

The following brief analysis summarizes the characteristics (economic sector, company size, ownership structure and region) of firms with student apprentices contracted for training purposes. In addition, we present the recruitment intentions of the above mentioned companies for 2015 as well, from which the trend in the demand for apprentices can be inferred. The research is based on data from the 2010-2014 IEER Short-term labor market forecast study, which annually contains information from about 7,000 companies. Based on these results, we can say that most of the firms with student apprentices contracted for training purposes are industrial companies. In addition, a relatively large number of apprentices are employed by companies that do not have foreign capital or which are located in the central region of Hungary. Results on recruitment intentions indicate that most firms with student apprentices contracted for training purposes don't plan to change their employee numbers in 2015, therefore it is expected that the demand for student apprentices is not going to change either. Among those companies planning recruitment changes, the percentage of those that plan to increase staff is higher than those contemplating a reduction in every year between 2010 and 2014.

### Employing apprentices contracted for training between 2010 and 2014

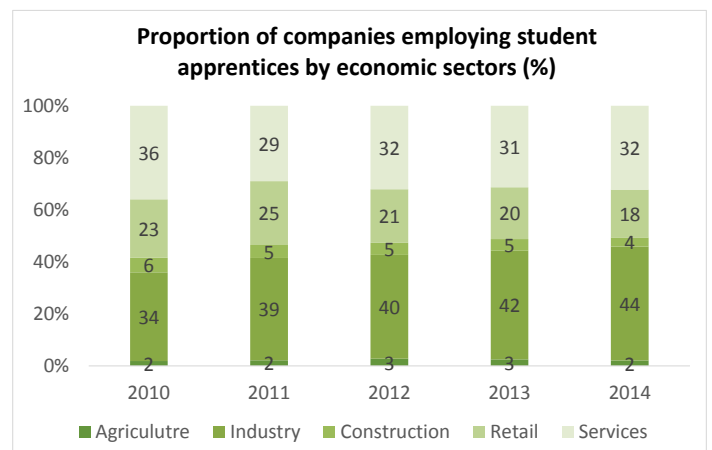
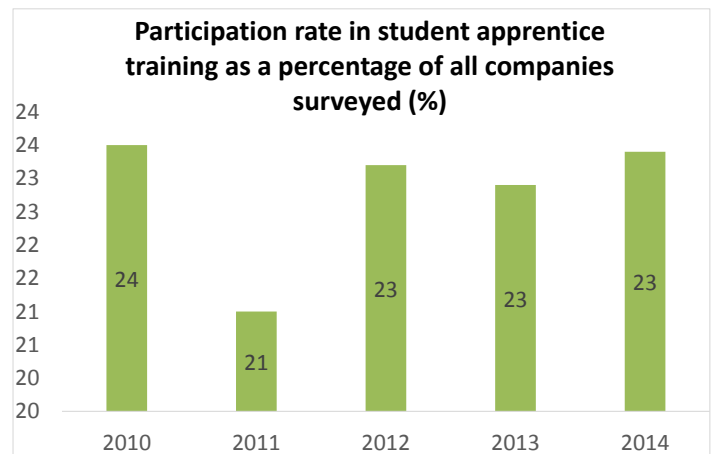
An average of 23% of the companies employs student apprentices contracted for training in the period under review. It can be seen that between 2012 and 2014 this ratio stood at the average value. The lowest was recorded in 2011 (21%) and the highest in 2010 (24%), thus there was no significant difference in those years compared to the average.

### Economic Sectors

The results of the analysis carried out by economic sectors show that the highest percentage of firms with student apprentices contracted for training purposes are companies engaged in industrial activities. The proportion of these companies employing student apprentices during the period under review increased steadily: in 2010 the proportion was 34% and in 2014 it increased to 44%. Following industrial companies are those providing services and retail firms. These three categories represent more than 90% of the companies investigated. Looking at the remaining two categories we see that of the firms with student apprentices contracted for training purposes an average of 5% are construction firms and only 2-3% are agricultural companies.

### Company Size

Looking at the results based on employee numbers we see that companies employing student apprentices are mostly the larger ones. Among the companies studied, until 2012 the highest proportion of firms employing student apprentices were those with staff numbers 50 to 249 people, thereafter it was large companies with 250-999 employees. These two categories represent about two-thirds of the companies analyzed. However, interestingly, the largest companies had the lowest ratio, in 2014 this was 8%. The



ratio of the smallest companies has increased over the years, in 2014 it was 19%, while in 2010 it was only 11%.

### Ownership Structure

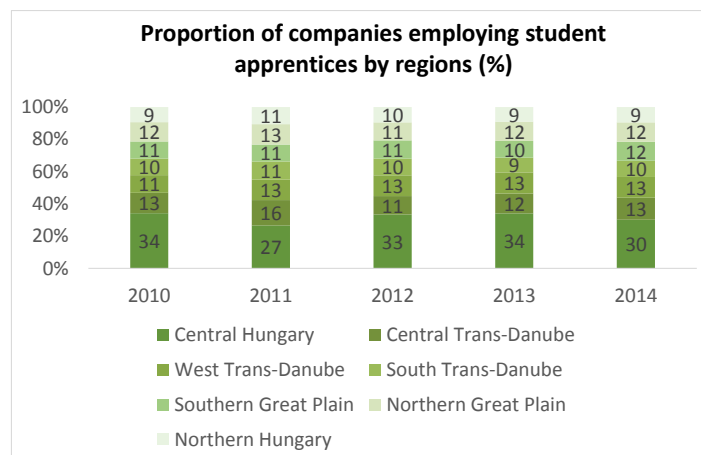
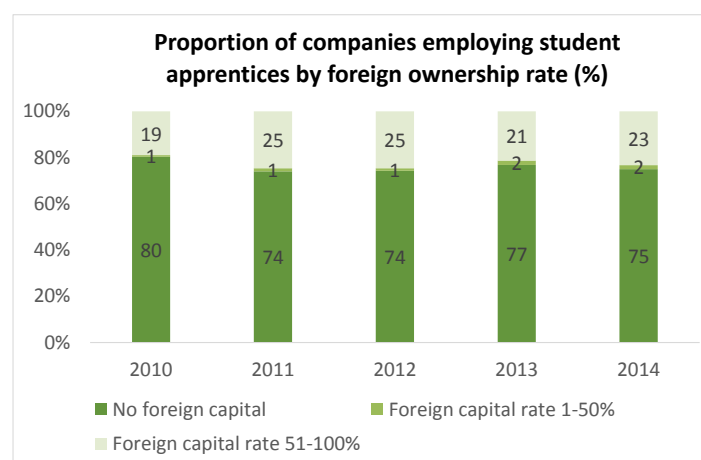
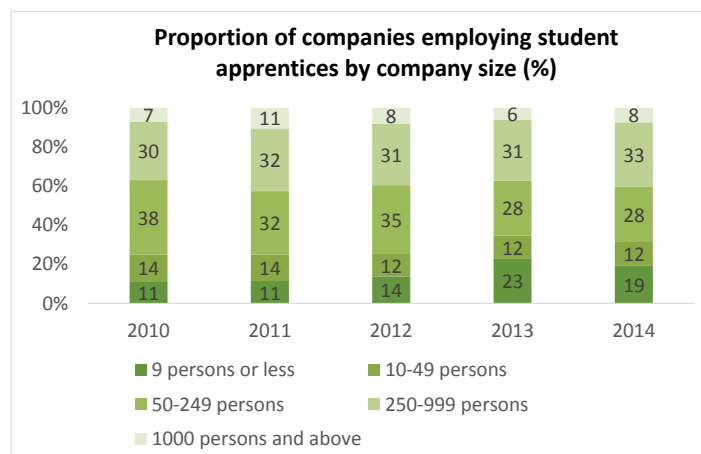
In terms of ownership structure, of the companies examined we found that firms employing student apprentices are generally those which do not have foreign capital. In 2014 the proportion of these companies was 75%. Those companies that have foreign capital of less than 50% represent only 1-2% of firms employing student apprentices. Those companies with a minimum of 50% of foreign capital, meanwhile, represent one quarter of them.

### Regions

The highest proportion of firms employing student apprentices is located in the central region of Hungary. There are no significant differences for the other regions; the rates typically vary between 9% and 13%.

### Recruitment Intentions

The firms employing student apprentices are also analyzed on the basis of their recruitment intentions for 2015. This is interesting because the demand for student apprenticeships can be inferred from this information. According to the results, most of the companies examined do not plan to change staff numbers in 2015. The proportion of companies planning to not recruit increased during the period under review. Every year the proportion of companies that plan to increase staff levels has been higher than those planning to reduce their staff numbers. The proportion of companies planning to increase in 2014 was the lowest (19%), approx. 10% less, than other years. The proportion of companies planning to reduce their staff numbers was slightly lower at 13%.



## Macroeconomic trends: Investments and capital attraction in the Visegrad Countries

In the following brief analysis the development of investments in the Visegrad countries (V4) is examined, concerning its quantity, cost, and efficiency. Additionally, the closely related external balance and changes in external financing position are also mentioned.

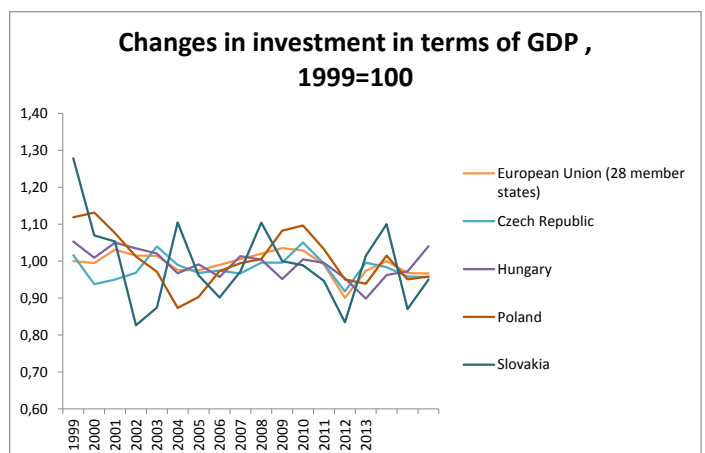
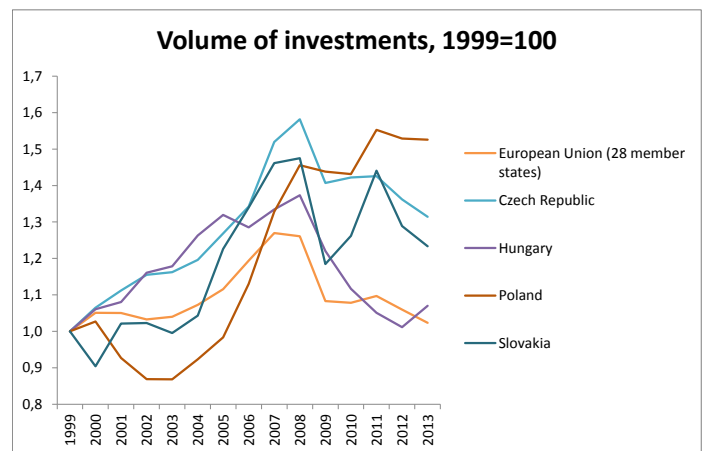
The main findings, which motivated us to write this analysis, is that since the beginning of the financial crisis Hungary has fallen short in terms of investments and as a result our country lags significantly behind other countries in the region. Compared to the EU-28, the price level of investments in Hungary in the recent years has been the lowest among the Visegrad countries, but gross wage costs as a percentage of the GDP as well as the tax burden on production and imports are the highest. The rate of return on investments was moreover higher than the EU average. Financing capacity is positive, in which the high export surplus plays a key role.

The following analysis deals with a regional comparison of the amount, prices and costs of investments, as well as investment financing sources. The first figure shows the evolution of gross fixed capital formation since 1999. In this chart the results are relative to the level in 1999, so growth rates are clearly visible. However, if the results are relative to the previous year, then growth can be observed prior to 2009 while from 2009 onward (except for 2011) there was a decline for all four countries. However, it is also interesting to know what this means as the proportion of GDP: compared to the previous year, except for a couple of years since the beginning of 2000, a decrease was observed.

The value of investments adjusted with amortisation is the net fixed capital formation. This represents such material assets involved in production which does not replace old tools, but creates new capacity. In this regard, Poland performed remarkably well in recent years compared to the other three countries: in 2013, net fixed capital formation was equivalent to 8% of GDP. Hungary was able to devote 2% of GDP to fixed capital stock, which is approximately equal to the EU average.

Now three factors are considered which may affect the development of gross or net amount of investments: its cost, wage levels and tax levels.

Figure 3 shows the cost of the assets of production, the cost level of gross fixed capital formation indicating a cost level relative to the EU average; however the data is only available from 2003. We can see that the cost level of the Visegrad countries is lower than the EU average. In addition, at the beginning of the period, Hungary had the highest cost of investments, but at the end of the period the other countries in the region have become relatively more expensive while Hungary had become cheaper.



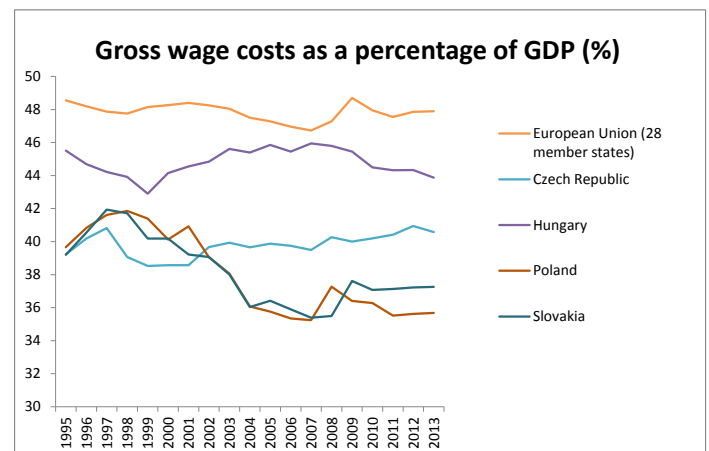
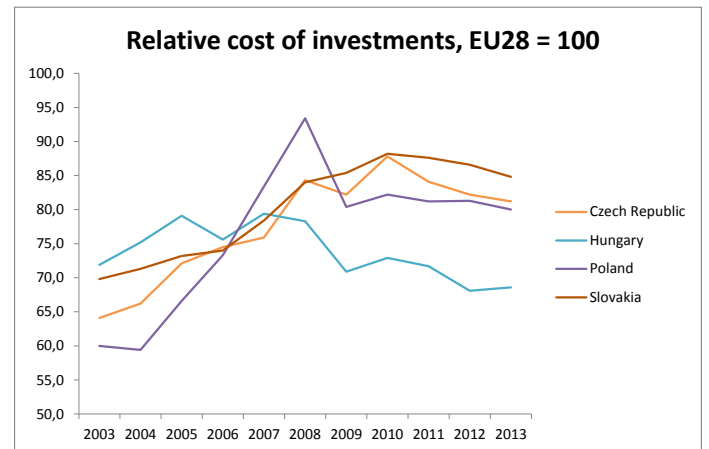
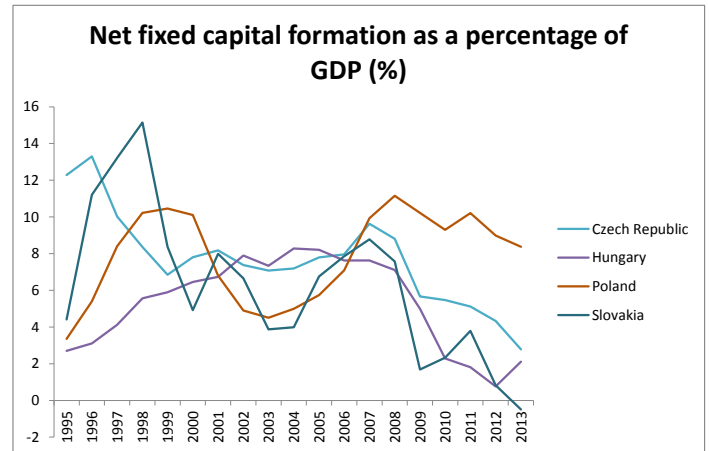
Labor force, knowledge, infrastructure and funds, suppliers and retail markets, as well as many other less tangible factors are required for production. The total weight of gross wages and benefits are well recorded and comparable. Unfortunately, the related macrostatistical indicator simultaneously includes costs of labor force and associated knowledge, as well as taxes related to salaries and paid by the employee, and fringe benefits, but does not include taxes paid by the employer. This amount can be specified as a proportion of total production, or a proportion of total work time.

In Figure 5 we can observe the important characteristics of the countries studied: the proportion of the tax burden on net production and imports. In the case of the Czech Republic and Slovakia it was the lowest: for almost the entire period it was below the 10% level. The EU average is just a little more higher. For Poland the rate was characteristically 12-13%. In Hungary the tax burden was a little higher in the mid-2000s, however after 2005 a continuous growth can be observed with the result that in 2012 it reached 17%.

We can make only assumptions on the basis of prices, labor costs or the level of taxes. More important than these factors is how much is it worth to invest in the given countries. For this we use the capital rate of return, which is the ratio of net operating surplus to net fixed capital stock. This indicator filters out the effects of quantitative and composition differences of the fixed capital. We assume that this index shows how much is it worth to invest in capital assets, thus to invest in some countries.

During the examined period the highest rate of return can be observed in Poland and in Slovakia. Hungary and the Czech Republic lag behind them, but in recent years these two countries had a higher rate of return than the EU-28 average.

Since gross savings in the region is on average lower than the amount of the gross investments, an important question is how we can involve external resources, so we can finance investments with the help of foreign countries. This can include foreign debt, loans taken abroad, but also ownership or shares acquired by foreigners in the country. During the examined period, except for 2013 the Czech Republic was able to achieve a higher savings rate than any other V4 country or the EU-28 average. This means about 30% at the beginning of the period, but at the end of the period only 23%. However, while there was an overall drop in the Czech Republic, in Hungary there was growth since 2007, so that in 2013 this rate in Hungary was a little higher (24%). In Slovakia, savings rate was a little lower compared to the Czech Republic, while Poland provided an even lower rate of savings at 15-21%.



The amount of investments financed from abroad is not equivalent with the financial position with foreign countries. The obligations accumulated towards foreign countries in the context of investment activities and foreign-held assets are partly or wholly offset by the outflow of exports and the amount of income earned by foreign nationals.

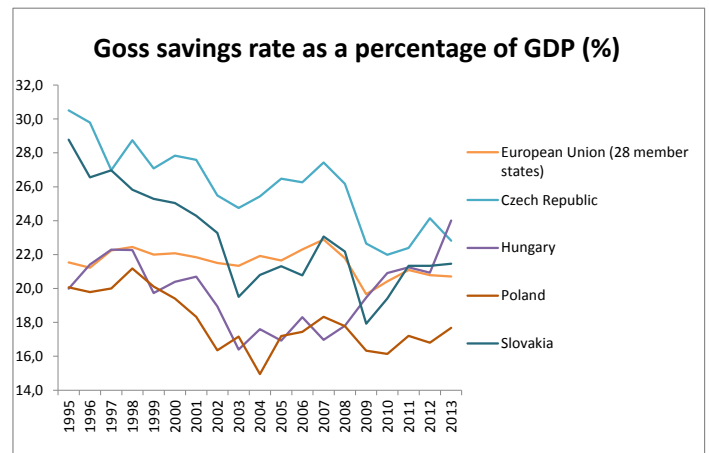
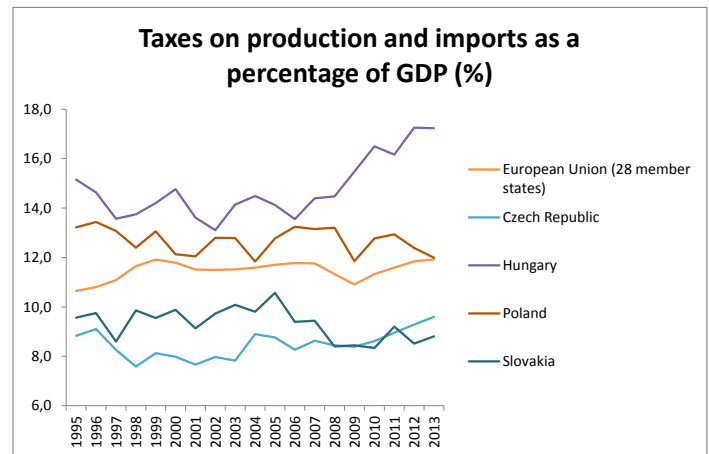
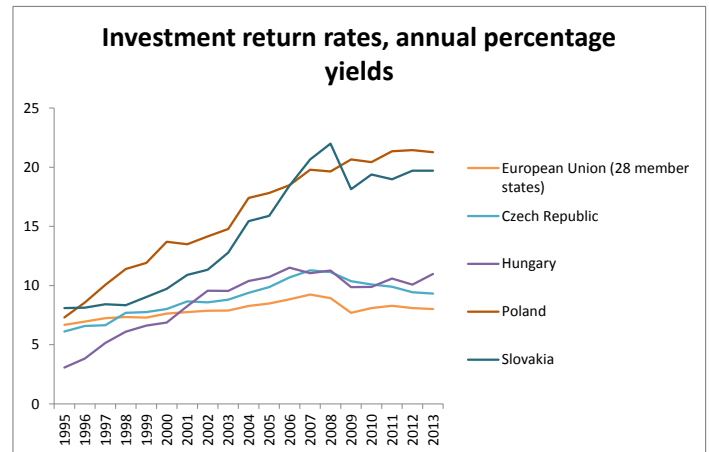
Net export is the difference between total exports and imports. In recent years, for each of the four Visegrad countries an increasing trend was observed; in 2013 positive values can be seen for all countries, hence they all became net exporters. While the value of net exports in 2003 was the lowest in Hungary, in 2013 it was the highest (7%). That same year, for the Czech Republic and Slovakia the net value of exports was around 5%, for Poland it was 2%. Exports are a major source of economic growth, since the increase in external demand can be much faster than the increase in domestic demand, as it is not necessary for domestic income to increase. However, what is important is where exports are directed and the sensitivity to income fluctuations of destination countries.

As shown in the figure, each of the countries studied, the income earned abroad is mostly negative, that is, a portion of the income generated is entitled to foreigners. This is largely the yield of the foreign capital, but the international flow of labor income should also be noted here. Looking at the four countries studied, this value was the lowest in Hungary until the early 2000s. As a result of a continuous decline, in 2006 and since 2008, the Czech Republic has the lowest value. In 2013, the Slovak data showed the highest value (-2%).

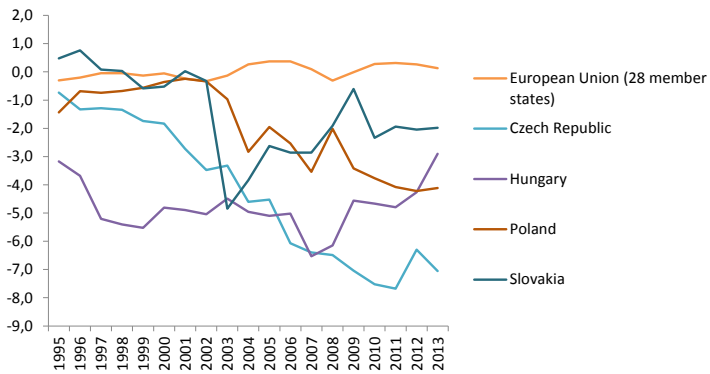
The sum of current and capital accounts is a key indicator of the foreign relations of a given country. This is called net financing ability. The name is derived from the fact that this index shows that in real economic relations how much more financial claims we have than obligations.

During the examined period negative values were usually recorded for all of the Visegrad countries and the EU as a whole. In other words, it was typical that we used foreign funding. However Hungary from 2009, Slovakia from 2012, and the Czech Republic from 2013 recorded positive values. This means that despite the fact that external sources of funding still has an important role in investments, currently Hungary's financial position vis-a-vis abroad hasn't worsened.

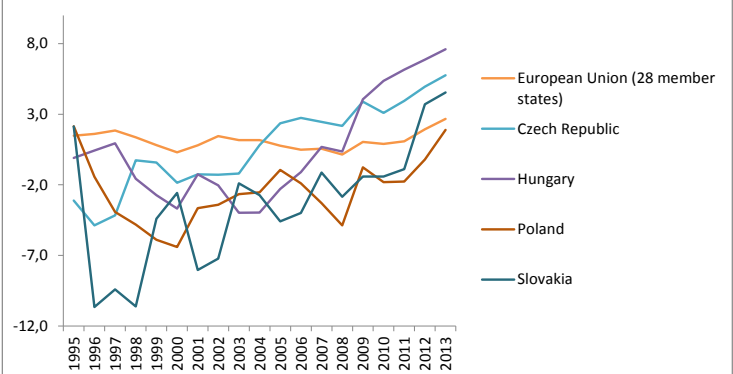
FDI inflows to Hungary were the highest in the period under review, the value in 2012 was 80% of GDP. In the Czech Republic it was 67%, in Slovakia 60% and in Poland this value was 47%.



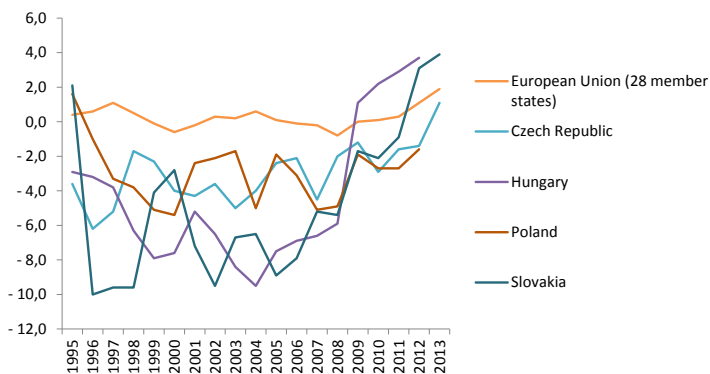
**Net foreign income as a percentage of GDP (%)**



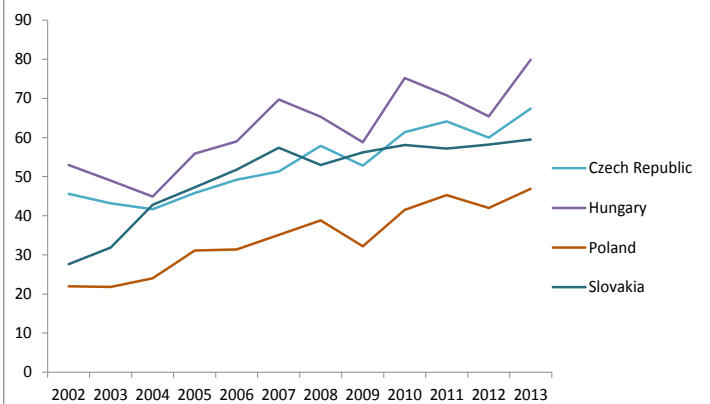
**Net export of goods and services as a percentage of GDP (%)**



**Net financing capacity as a percentage of GDP (%)**



**FDI inflows as a percentage of GDP (%)**

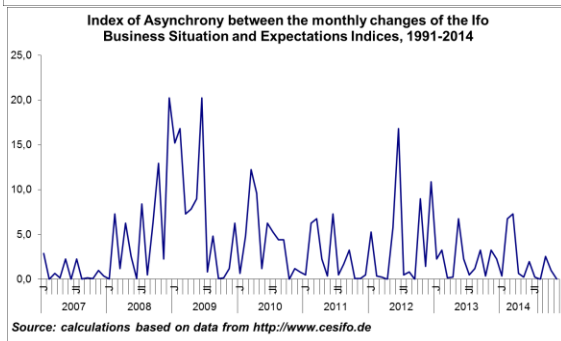
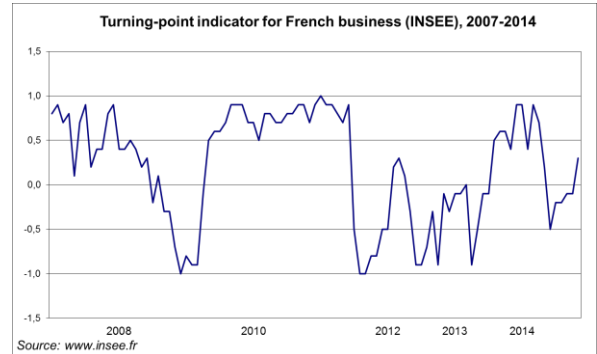
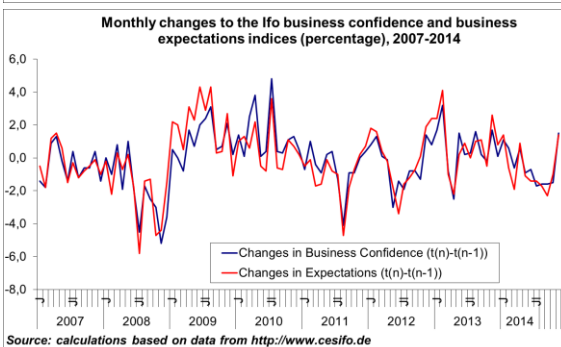
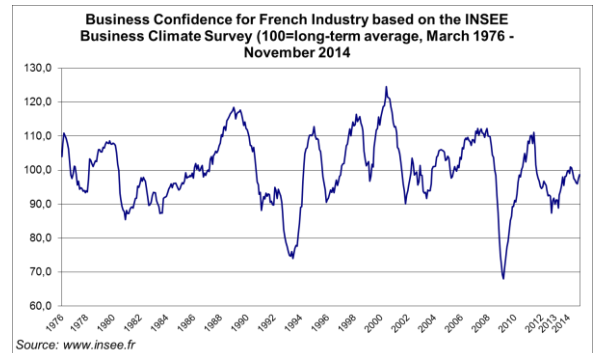
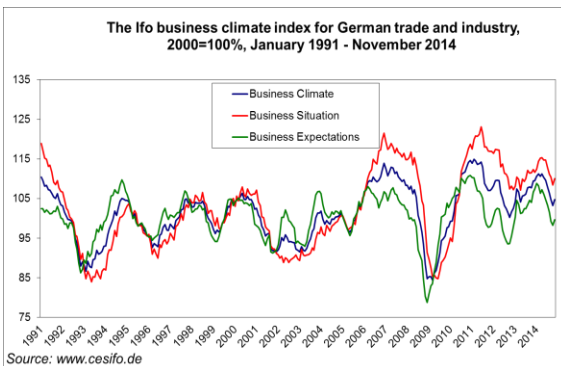




## International trends

The Ifo Business Climate Index for industry and trade in Germany rose in November to 104.7 points from 103.2 points in October. The business climate previously deteriorated six times in a row. Assessments of the current business situation are slightly more favourable than last month. Expectations with regard to the months ahead are also brighter. The gap between the current business situation and the expected developments, as calculated by the IEER Index of Asynchrony, decreased in November, so the business confidence index showed lower uncertainty than in the previous month. According to Ifo analysts, the downturn in the German economy has ground to a halt for the moment at least. (Source: Ifo, <http://www.cesifo-group.de>)

Results from the November survey by the French statistical office (INSEE) show that the business climate of industry in France has slightly risen compared to the previous month. The composite indicator which measures it increased by 1 point (after 2 points in October) and stands at 1 point below its long-term average. The turning-point indicator is in the zone indicating an economic uncertainty. The balance of opinion on past change in production has increased by three points and is closer to its long-term average. The balance of opinions on personal production expectations has stagnated at its October level, above its long-term average. The balance on general production expectations, which represents business managers' opinion on French industry as a whole, is still sluggish, but has increased by 6 points in November. (Source: INSEE, <http://www.insee.fr>)



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