

The following analysis was prepared within the framework of a joint quarterly research project entitled “SME Perspectives”, involving the HCCI Institute for Economic and Enterprise Research (IEER) and Volksbank. For the survey a sample of about 300 small and medium enterprises with similar structures and elements were used.

In our analysis we try to find out to what extent does the perception of corruption affect satisfaction with the institutional environment, and what kind of corruption experiences have the greatest effect on this satisfaction. First, we present the company managers’ perceptual changes towards corruption and also how their satisfaction with the institutional environment has evolved during the period from 2005 to 2010. Then, we search the variables that affect the development of this satisfaction. Our analysis shows that the higher the degree of corruption, the more negatively managers regard the institutional environment. Among the different corruption experiences cited, what makes managers significantly dissatisfied is, firstly, when they feel that their company has to pay bribes in order to get anywhere economically and, secondly, whether they consider corruption to be a major problem or not. Research of corruption is partly based on perception. Our analysis shows that subjective opinions are still relevant in the sense that much depends on personal experiences with corruption.

### Corruption experiences and satisfaction trends

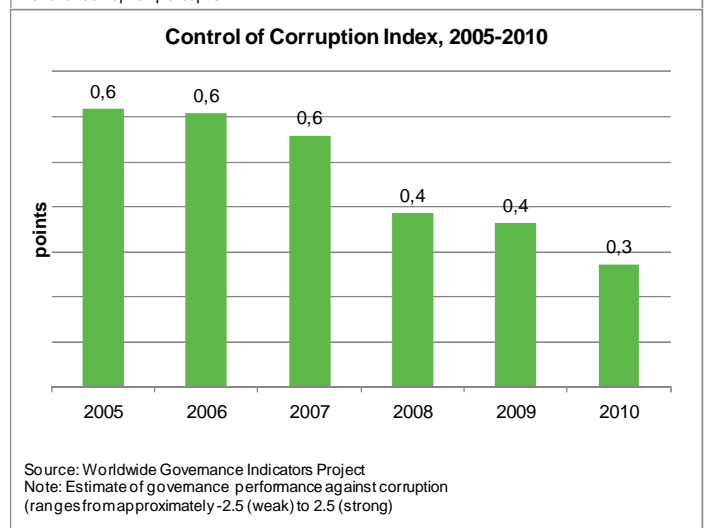
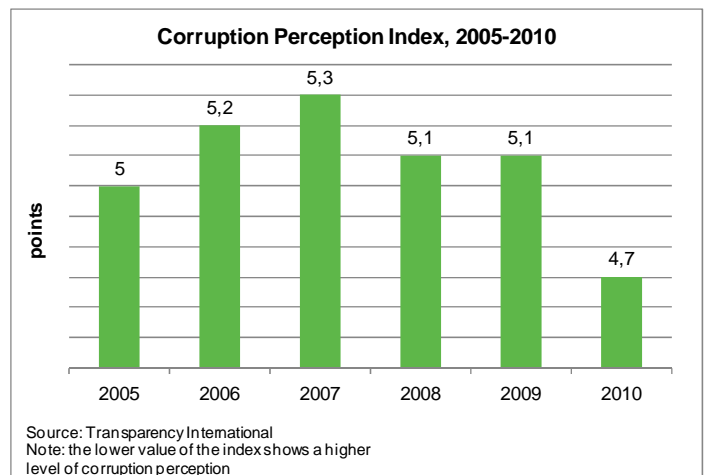
The research looked into the following questions put to small and medium business managers concerning their experiences with corruption via public agencies:

- Turn to a higher body when government officials act improperly. (How frequent is this?)
- A government official is sure to receive a bribe for a requested service. (How frequent is this?)
- Companies know in advance how much they must bribe. (How frequent is this?)
- A company must offer a bribe if they want to get anywhere. (How frequent is this?)
- Corruption in public offices. (How much of an obstacle is it?)

In the period from 2005 to 2010 the answers to these questions were the following (examined on a scale of 0 to 100 on average, where the lower the value, the less common the phenomenon was, according to managers):

For each year, most managers agreed that only by offering a bribe for the government official can they be sure to get some kind of service. The average was the lowest (42) in 2005, and in 2006 and 2007 it was the highest (55) – that is, at all the responses it was between rare and frequent. A continuous increase or decrease couldn’t not be seen (as for the other questions, either.) From 2005 until 2007 we experienced an increase, then a decrease in the value for 2008, and then it increased again until 2010.

Executives consider the second most common phenomenon to be that firms know in advance how much they must bribe. Here the average moves in virtually the same way than in the previous question, albeit at a slightly lower level.



In average, managers feel the presence of corruption in public offices to be a small obstacle, the average score was between 29 and 41 and the lowest value was in 2008.

Few executives believe that companies have to pay bribes for market permits and municipal orders. Most of the "never" response to this question was given in 2008 which had the lowest average value (5), and for all years it was below 10. Thus we can see that according to managers the level of corruption decreased slightly in 2008, and from then on until 2010 we experienced growth.

Very rarely do executives turn to a higher body if they detect corruption. Each year, the average was below 40 and from 2006 until 2009, a downward trend was observed. It is important to note that for every year the proportion of those who never turn to a higher body is extremely high (up to over 50%) and of those who would do so in any case is very low (often less than 10%).

Based on the answers to the questions of corruption, we created a variable of five degrees, which shows how often a manager reported corruption. In every year it is a thick layer where the answer is that there isn't a perceived degree of corruption. In 2008 and 2009, this rate was over 50%. The second layer (20-25% of the sample) is when there was a case of perceived corruption for one of the questions; fewer than this had two; still fewer who had three; and the least likely is to have perceived corruption in all the four cases.

Comparing the years there are not very big differences. We find that 2008 had the smallest layer (4%) which experienced corruption for every question, and 2009 had the highest proportion (52%) who did not perceive any corruption. In 2005 and 2006 the majority that had a perceived level of corruption in at least one case; in 2010 the rates were similar to this.

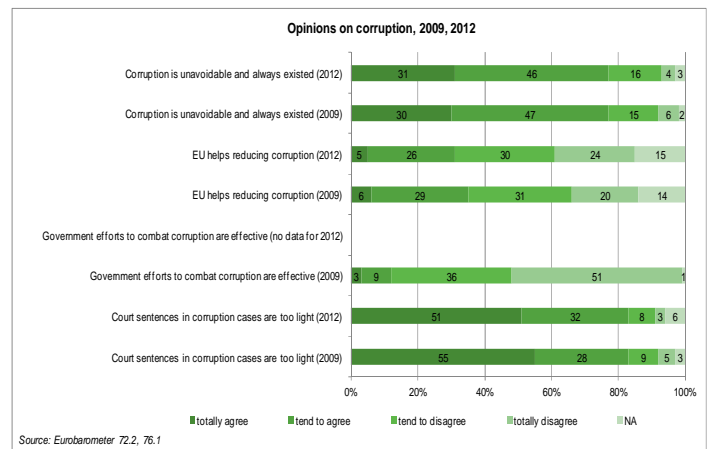
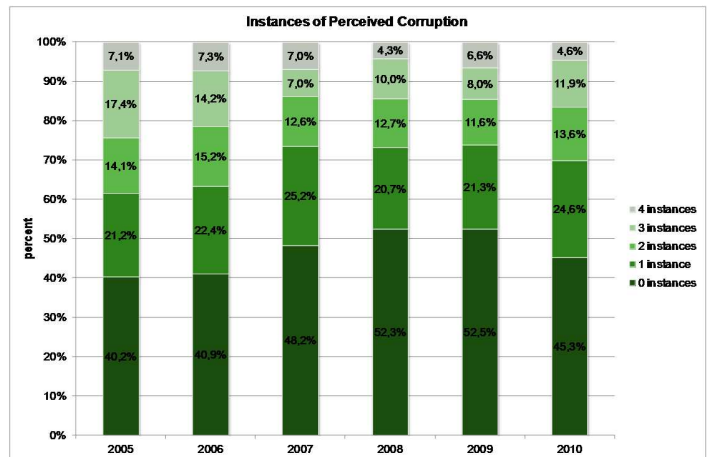
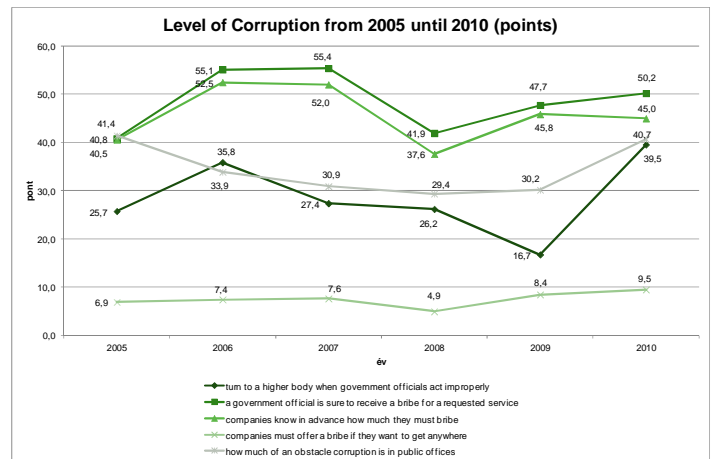
Overall, from 2005 to 2008 and 2009 there was a slight decrease in the level of corruption experienced by managers, and then it increased again in 2010.

### Satisfaction with the institutional environment

We created a variable principal component analysis based on eight questions in order to measure satisfaction with the institutional environment, in which the average of the year under review was as follows (for all years the average of the variable is 0): in 2007, executives were the most satisfied with the institutional environment, and in 2005 the most dissatisfied. From 2005 until 2007 there was an increase in satisfaction, and then it declined in 2008; in 2009 it rose close to 2007 levels again. In 2010 the satisfaction of managers went below the six-year average once more.

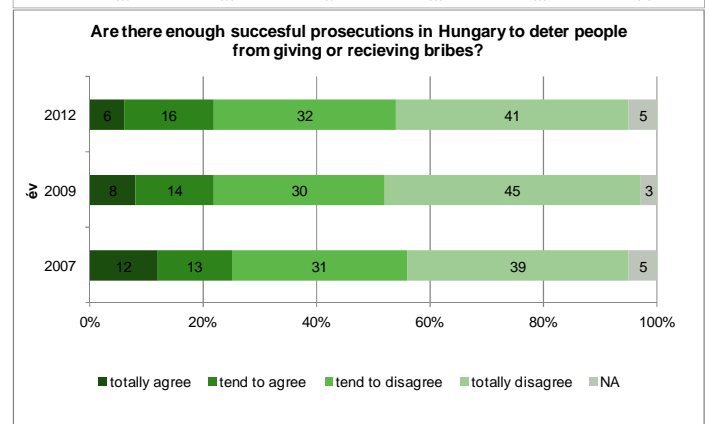
### What determines satisfaction with the institutional environment?

The above established satisfaction variable was divided in three equal groups for executives: the institutional

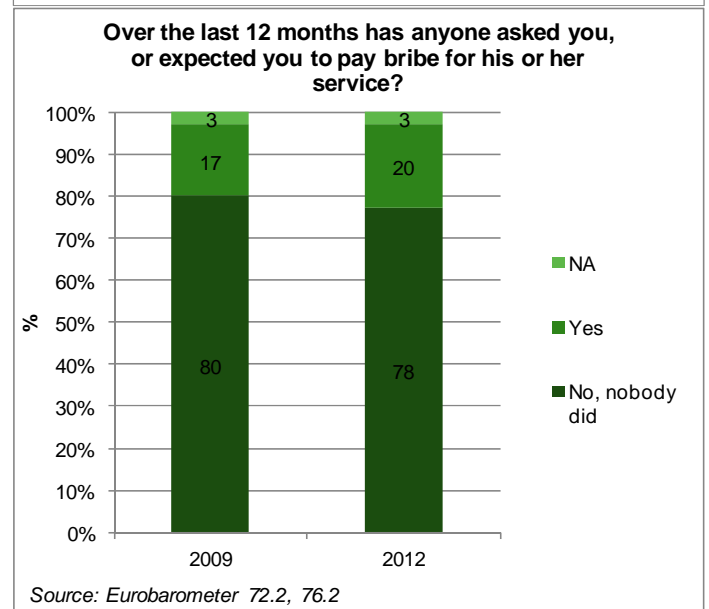


environment is relatively bad, average and good. After, an ordinal regression analysis was performed to investigate how the institutional environment affects satisfaction. The independent variables were company size, export ratio, the proportion of foreign ownership, economic sector, and the extensiveness of corruption. The model revealed a statistically significant correlation and showed that economic sector and the perception of corruption is influenced by the level of satisfaction. The higher the level of corruption you experienced, the more dissatisfied you are with the institutional environment. Managers in the manufacturing sector have proved to be the most dissatisfied while those in the services sector are the most satisfied.

We were also interested in finding out that among the different experiences with corruption, which one influences the most satisfaction with the institutional environment. Again an ordinal regression analysis was used, and company characteristics (size, foreign ownership ratio, etc) were examined. Of the six questions previously mentioned, two may significantly affect the level of satisfaction. One such question refers to the need of a company to pay bribes if they want to get something (e.g., a license or government orders). The more often this happens to a manager, the more dissatisfied they are with the institutional environment. The other significant question was how much of a significant obstacle was corruption to company management. The more of an obstacle it was the greater the dissatisfaction.



Source: Eurobarometer 68.2, 72.2, 76.2



Source: Eurobarometer 72.2, 76.2

## Introduction to the study by Zoltán Hermann and Júlia Varga entitled " Projection of the Educational Attainment of the Hungarian Population from 2001 to 2020"

Several international research paper suggests that the level of education in a certain country is an important factor of its long-term economic growth. Zoltán Hermann and Júlia Varga, in their study described below, used a model that can predict the level of education among the population by 2020, using six education categories. The dynamic model is cross-sectional, and simultaneously discrete. After defining the necessary population base, the authors of the model determined for each year those age groups affected by an event, then transition probabilities are assigned for each event, and finally comes the last phase of the model, the selection of a stochastic simulation. The model simulates three things stochastically: demographic changes, the school career of individuals, and internal migration. An event in terms of education takes place only once a year for a given population except for those years when an individual has completed or started an educational institution. The model starts in year 2001 and finishes in the year 2020. The initial population is a 50% random sample of apartments from the 2001 Census, a total of 5,096,323 people.

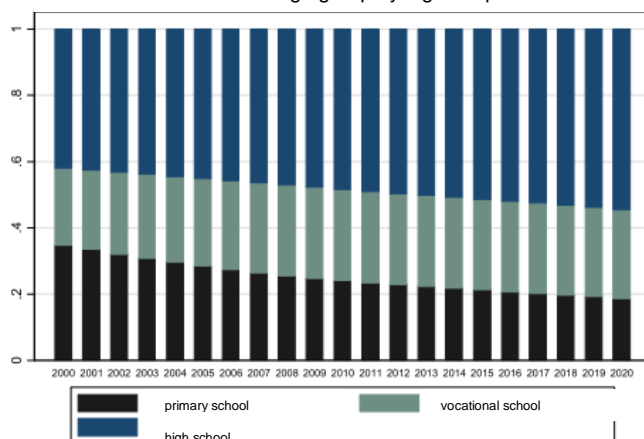
### Changes in the population's education attainment based on the results of the base estimate

Between 2010 and 2020 the education level of the population will continue to improve if the regulatory environment remains unchanged. The rate of primary school as the highest level of education among 25-64 year-olds declined by more than 10 percent in 2010, and this rate is expected to decrease further by 2020. The poorly educated population at the end of the forecast period would be less than 1 million. The proportion of skilled workers and vocational school graduates increased by 4 percent in 2010, and by 2020 the rate is practically unchanged, stabilizing at around 27%. The percentage of the population with completed secondary education continues to grow until 2020, so that by 2020 the rate of high school graduates among 25-64 year-olds increased to at least 55%.

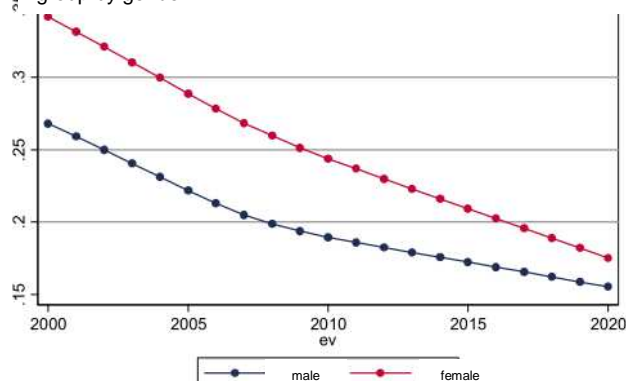
### Changes in the number and percentage of those with low, primary education as the highest level of education

After 2010, the decline of those with primary education as the highest level of education stagnates, but for 20-24 years-olds in 2010 the rate of those with less than primary education will increase slightly. Overall, this ratio is approximately constant at around 15%. The stagnation occurs together with the shrinking size of the age group, so the number of poorly educated young people is actually decreasing. This decline is much more pronounced among women; for 30-34 year old females the rate equals that of men. The proportion of the low-skilled decreases in all regions, and four developed regions are close to the national average, but these regions still remain above the national average rate in terms of schooling. The rate of the three least developed regions is twice that of the rate typical of the four regions.

Distribution of the 25-64 age group by highest qualification



Proportion of those with primary education among the 25-64 age group by gender



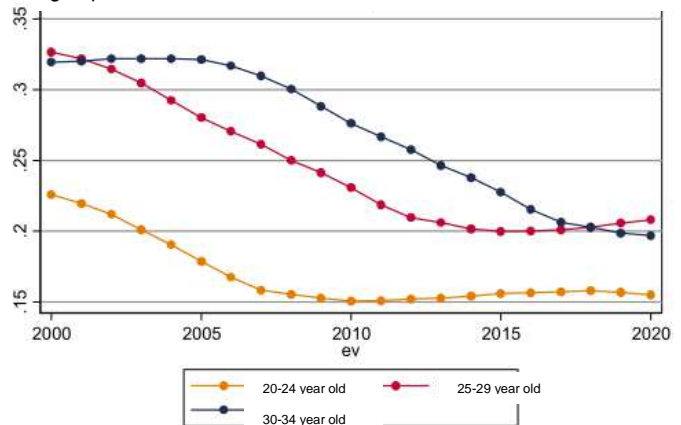
## Changes in the number and percentage of those with secondary education

The number and rate of vocational or trade school graduates increases until 2010, after which growth stops. For the 25-64 year-olds group, by 2010 the number and proportion of graduates from vocational and technical schools increased. By the year 2020 it is expected that more than a third of men aged 25-64 years and nearly one-fifth of women will have such qualifications. The trend for people with secondary education is the reverse. For the 25-64 year-old population group the proportion of high school graduates grows in 2020, but at a slower pace since 2010. After 2010 the proportion of high school graduates stabilizes at the 56 to 57 percent level for 20-24 year olds. For males there are a growing proportion of high school graduates in 2020 while for females after 2010 the maximum proportion of those with secondary education only stagnates; this is because the latter is more likely to continue their studies. For the 20-24 age group in this category the differences are a dominate feature in the disparity of Central Hungary compared to other regions. In terms of vocational education for 25-64 year olds, an increase in regional differences can be expected. For the Southern Plains region, in 2020 there will be the highest proportion of skilled workers. For the youngest age groups, the differences did not grow in the long term. The differences between regions for the youngest age groups are relatively stable for the period as a whole.

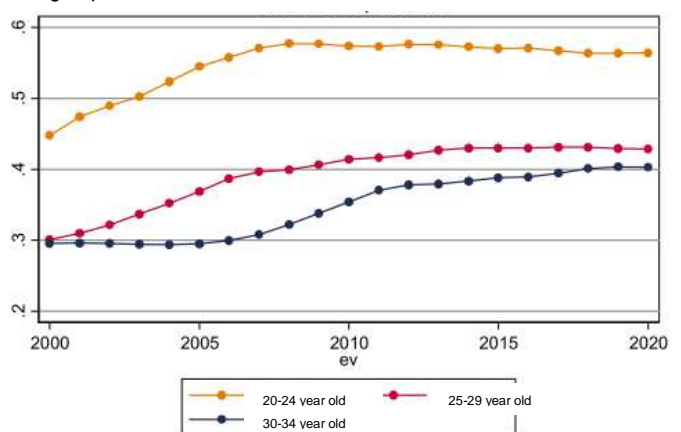
## Changes in the number and percentage of graduates

According to the model the number and proportion of 25-64 years olds with post-secondary education continues to grow until 2020, so that by 2020 the proportion of graduates reaches a fifth of the total population. Less growth is expected after 2010 as before, and by 2020 the number of graduates increases approximately to 160 thousand. This is all going to happen with the proportion of college /BA graduates growing faster. By 2020 a quarter of 25-29 year-olds and more than a quarter of 30-34 year olds will have a graduate degree. Among 25-64 year-olds the proportion of graduates between the sexes is about equal, at 14%. By 2020 more than a quarter of women aged 25-64 years and 16% of men will have graduated, so that in 2020 nearly two-thirds of all graduates will be women. After 2010, there will be a significant increase the proportion of women not only with a college/BA degree, but is more likely to have a post-graduate/MA degree also, and the gap between the sexes will constantly increase. By 2020 nearly two-thirds of graduates aged 25-29 will be female. In terms of regional differences, the most significant can be observed with Budapest and its environs compared to rural areas. The proportion of graduates in the Central region is about 10 percentage points higher than in other regions. The regional differences are relatively stable in time. For the total period, each region has significantly increased the proportion of graduates, but in Western Trans-Danube, Northern Hungary and the Northern Great Plains regions

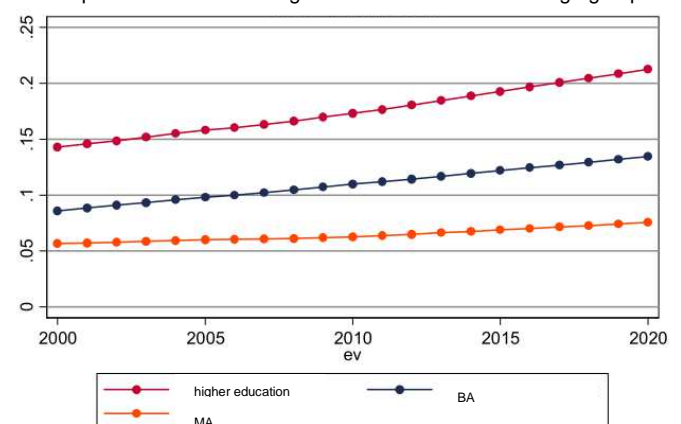
Proportion of skilled/vocational graduates among the younger age groups



Proportion of high school graduates among the younger age groups



Proportion of those with higher education in the 25-64 age group





slightly faster growth can be expected. Nationally, the proportion of graduates will grow, and this growth will stagnate. With the exception of the Central region, the development of the regions and the proportion of graduates are not clearly related. In summary it can be said that if the regulatory environment is stable, there will be slow growth in the educational attainment of the population after 2010, hence the increase in the proportion of university graduates as well.

### Change in the educational attainment of the population between 2000 and 2020 of Roma and non-Roma students

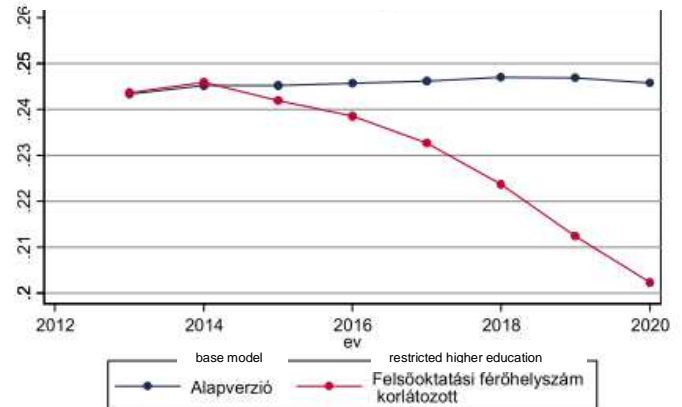
The average Roma student completes their education with lower qualifications than the average non-Roma student. If the two groups would finish primary school to the same degree, then in 2020 the rate of those with primary education only would decrease by 2 percentage points for 15-19 year-olds and by 1.5 percentage points for 20-24 year-olds. The vast majority of Roma children, especially as a result of parents with low educational attainment, obtain a lower degree, and schooling disadvantages are felt throughout the education system. Regional differences have a huge impact on this as well. The rates of those with only primary school completion would be reduced by more than half in the three less developed regions if the two groups were given the same chance to finish elementary school; likewise, the high school diploma rate would also be closer to the national average in these three regions if the two groups are given the same chance of moving through the school system.

### The reduction of compulsory school age and increase in vocational education

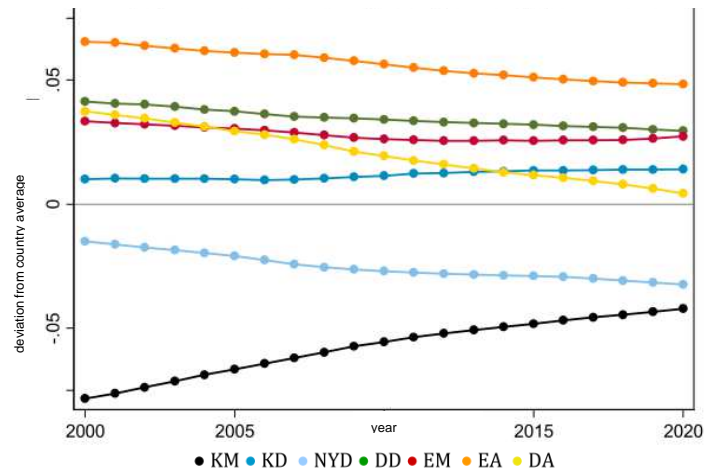
From 2012 compulsory school age was decreased to 16 years, while the vocational school enrolment rate is projected to rise 35%. This study investigated the effect of these two measures together. The proportion of those with primary education only is expected to slightly increase as a result of the decrease in the age of compulsory education. Those who would only finish primary school at 18 years of age anyway are thus able to dropout. At most, this measure may increase primary school completion rates among the younger age groups by 2-7 percentage points. This measure will increase the vocational school enrolment rate by 35 per cent, but if the secondary school dropout rate increases as a result of the reduction in compulsory school age, this effect also reduces the proportion of vocational school graduates. The reduction in compulsory school age may even reduce the impact of the increase in vocational education, thus the proportion of vocational school graduates will not necessarily grow. In the medium term, the proportion of high school graduates is expected to also decline among the younger age groups; meanwhile the proportion of those with primary

education only will increase as well as the proportion of vocational school graduates.

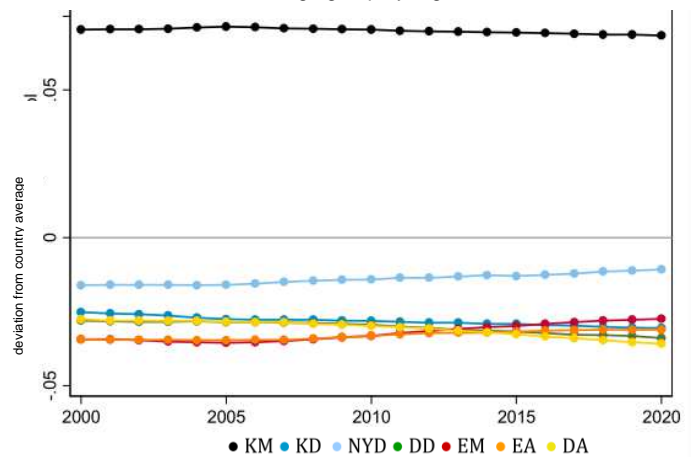
Proportion of those with higher education degree among the 25-29 age group, based on the results of the base estimate and regarding the restrictions on the number of places of higher education



Proportion of those with less than primary education among the 25-64 age group by regions



Proportion of those with higher education degree among the 25-64 age group by regions



### **The effect of restrictions on the number of places at state-funded higher education institutions.**

This restriction effectively reduces post-secondary education, and in the short term the impact will be less on the proportion of young graduates compared to the base estimate. The effects of the restrictions on places will be more apparent for those in the 25-29 years olds age group.

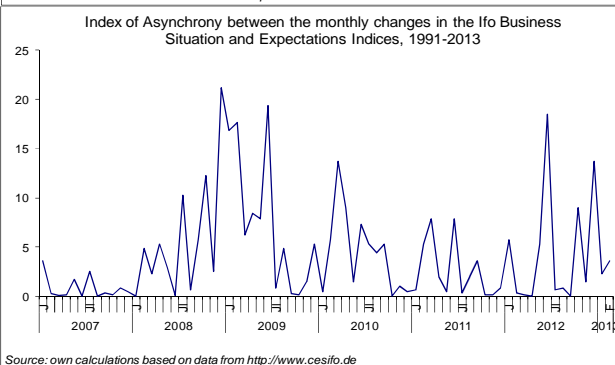
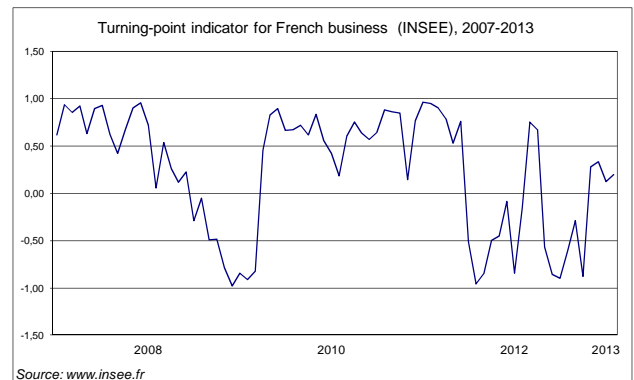
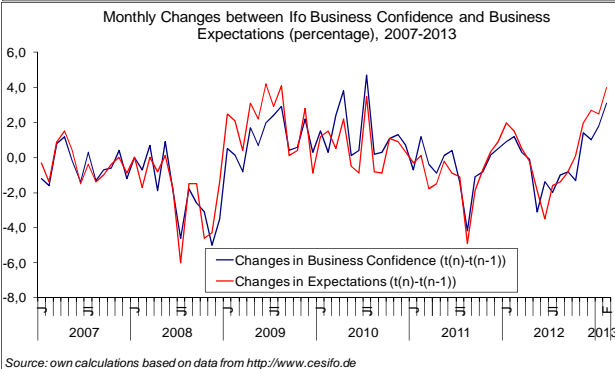
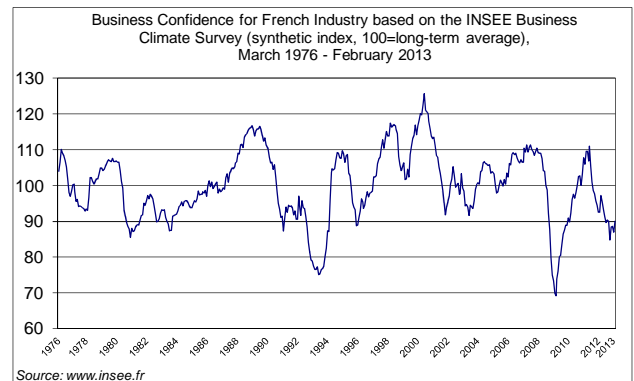
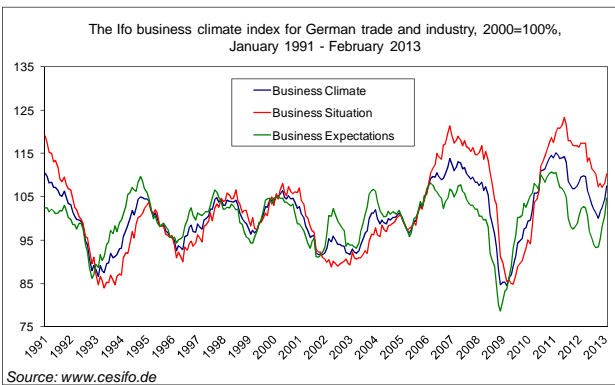
*Source: Zoltán Hermann – Júlia Varga: Projection of the Educational Attainment of the Hungarian Population from 2001 to 2020. Modelling Education with a Dynamic Microsimulation Model – ISMIK. Budapest Working Papers On The Labour Market 2012/4, HAS IE, Corvinus University of Budapest, Dept. of Human Resources, Budapest, 2012*

<http://www.econ.core.hu/file/download/bwp/bwp1204.pdf>

## International trends

The Ifo index, Germany's industry and trade confidence index of the Institute for Economic Research in Munich showed a significant three-point improvement in February 2013, which is the largest increase since July 2010. Both the current business situation and expectations for the next six months improved significantly. The IEER asynchrony index, measuring the gap between the current business situation and expectations, increased slightly in February, thus the business confidence index shows greater uncertainty than in the previous month. Ifo analysts see the German economy regaining momentum. (Source: Ifo, <http://www.cesifo-group.de>)

Results from the February survey by the French statistical office (INSEE) showed that French industrial activity improved markedly. The INSEE business confidence index rose 3 points compared to January, but is still well below its long term average. The turning point indicator remains in the uncertain business climate zone. French economic growth over the next few months is expected to be more vigorous according to the individual business operations forecast of company executives, as the value of the balance indicator rose, but is still below its long term average. The general business outlook index – which reflects the sum of opinions related to the business activity of respondents – did not change in February compared to the value of the previous month, so the balance indicator remains at a very low level. (Source: INSEE, <http://www.insee.fr>)



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