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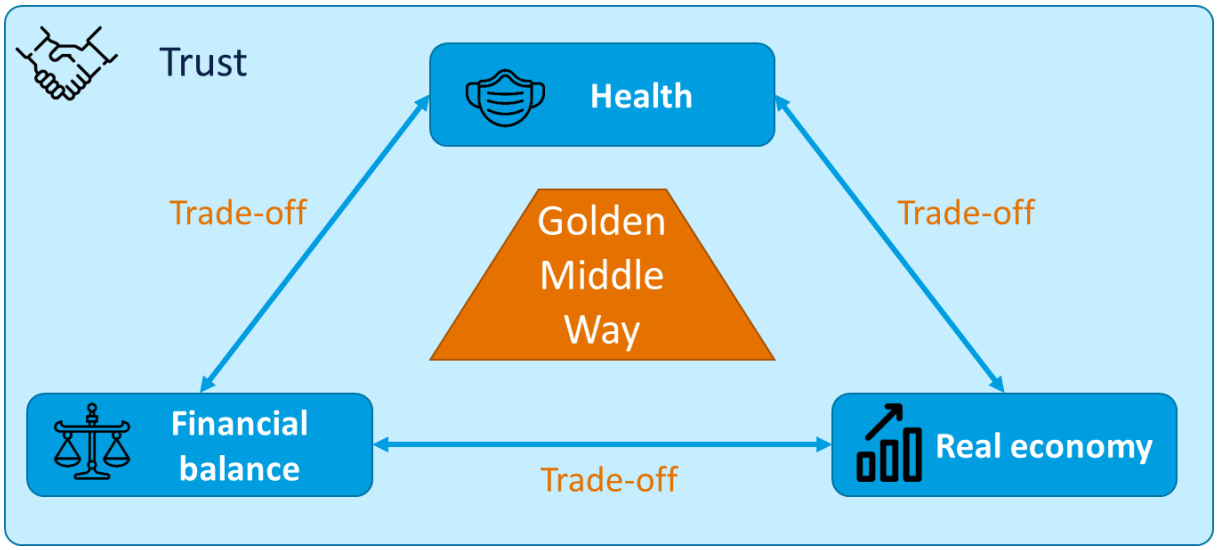
Competitive pandemic treatment – the numbers prove the success of the Hungarian model

The coronavirus outbreak presented enormous and new health and economic challenges across the world. Countries around the globe applied various strategies to manage the epidemic and to mitigate its negative economic impacts. This analysis introduces the Pandemic Treatment Index (PAITRI-X) to make the efficiency of these strategies comparable along several dimensions, and to evaluate the competitiveness of epidemic management in the Member States of the European Union. Based on the experiences gained so far, Hungary responded to the challenges presented by the pandemic at the right time and in the right way. As a result, based on our first estimates, Hungary's model of managing the crisis was the most efficient in the European Union.

The COVID-19 epidemic that unfolded in the spring of 2020 in Europe posed unprecedented and complex challenges to countries. On the one hand, they had to protect the health and the lives of their population against a fast-spreading disease that had lots of unknown parameters, while on the other hand, they had to keep their economies going amid the necessary restrictive measures. The general uncertainty triggered by the epidemic made the situation even more difficult and resulted in a general crisis of trust that affected the whole society. Nobody knew in advance what individual and social consequences the disease would entail, and when life could get back to normal. The sustainable planning of economic rescue packages presented a special challenge because it was unclear how long the active involvement of the government would be necessary, and what room for manoeuvre would governments have to make interventions in the economic downturn caused by the epidemic situation.

Political and economic decision-makers were forced to make difficult decisions in several dimensions. Should they introduce curfews to protect the health of the population, or should they attempt to keep the economy in motion? Should they boost the economy, or should they control public debts? In this situation, governments had to find the golden middle way, i.e. a compromise that would ensure the minimisation of the aggregate losses of the affected key areas (Chart 1).

Chart 1: Target system of economic policies during the pandemic, and the trade-offs between them



Source: MNB, Flaticon.com.

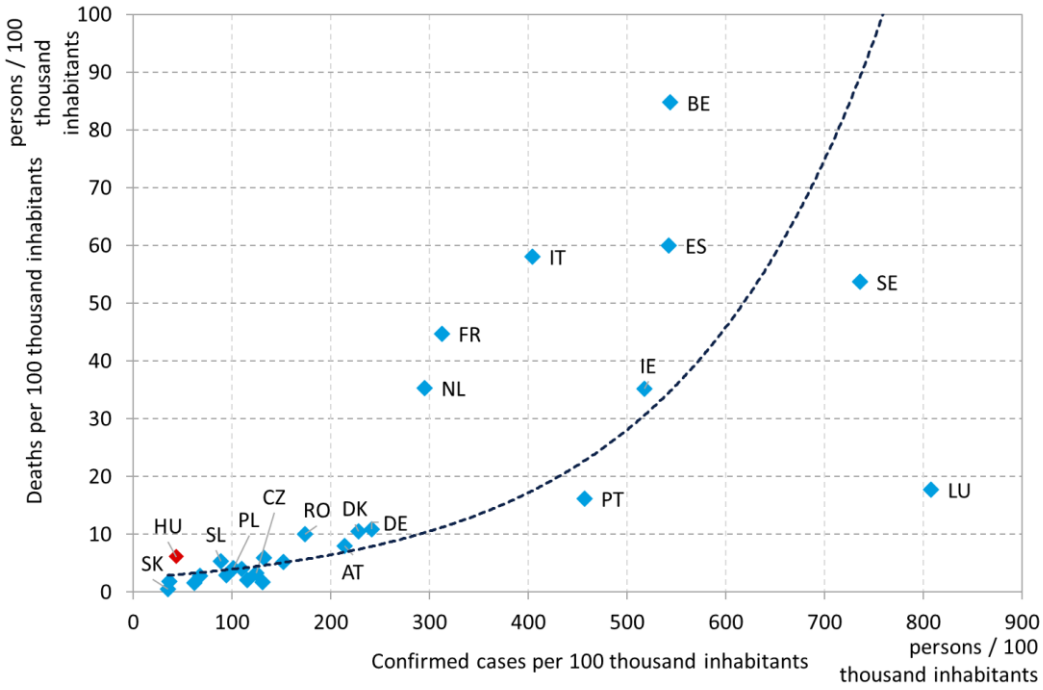
Each country managed the crisis situation with a different strategy, but the success of these strategies cannot be evaluated with individual indicators taken out from their contexts. The management of the epidemic cannot be considered successful in a given country if the number of infections was kept at a minimum level with the introduction of an extensive curfew, but the economy suffered damages above the average. Similarly, it cannot be considered as a success if the economic downturn is of minimum extent, but the number of the casualties of the virus is high in a given country. The realistic picture can be obtained by examining the relevant areas in a uniform framework. In our opinion, such a comparison should cover the health indicators related to the epidemic, the prospects of economic growth, labour market developments, the status of financial balance, as well as the steps taken to restore trust.

Key indicators of the evaluation of pandemic treatment

From a medical point of view, the countries of the European Union responded to the COVID-19 epidemic in different ways and with different results. Some of the countries responded to the epidemic with a delay or not to the necessary extent (e.g. Italy or Spain), and this had serious consequences after the fast spread of the virus. Other countries – partly learning from the errors made by the first group – took strict measures immediately after the entry of the virus in order to be able to control the epidemic (e.g. the Czech Republic and Hungary). A third group tried to achieve herd immunity (for example Sweden), but, according to our present knowledge, there is no country that would have been able to come close to the infection rate required for herd immunity. The health dimension of epidemic management can be measured with the number of confirmed COVID-19 cases and deaths per 100 thousand people (Chart 2). As to the number of cases, Hungary has the 3rd lowest figure (44 cases / 100 thousand people), while in respect of the number of deaths – with a relatively low value – Hungary is in the middle of the ranking (6 deaths / 100 thousand people). Countries with the highest death rates reached values ten times higher

than the Hungarian value (for example: Belgium 85 deaths / 100 thousand people, Spain: 60 deaths / 100 thousand people) and the average in the EU is also three times higher than the Hungarian level (18 deaths / 100 thousand people).

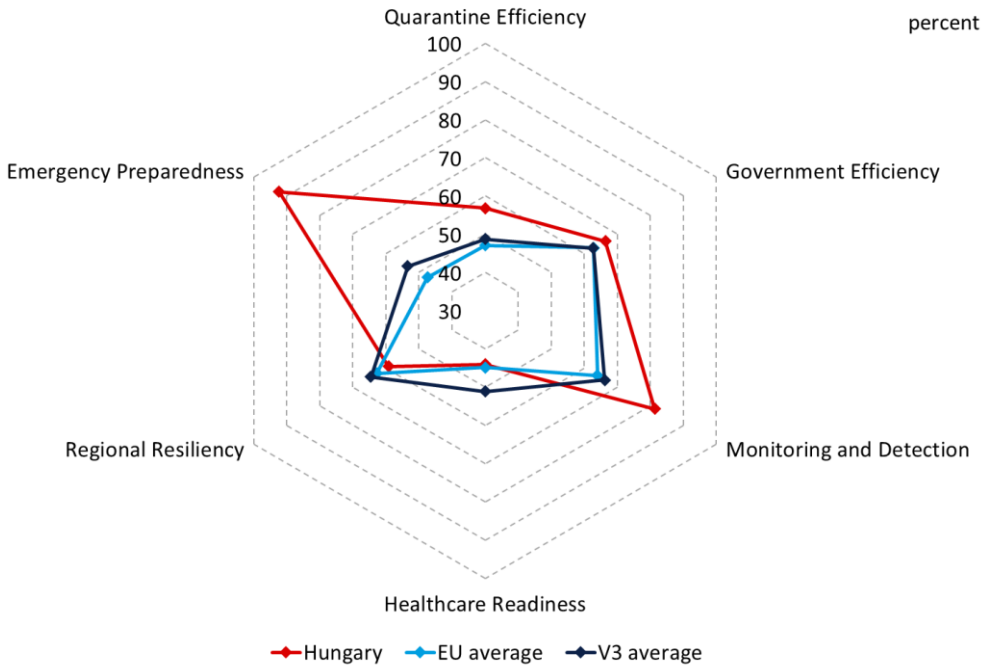
Chart 2: Number of COVID-19 cases and deaths for 100 thousand inhabitants in the European Union (15 July 2020)



Source: Johns Hopkins University, Eurostat.

During the period of the coronavirus pandemic, the Deep Knowledge Group was constantly developing and updating its system of indicators that are used to assess the safety of countries and regions. The presently available latest "COVID-19 Regional Safety Assessment" report (published in June 2020) examines the situation in 200 countries or regions within countries, based on 130 parameters. The report groups the examined parameters into 6 pillars, the results of with are shown in Chart 3. Overall, Hungary achieved 656 points from the totally available 1000 points, which is the 4th highest score among the countries of the EU, and the 18th highest at global level. The top of the list is occupied by the German-speaking countries (Switzerland, Germany, Austria) and some Asian countries which managed the epidemic in an exemplary way (e.g.: South-Korea, Japan, Singapore). Hungary achieved an outstandingly good result in the "Emergency Preparedness" pillar, where it had the 3rd highest score among the 200 countries examined.

Chart 3: Results of the Deep Knowledge Group's "COVID-19 Regional Safety Assessment" by pillar (June 2020)

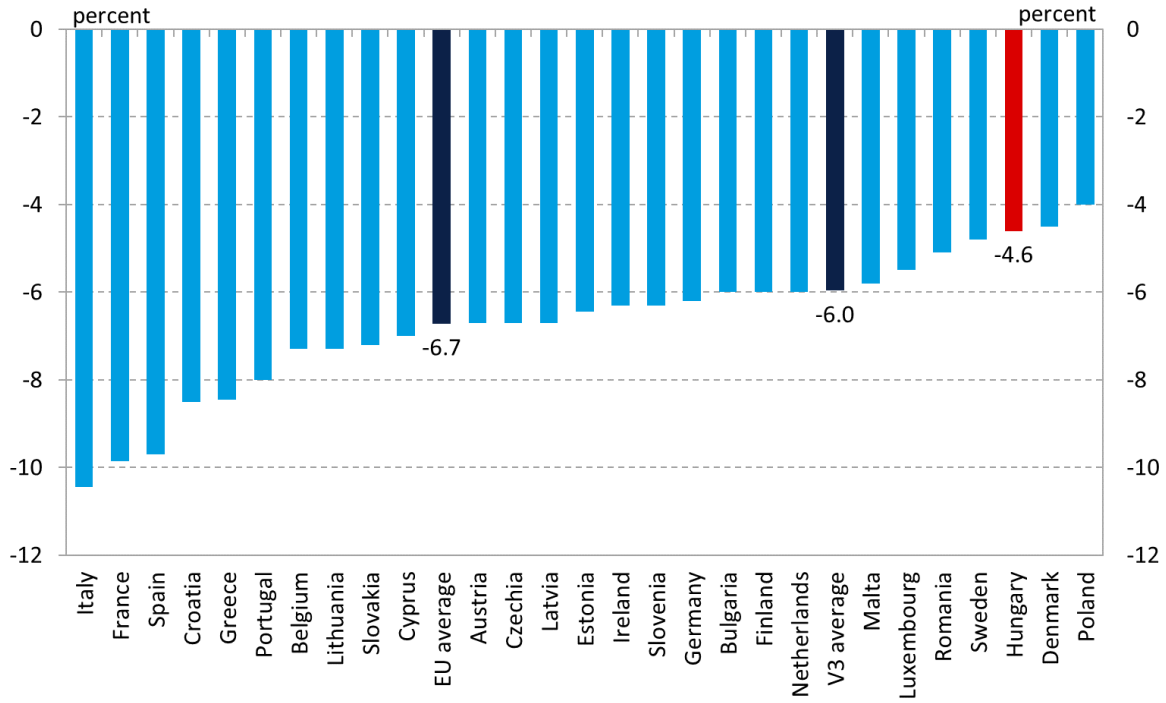


Note: The results are presented as a percent of the maximum score available in each pillar.

Source: Deep Knowledge Group.

The emerging pandemic situation had an adverse impact on the economic performance of all countries. The COVID-19 outbreak put an end to the economic boom that started after the financial and economic crisis of 2008. The downturn in economic performance can be detected in the available 2020 Q1 data, but the extent of the crisis will be truly visible only when the values of the second quarter become available. Based on the median of the forecasts of market analysts contacted by Bloomberg, GDP in EU countries will fall by 7 percent on an average in 2020. According to market expectations, Hungary's economic performance may drop by almost 5 percent this year, which is one of the lowest expected declines in the EU countries (Chart 4).

Chart 4: Expected change in GDP in 2020



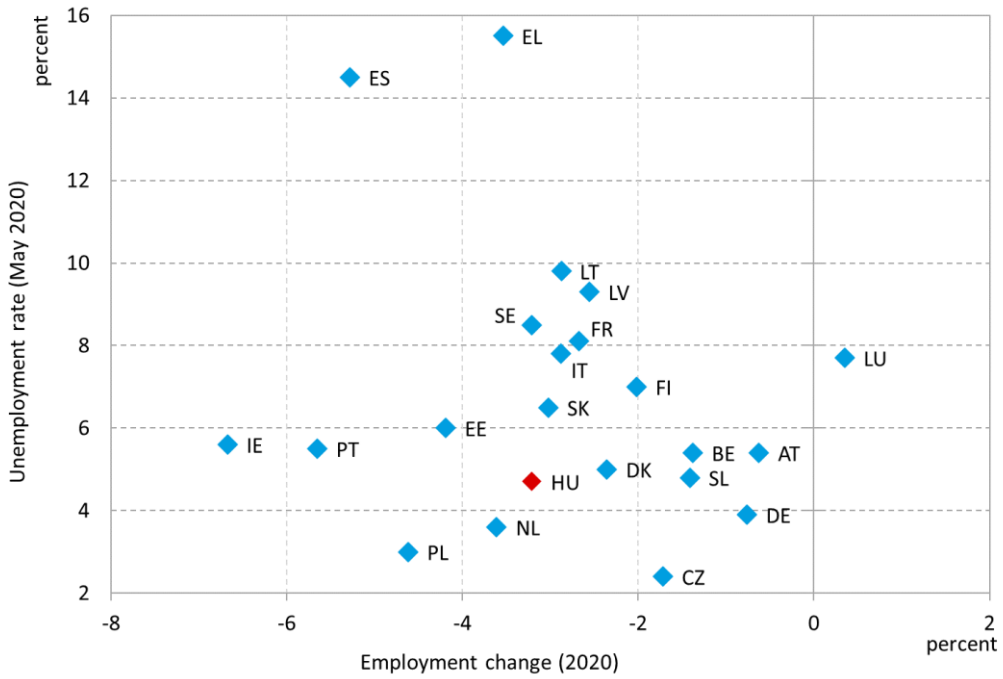
Note: The median of the forecasts of market analysts contacted by Bloomberg; in the case of Malta, the spring forecast by the European Commission.
Source: Bloomberg, European Commission.

The effects of the economic shutdown caused by the coronavirus were almost immediately visible on the labour market, but their extent strongly depend on the economic status and structure of the countries. The jobs of people working in sectors that are hit hardest by the epidemic (e.g. hospitality, air traffic) were in danger already before the introduction of the lockdown, because of the general uncertainty. Measures to protect jobs were key elements of economic stimulus packages all around the world. However, the efficacy of intervention is greatly influenced by the economic systems of the countries affected. Countries where sectors most affected by the epidemic have a significant weight within the economy (mainly tourism) found themselves in a more difficult position in the first place, while the recovery of the labour market depends not only on the measures of the local government, but also on the global situation of the pandemic. However, despite this exposure, properly formulated government measures seem to have been able to contribute to the mitigation of the damages caused by the epidemic.

In terms of labour market indicators, Hungary ranks middle among European countries (Chart 5). Between January and May 2020, the unemployment rate in Hungary increased by 1.3 percentage points, reaching 4.7 percent in May 2020, which is the 7th lowest value in the countries of the EU. The Visegrad region has a similar low unemployment rate, while the average in the Union is close to 7 percent. As to the number of employed people, currently only first-quarter data are available, which does not reflect the total impact of the epidemic. Therefore, in the case of this indicator, the forecasts in the OECD Employment Outlook are considered relevant. According to the OECD

forecast, employment in Hungary will drop by 3.2 percent in 2020 in the case of a single-hit scenario, which is slightly higher than the 2.9 percent rate of the EU member OECD countries. The unemployment rate and the number of employed people need to be examined together because not all people who lose their jobs will become unemployed, some of them will be qualified as inactive (at least temporarily) based on their own decision, and others because of the methodology of the surveys.

Chart 5: Estimated changes in the number of employed people in 2020, and the unemployment rate in May 2020

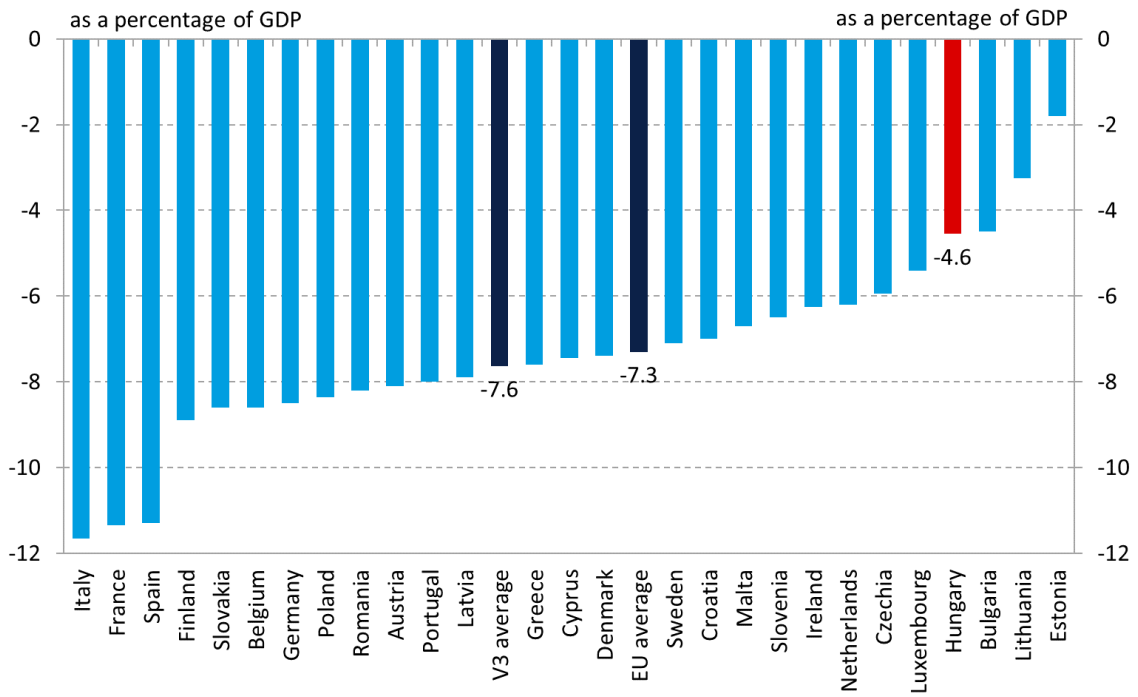


Note: As to the number of employed people, we used the single-hit scenario forecast included in the OECD's Employment Outlook, which contains forecasts for 22 EU countries only (Romania, Bulgaria, Croatia, Cyprus and Malta are not included). Because of not data available for May 2020 on the Eurostat, the source of the Hungarian value of the unemployment rate is the Hungarian Central Statistical Office, while we used values of April 2020 for Estonia and Greece.

Source: Eurostat, OECD, HCSO.

The economic downturn induced by the Covid-19 pandemic, the economic recovery packages introduced in response, as well as increased health spending equally contributed to a significant increase in the general government deficit. To prevent an even more pervasive crisis, the European countries have been implementing unprecedented recovery packages in 2020. These packages are, however, being financed not primarily from existing reserves but from borrowing. Estonia seems to be the only country this year where the general government deficit may remain below 3 percent – a Maastricht convergence criterion – according to the median of forecasts of market analysts contacted by Bloomberg (Chart 6). Market analysts expect Hungary's deficit to end up at 4.6 percent, the 4th lowest among the projections for EU member states.

Chart 6: Expected general government deficit in 2020



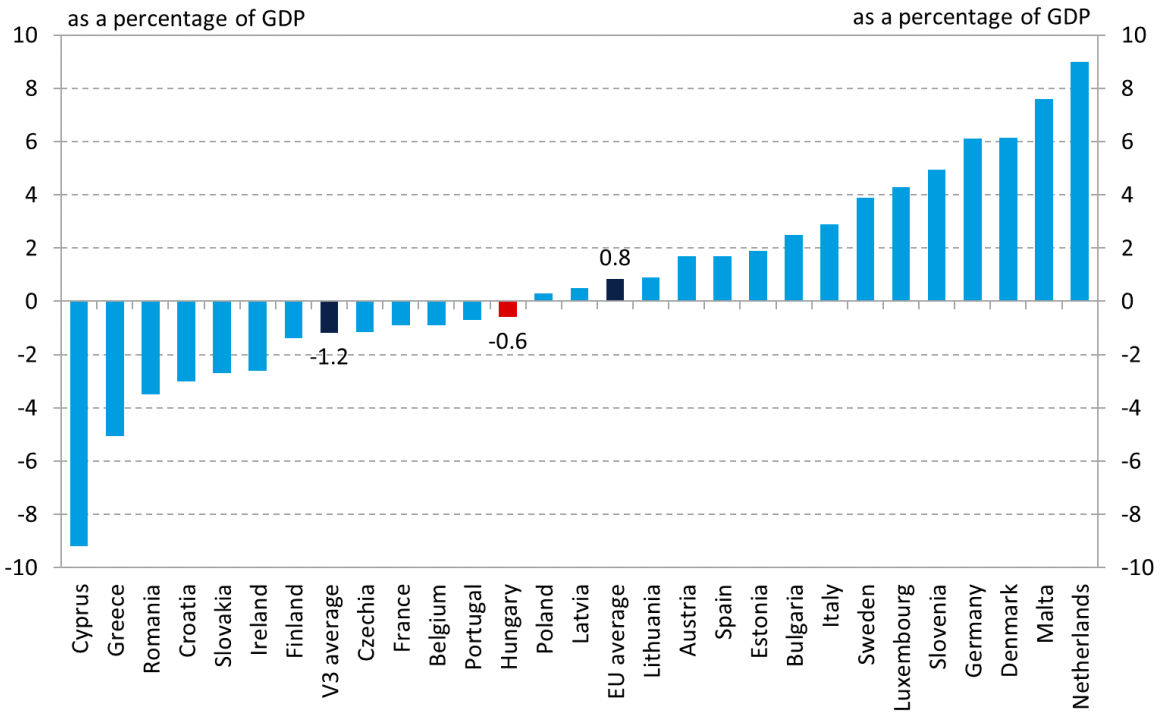
Note: The median of forecasts of market analysts contacted by Bloomberg; in the case of Malta, the spring forecast by the European Commission.

Source: Bloomberg, European Commission.

The pandemic also resulted in transient changes in the normal functioning of economies, which will substantially affect some countries' external financial balance as well. The pandemic has caused major disruptions in global production. The functioning of global value chains was shaken first by the measures introduced in China, which was later exacerbated by the general decline in demand accompanying the spreading of the virus. Industrial output declined while global tourism practically ground to a halt for a few months. At the same time, demand for certain products (breathing machines, masks, disinfectants etc.) soared to all-time highs which could be met by the existing scarce manufacturing capacities only gradually and to a limited extent. These developments had a profound impact on the external balance positions of many countries. Hungary's current account deficit stabilised at 0.8 percent of GDP during 2020 Q1; the effects of a

slight decline in net exports was offset by a decrease in the income balance deficit. Market analysts expect a 0.6 percent deficit relative to GDP in Hungary's current account, which may rank in the mid-range among the European countries this year (Chart 7).

Chart 7: Expected current account balance in 2020

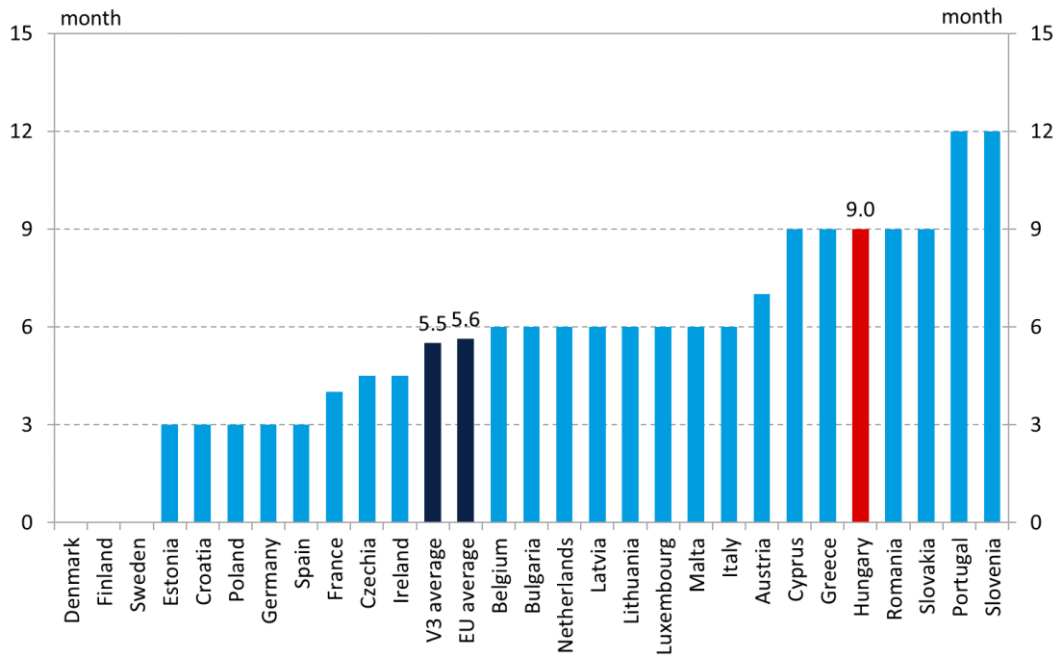


Note: The median of forecasts of market analysts contacted by Bloomberg; in the case of Malta, the spring forecast by the European Commission.

Source: Bloomberg, European Commission.

No economy can function without trust, whose preservation and restoring is a crucial element of successful crisis management. Changes in the economic situation affect economic agents' sentiment – as reflected by consumption, investment, savings or borrowing – triggering positive or negative feedback mechanisms. The breakout of the pandemic increased health risks and eroded confidence in the future a lot more quickly and dramatically than previous crises did. Trust is replaced by fear and panic – which are equally disadvantageous from an economic and a social aspect – inducing an entirely different social and economic mode of operation during the pandemic, focusing on survival at micro and macro levels as well. One of the most important tools used for preventing a confidence crisis was the introduction of a loan repayment moratorium, applied in various forms by most EU member states. Only Slovenia and Portugal offer a longer (12-month) moratorium for borrowers than the 9-month moratorium introduced in Hungary (Chart 8). The moratorium introduced in Hungary is more extensive than most of those introduced in other countries, spanning 4 months longer than the EU average, and contributing about HUF 2000 billion to maintaining purchasing power and employment.

Chart 8: Length of payment moratorium



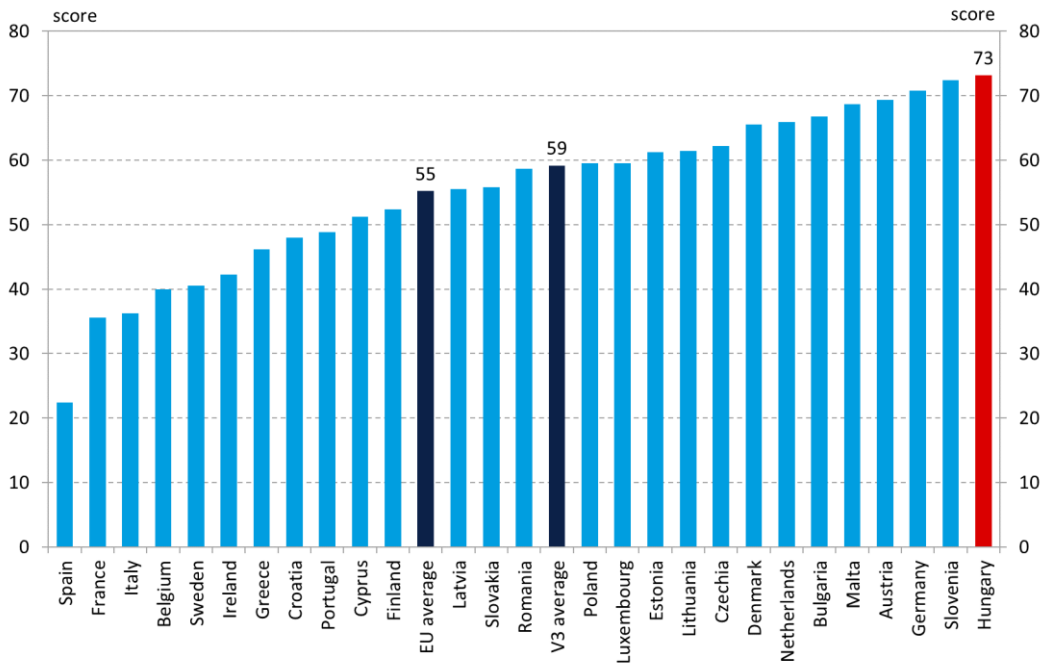
Note: In the case of an interval, the arithmetic mean of the two ends of the interval has been used as a value.

Source: MNB data collection.

Results of Pandemic Treatment Index (PATRI-X)

Pandemic treatment practices will be among the most exciting economic and social topics for studies during the coming months and years, for which we wish to contribute with a newly developed competitiveness index. The now presented first edition of the Pandemic Treatment Index (PATRI-X) covers a total of four areas using as many as nine indicators discussed above, comparing EU member states and specifically the Visegrad Countries (Czechia, Poland, Slovakia). A score of 100 points is given to the EU country with the best performance in terms of each indicator, while the scores of the other countries depend on the number of standard deviations by which they lag behind the top scorer (the maximum 100 points being reduced by 25 for one standard deviation). Since the effects of crisis management are not fully reflected yet by available factual data, the PATRI-X current version is also based on projections for four of the indicators. The index reflects the latest information available on 15 July 2020.

Chart 9: Results of the Pandemic Treatment Index (July 2020)

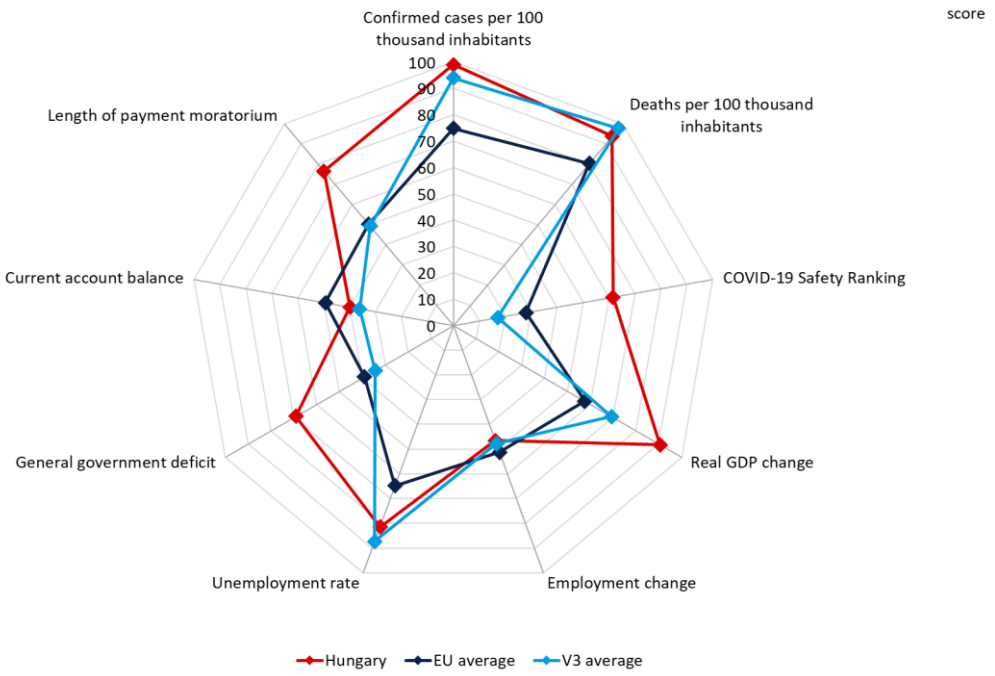


Note: The higher the score, the better the position. The Pandemic Treatment Index is a single index comprising 9 indicators in a standardised manner. The methodology underlying the standardisation and aggregation of the indicators is the same as the methodology developed by MNB and used for the first time in the development of the MNB Banking System Competitiveness Index.

Source: MNB calculation.

Based on the Pandemic Treatment Index – aggregating the results of the 9 examined indicators – the management of the epidemic in Hungary seems to be the most efficient in the European Union so far (Chart 9). Hungary scored 73 out of 100, 18 points above the EU average, even outdoing the regional (V3) average by 14 points. Hungary is followed on the podium by Slovenia and Germany, while the lowest ranking countries in this list include the ones that failed to control the pandemic (Spain, Italy, France, Belgium and Sweden). Remarkably, the Mediterranean countries (ClubMed) tend to be at the end of the list while each of the Visegrad Countries ranked better than the EU average. This fact reinforces this region's relative competitiveness position in the European Union and is in line with the past decade's trend of convergence. Hungary exceeds the averages of both the EU and the other Visegrad countries in most of the indicators concerned, lagging behind both of them only in terms of the change in the number of employed people (Chart 10).

Chart 10: Scores of key indicators measuring the competitiveness of pandemic treatment (July 2020)



Note: The higher the score, the better the position. Source: MNB calculation.

No correlation is found by these calculations between effective pandemic treatment and the economic development of the various countries. However, no such correlation is regarded to be necessary either, because the intervention capabilities and possibilities of the governments depend in addition to economic development, to a considerable degree, on political stability, governmental effectiveness, social set-up, the population's general health status and demographic parameters, while the success of intervention also hinges on people's compliant behaviour.

In summary, Hungary responded to the challenges caused by the COVID-19 pandemic in adequate time and to an adequate extent, based on data and projections available so far. According to the first calculations of the Pandemic Treatment Index Hungary found the best balance between economic and health sacrifices among the EU member states. This effective crisis management enabled Hungary's relative competitiveness position to grow even stronger within the European Union once the first wave of the pandemic subsided. The efforts put in place so far will, however, have to be continued if the favourable situation is to be benefited from. The Government, the MNB, employers and employees, as well the population, need to make concerted efforts to achieve success and have Hungary end up as a winner of the fight against the pandemic. It should be noted however, that the first results presented here are still based partly on projections; a full evaluation of the efficiency of epidemic management will only be possible based on actual data.