; Varga, 2018; Varga & Csiszárik-Kocsir, 2015a; Varga & Csiszárik-Kocsir, 2015b). These studies have mainly based their analysis of competitiveness on macroeconomic indicators such as GDP, employment, productivity and multidimensional indicators. In this paper, we have also focused on the national competitiveness of the V4 countries of Central and Eastern Europe, i.e., the Visegrad Group (Hungary, Poland, the Czech Republic and Slovakia). These examinations do not go into the in-depth reasons, since the scope of the study does not allow it. Instead, we would like to demonstrate that there were competitiveness shifts in the V4 countries as well. In our 2015 article, we referred to the fact that Hungary was considered one of the most promising of the countries that changed regime. We found it very interesting to observe whether Hungary has been able to maintain its leading role in the region or whether the competitive power balance has fundamentally changed in the last 20+ years. Evidence of this will be seen in the following sections.

3.1. The Period of Restructuring (2001-2014)

We start the examination of the evolution of national competitiveness with the IMD. Based on the Swiss competitiveness research institute IMD, four pillars determine a nation's competitiveness: economic efficiency, business efficiency, government efficiency and infrastructure (these are analysed on the basis of several parameters). These pillars are investigated through a broad analysis of macroeconomic statistics and a survey of the views of local economic actors (IMD, 2022). According to the IMD, Hungary was the best ranked of the Visegrad countries in 2001 (IMD's competitiveness studies are called World Competitiveness Yearbook). The left column of the table shows the countries that were the most competitive among the V4 countries as reported by the IMD research. The right column will show the change in rankings. The markings symbolise the following in the right column of the tables:

↑ increased competitiveness compared to the previous period reviewed

- \blacklozenge weakened competitiveness compared to the previous period reviewed
- O unchanged competitiveness ranking compared to other countries

Table 1. Competitiveness in The List of CLL Countries	
National competitiveness (IMD)	
1. Hungary	base year $= 2001$
2. Czech Republic	base year $= 2001$
3. Slovak Republic	base year $= 2001$
4. Poland	base year $= 2001$

Table 1: Competitiveness in The List of CEE Countries

(Source: IMD (Base Year = 2001))

Another international competitiveness research organization also publishes a very wellknown study every year called the Global Competitiveness Report. This study and a very wideranging competitiveness analysis is carried out by the World Economic Forum (WEF). The WEF measures national competitiveness by examining 12 pillars and a number of parameters within each pillar to rank countries. The report describes in detail the research methodology and the methods used to produce the rankings, as is the case for the IMD (these are available on the web, the full lists can be viewed online). The 12 pillars include institutions, economic performance, education, health, innovation, market efficiency, business sophistication and the state of financial markets. These pillars were also examined in 2001 in the V4 countries and came to almost the same conclusion as the IMD.

Table 2: Competitiveness in The List of CEE Countries

National competitiveness (WEF)	
1. Hungary	base year $= 2001$
2. Czech Republic	base year $= 2001$

3. Slovak Republic	base year $= 2001$
4. Poland	base year $= 2001$

(Source: WEF (Base Year = 2001))

The above two competitiveness rankings clearly show that in 2001, Hungary was the most advanced of the Visegrad countries, as reported by both competitiveness analyses. However, it was inevitable that changes that have taken place since in the world economy would not leave these rankings untouched. One of the most significant changes in the 2000s was the economic crisis of 2008, which had a major impact on many countries around the world. We can say unequivocally that the crisis did not affect everyone to the same extent. Certain countries have experienced less negative economic consequences, and some have even seen an improvement in macroeconomic or competitiveness indicators. Munyo, Perez and Talvi's results, published in 2012, were presented in a previous article. Here we refer again to this study. Their Global Economic Expansion Index classifies countries into three groups according to the extent to which their macroeconomic indicators have changed since the 2008 crisis. The results are based on research entitled "Latin America's Macroeconomic Outlook from a Global Perspective, Anemia, Exuberance and Vulnerability: the new global economic geography". Talvi and his co-authors analysed 6 different macroeconomic outcomes (output, unemployment, domestic demand, bank lending, inflation, real exchange rate) in 42 countries and examined the direction of change in these outcomes in response to the crisis. The striking finding was that not all countries have seen a deterioration in these indicators, but on the contrary, some even had better ratings than before. The latter were simply described as 'expanding economies' and included (as they themselves put it, 'surprisingly') Argentina, Panama, Peru, Dominica and, among the African countries, Angola, Kenya and Algeria. Some countries have not suffered significant damages in terms of the six macroeconomic parameters mentioned above, such as Iran, Morocco, Costa Rica and Malaysia, which are in the neutral group. Lastly, the countries in Group 3 are the so-called "anaemic countries", because they have experienced negative changes in the six macroeconomic indicators examined. The euro area is naturally included here, as is Hungary, which the authors consider to be the biggest loser of the crisis out of the 42 countries surveyed (Talvi et. al., 2012). In light of all this, the extent to which competitiveness rankings have shifted relative to each other since the crisis is a very interesting question for us. The next point of analysis will be 2014, by which time the crisis will have sufficiently unfolded in the countries concerned. Around that time the competitiveness rankings showed a slightly different picture. First of all, we have to go back to the

IMD rankings. 13 years have passed since 2001. During this period, the competitiveness of the Hungarian economy had gradually declined, as had the competitiveness of the Slovak economy. At the same time, the Polish and Czech competitiveness was experiencing a strengthening trend, and this momentum continued, to our surprise, throughout the crisis. The word 'surprise' is used here because in the course of the crisis one would basically expect a weakening, but as Talvi and his co-authors confirmed, the crisis does not necessarily mean a downturn for all economic actors. The IMD research shows that the competitiveness of the V4 relative to each other has evolved as follows:

National competitiveness (IMD)	
1. Czech Republic	↑
2. Poland	^
3. Slovak Republic	↓
4. Hungary	\checkmark

 Table 3: Competitiveness in The List of CEE Countries

(Source: IMD (2014))

The above table shows that the balance of power in the V4 has changed dramatically between 2001 and 2014. This is mainly due to the boom in the Polish economy, but it is also a fact that the Slovak and Hungarian economic performances had been below expectations. The most noticeable change is that Hungary had lost its former leading position within the V4 and has the weakest competitiveness ranking of the four countries. The World Economic Forum's view on this period is of particular interest, so it is worth looking at the findings of the WEF Competitiveness Report as well.

National competitiveness (WEF)	
1. Czech Republic	↑
2. Poland	↑
3. Hungary	↓
4. Slovak Republic	↓

Table 4: Competitiveness in The List of CEE Countries

(Source: WEF (2014))

The World Economic Forum (WEF) produced eerily similar results. It should be noted that, in terms of competitiveness analysis, these two methodologies (IMD and WEF) are not alike, so the two organizations do not work together. In both cases, the methodology and the way of collecting data are specific, but the results obtained are similar for both international organizations. The WEF also established that the Czech economy was the most competitive of the V4 in 2014. The second best among the V4 was Poland. This finding was shared by the IMD too. Difference

can only be seen in the competitiveness rankings of Slovakia and Hungary. According to the IMD, the Slovak economy was somewhat more competitive than the Hungarian economy in 2014, while the WEF found that the reverse was true. The contrasting outcomes here may be explained by the fact that international organizations assess competitiveness on the basis of diverse criteria, which may cause some differences in the results. Nevertheless, the Czech and Polish catch-up was confirmed by both competitiveness research organizations. We discuss these analyses in more detail in our 2015 paper (Varga & Csiszárik-Kocsir, 2015a; Varga & Csiszárik-Kocsir, 2015b). Three years later, in 2018, another study was published, which focused on the post-crisis recovery period (Varga, 2018). A big question for us was whether or not the competitiveness position of countries relative to each other changed in the post-crisis normalization period. It was timely to do a re-comparison. The WEF and the IMD had not significantly altered the methodological background of competitiveness reporting. Obviously, minor fine-tuning was done, but basically, they stuck to tradition. The presentation of macroeconomic data remained important, but primary data collection procedures were also presented, as had been the case in the past.

3.2. The Era of Happy "Times of Peace" (2014-2018)

By 2018, competitiveness had not changed substantially in terms of the relative position of the V4 countries. In our study "Competitiveness of the Visegrad Group", we introduced again the extent to which competitiveness evolved in the four countries compared to 2008. According to the IMD, the Czech Republic was still the most competitive of the four countries in 2018, while Hungary and Slovakia swapped places. Just for completeness, of the 63 countries surveyed, the Czech Republic ranked 29th, Poland 34th, Hungary 47th and Slovakia 55th. The 2018 IMD ranking of the V4 was thus established as follows:

National competitiveness (IMD)		
1. Czech Republic	0	
2. Poland	0	
3. Hungary	^	
4. Slovak Republic	↓	

Table 5: Competitiveness in The List of CEE Countries

(Source: IMD (2018))

The IMD emphasizes that a more competitive economy requires a more efficient institutional system, much better government performance, a stronger business environment that is more supportive and business-friendly, and an improved infrastructure. These are basically general and fixed recommendations that should not have a negative impact on national

competitiveness. However, the big question is what the other major competitiveness research organization, the World Economic Forum (WEF), thought at that time about the development of national competitiveness in 2018. Based on the WEF, the Czech Republic already had a positional advantage over the other V4 countries in 2008, when the crisis started. This had fundamentally not changed by 2018. In the 2018 ranking, the Czechs were the most competitive (31st out of 137 countries examined), with the Poles being 39th, the Hungarians 60th and the Slovaks 65th. This also means that the competitiveness analysis using the WEF methodology yielded the same V4 ranking, so the WEF's view was fully in line with the IMD results. Here too, the swap between the Hungarian and Slovakian rankings was noticeable.

Table 6: Competitivenes	s in The List of CEE Countri	es
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National competitiveness (WEF)		
1. Czech Republic	0	
2. Poland	0	
3. Hungary	^	
4. Slovak Republic	↓	

(Source: WEF (2018))

For the Czechs, both competitiveness reports show that they rank highly in areas such as education, innovation and the development of the business environment, while they made more compelling progress in infrastructure and technological readiness as well. At the same time, Poland had sought to make the market structure more stable, for example by improving the efficiency of financial markets, institutions and the promotion of competition in the market. The WEF underlines that economic competitiveness may be founded on specific factors, and therefore competition can be based on resources, for instance, but even more impressive successes can be achieved by stimulating education and innovation (EC IUS, 2018). Both the World Economic Forum and the IMD highlight that the most successful economies can be those that pay more attention to the use of knowledge, innovation and development, education or the preservation of environmental assets. A knowledge-based economy relies on innovation, education and human capital.

3.3. The Dawn of The Crises (2018-2020)

The next stage of the competitiveness analyses was 2020. In the study entitled "The Examination of our Regional Competitiveness", we looked back at the events of the past decades and again put the issue of competitiveness to the fore (Varga & Csiszárik-Kocsir, 2020). The results for 2019 came out in comparison with 2018, with no significant changes. The IMD report

shows no shifts in the relative position of the V4. On the other hand, if we take 2018 as the base year, the Czech Republic and Poland had both dropped a few places, whereas Slovakia had moved up and the Hungarian economy had maintained its 47th place (the number of countries surveyed in 2019 was also 63). In international comparisons, the Czech Republic is the best performing country in the V4 in almost all lists. The Czechs are closest to the EU average level of development (if we want to express this in terms of GDP per capita). The Czechs are the best performers in all major competitiveness rankings among the Visegrad Four, with the most advanced national innovation system and the lowest levels of corruption.

National competitiveness (IMD)		
1. Czech Republic	0	
2. Poland	0	
3. Hungary	0	
4. Slovak Republic	0	

Table 7: Competitiveness in The List of CEE Countries

(Source: IMD (2019))

In 2019, the World Economic Forum published its competitiveness Report in the same way as the IMD. The 2019 WEF report reveals a slight modification. While the IMD found that the Hungarian economy was more competitive than the Slovak economy in 2019, the WEF asserted the opposite. In 2019, the Czech Republic was ranked 32nd, Poland 37th, Slovakia 42nd and Hungary 47th out of the 141 countries examined, making the Hungarian economy the least competitive economy in the V4.

National competitiveness (WEF)	
1. Czech Republic	0
2. Poland	0
3. Slovak Republic	↑
4. Hungary	↓

(Source: WEF (2019))

3.4. In The Shadow Of COVID-19 And the Energy Crisis (2020-2022)

According to the IMD, Hungary was the least competitive economy in the V4 in 2014, but now in 2019 the conclusion was the same. Of course, we were also very curious to see what the latest results show about national competitiveness. We called on the latest available competitiveness reports from IMD and WEF to help. The economic situation today is heavily influenced by several global economic developments and trends. In addition to the global migration issue, the COVID-19 pandemic and the economic, social and moral crisis resulting from

the Russian-Ukrainian conflict are still extremely topical. The latter has also led to a kind of energy crisis, which has caused a very sharp rise in market prices for numerous goods and services in many countries around the world. It is a truly interesting question whether and to what extent competitiveness of the V4 has changed in this exceptional situation, with a focus on the countries under review. First, let us go back to the IMD methodology. According to IMD, the competitiveness of the Czech Republic has remained the best among the V4 since 2018. In 2018, they were ranked 29th on the list, and currently they are in position number 26. The latest report was published by the Swiss organization on 15 June 2022. Previously, Poland was ranked the 2nd most competitive economy in the V4. However, Polish competitiveness has weakened significantly in recent years, as disclosed by the IMD. In 2018, Poland was in 34th place, but by 2022 this has changed to 50th. This is a very serious drop. So much so that it makes the Polish economy the worst performing economy in the V4 in terms of competitiveness. Hungary was ranked 47th out of 63 countries in 2018, then moved up to 42nd in 2021, which it improved further to 39th by 2022, leaving both Poland and Slovakia behind. The latter ranked 55th in 2018 and advanced up to 49th in 2022. This progress was not enough to catch up with the Czechs, but it was enough to overtake the Polish economy. This means that by 2022, the V4 is in a completely different order to before, with the Czech Republic still being its most competitive economy. Based on the 2022 IMD ranking, the competitiveness of the V4 countries relative to each other is as follows:

National competitiveness (IMD)		
1. Czech Republic	0	
2. Hungary	↑	
3. Slovak Republic	^	
4. Poland	\checkmark	

Table 9: Competitiveness in The List of CEE Countries

(Source: IMD (2022))

From a Hungarian perspective, this is a remarkably commendable and welcome change, but at the same time we wondered whether the other major competitiveness research organization also sees our competitiveness development in the same way. Unfortunately, the last time the WEF produced a paper dealing specifically with competitiveness was in 2020, which tried to identify competitiveness with the recovery and resilience-building effort. Given that there is no WEF list for 2022, we cannot make a comparison between the IMD and the WEF for this period. However, other multidimensional studies have been published which, although not called competitiveness

research, are very indicative of its condition. The state of innovation, and in particular the state of national innovation systems, is very closely linked to competitiveness. To analyse this, each year the European Commission produces the Innovation Union Scoreboard, which is designed to show the performance and state of innovation systems in national economies. We can also infer the state of competitiveness from the state of innovation systems, considering that innovation is one of the most important and elementary units for building competitiveness. An innovative company has always been more competitive because it has always been able to enter the market with some radically or partially new solution, regardless of the type of innovation. According to the European Commission, the following list of countries could be drawn up on the basis of the quality of the innovation system.

Table 10: Development of Innovation Systems in CEE Countries		
Innovation Union Scoreboard / National innovation system (IUS)		
1. Czech Republic looking only at the year 2022		
2. Hungary	looking only at the year 2022	
3. Slovak Republic	looking only at the year 2022	
4. Poland	looking only at the year 2022	

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(Source: European Commission (2022))

Although the European Commission has undertaken to analyse the innovation system using multidimensional indicators, we can create the same list for the V4 from this material. In terms of innovation performance, the Czech Republic was again in the top position among the V4. Hungary is well below the EU average at the back of the list. We can only be pleased by the fact that Poland and Slovakia have even worse characteristics and rankings with regard to innovation. And if a country performs poorly in innovation, it is difficult to build up its competitiveness, given that innovation is one of the most crucial pillars for strengthening competitiveness. In this context, it is definitely a considerable proposal that efforts should be made to promote national and business innovation, to develop the national innovation system and to enhance the willingness of economic actors to innovate.

4. Conclusions

The competitiveness shift has been demonstrated over the past 20 years or more. While Hungary was considered the most promising and competitive country in the early 2000s (and also at the time of the end of communism), by 2014 we had moved down the competitiveness rankings of the WEF and the IMD compared to the other V4 countries. Contrastingly, there has been a

marked improvement since then, as both the IMD and the WEF have found that the country's competitiveness has revamped, and we have now caught up again (see the IMD 2022 results). At the same time the progress of the competitiveness of the Polish economy has stalled and its previously favourable positions have gradually deteriorated. This is confirmed in particular by the latest IMD research. Poland's decline is not only in relation to the V4, but there has also been a significant downturn in Poland's general position during the recent years. As a result, Poland now has the weakest competitiveness position of the V4 in the IMD rankings.

Table 11. Changes in Competitiveness in Relation to The CEE Countries							
IMD	2001	2014	2014-2018	2018-2020	2020-2022		
HU	1	4	3	3	2		
CZ	2	1	1	1	1		
PL	4	2	2	2	4		
SK	3	3	4	4	3		

Table 11: Changes in Competitiveness in Relation to The CEE Countries



(Source: IMD 2001-2022)

Figure 1: Changes in Competitiveness in Relation to CEE Countries (Graphical) (Source: IMD 2001-2022)

Figure 1 is an excellent illustration of the rearrangements. It also clearly shows how the V4 countries performed relative to each other. The Czech Republic has maintained its lead over the V4 over the last two decades. Hungary and Poland, on the other hand, have shown rather variable rankings. While in 2001 Hungary had the best and Poland the worst rates among the V4 countries, by 2022 this had shifted again. The consolidation of Polish competitiveness has slowed down and Hungary has taken second place in the V4 competitiveness ranking due to the strengthening of the last four years. The WEF makes similar statements to the IMD report, and the Polish competitiveness boost is also evident here for the period between 2014 and 2020. However, the most recent competitiveness ranking for the WEF is not available, so we had to resort to another

multidimensional analysis to interpret the situation in 2022. Innovation performance was taken as a basis on the principle that truly competitive economies are both innovative and knowledge-based, the latter being confirmed by international competitiveness research organizations too. For example, the WEF deems an innovation-driven economy the most competitive. For this reason, we looked at the European Commission's Innovation Scoreboard for 2022, which describes the state of national innovation systems. It also gives an indication of the extent to which innovation can be a competitiveness driver in a given country. According to the Innovation Union Scoreboard, the Czech Republic is the best on this list as well, which corresponds to the reason for their ranking formulated by the IMD. The IMD also highlighted the stronger innovation efforts of the Czechs. Hungary is ranked second among the V4 countries, which is a good basis to build on in the future. The intensification of innovation and our positional advantage in this area can also improve our competitiveness situation. If the latest WEF competitiveness ranking was completed, we should see the impact of this in the competitiveness positions.

Table 12: Changes in Competitiveness in Relation to The CEE Countries

WEF	2001	2014	2014-2018	2018-2020	2020-2022*
HU	1	3	3	4	2
CZ	2	1	1	1	1
PL	4	2	2	2	4
SK	3	4	4	3	3



(Source: WEF 2001-2020 & IUS 2022)

Figure 2: Changes in Competitiveness in Relation to CEE Countries (Graphical) (Source: WEF 2001-2020 & IUS 2022)

It is apparent from Figure 2 that the countries are following almost the same path in competitiveness, so we can assume that if a WEF list were to be drawn up now, it would affirm the increase of Hungarian competitiveness the same way. The Czechs were the best performers in

the WEF lists too concerning the V4. Poland has improved and Hungary has weakened after 2001 just as much as what the IMD report showed. The competitiveness shift is undoubtedly proven by the above graphs. After Hungary lost its initial advantage, the Czech Republic has emerged as the most competitive economy in the V4, whereas Poland, after a more robust rise in competitiveness, has suffered a significant decline in recent years. The Slovak economy has not been able to make a notable contribution to the V4 competitiveness ranking over the last 20 years. Hungary also has the alternative of becoming an innovation and knowledge-based economy. We should strive to move up at least one group in the Innovation Union Scoreboard's overall innovation scoreboard. We need to build on our remaining strengths - for example, the World Economic Forum highlights that Hungary is in a good position in respect of the number and quality of research institutions, so we should be able to take advantage of these opportunities. More intensive investment in education would be necessary, from primary education to higher education. We need to create a business environment for enterprises that fosters entrepreneurship and increases their market impact. This also requires the improvement of social capital and confidence, and a re-engagement between economic policy and the entrepreneurial sector, because without the right (longer-term) economic strategy, there will be less chance for development. The past few years are encouraging and efforts to bolster our competitiveness should continue. The right economic policy measures, good strategic choices and a conscious economic recovery can help us to try to catch up with the Czech Republic in the matter of competitiveness. And strengthening competitiveness is not an end in itself, as it helps to nurture opportunities for a better life. Research will be much needed in the future. Firstly, the impact of the energy crisis and COVID-19 on competitiveness needs to be analysed. In addition, it will be important to examine which measures have had a real positive impact on competitiveness. International competitiveness research organisations will continue to publish competitiveness reports. These will show how national competitiveness has changed for each country. Research should include the reasons for these changes. Research should focus on the reasons why a country's national competitiveness has changed and how this change can be meaningfully explained. We need to look behind the competitiveness rankings. This will not be an easy task, as national competitiveness is a very complex issue. The competitiveness of a country can be influenced by many factors, so the limitations of research are precisely the need to analyse changes in several things at once. However, it is important to try to identify the reasons, otherwise we will never understand the factors behind national competitiveness.

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