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# CLIMBING UP THE COMPETITIVENESS LADDER

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## **Abstract<sup>1</sup>**

The development strategy of most Central and Eastern European countries involves the boosting of foreign direct investments (FDI). Even greater emphases have been put on FDI with the unfolding of the global economic crisis, as the lack of local development resources have become ever more obvious.

Country competitiveness indices were created to measure the general well-being of a country's economy. It is generally believed that the best business environment is offered by countries scoring well on these indices. The following logic is applied when calculating a competitiveness index: the factors that contribute most to the success of doing business are identified first, and then these factors are quantified. The paper however takes a different approach to competitiveness indices. We will assume that decisions about FDI are at least partly based on the indices. Decision makers are faced with imperfect information, so they have to rely on easily accessible data – like a competitiveness index or ranking. So why don't reverse the logic: identify and try to improve on the key elements of an index first, ensuring that the country scores well, or better; and then reaping the benefits of increased FDI thanks to the improved ranking in competitiveness.

The paper focuses on one of the most well known indices, the Global Competitiveness Index (GCI), published by the World Economic Forum. It identifies some of its key elements, that are the easiest to improve on, and then offers recommendations to decision makers.

## **Measuring competitiveness**

Measuring competitiveness basically means measuring the current performance and future potential of a country's economy. The two usually are interrelated, although there can always be found examples of countries going 'backwards' (showing significant economic performance, but having less and less future potential), and others 'climbing up the ladder' (showing a combination of lower current performance and high future potential). In other words, the two are determined by similar factors, however there are those which are more important in enhancing current performance, and there are those which contribute more to future one.

Economists traditionally concentrated on the first group of factors, building many so called 'growth models' out of them. A classical example of such growth models is the one developed by Robert Solow and Trevor Swan<sup>2</sup>, which identifies three basic factors of economic growth:

- investment in physical capital;
- increases in the labour force;
- and technical change.

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<sup>1</sup> The paper was prepared within the framework of OTKA project nr. K 76870/2009

<sup>2</sup> Solow 1956, 1957

These factors are still regarded as fundamental ones, however they were completed with many other microeconomic and macroeconomic variables, like demand conditions, market rivalry and supporting industries, and government policies<sup>3</sup>.

In the meantime the concept of 'knowledge economy' was developed<sup>4</sup> as well, meaning that more and more emphasis were put on such factors like 'human capital', 'social capital' or 'business knowledge'. They all affect the current performance of an economy, but – more importantly – these are key factors for the future development of a country. Finally, another set of determining factors are the so called 'institutions', defined by North<sup>5</sup> as 'formal and informal rules that constrain human economic behaviour', all of which can fundamentally change an economy, and make a country prosperous without any significant physical or natural endowments, or, on the other hand, hold one back despite all the favourable endowments.

The Global Competitiveness Index (GCI) tries to capture all the before mentioned factors<sup>6</sup>, and summarize them in one single index value. In fact the experts of the World Economic Forum, who developed the GCI set up 12 pillars of competitive factors, and grouped them in three distinct categories, as follows:

- Basic requirement
  1. Institutions
  2. Infrastructure
  3. Macroeconomic stability
  4. Health and primary education
- Efficiency enhancers
  5. Higher education and training
  6. Goods market efficiency
  7. Labour market efficiency
  8. Financial market sophistication
  9. Technological readiness
  10. Market size
- Innovation and sophistication factors
  11. Business sophistication
  12. Innovation

Each of the 12 pillars consists of 5-20 factors, the value of which is standardised to a 1-7 scale. It means that the GCI can have a maximum value of 7, and the higher the index value, the more competitive a country is. Some of the factors are easily quantifiable (like primary enrolment, seat kilometres, broadband internet penetration etc.), but most of them are quantified by experts who give a value between 1 and 7 for a given factor. The method is rather subjective, and there is room for biases, but we will address the issue of biases a bit later.

The final index value is calculated as a weighted average of the three categories (basic requirements, efficiency enhancers and innovation and sophistication factors). The experts of the Global Economic Forum point out that the importance of factors falling into the three categories depends on an economy's stage of development. Basic requirements are really important for a developing economy, while innovation and sophistication factors affect the economies of the developed countries most. For this reason a different weight is added to the three categories according to the stage of development a country is found in (for determining the stage of development the GDP per capita data is used).

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<sup>3</sup> Porter 1990

<sup>4</sup> Drucker 1993

<sup>5</sup> North 1990

<sup>6</sup> Schwab 2009

As the paper will analyse Hungary's position in detail, we will only go as far as noting that according to the experts of the World Economic Forum Hungary is a transition economy between Stage 2 and 3 in development, therefore the weights added to the three categories are:

- Basic requirement: 25%
- Efficiency enhancers: 50%
- Innovation and sophistication factors: 25%

Similar weights are used for most of the Central and Eastern European countries.

### Manipulating the GCI rankings

For now we will accept that the GCI measures properly the competitiveness of a country. The purpose of the paper is not to argue for or against the validity of the index, but to elaborate on some of the GCI's institutional consequences. Table 1. shows where most of the Central and Eastern European countries are ranked according to the latest competitiveness values. The full ranking may be found in The Global Competitiveness Report 2009-2010<sup>6</sup>.

*Table 1. The GCI rank and value of selected countries (2009-10)<sup>7</sup>*

<b>Rank</b>	<b>Country</b>	<b>GCI value</b>
1	Switzerland	5,6
2	United States	5,59
3	Sweden	5,55
17	Austria	5,13
31	Czech Republic	4,67
35	Estonia	4,56
37	Slovenia	4,55
46	Poland	4,33
47	Slovak Republic	4,31
58	Hungary	4,22
64	Romania	4,11
76	Bulgaria	4,02

According to the classical definition, the main goal of economic policy is to achieve the highest possible long term economic growth rate. The paper discusses the possibility and consequences of a hypothetical case, when the improvement of a country's GCI is set as a main/important goal of economic policy. Using Hungary as a test dummy, the paper shows what direct changes may be achieved in the short run, and speculates on further indirect effects of such policy measures.

First of all, it cannot be said that the improvement of any of the 100+ factors measured by the GCI will hurt a country's economy. Quite the contrary, in most cases it is obvious that the improvements can help boosting current or future performance. There might be economist who argue, that certain factors measured by the index are not really important for the economy, therefore the changing of those factor values will not have a significant effect. But overall it is safe to say that the economy will become more efficient if the areas measured by the GCI are targeted by economic policy. In other words, declaring the

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<sup>7</sup> Schwab 2009

improvement of the GCI ranking as a main economic policy goal – strange as it may sound at first – overall contributes to economic growth, so it can be a legitimate policy.

The paper, however, goes beyond these obvious implications, and suggests two more arguments for GCI:

- Imperfect information and FDI;
- Expectations and indirect effects.

#### *Imperfect information and FDI*

According to the basic statements of the theory of bounded rationality and imperfect information, decisions are not based on perfect and complete information, simply because not all relevant data are available, and/or acquiring information is costly and time consuming<sup>8</sup>. The theory of bounded rationality also applies to the decision makers of multinational companies, who decide on which country the firm should invest in. Considerable amount of data is collected in order to make an adequate decision, but these companies have to rely on such highly aggregated data as well as the Global Competitiveness Index.

Accepting the above we can conclude that an improvement in the GCI may also boost foreign direct investments coming to a country. Increased FDI on the other hand contributes to economic growth, and as a result of increased growth, a lot of other competitiveness factors are improved. Thanks to this cascading effect, the overall improvement can be a lot more robust than expected initially.

#### *Expectations and indirect effects*

The GCI has 116 components, and only 29 of these are based on ‘hard data’, i.e. can be measured directly. All the other components are quantified through experts rendering values from 1 to 7 to them. Although the rendering conditions are quite well defined, many anomalies exist. Just to give an example, the fourth component of the first pillar (Institutions) is the ‘Public trust of politicians’. Most of the Central and Eastern European countries score really low in this field (1.7-1.9) which puts them in the back of the field among countries like Zimbabwe, Burundi or Chad. It is undeniable that the CEE countries have serious trust issues, but it is also very difficult to imagine that these problems would get anywhere near to the extent experienced in African countries where serious state failures are commonplace.

As it can be easily seen, many of these components are prone to subjectivity. But as one can be hurt by subjectivity at times, so can one benefit from it. If a country makes determined efforts to improve on one or some of the GCI components (for example steps are taken to rebuild trust in the state and politicians), the experts’ opinion can swing from one extreme to the other: instead of underrating a country’s performance, they can overrate it. Overrating can result in a dynamic improvement in the GCI score, that can also lead to cascading effects mentioned above.

It is not uncommon to see drastic changes in expectations, and such a shift in expectations about a country’s institutions or economic performance can make it rocket up the ranking. Or, it can make it falling down like a stone. Hungary was a good example to the latter, Slovakia to the former with their global competitiveness performances during the first decade of the 21<sup>st</sup> century.

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<sup>8</sup> Williamson 1981

## Increasing the GCI

We shall now take an even closer look at the GCI, and try to demonstrate the possible latitude the economic policy might have when trying to change it. As the index has 116 components, it would seem that the economic policy has a really wide variety of choices, but it is obvious that the steps taken by the government have some limitations. We shall now list the most important of these.

1. Zone of influence. In modern mixed economies the state ultimately can have an influence on anything, but the level of control can be and is very different. Some factors may be changed very easily, while in case of other factors the influence of the state is only indirect and very limited. Factors like expenditure rates on education (component of the 4<sup>th</sup> pillar), government surplus (3<sup>rd</sup> pillar), the transparency of government policy making (1<sup>st</sup> pillar) or tax rates (6<sup>th</sup> pillar) are under direct control of the government. Other ones, like inflation (3<sup>rd</sup> pillar) or legal rights protection (8<sup>th</sup> pillar) can still be strongly influenced by the government, but with much less efficacy. Finally, there are factors, which can hardly be influenced by the state (at least not in the short term): available seat kilometres (2<sup>nd</sup> pillar), soundness of banks (8<sup>th</sup> pillar), female participation in labour force (7<sup>th</sup> pillar) etc.
2. Cost of influence. With adequate determination most factors can be changed, but the price does matter. Tax rates can be lowered, but only at a huge price. Lowering firing costs (7<sup>th</sup> pillar) on the other hand, puts a relatively small burden on the central budget.
3. Cross-effects. Some changes not only imply huge costs, but they can be such complicated goals in themselves, which affect numerous areas of the economy and society. The quality of educational system (5<sup>th</sup> pillar), for example, can of course be changed, but only with huge investments, and more importantly, a consensus should be reached first on the direction of changes. There are confronting views about what really makes an educational system good, and sometimes these views cannot even be harmonised. Such debates can often paralyse the decision makers. On the other hand there is no debate about the favouritism in decisions of government officials (1<sup>st</sup> pillar), because everyone agrees that it should be avoided on minimised.
4. Timeframe. It always takes time for the economic policy decisions to have measurable effects on the economy. The time needed for a decision to materialise is very different from factor to factor. While HIV prevalence (4<sup>th</sup> pillar) may only be changed in decades, firing costs can be modified immediately.

When the possibility of a relatively quick GCI score change is considered, such components need to be targeted that 1) are in the direct zone of influence of the government; 2) changes do not have a high price; 3) there are no huge debates about the preferred direction and content of changes; and 4) changes can be carried out relatively quickly. There is also one additional aspect: 5) the chosen components should be the ones in which the country shows a relatively poor performance, because no significant improvement can be achieved in those areas where the country scores well already.

There are almost no components that fulfil all five requirements, so we had to make some compromises. Table 2. shows those 16 components that were selected as possible targets of economic policy. Besides the considerations mentioned above, another advantage of them is that they are subjective factors, so the opinion and expectations of experts (which can be influenced) play a greater role.

Table 2. Some components of the GCI<sup>9</sup>

Component	Current score	Best CEE score
Diversion of public funds	3	4,4 (EST)
Public trust of politicians	1,9	3,2 (EST)
Favouritism in decisions of government officials	2,4	3,6 (EST)
Wastefulness of government spending	2,1	3,4 (EST)
Burden of government regulation	2,1	5,2 (EST)
Efficiency of legal framework in settling disputes	3,1	4,2 (EST)
Efficiency of legal framework in challenging regs	2,9	4,0 (EST)
Transparency of government policy making	3,5	5,2 (CZ)
Efficacy of corporate boards	4,5	5,2 (LIT)
Quality of educational system	3,4	4,8 (CZ)
Extent of staff training	3,6	4,7 (CZ)
Extent of market dominance	3,7	5,1 (SK)
Extent and effect of taxation	1,9	4,8 (EST)
Agricultural policy cost	3,5	4,5 (EST)
State of cluster development	2,9	4,1 (CZ)
Government procurement of advanced tech products	2,9	4,2 (CZ)

Table 2. shows Hungary's current (Global Competitiveness Report 2009-10) score, and the best score that an ex-socialist country in the region possesses. The basic assumption is that cultural and other institutional factors would make it impossible for a country to jump to the top from the back of the field, but given the fact that the Central and Eastern European countries share a lot in their history and traditions, it is not impossible by far to reach the score already reached by one of the countries in the region.

If we recalculate the GCI of Hungary using the best CEE score for the selected 16 components, the original value of 4.22 increases to 4.36. It doesn't seem much, but actually it would mean that Hungary jumps from place nr. 58 to 44 in the ranking consisting 130 countries. Had we added the cascading effect as well, we would most certainly have got an improvement of at least 20 places.

## Conclusion

The paper shows that the Global Competitiveness Index of a country can be drastically changed. It also makes some suggestions as to which of the 116 components should be targeted in case of Hungary. The calculations are highly speculative though. When making the suggestions, it was not considered whether a certain change or reform can be done in practice. Instead another approach was taken: we only analysed the technical side of things, to learn what can be done mathematically.

Despite the speculative approach we can state that drastic improvements in a country's GCI ranking are relatively easily achievable. Even if only 16 out of the 116 components are targeted, and are improved to the best regional level, the GCI of Hungary could be risen to 4,36 from its original value of 4,22, thanks to which Hungary could leapfrog 14 countries in the rankings. When such subjective factors are improved, usually we see an increase in the score of all the other components as well, that can lead to a cascading effect, and can catapult the country even higher, and considerably higher up the rankings.

<sup>9</sup> Schwab 2009

After the GCI of a country is improved, we can also expect an increase in the country's ability to attract foreign direct investments. Increased FDI on the other hand, is yet again a factor that contributes to a better competitiveness score.

Finally, it is also worth mentioning the fact that setting the bettering of the GCI of a country as a main economic policy goal is not solely a l'art pour l'art deed. As an increase in most of the GCI's elements leads to better living conditions or a more healthy economy, everyone benefits from an improvement in the GCI.

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