FOREIGN DIRECT INVESTMENTS AND HUMAN RESOURCE EFFICIENCY IMPROVEMENT MEASURES OF MULTINATIONAL COMPANIES IN THE CENTRAL EUROPEAN COUNTRIES

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Abstract

The paper analyses the impacts of the last financial crisis on Central Europe in two areas: Foreign Direct Investments and Human Resource Efficiency. It starts by a survey of the international trends. Afterwards the Central European FDI dynamics are analysed. Poland improved its position, while the other countries had slight modifications in their positioning.

The crisis brought new challenges for the regionally established multinational companies. They had to keep their competitiveness by introducing cost cutting measures. In these decisisons the human capital efficiency improvement was of utmost importance.

The second part of the paper concentrates on the presentation of the widely used human resource efficiency measures, and on the human capital investment return indicator. Central European countries improved their ranking compared to the developed countries.

The last part focuses on a research based on the latest (2011's) data of the largest multinational companies in Hungary. Based upon the outcomes it is evident that during the crisis, multinational companies had to take tough measures in order to improve their human capital efficiency. In spite of that, their profitability deteriorated and Hungary slipped back in the competitiveness ranking although long term commitment to the country remained strong.

Key words: Foreign Direct Investments, Human Capital Efficiency, Multinationals, Central Europe, Hungary

JEL Code: M21, Business Economics

Introduction

Over the last two decades foreign direct investments have always played an important role in the economic growth of the Central European Countries. During the current financial crisis it is necessary to understand the dynamics of the flow of FDI to Central Europe, and to evaluate the strategy of multinational companies already operating in our region.This paper aims to analyse the impacts of the financial crisis on the inward FDI trends and on the human resource efficiency indicators. As to the HR efficiency increasing measures of the established multinationals Hungarian data is presented. The timeframe of the analysis is the period of 2007-2011.The sources for calculations and evaluations are the latest UNCTAD Word Investments Reports, OECD Economic Surveys for Czech Republic, Hungary, Poland, Slovakia, and Book of Lists of Budapest Business Journal.

1 Flows of FDI towards Central European countries reflect some general trends:

Starting with Hungary it still had FDI growth in 2008, compared to the pre crisis level, but in 2009 a huge drop took place. Total FDI decreased by two thirds. In 2010 a slight increase reversed the negative trend.Sensible improvements came only in 2011, when FDI finally soared up to 4.698 billion USD. The positive figure is darkened by the fact that it is still standing at 76%- of the pre-crisis average (2005-2007).

Czech Republic had the lead among the Central European countries in terms of FDI per capita. Fall in Czech FDI came immediately after the outburst of the financial crisis in 2008. It was a year earlier than in Hungary, Hungarian delay was probably due to some under way Hungarian projects. Czech FDI shrank to 70% of the pre-crisis average in 2008, and further deteriorated to 45% of that in 2009.

However, 2010, the Czech FDI bounced back up to 6.141 billion USD versus the Hungarian 2.274 Billion USD. In spite of a slight decrease in FDI flow in 2011 the value at the end of the analysed period was still higher than the Hungarian one by 20%.

Poland had the biggest nominal numbers because of its sheer size except for the per capita indicators.However it is important to note that Poland had the best economic performance in almost every area among the Central European countries, and this is reflected on the FDI statistics as well.

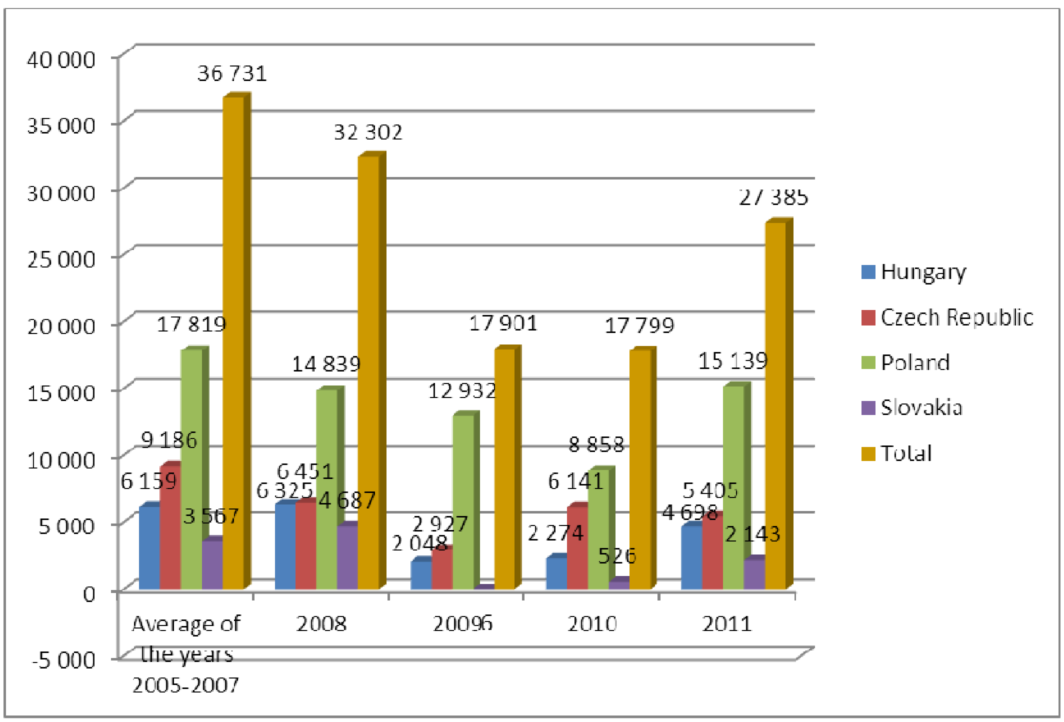
Drops in 2008 and 2009 were not as serious as in case of its peers in the region, and the bottom was not as deep as that of the other three Central European countries either. Polish

FDI in 2011 was 15.139 billion USD, reaching 85% of the pre-crisis average, which percentage was also the highest in the region.

Slovakia went through a tough period in 2009 and 2010 with huge drops in FDI but it was the only country that could increase FDI in 2008. They achieved a 30% increase compared to 2005-2007 average. Ongoing, under way car industry investments might have been the reasons behind that data. After the toughest years, in 2011 Slovakia received 2.143 billion USD FDI. It was a big leap forward, but it still fell short of the pre-crisis average by 40 %.

Total FDI into the Central European countries and changes in their relative shares show interesting dynamics. Total FDI clearly indicates a downward trend, descending to 88% in 2008, bottoming at 50% in 2009 and creeping back in 2011 to 75% of the pre-crisis average number. In nominal terms it was bottoming at 17.901 billion USD in 2009 and going up to 27.385 billion USD in 2011 versus 36.731 billion USD in 2005-2007 (see Figure 1).

Figure 1.: Dynamics of changes in shares of each Central European Countries within the total FDI towards the region



Source: OECD Economic Surveys Reports (2007-2011) (calculations of the author)

As to their relative shares within the total, Hungary started with a 16,77% as the average of 2005-2007 period, after it went up to 19,58% in 2008, followed by a drop to 11,44% in 2010 and ended up close to the starting average number of 17,16%.

Czech numbers went up and down during that period, starting from a share of 25,01% , reached the bottom at 16,35%, then crawling back gradually to 34,5%, followed by a drop to 19,74%.

Poland considerably gained share by the end of the analysed period, starting from 48,51%, never slipping below 40% share during the worst years of the crisis,and, finishing at 55,28% in 2011.

Slovakia had the weakest performance during the crisis, but made serious efforts to get back to 7,73 % in 2011, from the starting position of 9,74%.

2 The impacts of the financial crisis on human capital and on measuring human capital efficiency on international level

2.1 Measuring human capital efficiency on international level

It is very important to analyse how investors and multinational companies reacted to the challenges of the financial and economic crisis.They wanted to keep the level of their international competitiveness through efficiency measures in every area but with special focus on human resource and on increasing human capital efficiency. The Central and Eastern European region is evaluated in international context.

2.2 Revenue/FTE- Full Time Employee (equivalent) number and Employee related costs/ Revenue indicators

Revenue per FTE indicators dropped in Western Europe, in technology industries, machinery, vehicles or chemical industry. Some others navigated fairly well such as pharmaceuticals, retail or insurance.

In respect of efficiency Western European countries were somewhat lagging behind. Trends are analysed with the help of available data (see figure 7.)

Figure 7.: Total FTE related Remuneration/ Revenue

Source: PWC (2012) p. 13

In Western Europe the ever increasing costs of human resources resulted in decreasing yields. One of the reason might have been that due to the negativ effects of the financial crisis hiring of well educated, skilled, young employees willing to take jobs with lower wages was postponed.In parallel to that when companies decided to streamline organisation junior employees were sacked firstly. They placed confidence in their senior employees, and rather kept them. Sales revenues kept shrinking during the financial crisis; consequently return on human capital investment was waning. The combination of decreasing sales revenue and increasing or at best flattish human capital costs meant human capital efficiency was falling.

A European survey evaluating chances of Western European university graduates to find new jobs partly came to the same conclusions. Eurobarometer (2010), also presented that freshly graduated job seekers were the biggest losers on the labour market in the crisis.

2.3 Human capital investments return indicator – HC ROI

Human Resource Management experts prefer a common and widely used indicator, the Human Capital Return on Investment-HC ROI-, introduced by PWC Price Waterhouse Coopers. The exact formula and its financials are the following:

$$\frac{\text{Sales Revenue - non employee related costs}}{\text{FTE * average personal remuneration}}$$

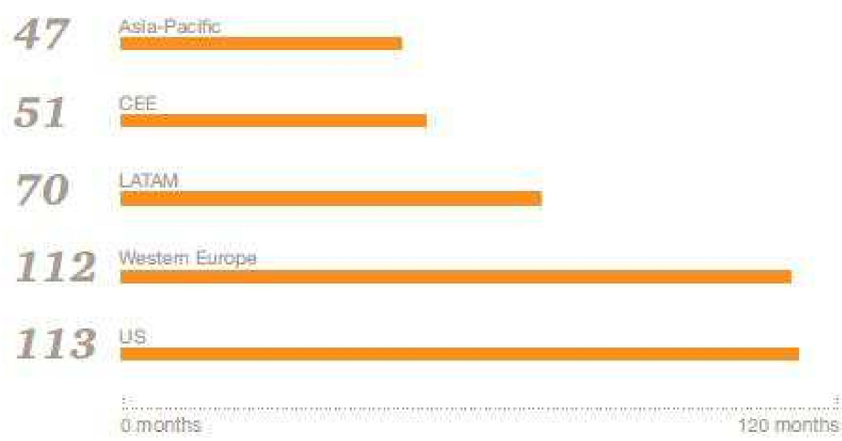
Before the financial crisis it was generally accepted that emerging countries were offering high growth potential with appealing profit margins at a relatively low human capital investment level. Central and Eastern Europe tended to get closer to the developed countries in terms of ever increasing human capital costs but still with high economic growth potential.

Based on the HC ROI data, it is convincing that Central and Eastern European countries could improve their relative positioning and have better HC ROI indicators. As a result, competitiveness and attractiveness of the region for foreign investors went up fairly considerably.

3. Proportions of Rookies and Seniors during the crisis

The Central and Eastern European countries did not follow the trends of the developed countries: they did not rely exlusively on more experienced employees, and did not lay off young relatively unexperienced rookies or did not avoid hiring them. An indicator reflecting the percentage of young staff within the total employee number is the rookie ratio. The tenure of average months spent with the company in Central Europe was following the emerging markets trends, therefore it confirms that competitiveness and human capital cost efficiency improved in Central and Eastern Europe region as a whole. (see figure8.)

Figure 8.: Average tenure in months with companies



Source: PWC (2012), p. 18

4 The impacts of the financial crisis on human resource capital efficiency measures in Central Europe with special focus on Hungary

4.1 The development of human capital efficiency ratios of the largest, in majority multinational companies in Hungary

The issues of Book of Lists-published in Hungary by Budapest Business Journal in 2006, 2007, 2008, 2009, 2010, 2011 are used for analysis and for calculations of different indicators of human capital efficiency, focusing on the top 200 companies in those industry sectors where foreign ownership is determining.

5 Human capital efficiency indicators

5.1 Revenue per FTE

The revenue per FTE is one of the basic indicators in Human Resource Analytics. Revenue per FTE grew considerably in 2010 compared to that ratio in 2007.It is also true that the peak was not in 2007, but due to some delayed positive effects there was still a strong growth of sales revenue in 2008-and consequently revenue per FTE went up eminently by 47% in 2008. Then in 2009 the indicator decreased by 8,8% but as it had already been mentioned the year 2010 brought a significant improvement in Hungary. Arguably the reasons for that increase were the temporary shift towards optimism in the international markets, a positive macroeconomic outlook, recurring export opportunities in the EU and last but not least the positive impacts of the decided and implemented efficiency improvement measures of the multinational companies.

Table 2.: Sales Revenue per FTE 2007-2010

	Revenue per FTE				**change (%)**			
sector	*2 007*	*2 008*	*2 009*	*2 010*	*2008/2007*	*2009/2008*	*2010/2009*	*2010/2007*
agroindusty	217,733	221,075	176,412	188,216	2%	-20%	7%	-14%
automotive parts, accessories	99,985	180,464	156,714	180,896	80%	-13%	15%	81%
automotive manufacturing	63,933	69,326	49,546	60,813	8%	-29%	23%	-5%
automotive dealers	97,887	172,491	113,638	663,786	76%	-34%	484%	578%
tobacco industry	225,034	233,528	226,563	261,540	4%	-3%	15%	16%
electronics	58,578	90,928	99,352	151,591	55%	9%	53%	159%
food processing industry	61,478	63,489	62,377	66,946	3%	-2%	7%	9%
electricity traders	149,589	187,710	170,082	501,728	25%	-9%	195%	235%
electricity providers	206,142	254,709	170,805	335,570	24%	-33%	96%	63%
construction industry	60,421	57,011	70,112	103,856	-6%	23%	48%	72%
metalworking	51,308	49,212	33,893	60,608	-4%	-31%	79%	18%
machinery	40,152	40,141	41,078	41,709	0%	2%	2%	4%
pharma industry	63,811	55,931	70,647	139,897	-12%	26%	98%	119%
retail	31,375	9,640	31,567	26,916	-69%	227%	-15%	-14%
transportation	10,520	16,652	15,935	22,530	58%	-4%	41%	114%
wholesale	80,012	53,166	77,500	67,393	-34%	46%	-13%	-16%
service providers	11,255	16,544	16,934	20,819	47%	2%	23%	85%
show and entertainment	106,949	118,434	113,526	121,684	11%	-4%	7%	14%
telecommunication	69,328	76,012	69,303	67,140	10%	-9%	-3%	-3%
fuel retail traders	750,268	305,268	304,738	652,603	-59%	0%	114%	-13%
chemical industry	134,747	115,287	124,727	123,125	-14%	8%	-1%	-9%
total	**2 590,504**	**2 387,017**	**2 195,452**	**3 859,365**	**-8%**	**-8%**	**76%**	**49%**

Source: Book of Lists and calculations of the author

5.2 Equity per FTE

When analysing the equity per FTE indicator, it is evident that the overall picture became positive in 2010. Equity per FTE grew by 80% compared to the pre-crisis level. This might suggest a stabilising market environment even if it is taken into consideration that some huge previously decided new invesments took place in certain industry sectors (car production for example). Their high numbers might have distorted the trends or might have made the correct comparison very difficult. It is evident that the aim of the freshly increased capital was to compensate for the losses caused by the crisis. (see table 3.)

The impressive increase in the equity per FTE ratio indicates that investors have a long term commitment, their confidence was still strong in Hungary at the end of 2010.

Table 3.: Equity per FTE 2007-2010

	Equity per FTE				change (%)			
sector	*2007*	*2008*	*2009*	*2010*	*2008/2007*	*2009/2008*	*2010/2009*	*2010/2007*
agroindusty	15,40	14,09	14,07	15,34	-8,5%	-0,2%	9,0%	-0,4%
automotive parts, accessories	5,55	108,81	145,08	162,54	1861,6%	33,3%	12,0%	2830,3%
automotive manufacturing	13,56	15,12	16,08	18,04	11,5%	6,4%	12,2%	33,1%
automotive dealers	14,94	11,28	11,92	41,82	-24,5%	5,7%	250,7%	179,9%
tobacco industry	4,22	3,21	-0,15	6,32	-24,1%	-104,8%	-4180,5%	49,6%
electronics	15,44	12,85	17,34	25,23	-16,8%	34,9%	45,5%	63,4%
food processing industry	17,49	16,93	16,52	9,92	-3,2%	-2,4%	-40,0%	-43,3%
electricity traders	61,23	58,44	62,67	161,76	-4,6%	7,2%	158,1%	164,2%
electricity providers	63,81	75,38	73,52	199,91	18,1%	-2,5%	171,9%	213,3%
construction industry	14,22	15,54	17,83	8,86	9,3%	14,7%	-50,3%	-37,7%
metalworking	25,41	23,23	23,69	22,36	-8,6%	2,0%	-5,6%	-12,0%
machinery	9,81	9,03	10,86	17,36	-8,0%	20,3%	59,8%	76,9%
pharma industry	48,77	48,62	54,20	87,11	-0,3%	11,5%	60,7%	78,6%
retail	9,59	2,14	7,29	6,94	-77,6%	240,3%	-4,8%	-27,6%
transportation	7,02	9,21	8,00	6,37	31,1%	-13,2%	-20,4%	-9,3%
wholesale	51,94	49,69	53,49	49,31	-4,3%	7,6%	-7,8%	-5,1%
service providers	10,12	13,65	14,16	12,68	34,9%	3,8%	-10,4%	25,4%
show and entertainment	16,33	19,52	18,50	11,26	19,6%	-5,2%	-39,1%	-31,0%
telecommunication	51,02	55,03	51,29	52,13	7,9%	-6,8%	1,6%	2,2%
fuel retail traders	45,54	37,92	18,99	39,02	-16,7%	-49,9%	105,5%	-14,3%
chemical industry	45,67	48,78	42,91	30,30	6,8%	-12,0%	-29,4%	-33,6%
total	**547,07**	**648,45**	**678,24**	**984,58**	**18,5%**	**4,6%**	**45,2%**	**80,0%**

Source: Book of Lists and calculations of the author

5.3 Profit before tax per FTE

There was already a sharp drop of 23% in 2008 and the negative shrinking trend continued in 2009 too.Finally the continuous shrinkage ended up in a decrease of 27%, compared to the pre crisis level.

Unfortunately this weakening trend of profitability reinforces that Hungary was slipping back in the international competitiveness ranking. In the case of the top 200 companies a deterioration of 27% in profit before tax per FTE is a considerable drop in investment return. (See table 4).

Table 4.: Profit before tax per FTE 2007-2010

	Profit before tax per FTE				change (%)			
sector	*2 007*	*2 008*	*2 009*	*2 010*	*2008/2007*	*2009/2008*	*2010/2009*	*2010/2007*
agroindusty	3,141	2,535	1,129	-0,087	-19%	-55%	-108%	-103%
automotive parts, accessories	7,587	12,478	8,723	17,142	64%	-30%	97%	126%
automotive manufacturing	2,759	0,474	0,774	2,965	-83%	63%	283%	7%
automotive dealers	1,443	-0,398	0,222	9,990	-128%	-156%	4396%	592%
tobacco industry	-1,210	0,129	0,240	-1,704	-111%	86%	-811%	41%
electronics	2,775	3,437	6,923	6,558	24%	101%	-5%	136%
food processing industry	1,795	1,103	3,148	4,914	-39%	185%	56%	174%
electricity traders	11,502	8,018	9,030	16,465	-30%	13%	82%	43%
electricity providers	22,973	10,118	21,358	13,799	-56%	111%	-35%	-40%
construction industry	3,237	4,166	2,691	-3,990	29%	-35%	-248%	-223%
metalworking	3,755	3,211	0,414	1,990	-14%	-87%	381%	-47%
machinery	1,458	0,419	1,471	3,577	-71%	251%	143%	145%
pharma industry	5,714	8,277	11,464	12,191	45%	39%	6%	113%
retail	0,656	0,090	-0,209	-0,490	-86%	-332%	134%	-175%
transportation	-0,016	0,864	-1,031	-2,500	-5378%	-219%	142%	15175%
wholesale	1,280	2,549	0,116	0,141	99%	-95%	22%	-89%
service providers	0,647	0,836	0,749	0,750	29%	-10%	0%	16%
show and entertainment	4,336	7,506	5,846	5,125	73%	-22%	-12%	18%
telecommunication	9,931	11,972	6,465	7,233	21%	-46%	12%	-27%
fuel retail traders	6,469	-2,595	-3,294	-15,983	-140%	27%	385%	-347%
chemical industry	10,896	2,698	-4,878	-3,817	-75%	-281%	-22%	-135%
total	**101,126**	**77,888**	**71,350**	**74,269**	**-23%**	**-8%**	**4%**	**-27%**

Source: Book of Lists and calculations of the author

Conclusion

From the analysis of the Foreign Direct Investments over the period of 2007-2011, it is evident that Central Europe still remained a very attractive region for investors. Although FDI sharply decreased during the worst years of the financial crisis, years 2010 -2011 brought back the growth in FDI. However it is true that the new FDI still fell short of the pre crisis average by one quarter.

The four Central European countries did not perform evenly, Poland had the strongest economic performance and successfully increased its share within the total FDI towards the region. Czech Republik had the highest FDI per capita, Hungary basically kept its share within the total FDI, while Slovakia slightly lost ground.

As to the multinational companies already operating in Central and Eastern Europe, in order to keep their competitiveness at international level they had to take HR efficiency increase measures.

They were successful, and managed to reverse the worsening human capital efficiency trends including the growing FTE related remuneration / revenue indicator. Consequently it is positively reflected on their improving HC ROI numbers.

Hungary also faced big challenges in improving its HC ROI. It is demonstrated on the example of the the top 200 companies Revenue/FTE, Equity per FTE and Profit before tax per FTE indicators. In spite of tough measures taken by the top 200 companies represented in Hungary, such as headcount cuts and confidence boosting fresh capital increases, the profit numbers were still deteriorating and in line with the crumbling profitability of the biggest companies, the country's ranking in international competitiveness slipped back too.

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