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5+1 CHARTS ON HUNGARY'S CONVERGENCE WITH THE UNITED KINGDOM

The Magyar Nemzeti Bank's 5+1 series presents Hungary's recent convergence with developed countries and groups of countries. In this article of the series, we discuss Hungary's convergence with the economy of the UK. Between 2010 and 2017, Hungary's level of economic and social development considerably approximated that of the UK. Pro-growth reforms on the Hungarian tax regime and a steady reduction of the tax wedge have made meaningful contributions to an outstanding rate of employment growth, the achievement of a low unemployment rate, and economic growth on a broad base. As a result of measures for the formalization of the economy, the size of the Hungarian VAT gap came close to the UK reading, supporting fiscal stability alongside dynamic growth. Between 2012 and 2016, Hungary achieved the 8th greatest improvement on its ranking in the Inclusive Growth and Development Index by seven positions, compared to the UK's fall by one position.

Hungary's level of economic development meaningfully approximated that of the UK between 2010 and 2017, as reflected in both macroeconomic and structural indicators. The United Kingdom is the second largest economy in Europe, and a member of the G7, which comprises the most developed economies in the world. This one of the reasons why Hungary's convergence in recent years with the UK's developed economy should be seen as a major achievement. That convergence is the result of comprehensive reforms launched in 2010 to encourage financial stability, employment growth and the formalization of the economy, which also brought about a healthier economic structure. The 5+1 charts below illustrate the process of Hungary's convergence with the United Kingdom.

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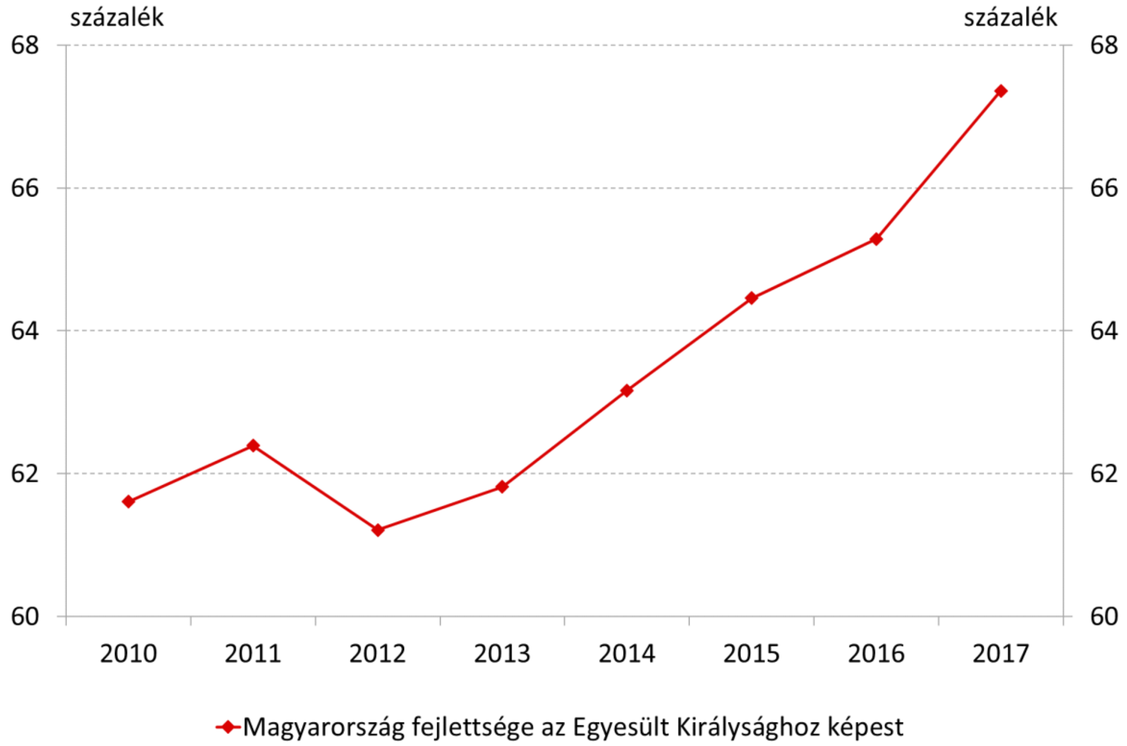
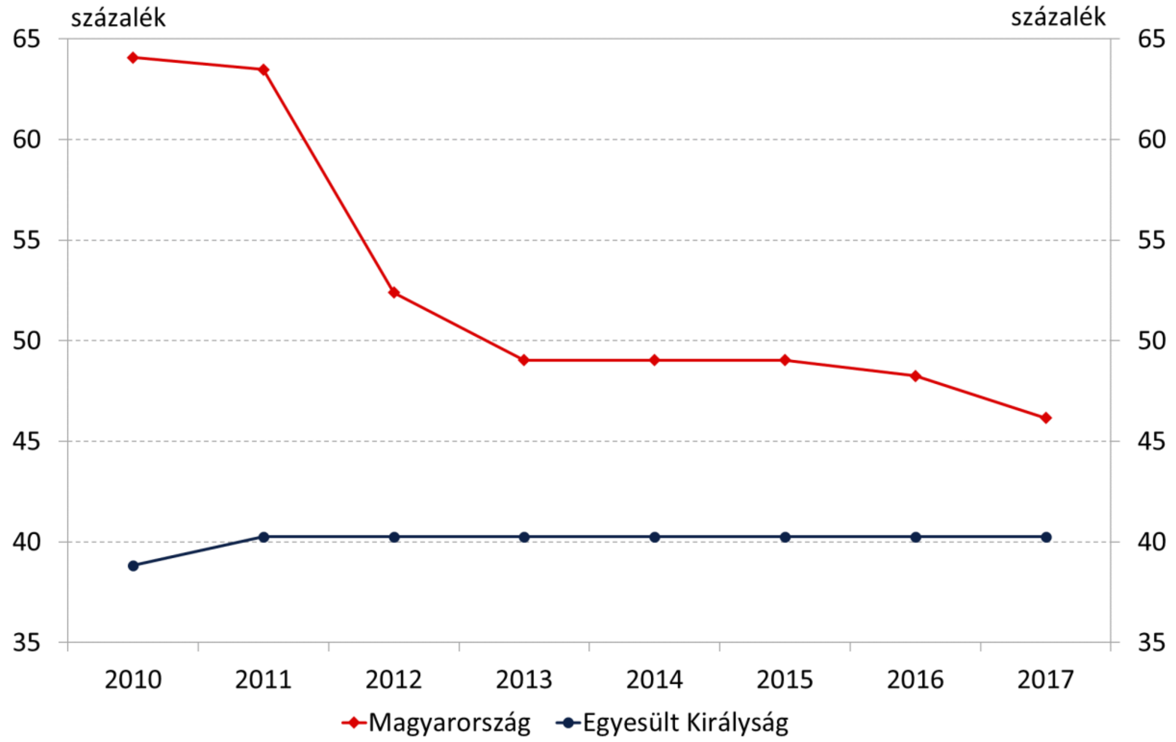
Chart 1: Hungary's level of development compared to the UK – based on GDP (PPP) per capita, constant prices



Source: WDI

Hungary's convergence with the UK has been steady over the past years, driven to a meaningful extent by Hungary's measures for crisis management and economic stimulus. Following Hungary's growth turnaround in 2013, convergence is observed to have been continuous, as a result of which Hungarian GDP per capita grew by just under 20% compared to 2010, exceeding 67% of the UK's level. This was primarily the outcome of employment growth resulting from pro-labour tax reforms and structural changes in social transfers. Households' disposable income was considerably increased by government measures to ease the labour tax burden (introduction of a regime of flat and proportionate income tax, implementation of the Job Protection Action Plan, introduction of the family tax base allowance), while their vulnerability was reduced through the phase-out of foreign currency loans. In turn, the income generation capacity of the corporate sector was increased by cuts in the corporate tax rate and the introduction of simplified preferential forms of taxation for small businesses (small taxpayers' itemised lump sum tax, small business tax), with additional support from the historic low level of the central bank base rate and the MNB's Funding for Growth Scheme.

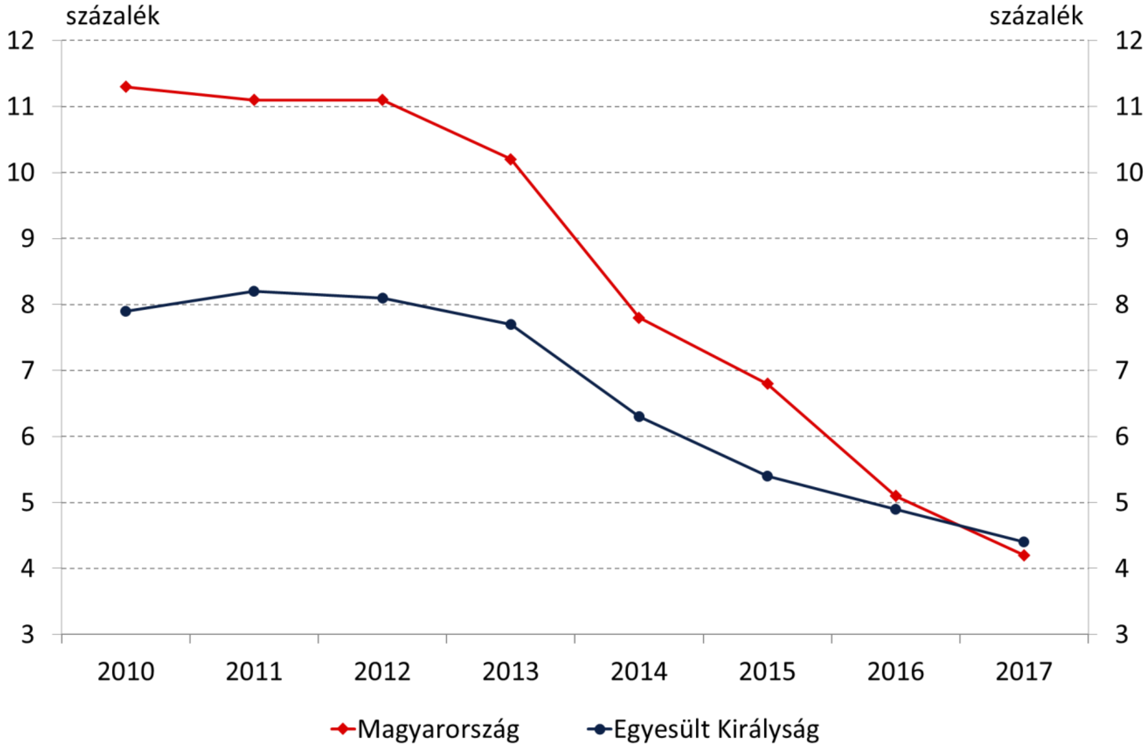
Chart 2: Marginal tax wedge for single workers at 100% of average earnings



Source: OECD

Cuts in labour tax rates reduced Hungary's labour tax burden to approximate the UK's level. The marginal tax wedge captures the size of the tax burden on a unit of additional income earned. In 2010, prior to reforms on the income tax regime, the marginal tax wedge was around 65% for individuals with average earnings, which was highly discouraging for additional labour, and also a drag on employment and investments in human capital. The flat income tax rate and the newly introduced targeted tax breaks, which are mostly conditional on labour market status and parenting, contributed to a major reduction in the labour tax burden, and to significant employment growth. The Job Protection Action Plan was designed specifically to increase the employment of the most disadvantaged groups in the labour market. The family tax base allowance was incorporated by the government into the tax regime to improve the livelihood of families, and to increase fertility. The measures adopted in Hungary reduced the country's income tax burden by approximately 20 percentage points between 2010 and 2017, which consequently came close to the level of the UK in 2017. As in other countries of the Anglosphere, the UK has a low tax burden (accompanied by a low level of fiscal redistribution) compared to the average of developed countries.

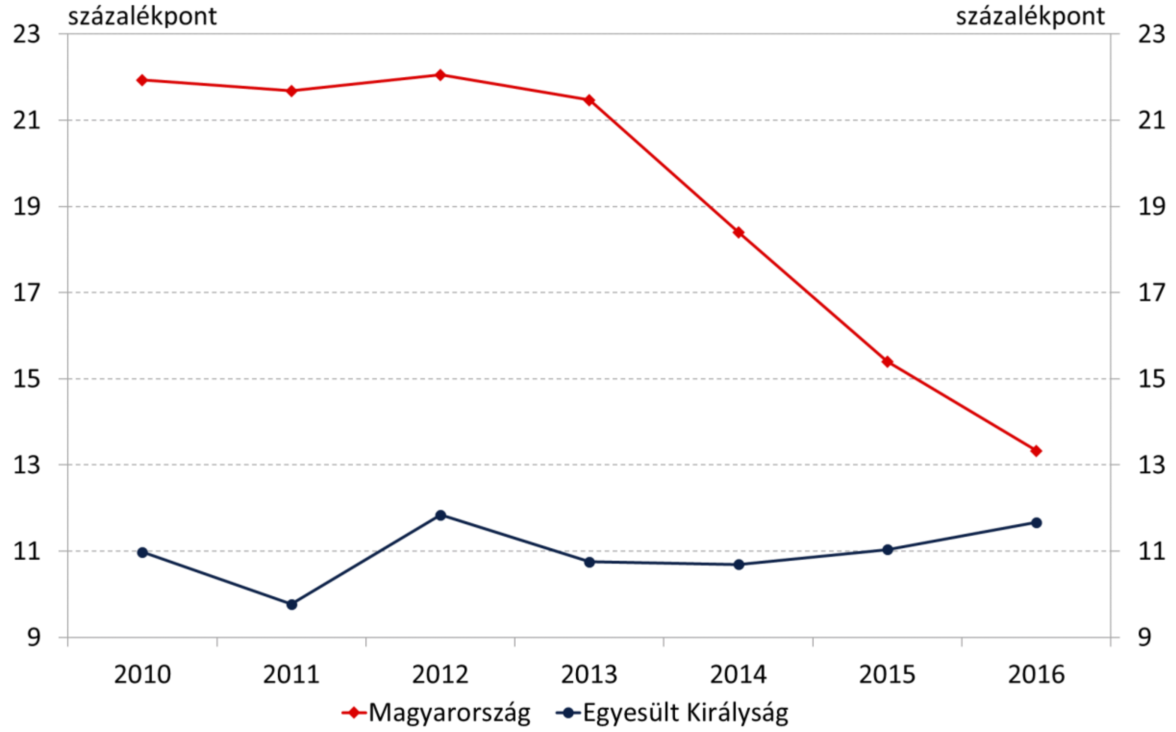
Chart 3: Changes in the unemployment rate (15-64 years)



Source: Eurostat

As a result of the steady and significant decline seen in recent years, the Hungarian unemployment rate fell below the UK rate by 2017. In the aftermath of the crisis, Hungary's unemployment rate peaked at 11.3% in 2010, then, as a result of the tax and labour market measures adopted in response to the crisis, achieved the fifth largest fall in the European Union between 2010 and 2017. The Hungarian rate dropped by 7.1 percentage points against a 3.5 percentage point moderation in the UK's indicator from 2010 onwards due to a slight increase following the crisis. By 2017, the Hungarian unemployment rate (4.2%) dropped below the UK indicator (4.4%), and in 2018 reached 3.6%, which is essentially equivalent to full employment. In Hungary, the fall in the unemployment rate was accompanied by a meaningful increase (of 13.3 percentage points) in the employment rate, showing the highest rate of acceleration in the European Union after 2010, which was one of the pillars of economic growth in recent years.

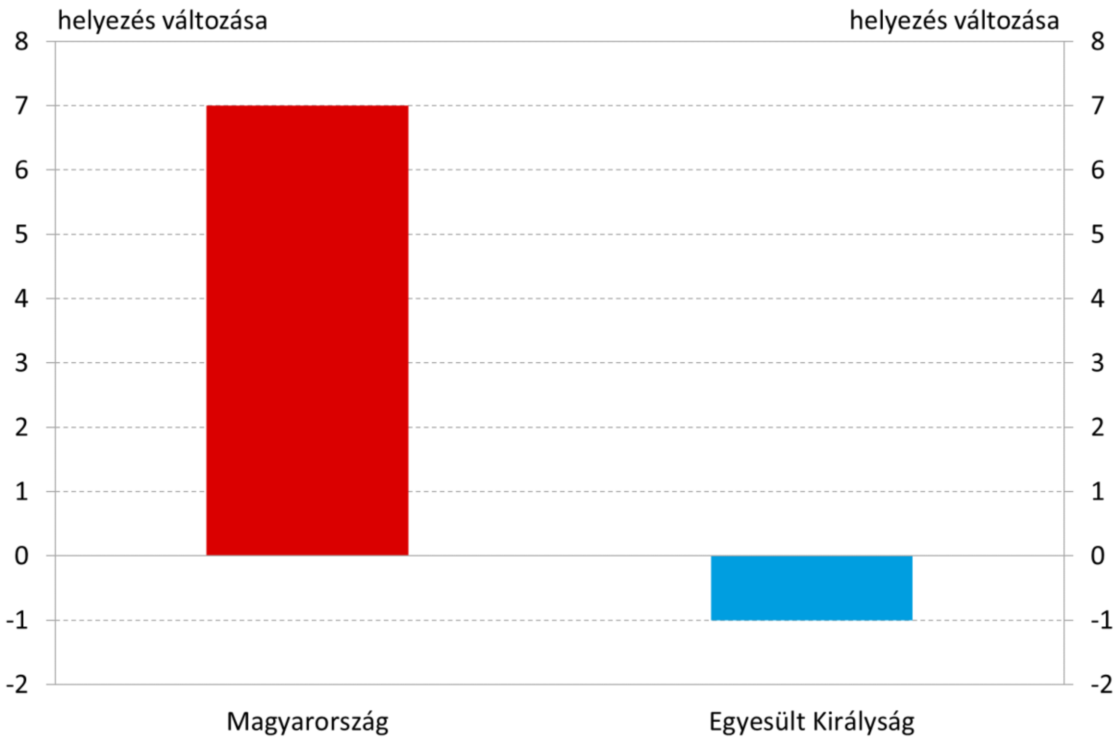
Chart 4: VAT gap



Source: European Commission

The major fall in the Hungarian VAT gap is largely attributable to measures for the formalization of the economy, which provide for fiscal stability. One of the prominent indicators used for estimates on the size of the hidden economy is the VAT gap, which captures the difference between the VAT actually collected and the theoretically collectable VAT revenue. Among EU Member States between 2010 and 2016, Hungary achieved the fifth largest reduction in its VAT gap by close to 9 percentage points. Over the same period, the UK's ratio of unpaid VAT increased by approximately 1 percentage point. In Hungary, the increase in VAT revenues was facilitated by the decisions adopted after 2012 to support the formalization of the economy. As part of one measure of great significance, online cash registers were linked up with the tax authority, which now covers the entire retail sector. It was for similar purposes that the Electronic Trade and Transport Control System was launched, whereby the government, in addition to monitoring the flow of goods, seeks to prevent infringements of risk to human health and strengthen the position of compliant economic operators. The most recent measure for the formalization of the economy has been the introduction of the online reporting of electronic billing data. As a result of these measures, Hungary's ratio of unpaid VAT decreased to approximate the 12% reading of the UK. Further reductions in the size of the hidden economy would provide for more budgetary leeway, which could in turn be utilized for the improvement of competitiveness, for productive investments, or for the reduction of public deficit and debt.

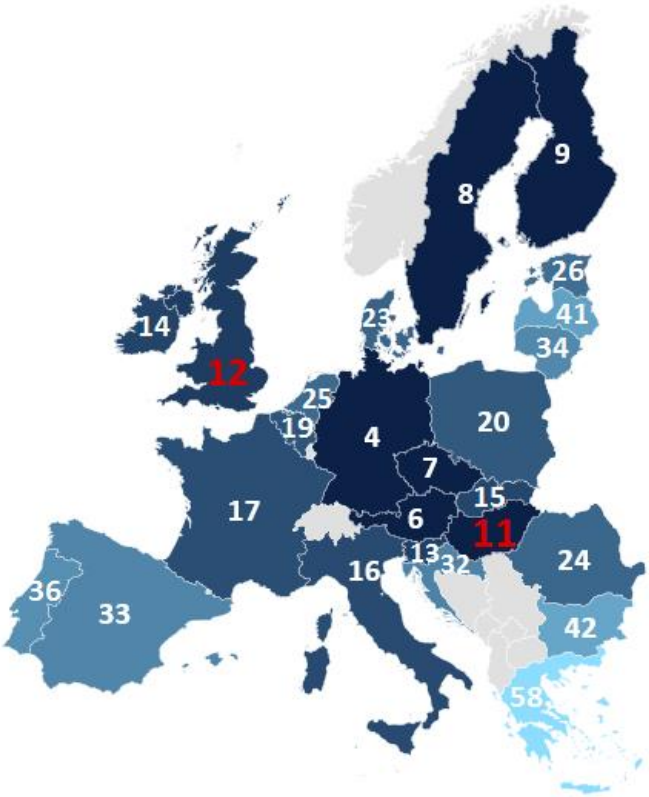
Chart 5: Changes in the rankings of Hungary and the UK in the WEF Inclusive Growth and Development Index (2012–2016)



Source: World Economy Forum

In terms of the World Economy Forum (WEF) Inclusive Growth and Development Index, between 2012 and 2016 Hungary has shown greater improvement compared to the UK. Also incorporating economic and social dimensions, the Inclusive Growth and Development Index (WEF-IDI) offers a more comprehensive view of the welfare of national economies, because in addition to economic growth, it also takes into account the extent to which the society at large benefits from the results of growth. In the overall ranking of 103 developed and emerging countries, Hungary ranked 23rd (the UK 21st), and achieved the 8th greatest improvement on its ranking between 2012 and 2016. By contrast, the UK's ranking fell by one position. In terms of the three pillars considered, Hungary performs best in the field of social equality in the IDI.

Chart 6: Economic Complexity Rankings (from 127 countries)



Source: Harvard University

In terms of the Economic Complexity Index, Hungary ranks higher than the UK. The Economic Complexity Index (Harvard University) measures the complexity and knowledge intensity of the economy of the individual countries.[1] The indicator is calculated based on the diversity of exported goods and of their inputs, as well as on the uniqueness of the exported goods in order to capture each country's knowledge capital. In 2016, in terms of economic complexity Hungary ranked 11th and the UK 12th out of 127 countries. In the ranking, Hungary also precedes, in addition to the UK, several developed western countries, e.g. France, Belgium and the Netherlands. Based on the data used, researchers argue that economic complexity allows estimates to be made for the long-term growth potential of individual national economies. In the case of the developing and emerging countries, this indicator may also show the probability of the individual countries' escaping the middle income trap. For specific countries, such forecasts are also quantified. In the case of Hungary, the research team of Harvard University projects an average annual potential growth of 4.1% until 2026, while in the case of the UK only 3.7%. A key role in the development of the methodological background to the indicator was played by Hungarian physicist László Barabási-Albert, an internationally acclaimed researcher in the field of network theory.

[1] Hausmann, R. – Hidalgo, C. (2011): The Atlas of Economic Complexity. Mapping paths to prosperity. https://growthlab.cid.harvard.edu/files/growthlab/files/harvardmit_atlasofeconomiccomplexity.pdf. Current and previous years' scores and rankings in the Harvard University Economic Complexity Index are available at http://atlas.cid.harvard.edu/rankings.