

# THE CAUSES OF SLOW GROWTH IN HUNGARY

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## 1. Introduction

In his 1966 Inaugural Lecture at Cambridge titled *On the Causes of the Slow Rate of Economic Growth in the UK*, the Hungarian-born British economist Nicholas Kaldor presented a series of “laws” to account for the growth rate differences between Britain and 12 more successful economies, such as the US, Germany and France. He called his method Circular Cumulative Causation, a multi-causal approach where the interdependencies between the explanatory factors were strong and the variables were interlinked in the determination of the outcome. In Kaldor’s interpretation, the UK’s main problem at that time was the slow growth of productivity, caused by slow growth in the manufacturing sector. Why did that matter? He found that industrial productivity was positively related to the growth of industry – i.e. the law of increasing returns to scale was strongly manifested. The objective, methodology and central analytical concepts of this paper are similar. We will examine the causes of slow growth in the Hungarian economy. As will be seen, the increasing returns to scale, which Kaldor took from Young’s (1928) seminal study, also occupy a central position in this paper.

## 2. The Facts

### 2.1 The Red Queen paradox

For average Hungarians, the regime change of 1989/1990 did not produce the expected result: the country was unable to catch up with the Western market economies, even after two decades. While fundamental changes did occur on a broad front, our economic rivals also advanced as fast as Hungary. This is the so-called Red Queen Paradox, an often-used metaphor in everyday life, such as in economics, arms races, and evolutionary biology.

The Red Queen is a fictional character in Lewis Carroll's fantasy novella *Through the Looking-Glass*, the sequel to *Alice's Adventures in Wonderland*. Speaking with Alice, the central heroine of both works, the Red Queen describes her empire as a system in which “it takes all the running you can do to keep in the same place.” In narrow, economic terms this is a perfect depiction of *capitalist rivalry*: if your competitors are moving ahead, you must move faster to not lose ground. In broader evolutionary terms (Van Valen 1973), the message is, “For an evolutionary system, continuing development is needed just to maintain its fitness relative to the systems it is co-evolving with.”

### 2.1.1 Competition worldwide

While the Red Queen Paradox is not well known in Hungarian economic parlance,<sup>1</sup> its primary message did become frequently used in policy discussions: Hungary must grow twice as fast as the EU countries to catch up with them.

Is it possible to catch up with the forerunners and leave them behind? The first intuitive answer is yes. Hungary has a mid-sized developed economy with a per capita GDP level 25% higher than the world average. Between certain selected years – such as 1997–2006 – the Hungarian economy did grow faster than the EU-15,<sup>2</sup> and there were four calendar years (2002–2005) when the Hungarian growth rate was at least twice as high as the EU-15 average. Furthermore, if we disaggregate growth by regions, the numbers show that the Central Hungarian Region's per capita GDP surpassed the EU-27 average in 2004. Why should there be any doubt that the performance of the most developed Hungarian region can be emulated by the country as a whole in the next 2 to 3 decades?<sup>3</sup>

Yet there are good reasons to be wary of all this optimism. First, as shown elsewhere (Mihályi 2011a, b, c), during the last 140 years, Hungary had been unable to sustain above-average growth rates except for very short cyclical upswings. Kornai (1972) described this feature as the alteration of rush and harmonic growth periods. As illustrated in Figure 11-1, the exceptionally high and low growth rates should be interpreted in a comparative perspective, as the Red Queen Paradox

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<sup>1</sup> L. Carroll's name is known thanks to his first book, which was translated into Hungarian in the 1930s.

<sup>2</sup> EU-15, as defined in EU statistics: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxemburg, the Netherlands, Portugal, Spain, Sweden and the UK.

<sup>3</sup> Continued EU assistance can be also taken into account.

suggests. During this long time span, when Hungary was sometimes capable of producing a high average rate – such as the 3.8% in 1950–1973 – the EU-12 countries<sup>4</sup> displayed even higher growth rates. Between 1990 and 2008, Hungary outperformed the EU-12, but its 2.2% growth was not particularly outstanding relative to the world average. In examining the entire period, there were several countries that produced 2 to 3 times higher than average growth rates for a sustained period of time (e.g., Venezuela in 1870–1949; Japan, Taiwan, Hong Kong in 1950–1989; Vietnam, Ireland, and Lebanon in 1990–2008). Hungary was never such a star-performer.

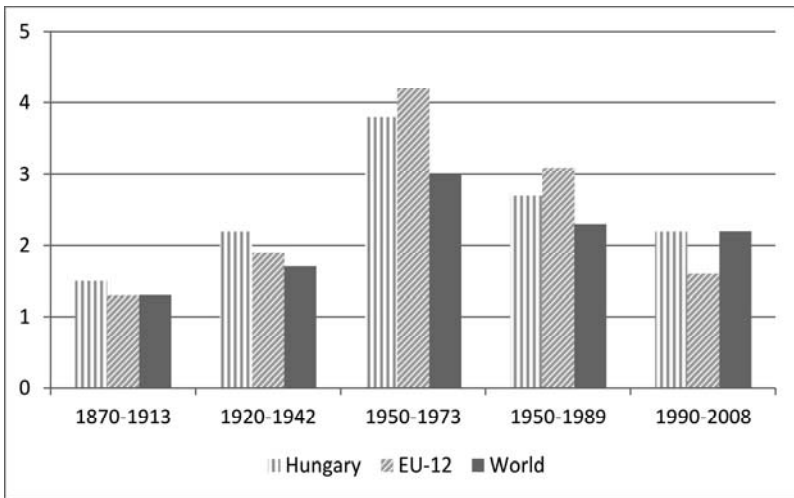


Fig. 11-1 Long term growth rates of GDP/head in Hungary, in EU-12 and the world, 1870–2008 (Annual average changes in percentage)

Source: Mihályi (2011a) based on Maddison (2010)

Second, the example of the former German Democratic Republic is also compelling. In spite of the billions of Euros channelled from West Germany towards the Eastern Länder, the level gap hardly shrank after unification. Using a sophisticated econometric forecasting technique, Aumann and Scheufele (2010) concluded that it may require another 50 years for the Eastern provinces of Germany to eliminate the gap with their

<sup>4</sup> EU-12, as defined in Maddison (2010): Austria, Belgium, Denmark, Finland, France, Germany, Italy, the Netherlands, Norway, Sweden, Switzerland and the UK.

Western peers. Third, there are important examples even among developed countries, where the distances actually grew between competitors. Using the US as a benchmark (= 100), Switzerland once achieved 93% and then fell back to 81%, Italy slid from 70% to 64%. The case of Japan is even more striking. Once widely admired, Japan climbed to 82% by 1996, but then by 2008 fell to 73% of the US income level. The list of failed catching-up stories is even longer if 5 to 6 Latin American countries and 8 to 10 African countries are included, where growth was not simply slower than in the US but actually negative.<sup>5</sup>

### **2.1.2 Competition among the transition economies**

Once Hungary joined the European Union in 2004, a new type of rivalry started; a competition between the former socialist countries in catching up with the core countries of the EU-15. Hungary was first compared with Slovakia, the Czech Republic and Poland – the so-called Visegrád countries – but later the three Baltic countries were included in the standard analysis. During the first post-communist decade, Hungary always fared favourably in this comparison. However, in the next 10 years, this advantage was lost. As Figure 11-2 illustrates, Hungary hardly made any advancement between 1989 and 2010 relative to her new peers. Relative to the EU-15 average, Hungary advanced merely 1 percentage point in 20 years, from 54% to 55%. In the same period, Poland advanced from 38% of the EU-15 average to 55% (a total of 17 percentage points).

While the raw data and the visual presentation suggest that Hungary's performance in this kind of Red Queen Race was just about "normal," this is not the public perception. In regard to comparison, people usually disregard the weaker competitors and envy the stronger ones. There are not many Hungarians who are impressed by a scholar or politician saying that Russia or Ukraine displayed an even worse performance than "we did". Instead, they point to Poland and Slovakia, which were able to significantly reduce the gap separating them from the more advanced EU countries. For the average Hungarian, the case of Slovakia is even more relevant because this country was not only better in relative terms but also surpassed Hungary in absolute terms by 2007.

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<sup>5</sup> All figures cited in this paragraph were calculated from Maddison (2010).

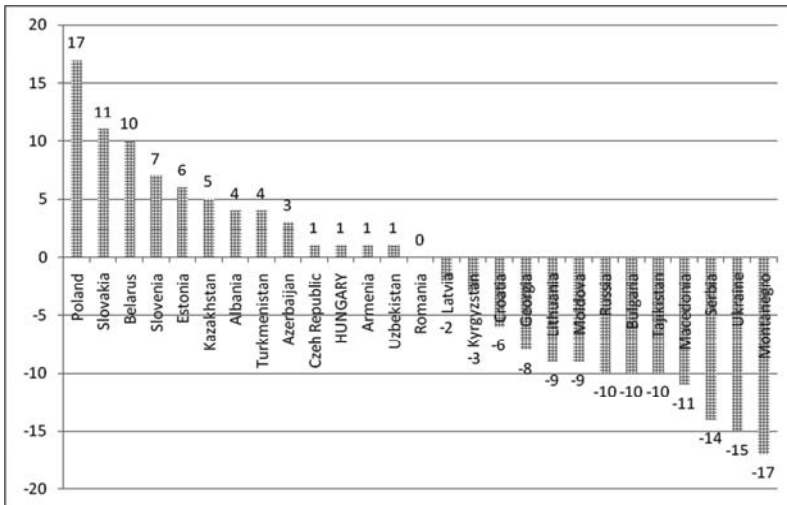


Fig. 11-2 Economic convergence of selected transition economies towards the average of EU-15 between 1989–2010  
 (Percentage points, GDP/head at purchasing power parity, EU-15 = 100)  
 Source: Author's calculations based on Darvas (2011) raw data and methodology

## 2.2 Natural endowments and economic policies matter

Since the previously mentioned Kaldor study (1966), analytical frameworks and tools have been significantly enriched. When countries at comparable levels of development are assessed today, the “laws” that might explain their differences are formulated at least in three separate dimensions: (i) natural endowments; (ii) economic policies; (iii) balance-of-payments; and (iv) supply-side analysis. In the next few paragraphs, “laws” (i) – (iii) will be briefly discussed to leave space for the fourth explanatory dimension, the mechanisms determining the supply-side of the economy, and within this, the changes in productivity.

### 2.2.1 Unfavourable geography

The success of the Japanese economy during the 1960s was used to belittle the importance of natural endowments in many parts of the world, including Hungary. “Japan has no raw materials, yet she is producing miraculous growth rates” was the resounding verdict at that time. However, after the first oil shock in 1973 and the rapid enrichment of

some OPEC countries this alleged “law” went slowly out of fashion. Beyond the oil-rich Arab countries, the examples of Norway, the UK and – more recently – post-communist Russia have convinced everyone that the availability of raw materials is a major economic asset that can greatly contribute to the growth of a country. Similarly, the same holds true for monopoly positions (such as sea ports, maritime transit routes, summer beaches, and winter ski resorts). In this context, it is worth mentioning how in his latest book Jeffrey Sachs (2011) challenges the conventional view regarding European vs. USA comparisons. According to Sachs, America’s long-standing advantage in per capita GDP has been due to its geography rather than its economic system. America has vastly more land and natural resources per person than does Western Europe. This has been the source of its enduring advantage, rather than the allegedly better incentive mechanism, the lower taxes, the better institutions or the restrained activity of the state (Sachs 2011, 225–226).<sup>6</sup> Without any further illustration and/or explanation, we submit that the weak economic performance of Hungary is *partly* due to her unfavourable resource endowments.

### 2.2.2 Inept economic policies do harm

The importance of appropriate fiscal and monetary policies in determining the growth trajectory of a given country has also become commonplace since the 1960s. This understanding has been forcefully supported by the recent worldwide calamities of the post-Lehman period. Partly due to her size and poor resource endowment, Hungary has been traditionally a very open economy. Currently, the combined value of her exports and imports is equal to 140% of annual GDP. In this context, it is important to refer back to those years – already mentioned above – when the Hungarian GDP growth figures were two times higher than in the EU. This is precisely when the country’s balance-of-payments displayed a deficit of 7–8% in four consecutive years. Moreover, during the last 10 years, the central government, the local governments, the business sector and even the household sector pursued the same strategy of reaching for low-hanging fruit. Everybody was borrowing and – apart from the central bank – nobody was willing and/or capable to accumulate significant foreign (reserve) assets. As a result, Hungary has the worst position among the EU-27 countries concerning net international positions (Figure 11-3). The country’s total net debt was equal to 113% of its annual GDP, a figure

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<sup>6</sup> This is not a new idea in Sachs’ academic oeuvre. See also Gallup and Sachs and Mellinger (1998).

far more worrisome than those of Romania or Poland (64%) or the Czech Republic (49%). Thus, considering the entire 1990–2010 period, the contribution of these regulatory policies was not positive – to say the least.<sup>7</sup>

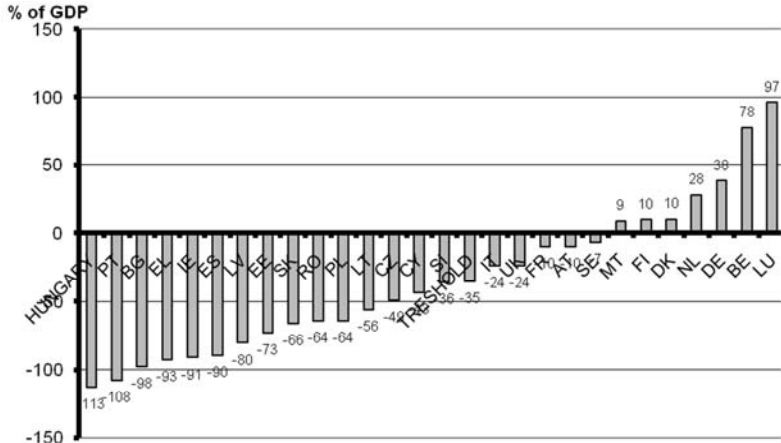


Fig. 11-3 Net international positions of the EU-27 in 2010

Source: European Commission (2012a, 4)

With the benefit of hindsight, we can apprehensively state that in terms of GDP growth the ballooning indebtedness of Hungary brought very disappointing results. As we will discuss, the borrowed money was primarily used to sustain consumption rather than to finance productive capital investments. With this strategy, the country reached a fiscal wall. Neither the markets nor the international financial institutions are likely to be willing to finance additional (net) borrowing. A long and painful period of deleveraging lies in wait for Hungary.

<sup>7</sup> From the recent Hungarian assessments available in English language, see e.g. Antal (2004), Szapáry (2006), Györfy (2009), Csillag and Mihályi (2006), Török (2010) and EEAG (2012).

### 2.3 A simple decomposition

Let us start our analysis with a trivial identity:

$$\frac{GDP}{Head} = \frac{GDP}{Total\ population} = \frac{GDP}{Workers} \times \frac{Workers}{Population\ in\ working\ age} \times \frac{Population\ in\ working\ age}{Total\ population} \quad (1)$$

Where

$$\frac{GDP}{Workers} = \text{productivity}$$

$$\frac{Workers}{Population\ in\ working\ age} = \text{employment rate}$$

$$\frac{Population\ in\ working\ age}{Total\ population} = \text{dependency ratio,}$$

and then take the first derivatives of the three components in Equation (1):

$$\begin{aligned} \Delta \frac{GDP}{Head} &= \Delta \frac{GDP}{Total\ population} = \\ &\Delta \frac{GDP}{Workers} \times \Delta \frac{Workers}{Population\ in\ working\ age} \times \\ &\Delta \frac{Population\ in\ working\ age}{Total\ population} \end{aligned} \quad (2)$$

From the evidence presented in the previous sections, we can state without any additional investigation that Hungary suffers from two (not necessarily related) problems expressed in equations (1) and (2) – the low level of economic development and its slow annual increase.

Analysing the three components in reverse, the assessment of the dependency ratio (as defined here for our purposes) is relatively straightforward. In 1980, 10 years before the regime change, the share of the working (15–64) age in the total population was 64.6%. This number rose to 66.2% by 1990 and 68.7% by 2011. This is a change in the right direction; the growth problem of Hungary did not originate from here! During the last 10 to 15 years, participants in Hungarian policy discussions have heavily focused on the *employment rate*, the second component of Equation (1). Even those economists who fundamentally



disagree on each and every detail of fiscal and monetary policies tend to accept without further analysis that this is the largest problem in Hungary. Indeed, the EU-wide international comparisons unequivocally show that Hungary “excels” with its lowest figure. According to the Eurostat methodology, the Hungarian rate was 55.4% in 2010, exactly 10 percentage points lower than the EU-15 average (66.4%) and the absolute lowest figure among the EU member states.<sup>8</sup>

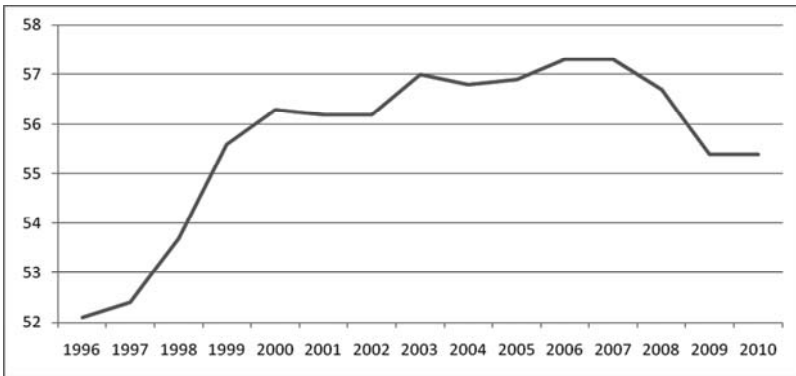


Fig. 11-4 Changes in the Hungarian employment rate, 1996–2010 (In percentage of the 15–64 age group)

Source: Eurostat

However, what matters for the volume of production (GDP) is not the absolute number of workers but the amount of work these people perform in terms of working hours. The employment rate is low in Hungary because part-time employment is unpopular.<sup>9</sup> For those who do work in Hungary, they do so for 1,961 hours a year on average, which is well above the OECD average of 1,749 hours. Perhaps it is surprising that Greece is the only country that has a higher figure. As Figure 11-5 on the next page shows, the Dutch, the Germans and the Norwegians are all below 1,500 hours. If Hungary’s GDP is low, the problem must be hidden elsewhere.

<sup>8</sup> Malta used to be ranked lower than Hungary, but lately their figure rose from 55.0% in 2009 to 56.1% in 2010. Among the OECD countries, however, Italy and Turkey have slightly worse numbers than Hungary (OECD 2012, 25).

<sup>9</sup> In 2010, the share of part-time workers was 5.5% in Hungary and 21.4% in the EU-15.

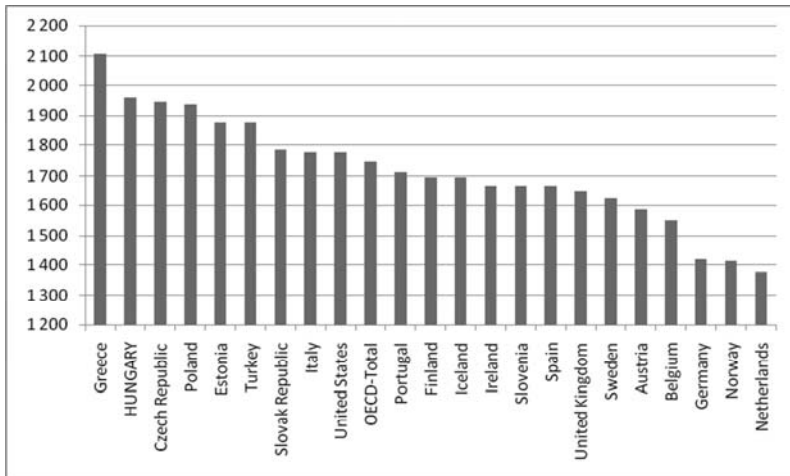


Fig. 11-5 Average annual working time in selected OECD countries, 2010 (Hours per worker)  
Source: OECD (2011)

As the numbers in Table 11-1 show, the variation of annual working hours around the calculated base for comparison (Hungary = 100) is in a rather narrow range (87–127%) and the absolute numbers in col. [1] are not correlated with the broadly varying GDP/head figures. Take, for example, Norway, Austria and Poland. The number of working hours per head of the total population is almost exactly the same in the three countries, while the GDP/head figure in Austria is twice as high as in Poland, and the Norwegian figure is three times higher than the Polish one. Thus, we can now safely state as a conclusion that the low level and the weak dynamics of *labour productivity* are responsible for the Hungary's poor overall economic results.

**Table 11-1 The relationship between total working time and economic development in 2008–2009**

Country	Annual working hours per population		GDP/Head
	Hours	Percentage	1990. international dollars (PPP)
	[1]	[2]	[3]
Czech Republic	946	127	12 868
Portugal	900	121	14 436
Slovakia	837	113	13 033
Romania	832	112	4 895
Norway	816	110	28 500
Austria	816	110	24 131
Poland	816	110	10 160
Greece	811	109	16 362
...	...		
HUNGARY	744	100	9 500
France	707	95	22 223
Belgium	702	94	23 655
Italy	692	93	19 909
Turkey	650	87	8 066

Source: [1] and [2] own calculations from Eurostat (2009), [3] Maddison (2010)  
Notes: Annual working hours are calculated in [1] for the entire population, including everyone. Data reflect the amount of work performed in the first quarter of 2009. Thus, the data show the state of the labour market before the international financial crisis. GDP/head data in [3] refer to the year 2008.

### 3. The problem is labour productivity

#### 3.1 Education is not the answer

Many policy makers and good-willed political commentators honestly believe that more *higher education* is the No. 1 recipe for growth. The opposite is true.

In search for explanations and solutions to combat relative economic backwardness, most observers tend to overlook the positive legacy of socialist central planning. From the vantage point of the present paper, it is important to note that higher education was a top priority of the fallen system. As a result, 20 years after the fall of communism the population of the former socialist countries still has significantly more years of

schooling than capitalist countries of similar development levels. Russia is a perfect illustration. According to OECD (2009), 54% of the 25–64 age cohorts in Russia possess a higher education degree, in stark contrast with Japan and the US (40%) or the Swiss (30%). Because socialist planning systems looked at higher education as having merit, it was provided free of charge. From the perspective of Hungary, the comparison with neighbouring Austria is noteworthy. The share of adults with a university degree is about 18% in both countries, while the difference in per capita GDP levels is more than 2:1.

**Table 11-2 The number of independent tertiary education institutions, 1970–2008**

Year	Number of institutions
1970	74
1980	57
1989	57
1990	77
2000/2001	62
2004/2005	69
2005/2006	71
2007/2008	71
2010/2011	69

Source: Central Statistical Office. Statistical yearbooks, various years

In this regard, the situation has only worsened since 1990. In the 2010/2011 academic year, 1 out of 3 university students was enrolled in some kind of part-time, distance learning program rather than a regular, full-time program. In 1990/1991, this proportion was only 1:4 (Figure 11-6).<sup>10</sup> This tendency has led to a numerical overproduction of university graduates, which is a further fragmentation of the higher educational system and – as Polónyi and Timár (2001) warned long ago – to deteriorating quality throughout the entire network.<sup>11</sup> Anecdotal examples suggest an

<sup>10</sup> It is noteworthy that there are only few degrees that can be earned in full-time university programs only, such as medicine and architecture.

<sup>11</sup> It is more appropriate to state that Hungary, similar to many other former socialist countries, is suffering from a “quasi-development” problem (Jánosy

additional problem: part-time university students are usually not very effective workers because they must divide their attentions and energies between two places – the workplace and the university.

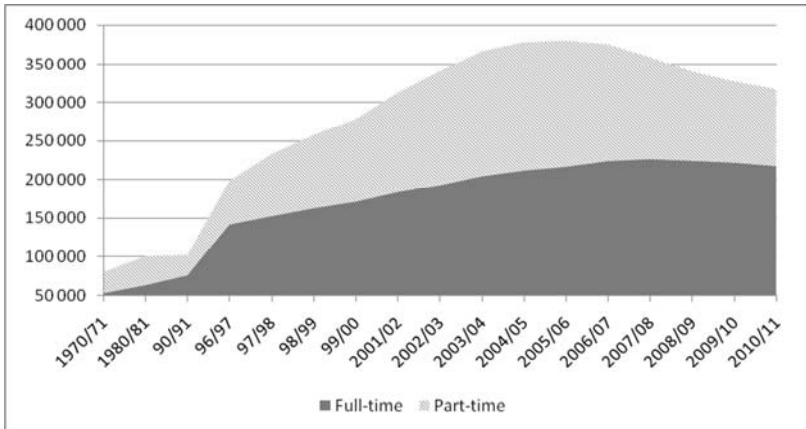


Fig. 11-6 The composition of students in higher education, 1970–2011 (Number of students)

Source: Central Statistical Office. Statistical Yearbook (1991, 254), Fazekas and Kézdi (2011, 203)

Since the regime change, many Hungarian workers possessing only 8 years of schooling are unable to find jobs because the jobs they would traditionally fill are now filled by others possessing a degree from middle-schools (8 + 4 years). On the basis of this finding, many experts are convinced that the government must channel additional resources to expand the network of secondary schools. The argument is that without a good middle-school education the upcoming generation of young people will not meet the diverse skill requirements of the labour market. This paper is not the proper place to go into the details of this debate. However, perhaps it is enough to state that while in Hungary only one-third of this social stratum are employed, in other EU countries, such as Portugal, Greece and Denmark, two-thirds of the workers with 8 years of schooling find a job.

We have a precise and detailed picture regarding the knowledge levels and the competencies of the future generation Hungarian workers, i.e.,

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1969). A lot of education has been obtained, but a poor economy has resulted because of the poor quality of teaching.

those who have just completed the 8-year long mandatory *elementary schools*. The results of the 2009 PISA-test Program<sup>12</sup> show that the competencies of average Hungarian 15-year-old students in reading, mathematics and natural sciences are comparable with the OECD country averages. In most comparisons, the Hungarian students are on par with their peers studying in Sweden, Denmark and France. In 2009, the Hungarian students were even ahead of Americans in science and mathematics.

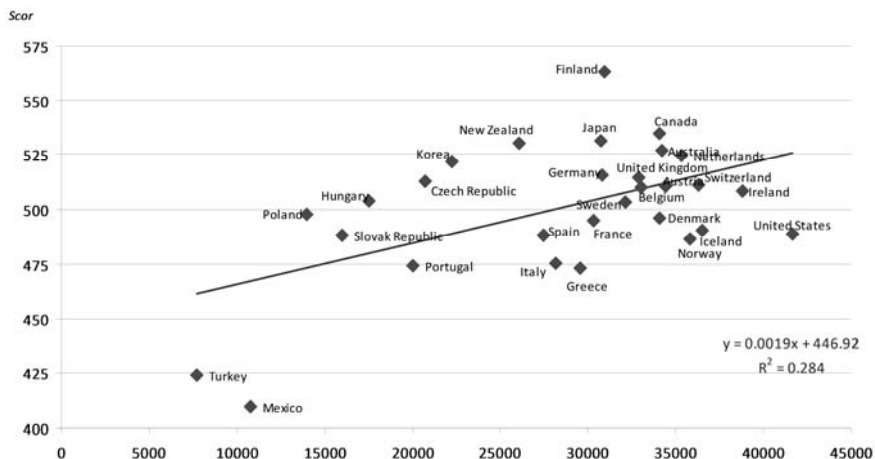


Fig. 11-7 PISA-test results and the OECD countries' economic development levels (Results from science for 15-year-old students in 2006 and per capita GDP levels at purchasing parity rates)

Source: OECD PISA 2006 database, Table F2.12a

As the regression calculation in Figure 11-7 shows, there is a logic according to which some countries are significantly above the regression line (Hungary, Czech Republic and Poland), while others are below it (Italy, Greece and Norway). The former group of countries are all transitional economies with a long tradition of socialist central planning. The second group proves that in striving for economic growth and development, countries with favourable natural endowments can compensate for the lower quality of their labour force.

<sup>12</sup> The Program for International Student Assessment (PISA) is a worldwide evaluation in 65 countries of 15-year-old school pupils' scholastic performance, performed first in 2000 and repeated by the organizer (OECD) every three years.

### 3.2 In- and outward migration – an underutilised potential

In many countries, outward migration is an important source of economic growth. In such cases, the economic rationale is that the migrating labourers can generate more added value in a more advanced economy than at home, and their home country benefits from this higher income through the repatriation of the higher earnings (remittances). It is a well-known example that, at the turn of the 19th and 20th centuries, such migration greatly contributed to the overall development of Hungary. This was also the policy that was successfully applied by Italy during the late 1950s and by Yugoslavia in the 1960s. After joining the EU in 2004, the legal conditions of outward migration have changed favourably, but Hungarians did not move in significant numbers unlike other post-communist countries. In 2009, Romanian and Polish workers sent home €2.9 billion and €2.7 billion, respectively, while in Hungary the net balance of remittances was *minus* €50 million.

Another way of enhancing a country's growth potential is the import of labour. After World War II, Germany, Spain, the UK and Ireland used slightly different policies, but they all benefitted from the use of under-qualified inexpensive workers from Southern Europe. Such a strategy is currently being pursued by Russia and to a smaller extent by the Ukraine, exploiting the labour reservoir of the ex-Soviet republics (Tajikistan, Kyrgyzstan, etc.). The United States is also a net importer, but her strategy is – not fully, but to a large extent – based on brain drain. Highly qualified intellectuals are imported from Europe, the Middle East, China and India.

While some experts have already started to make forecasts about Hungary's future immigration needs,<sup>13</sup> the present situation is unfavourable both in the labour market and social-cultural dimensions. To become an attractive country for immigration, unskilled foreign workers should calculate *net savings* of €500–1,000 per month. However, Hungary's tax and benefit policies (that compress wage distribution) are a major hurdle. Depending on the exchange rate, the average net wage is €460, and the official gross minimal wage is €320. In Hungary today, for a single worker without children earning the average wage, take home pay is only half of what it costs to employ him. From such a low net income, there is no way to save enough to provide for the family back home. Qualified foreign workers, in theory, could aspire to higher amounts of savings, but the barriers of the Hungarian language are almost insurmountable for them. In addition, the Hungarian public is notoriously intolerant vis-à-vis foreigners

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<sup>13</sup> Polónyi and Timár (2001) calculated that the Hungarian labour market would need 20,000 immigrants per year for the next 40 years.

and towards ethnically different people in particular. Therefore, it is highly unlikely that any political party would dare to start a political discussion on the benefits of immigration in the near future.

While the politicians' caution and fear from public sentiments are understandable, discarding the possibility of both types of migration (inward and outward) is a luxury that Hungary can hardly allow for itself in the future.

### **3.3 Our answer: Far too many micro-firms**

As previously stated, the main problem in Hungary is the low average level of productivity. The next step is to analyse its variation. There are two dimensions where these variations are obtrusive. First, productivity differs drastically according to the size of firms. Second, but chiefly as a consequence of the first finding, there are huge territorial differences within the country.

#### **3.3.1 The missing increasing returns to scale**

During the last 20 years, many studies proved that there were large and growing productivity differences in Hungary between the large firms and small- and medium-sized companies (SMEs). As a static fact, this is not a specific Hungarian puzzle; the same was found in international comparisons (Lewis 2004, McKinsey Global Institute 2010, EC Enterprise and Industry 2010). However, it is important to note that, prior to 1990, large (state-owned) enterprises played a dominant role in the Hungarian economy and the regime change brought a reversal in this regard. Partly, this was unavoidable. Moreover, similar to nearly all industrialised nations, Hungary has also witnessed a shift in labour from the secondary sector, where firms were generally larger, to the tertiary sector (services), where they are smaller.<sup>14</sup>

There are other factors. According to a Hungarian saying, policy makers fell from the other side of the horse, i.e., the country moved from

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<sup>14</sup> In Kaldor's time, the share of the secondary sector (manufacturing + construction) was 31% in UK's total employment, but it started to fall rapidly. By 2010, it was somewhere around 15% only. In Hungary, after the rapid restructuring of the entire economy, the contraction of the secondary sector did not start until 2002, and it was very slow even after that. In relative terms within total employment, the share was 29.6% in that year and the 2010 figure was only slightly lower (27.1%). In other words, it still matters what is happening in these two traditional sectors of the Hungarian economy.



one extreme position to the opposite. In 1989, there were approximately 2,500 enterprises with more than 250 employees; the latest figure for 2009 was 870. The number of sole proprietors in 1988 was 300,000; today the number is 1.4 million (2010). In other words, there is a continuing fragmentation of the nation's entrepreneurial capital stock. In 2008, the annual value added of a Hungarian micro-enterprise was HUF 4.5 million per employee, while the same figure was HUF 8.2 million in large firms. The trend is negative. In 1998, the difference was only 150%; it was 182% in 2008 (Pitti 2010a). If we look at the 2009 data of the top 200 non-financial Hungarian firms, the average per capita output in this elite group was HUF 67 million, while the corresponding figure was HUF 21 million, which is a three-fold difference, in the rest of the economy. It is alarming that since 2000 the absolute number of middle-size and large companies has been falling. The same holds for the changes in the structure of employment. This is the opposite of European trends. While elsewhere the process of concentration prevails, in Hungary the fragmentation of resources are to be observed almost everywhere.<sup>15</sup> (The Hungarian categorisation of micro, small, medium-size and large firms is fully in line with the methodology of Eurostat. For detailed comparative data in all four enterprise categories used in the EU, see Appendix).

The size problems also have a very important sectorial dimension. The productivity gap is not so worrisome in *industry* because many firms today are run as subsidiaries of western multinational companies. Foreign-owned manufacturing companies still operate, and anecdotal evidence suggests that the productivity of the Hungarian employees in these subsidiaries is the same or even higher than in countries such as Germany and Austria where the mother companies have their own plants. However, the situation in the *construction industry* is alarming. Currently, there are 100,000 domestic companies operating (at least on paper) within the sector; in 1990, that number was slightly more than 5,000. Among the construction firms today, there are only 250 that are large enough to be qualified as a shareholding company – all of the other enterprises are limited liability companies owned by a single proprietor, a family or a very small number of connected entrepreneurs. The situation is even worse in *agriculture*, where 40% of the country's agricultural land is cultivated by people who call themselves “farmers,” although only 3% of them have a specialised degree from a tertiary educational institution. This is a politically vocal

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<sup>15</sup> At the very top of the company pyramid – firms with more than 5,000 employees – there is a positive change, but not sufficiently strong. In 2004, the number of such privately owned firms was 11, while 14 such firms were registered in 2009.

and therefore important social group of 5–600,000 agrarians.<sup>16</sup> Because these “farmers” are under-qualified, they continue to produce what they have seen from their fathers – grain. There are approximately 180,000 farmer households currently registered as grain producers. In a country of the size of Hungary, 180 large farms would most likely be too many. Under such conditions, it is fully understandable why the total output of the Hungarian agricultural sector has been in free fall since 1990. In 2010, the level was the same as in the early 1970s, despite gigantic government and EU subsidies. The productivity gap is also substantial in certain parts of the *service sector*, where 63% of the jobs are to be found. In some areas, the multinationals have a strong and exclusive presence (e.g., banking, telecommunication), but in other areas (e.g., catering, retail trade) small Hungarian firms and public institutions dominate the job market. The problem in retail trade or catering is striking for any client with open eyes. In small Hungarian-owned shops and restaurants, one can often see assistants and waiters doing nothing because the premises are simply empty. By contrast, has anyone ever seen a McDonald’s or a Tesco hypermarket in which employees were not busy all the time? And these observations are not just anecdotal. According to the Central Statistical Office (KSH 2010), the number of retail trade outlets in 2009 was 2.5 times more than in 1989, while the total turnover at constant prices grew by only 5%! The same source shows the same tendency in catering. In 2009, there were almost twice as many functioning restaurants and cafes than in 1989, although the turnover in terms of volume actually fell by 15%. The same holds for public sector employees, which is very high by international comparison.<sup>17</sup> Two-thirds of these employees are working in very fragmented Hungarian local government institutions (e.g., general administration, education, health).

The issues discussed above also have important territorial (regional) dimensions. Since 1996, the Hungarian Statistical Office has been regularly publishing a GDP/head time series for the country’s seven administrative *regions*. Figure 11-8 shows the disparity in these inter-

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<sup>16</sup> Land ownership is even more fragmented than land cultivation. The number of registered farm land owners is 3.3 mn. According to the 2010 National Farm Survey, 60% of them are subsistence farmers, i.e. they do not even intend to market their own produce. From the total amount of labour used in Hungarian agriculture, only 25% is wage labour, 75% is provided by the land-owner and his family members.

<sup>17</sup> According to the 2008 OECD data, 20% of the Hungarian labour force is in the public sector, surpassed only by France and four Scandinavian countries. OECD (2012, 46).

regional differences. Without going into a detailed demographic analysis, we note that the employment ratios and the dependency ratios do not display large variations among the regions. The variation is caused by the variation in labour productivity.

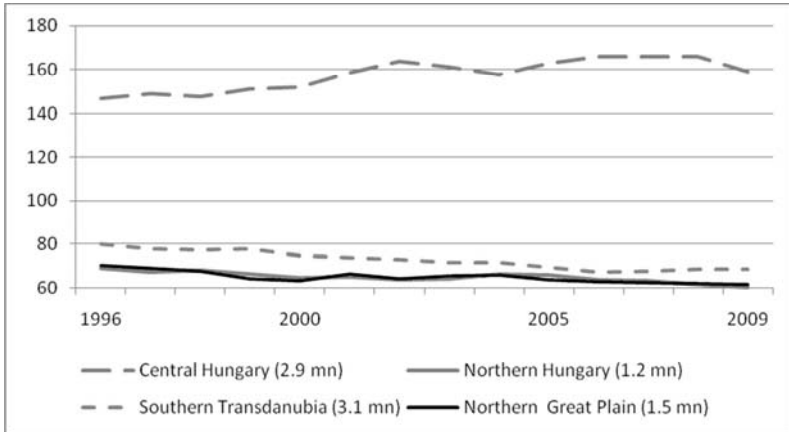


Fig. 11-8 Regional GDP/head differences

Source: Fazekas and Kézdi (2011, 312)

(In percentage. National average = 100)

Note: For the sake of visibility only four of the seven regions are shown. The numbers in brackets show the population size.

The advantage of Central Hungary, which includes the capital city of Budapest, is one of historical heritage. However, ethnically speaking, Hungary is a homogenous country; the differences cannot come from such differences among the seven regions. We strongly believe that the labour productivity gap is caused by the law of increasing returns to scale. Apart from Budapest, there is no other city in Hungary that is large enough to be successful in Europe-wide competition. Almost all big firms are located in Budapest or in Central Hungary. In other towns, everything is too small, narrow and disconnected: the labour market, the local demand, the logistic network, and the spectrum of amusements offered.<sup>18</sup> For a long time, it

<sup>18</sup> The country is too small to make a domestic airline network viable. Only Budapest has an international airport deserving its name. In 1990, the nation's capital had more than 2 million inhabitants; it has only 1.7 million today. The other larger towns have been also shrinking in size. The second and the third largest cities are Debrecen and Szeged with populations of 208,000 and 170,000, respectively. Compared with the US, according to a recent McKinsey (2012) report

was a widely shared opinion that the construction of motorways from Budapest towards the seven most important border-crossing points would equalise the investment climate throughout the country. The motorways are now up and running, but the hopes did not materialise. Most of the time, many new highways are almost empty.

### **3.3.2 The consequences**

The low level and the slow growth of productivity in the SMEs – and in micro-firms in particular – have at least three devastating dynamic corollaries at the macroeconomic level. Each of them is important, but only the third point will be discussed in this paper:

- (1) SMEs cannot play a serious role in vocational training;
- (2) SMEs cannot be properly taxed; therefore, the authorities have to rely on other taxable sources;
- (3) SMEs have weak incentives to invest and to grow.

If production capacities are under-utilised (as in retail trade) and yields are low (as in agriculture), then unit cost – and therefore prices – are bound to be excessive, which then inhibits the growth of demand. If there is no demand, the firm or the farm cannot grow. As Gábor (1994) noticed early on, the Hungarian SMEs have been suffocating in this vertiginous vicious circle for two decades. There are very few successful SMEs capable of growth to reach the size and maturity of a publicly traded firm. Between 2000 and 2009, there were only 22 initial public offerings (IPOs) on the Budapest Stock Exchange, while Prague can take pride in 95 such transactions.

In societal terms, the size distribution of firms has a strong influence on the distribution of the fruits of economic growth. Because SMEs are operating with narrow profit margins, they will not generate sufficient investable funding. This is the explanation for the downward sloping investment curve in Figure 11-9. At this point, we again invoke the concept of circular causation. If the level of investment is low for a prolonged period of time, the capital stock will be outdated and this will negatively impact labour productivity. This relationship holds strictly not only at the firm level but also at the macro level if externalities are taken into account.

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using data for 2010, 84% of the American GDP was generated in the largest 259 US cities, with a population of 150,000 or more.

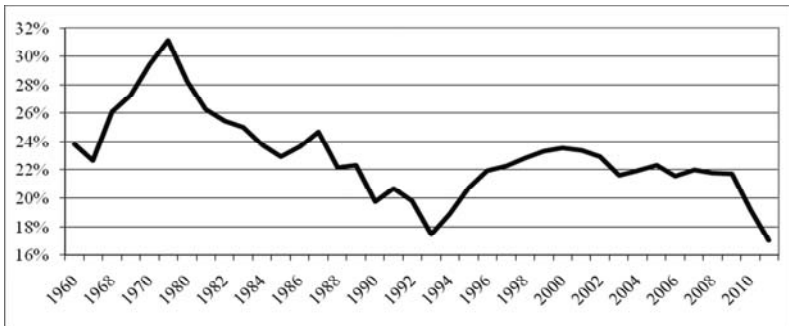


Fig. 11-9 The share of gross accumulation within GDP, 1960–2011

Source: Central Statistical Office

In a European EU-27 comparison, the Hungarian SMEs have the weakest record in innovation. In the latest 2011 edition of the Innovation Union Scoreboard, four statistical measures are used to assess the SME sector's contribution to innovation (Table 11-3). Of these four, Hungary occupies the very last position in two, and its scores and rankings are disappointingly weak in the other two categories as well.<sup>19</sup>

<sup>19</sup> Those who know the Hungarian economy may object to the above presented causation by saying that there are many *large* publicly owned companies and institutions, particularly in such capital intensive industries such as transport, healthcare and education; thus, a lot of investments and R&D must be financed by these public actors. Unfortunately, this objection does not hold. These companies and institutions – precisely because they are publicly owned – have been forced by the government to operate with low profit margins to keep their prices and/or fees low.

**Table 11-3 The relative position of Hungarian SMEs as enablers of innovation, around 2010**

Share of ... (in percentage of the total number of SMEs)	EU-27 average	Best performing country	Hungary's absolute figure and ranking among EU-27
...SME's innovating in-house	30.31	46.03 (Germany)	12.60 (27th)
...innovative SME's collaborating with others	11.16	22.23 (Belgium, Denmark, Estonia and UK)	7.15 (19th)
... SME's introducing product or process innovation	34.18	53.61 (Germany)	16.82 (27th)
...SME's introducing marketing or organisational innovations	39.09	53.02 (Luxembourg)	20.52 (24th)

Source: European Commission (2012b, 62–63) (Annex A)

### 3.3.3 How did we get here?

If the consequences are so serious, it is imperative to understand how micro-firms became so weighty in the Hungarian economy so soon after the regime change and why they could preserve their positions up to present times. The problem is also known to other countries. As shown in the Appendix, Portugal and Greece also have many small firms, and this finding may explain their anaemic growth and low productivity to a great extent. Furthermore, the Portuguese story is similar to the Hungarian case to the extent that after the fall of the Salazar dictatorship, consecutive governments had pursued a deliberate policy of demonopolisation. However, the similarities most likely end there. It has been shown convincingly by Braguinsky et al. (2011) that in Portugal the survival of inefficient small firms is chiefly explained by the strong protection for regular workers in their labour code and other legislation, which was instituted as a reaction to the anti-democratic constraints of the overthrown dictatorship.

The labour code does cause problems in Hungary too; however, in our view, it is not the main explanation of the distorted company structure. In Greece, rigid product market rules seem to be the culprit. As a recent

McKinsey & Company (2012) report shows, Greek licensing and operating processes are extremely cumbersome. In a direct, regression-based comparison the Hungarian data look better (McKinsey 2012, 20). While these international comparisons are always informative, we must look for explanations elsewhere to understand the Hungarian case. In our view, there are at least four other causal mechanisms that mutually reinforce each other and thus fatally undermine productivity growth at the macro level.

During the first period of the socialist planned economy, the state merged all the previously existing privately owned SMEs into newly created state-owned enterprises. Subsequently, the administrative prices guaranteed that profits were all taxed away from the society and then redistributed as investments for the benefit of state-owned enterprises. Under such circumstances, the service sector shrank, causing a deterioration of the quality of life for consumers. As SMEs disappeared, many consumer goods and services became either inaccessible or accessible in only a few places. As is well known, there were long queues in shops, and diners could not find a free table in restaurants. After 1973, the situation improved somewhat in this regard, particularly in Hungary as compared with other socialist countries. However, only the regime change in 1989 opened the gates in front of the owners of SMEs. The huge pent-up demand quickly created its own supply.<sup>20</sup> The mushrooming SMEs made a significant contribution to consumers' welfare, although this was not – and for methodological reasons could not be – measured as a part of output. This kind of statistical distortion holds even today, when wage or consumption figures from the pre-1990 figures are compared with current data.

After the initial boom, the continued hypertrophy of micro- and small firms was largely due to the new legal environment. As land ownership had been constrained since 1994 and lax tax and credit rules and subsidised investment moneys were continuously pumped into the system, the micro-ventures looked competitive from the consumers' perspective. The explanation is that half to two-thirds of the activities of micro- and small enterprises are in the grey and black economy, and this allows them to offer bargain prices. Hence, the large firms operating in the “white” economy cannot translate their higher productivity levels into lower prices and thus compete with the small firms. In addition, the small firms use fixed capital sparingly, which is logical from their perspective. This is even more logical if the aging of the owners is also taken into account. As

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<sup>20</sup> By 1994, the first year when such figures were released in comparable form with later data, the number of registered business units was already above 1.0 million.

tax returns show, the small firms write off more fixed capital than they actually replace. These mechanisms, as already mentioned, do not cause much obstruction in the manufacturing sector, but they are strongly present in agriculture, retail trade, the construction industry and in the areas of health and culture. Because the manufacturing sector is relatively small today (15–17% of GDP), its high and growing productivity cannot sufficiently improve the economy-wide average.

The third reason that explains the survival of so many SMEs is that the customary market-clearing mechanism (the big fish eat the small fish) does not work effectively. Due to the lax accounting rules, the owners of small firms are able to hide their families' personal consumption costs as costs of their enterprises.<sup>21</sup> This is possible because in small firms the bookkeeping and the access to a firm's bank accounts are typically controlled by the owner-manager, which is inconceivable in middle-size firms with more than 50 employees. In this way, the true proceeds of the small firms can be 50 to 100% more than the reported profits. The flip side of this situation is that the more competitive, larger firms cannot buy these smaller firms because the owner of the small firm would like to receive 5–10 times his *true* annual proceeds, while the potential buyer (a larger company) can offer only 5–10 times the *reported* annual profits. Moreover, these widely used cost-hiding practices prevent *horizontal cooperation* among farmers, shopkeepers and even professional service providers, such as physicians, nurses, translators and artists. Because everybody has something to hide from the eyes of the taxman, they are all afraid to show their contracts, invoices and bills to each other. Without openness and transparency in their administration, they cannot fully cooperate with each other in their actual daily work.<sup>22</sup>

Finally, the honest but erroneous conviction of Hungarian policy makers needs to be mentioned in which their continued support of SMEs is necessary to create new jobs. As in many other countries, there is a widespread and repeated claim, both in the business community and in government, that most new jobs are created by small businesses. In static terms, this is true for Hungary as well. However, “young” firms should not be confused with “small” firms. As everyday Hungarian experience suggests – and rigorous econometric investigation for the US proves

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<sup>21</sup> A few typical examples: the office is operating in the apartment or the family house of the owner, the family car is legally owned by the firm, the phone costs of the entire family are assumed by the family company, eating-out costs of the family are billed as client-related expenses, etc.

<sup>22</sup> For a general discussion on the importance of cooperation, see also Györfly (2009) and Szalavetz (2010).



(Haltiwanger et al. 2010) – most new jobs are created by young firms that happened to be small at the beginning and not by those small firms that remained small even 5–10 years after their establishment.

#### 4. Summary and conclusions

This paper argues that Hungary has no other growth reserves than a more efficient allocation of the existing human and capital stock. Overall labour resource utilisation is comparable to our peers because the low participation rates are fully compensated by the higher average hours worked. Inward and outward migrations are promising but untapped channels. As for capital, the country today lacks large enterprises, which can maximise workers' output through economies of scale and scope. Thus, there is a need for ownership concentration of fixed capital and natural resources (e.g., agricultural land and forests). Such a strategy would require a fast consolidation of micro- and small enterprises into transparently functioning middle-size and large firms. Paraphrasing the famous Marxist slogan, the new slogan should be, "*Small entrepreneurs of Hungary, unite!*"

Once this is achieved by means of legal and administrative changes, Hungary will be once again an attractive investment opportunity to foreign investors. If the Hungarian labour force in the service sector, agriculture and elsewhere can generate extra profits for the owners of capital, the necessary financial means will be amply supplied by international capital markets. In practice, this will mean green field investments and privatisation of existing assets as well.

In other words, low productivity in certain – but not in all – parts of the Hungarian economy is the primary structural barrier to overall economic growth. The labour participation issue is merely a symptom and – to a considerable extent – the result of government induced administrative distortions. The country's low employment rate cannot be addressed before a massive productivity and profitability boost. This boost can no longer come from debt- and consumption-driven output growth, but rather from private sector investments in machinery and infrastructure. No doubt, a shift from consumption to investments, from wages to profits is politically difficult. Thus, there is a price to be paid for the acceleration of economic growth, just as there is a price to pay for the failure of catching up with the EU-15. The society has to change its mind-set. The majority of Hungarians today do not understand that production per se, good intentions, and diligence do not represent true values. If they as consumers do not buy something that is being produced (e.g., expensive Hungarian

agricultural products) or do not buy tickets to half-empty passenger trains in the countryside or do not enrol into the small countryside universities – then the continuation of such production or service provisions is simply a waste. Eventually, the price we pay is that the country as a whole will remain unable to catch up with our envied neighbours, such as Austria or even Slovakia. Both the public and the political elite of Hungary should understand and accept that there is no societal objective for which it is worth sacrificing the growth of labour productivity. At present, we are very far from this.

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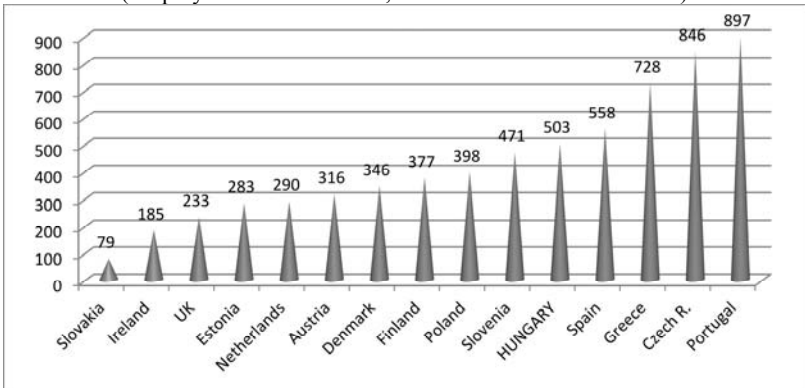
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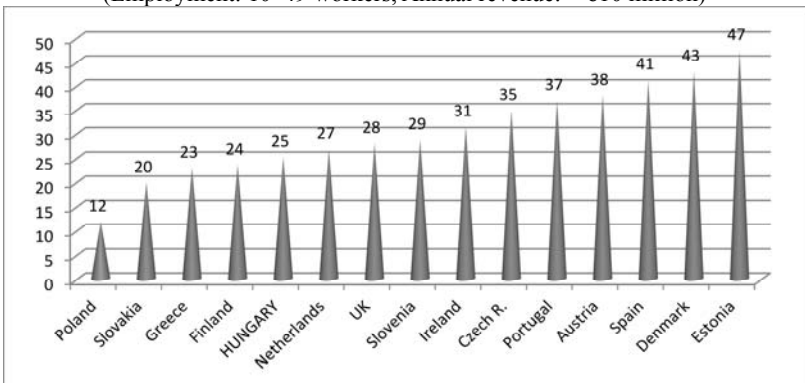
## Appendix

The number of micro, small, medium and large firms in selected EU member countries in 2009 (Per 10.000 of population)

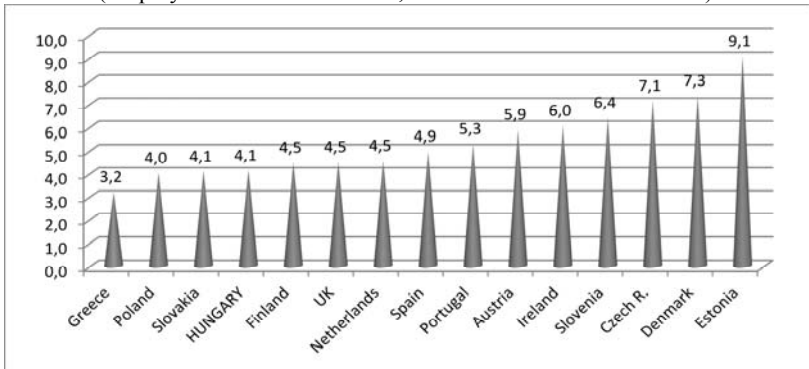
Micro firms  
(Employment: 1–9 workers, Annual revenue: > €2 million)



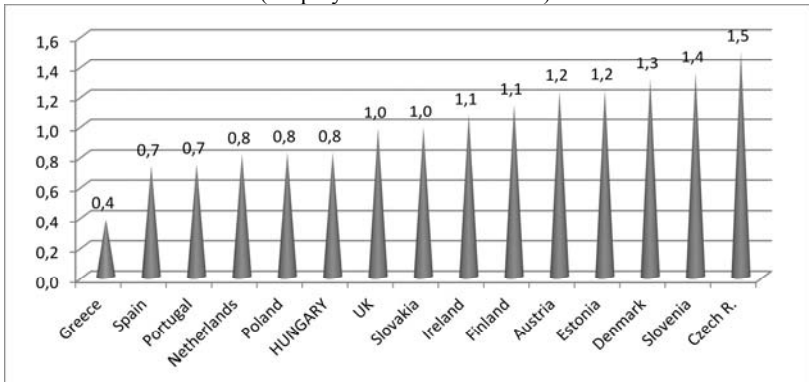
Small firms  
(Employment: 10–49 workers, Annual revenue: > €10 million)



Medium-sized firms  
(Employment: 50–249 workers, Annual revenue: > €50 million)



Large firms  
(Employment: > 250 workers)



Source: Author's calculation based on EC Enterprise and Industry (2010) Small Business database