

ANALYSIS OF THE VOLUME AND PROVENANCE OF DIRECT FOREIGN INVESTMENTS IN THE WEST REGION FOR DEVELOPMENT IN ROMANIA, WITH A FOCUS ON GERMAN DIRECT INVESTMENTS

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ABSTRACT

This article is a multicriterial analysis of foreign direct investments in the West Region of Development of Romania, with a focus on German direct investments, taking into account the 4 component counties of Western Development Region: Arad, Caras-Severin, Hunedoara and Timis. The analysis investigates 2 reference years, 2010 and 2016, with statistical data retrieved from the National Trade Register Office, the National Commission for Strategy and Prognosis and www.listaфирme.ro, to which are added the author's own calculations. Conclusions are drawn for each of the considered criteria. For the German industry, Romania has affirmed itself in the last few years as being a direct investment market with a high strategic growth potential. Germany has become, both in exports and imports, one of Romania's most important business partners. The business relationships between the companies which play an important role in the economic system of the two countries represent a useful tool for the developments of the Romanian-German trade flows. In the case of direct foreign investments, the enterprises show a consolidated presence in several regions of Romania. German investors have shown an increased interest for Romania especially since the end of the 90s of the last millenium. Internationally renowned companies from Germany, such as: Continental, Bosch, Daimler, INA Schaeffler and Kaufland have extended their production activity areas in Romania. The West Region of Development of Romania progressed in a special manner because it is a region with a great desire to collaborate with Germany both geographically, as well as cultural-historically.

Keywords: Foreign direct investments, Romanian-German trade flows, Overall turnover, Net profit.

JEL Classification: P52.

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1. Introduction

The data regarding the four counties of the West Region of Development (WRD) and origin countries of the direct foreign investments in the WRD, overall turnover, net profit and total employed in the foreign companies were provided directly by NTRD (National Trade Register Office). The data were requested separately, for the year 2010 and for the year 2016, in order to be able to analyze the development trends more precisely.

The following is an analysis of the German and other foreign companies (those companies having published their data) from WRD counties in particular and of WRD in general (ASE, 2017, p. 4-8; Anghel et al, 2017; BNR, 2016; Horobet, & Popovici, 2017).

2. Analysis of foreign direct investments in the West Region of Development of Romania

According to recent analyses (Z.F., 2014; Economica, 2014), Germany has in Romania more than 10,000 companies with overall turnover of 19 billion euros and profits of 800 million euros.

The present analysis considers primarily the situation of foreign direct investments in the WRD's four component counties (Regiunea Vest România; Benedek, 1995, p. 113-118)

Table 1. Number of foreign, German and Non-German companies, overall turnover, net profit and number of employees in Arad County, in 2010 and 2016

Year	Number of foreign companies	Overall turnover	Overall turnover per company	Net profit		Number of employees	
				Overall	Per company		
2010	Foreign (overall)	2,280	9,167,998,854	4,021,052	376,406,212	165,090	38,634
	German	358	2,927,019,138	8,176,031	82,870,107	231,481	14,399
	Non-German	1922	6,240,979,716	3,247,128	293,536,105	152,724	24,235
2016	Foreign (overall)	1,797	14,056,157,784	7,822,013	566,899,364	315,470	33,916
	German	283	7,113,306,750	25,135,360	273,200,591	965,373	18,369
	Non-German	1,514	6,942,851,034	4,585,767	293,698,773	193,989	15,547

Source: The National Trade Register Office and the author's own calculations

As compared to 2010, in Arad County (Deutsch-Rumänischer Wirtschaftsverein Arad – DWR ARAD) there were in 2016 a total of 21% fewer foreign companies and, at the same time, 12% fewer employees therein. In 2010, a foreign company comprised in Arad County an average of about 17 employees. In 2016 it registered 19 employees. If we put aside German companies, then a foreign company would have had in Arad County, in 2010, an average of 12 employees and only 10 employees in 2016. The overall turnover of all foreign companies increased during this period by approximately 54%, while net profit increased by 51%.

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As compared to 2010 data, in Arad County there were a total of 21 fewer German companies in 2016 (283, compared to 358), but there were 28% more employees therein (18,369, 14,399). During the same period, the total employed in Arad County increased by only 17.4%, i.e. from 106,000 to 125,000 employees (NCSP, 2011, p. 10; NCSP, 2017, p. 11).

In 2010, a German company from Arad County had an average of 40 employed persons, while in 2016 there were 65 people. The overall turnover of German companies increased over that period by about 143% (from 2,927,019,138 lei to 7,113,306,750 lei), while net profit increased by 230% (from 82,870,107 lei to 273,200,591 lei). During the period 2010-2015, the overall turnover of all the companies from Arad County increased by 31%, from 20.6 to 27 billion lei (see NTR0).

In 2016, the German companies had a share of 54% of the employees of all foreign companies in Arad County. In 2010, that value was of 37%. In 2016, 17% of the total of foreign companies in Arad County had a share of German capital, while in 2010 the percentage was 16%. In 2016, German companies recorded a 48% share of the overall net profit and a 51% share of the overall turnover of all foreign companies in the County. In 2010 the recorded values were 22%, respectively 32%.

The average overall turnover of a German company in 2016 was 3.2 times higher than that of a foreign company in general. In 2010, its value was only 2.03 times higher (25,135,360 lei, compared to 8,176,031 lei). As for net earnings, the situation is similar, hence a German company reaches in 2016 a net profit in the amount of 965,373 lei, i.e. 3.06 times higher than that of a foreign company (315,470 lei). In 2010, German companies made a 1.4 times higher net profit than that of a foreign company (231,481 lei, compared to 165,090 lei).

Concentrated data are shown in table below for Caraş-Severin County (Deutschsprachiger Wirtschaftsclub Banat – DWC Banat, 2017).

Table 2. Number of foreign, German and Non- German companies, with overall turnover, overall net profit and number of employees, in Caras-Severin County, in the years 2010 and 2016

Year	Number of companies	Overall turnover (lei)	Turnover per company (lei)	Net profit (lei)		Number of employees	
				Overall	Per company		
2010	Foreign(overall)	427	1,547,118,557	3,623,228	99,907,231	233,975	9,083
	German	126	870,368,274	6,907,685	28,541,708	226,521	4,446
	Non- German	301	676,750,283	2,248,340	71,365,523	237,095	4,637
2016	Foreign (overall)	330	1,498,062,965	4,539,585	94,173,884	285,375	8,366
	German	96	1,098,311,575	11,440,746	12,322,314	128,357	6,628
	Non- German	234	399,751,390	1,708,339	81,851,570	349,793	1,738

Source: The National Trade Register Office and author's own calculations

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As compared to 2010, in 2016 in Caraş-Severin County there were a total of 22.72% fewer foreign companies (330 compared to 427) and a total of 7.9% fewer employees (8,366, compared to 9,083). In 2010, a foreign company had in Caras-Severin County an average of 21 people employed, and in 2016 it had 25 employees. If we ignore the German companies, then a foreign company would have in the Caras-Severin County an average of 15 people employed, and in 2016, 7 people employed. The overall turnover of foreign companies decreased during this time with about 3% (from 1,547,118,557 lei to 1,498,062,965 lei), while the overall net profit decreased by 5.74% (from 99,907,231 lei to 94,173,884 lei).

Compared to the year 2010, in 2016 there were 24% fewer foreign companies in Caras-Severin County, comprising 49% more employees. The total number of employees was reduced in Caras-Severin County during this time period by 5%: from 55,900 to 53,100 (NCSP, 2011, p. 10; NCSP, 2017, p. 11).

In 2010, a German company had an average of 35 employees in Caras-Severin County, while in 2016 it had 69 employees. The overall turnover of German companies increased during this period by about 26% (from 870,368,274 lei to 1,098,311,575 lei), while the net profit decreased by 57% (from 28,541,708 lei to only 12,322,314 lei). Between 2010 and 2015, the overall turnover of all the companies from Caras-Severin County decreased by 18%, from 6.9 to 5.6 billion lei (see NTRO). In 2016, the German companies had a share of 80% of the employees in the total employed of all foreign companies in Caras-Severin County. In 2010, this value was still 49%. In 2016, 29% of the total of foreign companies from Caras-Severin County had a share of German capital. In 2010, similar values were recorded.

In 2016, German companies recorded a 13% share of the total net profit and a 73% share of the overall turnover of all foreign companies in the County. In 2010, the recorded values were 29%, respectively 56%. The average overall turnover of a foreign company reaches in 2016 the amount of 4,539,585 lei, representing just about 40% of the average turnover of a German company. In 2010, the percentage was 52.45%.

Regarding the average profit per company, the relationship is almost reversed. In this case, in 2016, a German company achieved an average profit in the amount of only 128,357 lei, which represented only approximately 45% of the value of the average profit of a foreign company in general (in the amount of 285,375 lei). In 2010, the average profit values of German and foreign companies were still very close (226,521 lei, compared to 233,975 lei).

The data taken into account for Hunedoara County are shown in the table below:

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Year	Number of companies	Overall turnover (lei)	Turnover per company (lei)	Net profit (lei)		Number of employees	
				Overall	Per company		
2010	Foreign (overall)	762	2,902,554,372	3,809,126	102,508,299	134,525	18,760
	German	94	55,419,758	589,572	3,881,153	41,289	283
	Non-German	668	2,847,134,614	4,262,178	98,627,146	147,645	18,477
2016	Foreign (overall)	574	1,602,670,592	2,792,109	53,379,743	92,996	5,169
	German	79	51,530,197	652,281	5,137,663	65,034	281
	Non-German	495	1,551,140,395	3,133,617	48,242,080	97,459	4,888

Source: The National Trade Register Office and the author's own calculations

As compared to 2010, in 2016 there were 25% fewer foreign companies in Hunedoara County (574, compared to 762), which had 72.45% fewer employees (only 5169, compared to 18,760). In 2010, a foreign company had an average of 25 employees in Hunedoara County, and in 2016 only 9 employees.

If we ignore the German companies, then a foreign company would have had in Hunedoara County in 2010 an average of 28 employees, and in 2016 only 10 employees. The overall turnover of all foreign companies declined during this period to around 45% (from 2,902,554,372 lei, to only 1,602,670,592 lei), while the net profit decreased even by 48% (from 102,508,299 lei, to 53,379,663). Between 2010 and 2015, the overall turnover of all companies in Hunedoara County also decreased by 21%, from 12.4 billion lei to 9.8 billion lei (NTRO).

In comparison with 2010, in 2016 in Hunedoara County there were 16% fewer German companies (79, compared to 94), which had a total of 2 fewer employees (281, compared to 283). The total number of employees was reduced in Hunedoara County over the considered interval of time by 5.4%, from 113,000 to 106,900 employees (NCSP, 2011, p. 10; NCSP, 2017, p. 11).

In 2010, in Hunedoara County, a German company had an average of 3 employees, while in 2016 it had 3.56 employees. The overall turnover declined over this time interval by around 7% (from 55,419,758 lei, to 51,530,197 lei), while the net profit increased by 32% (from 3,881,153 lei, to 5,137,663 lei). In 2016, German companies had 5.43% of the employees of all foreign companies in Hunedoara County. In 2010 this value was of 1.5%. In 2016, 14% of the companies with foreign capital shares in Hunedoara County were German. In 2010 there were only 12%. In 2016, German companies had a share of 9.62% of the

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overall net profit and 3% of the overall turnover of all foreign companies in the county. In 2010 these values were 4%, respectively 2%.

The turnover per foreign company in Hunedoara County increased 2.2 times in 2016, compared to 2010 – from 3,677,474 lei, to 8,101,331 lei, while, in the same period, the turnover per German company increased 2.65 times – from 6,137,453 lei, to 16,272,472 lei.

With regard to foreign companies from countries other than Germany, operating in Hunedoara County, their number fell in 2016 to 495, compared to 668 in 2010 (by about 26%), and the turnover decreased by 45.52% - from 2,847,134,614 lei, to 1,551,140,395 lei. The same applies to the average turnover per foreign company, which has decreased to 3,133,617 lei, from 4,262,178 lei, i.e. by 26.5%.

Finally, similar trends were seen in overall and per-company net profit, which were lower in 2016, compared to 2010. The overall net profit fell therefore to 48,242,080 lei, compared to 98,627,146 lei (the decrease being 51%), and the net profit per company declined by about 34% - from 147,645 lei, to 97,459 lei.

Hunedoara is the only county of WRD in which both average overall turnover and net profits made by the German companies are obviously below those of the foreign companies in general. The gap between average overall turnover and net profits between foreign and German companies has narrowed in the meantime, first and foremost as a result of the general decline in foreign turnover and profits and due to the rise of German companies.

The data considered by the present analysis which focused on Timis County are provided in the table below (Deutschsprachiger Wirtschaftsclub Banat – DWC Banat):

Table 4. Number of foreign, German and non-German companies, with turnover, net profit and number of employees in Timis County, in 2010 and 2016

Year	Number of companies	Overall turnover (lei)	Turnover per company (lei)	Net profit (lei)		Number of employees	
				Overall	Per company		
2010	Foreign (overall)	4,816	17,710,714,144	3,677,474	1,140,117,435	236,735	73,974
	German	923	5,664,869,139	6,137,453	479,346,525	519,335	19,316
	Non-German	3,893	12,045,845,005	3,094,232	660,770,910	169,733	54,658
2016	Foreign (overall)	4,611	37,355,235,616	8,101,331	2,665,270,895	578,024	113,729
	German	784	12,757,617,680	16,272,472	1,299,577,824	1,657,625	39,807
	Non-German	3,827	24,597,617,936	6,427,389	1,365,693,071	356,857	73,922

Source: The National Trade Register Office and author's own calculations

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As compared to 2010, in 2016 there were 4.3% fewer foreign companies in Timis County (4611, against 4816), but in total they had 54% more employed people (113,729, against 73,974 people). In 2010, a foreign company had in the Timis County an average of 15 employees, and in 2016 around 25 employees. If German companies had been ignored, a foreign company would have had in 2010 an average of 14 employees and in 2016 about 19 people employed. The total turnover of all foreign companies increased over this time period from 17,710,714,144 lei, to 37,355,235,616 lei, that is by about 111%, while the total net profit increased by about 134% (from 1,140,117,435 lei, to 2,665,270,895 lei).

As compared to 2010, in 2016, there were in Timis County a total of 15% fewer German companies (784, against 923), but they had more than twice the number of employed people (39,807, compared to 19,316), with an increase of 106%. The total employed in Timis County increased in this period only by 14%, from 197,300 employees to 225,100 employees (NCSP, 2011, p. 10; NCSP, 2017, p. 11). In 2010, a German company had in Timis County an average of 21 people employed, and in 2016 the number was 51 employees. The overall turnover increased during this period by about 125% (from 5,664,869,139 lei, to 12,757,617,680 lei), while the overall net profit increased by 171% (from 479,346,525 lei to 1,299,577,824 lei). Between 2010 and 2015, the overall turnover of all the companies from Timis County increased by 33.5%: from 38.8 billion lei to 51.8 billion lei (see NTRO).

In 2016, German companies had 35% of all employees of foreign companies in Timis County. In 2010 this value changed to 26%. Of all the companies with foreign capital, only 17% had the share of German capital in 2016. In 2010 the share was 19%. In 2016, German companies achieved a share of 49% of the overall net profit and 34% of the overall turnover of all foreign companies in the county. In 2010 these values changed to 42% of the total turnover, respectively 32% of the overall net profit of the German and other foreign companies in the county.

Based on the high growth rates (and their distribution over fewer companies), the average value of the overall turnover of a German company increased in 2016 in Timis County by 2.53 times compared to the value of the turnover of a foreign company (16,272,472 lei, compared to 6,427,389 lei). In Timis County, a German company achieved 4.65 times the net profit of another foreign company in the county (1,657,625 lei, compared to 356,857 lei). The ratio between overall net profit and overall turnover in 2016 was 7.13% for foreign companies, and 10.2% for German companies. In 2010, the values for foreign companies were 6.44% and for German ones 8.46%.

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2.1. Analysis of direct German investments in the component counties of the Western Development Region of Romania

An internal comparison of German companies is further performed at the level of the West Region of Development of Romania (Auswärtiges AMT (2016): Rumänien: Beziehungen zu Deutschland; Deutsch-Rumänische Industrie und Handelskammer – AHK-Rumänien, 2013-2016; Germany Trade and Invest – GTAI, 2015, 2016), in terms of overall turnover and net profit, as well as average size per company:

Table 5. Average overall turnover of a German company, in 2010 and 2016, within component counties of Western Development Region

County	Average overall turnover of a German company (lei)	
	2010	2016
Arad	8,176,031	25,135,360
Caras-Severin	6,907,685	11,440,746
Hunedoara	589,572	652,281
Timis	6,137,453	16,272,472

Source: Tables 1, 2, 3 and 4.

Table 6. Average net profit made by a German company, in 2010 and 2016, within component counties of the West Region of Development

County	Average net profit made by a German company (lei)	
	2010	2016
Arad	231,481	965,373
Caras-Severin	226,521	128,357
Hunedoara	41,289	65,034
Timis	519,335	1,657,625

Source: Tables 1, 2, 3 and 4.

Table 7. Average size of a German company, according to the number of employees, in 2010 and 2016, within component counties of the West Region of Development

County	Average size of a German company (number of employees)	
	2010	2016
Arad	40	65
Caras-Severin	35	69
Hunedoara	3	4
Timis	21	51

Source: Tables 1, 2, 3 and 4.

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Generally, the following rule applies: the larger the company is, the higher its turnover (the overall transactions), as well as its net profit should be. Although in Caras-Severin County the German companies have on average the highest number of employees, they achieve neither the highest turnover, nor the highest net profit. Caras-Severin County ranked only third in this respect. Arad County gets ahead Timis County with respect to the average turnover. Nevertheless, Timis County leads the way in terms of average net profits. The largest economic growth, both in terms of turnover and net profits, was recorded by Arad County, followed by Timis, Caras-Severin and Hunedoara counties. In all three categories, Hunedoara County is in the last place, being the only county to record negative developments compared to 2010 and this is obvious in two categories: net profits and average size of companies.

In 2015, a foreign company in Romania, which had an average of 32 employees, achieved a turnover of 15.6 million lei and a net profit of 260,000 lei.

2.2. Analysis of the overall turnover, net profit and number of employees for foreign companies and German companies in the West Region of Development

The analysis focuses next on the average overall turnover and net profits of German companies, as well as of those of the other foreign companies in the West Region of Development:

Table 8. Number of foreign companies in the West Region of Development, overall turnover, net profit and number of employees, in 2010 and 2016

Year	Number of foreign companies	Overall turnover (lei)	Net profit (lei)	Number of employees
2010	8,285	31,328,385,927	1,718,939,177	140,451
2016	7,312	54,512,126,957	3,379,723,886	161,180

Source: Tables 1, 2, 3 and 4.

In comparison with 2010, there were in WRD 12% fewer foreign companies in 2016 (7312 against 8285), but due to the positive economic development, in German companies there were 15% more employees (161,180 against 140,451). During the same period, the overall number of employees in the WRD increased only by 8.7%, i.e. from 469,500 to 510,400 employees. In 2010, a foreign company in the WRD had an average of 17 employees, while in 2016 it had 22 employees. The overall turnover of foreign companies increased during this period with around 74% – from 31,328,385,927 lei, to 54,512,126,957 lei, while the net profit increased by 97% (from 1,718,939,177 lei, to 3,379,723,886 lei). Throughout the

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period 2010-2015 the overall turnover of WRD companies increased by 15%, i.e. from 78.7 to 94.2 billion lei (see NTRO).

Table 9. Number of German companies in the West Region of Development, overall turnover, net profit and number of employees, in 2010 and 2016

Year	Number of German companies	Overall turnover (lei)	Net profit (lei)	Number of employees
2010	1,501	9,517,676,309	594,639,493	38,444
2016	1,242	21,020,766,202	1,590,238,392	65,085

As compared to 2010, in the WRD there were 17% fewer German companies in 2016 (1,242, against 1,501), but in total 69% more employees (65,085, against 38,444). In 2010, a German company had an average of 26 employees in WRD, in 2016 it doubled the total number of employees, i.e. reaching 52 employees. The overall turnover increased by 121% (from 9,517,676,309 lei, to 21,020,766,202 lei), while the net profit increased by 167% (from 594,639,493 lei, to 1,590,238,392 lei).

In 2016, 40% of the total employed in all foreign companies in WDR worked in German companies. In 2010 this share was only 27%. In 2016 the German companies had a share of 47% of the net profit and 39% of the overall turnover of all the companies in the four counties. In 2010 these values changed to 35% and 30% respectively.

2.3. FDI analysis in the West Region of Development, per country of origin

The following are the values per origin country of foreign direct investments (FDI) for WRD in 2010 and 2016 (Investromania, 2016):

Table 10. Number of foreign companies in Romania, overall turnover, net profit and number of employees, per origin country, in 2010

Origin country (2010)	Number of foreign companies	Overall turnover (lei)	Net profit (lei)	Number of employees
TOTAL	8,285	31,328,385,927	1,718,939,177	140,451
TOTAL (Germany excluded)	6,784	21,810,709,618	1,124,299,684	102,007
Germany	1,501	9,517,676,309	594,639,493	38,444
Italy	3,391	5,564,581,089	356,645,053	31,733
Luxembourg	63	3,223,858,437	85,082,861	12,853

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Origin country (2010)	Number of foreign companies	Overall turnover (lei)	Net profit (lei)	Number of employees
The Netherlands	138	2,679,573,367	213,791,363	11,261
France	306	1,841,229,093	131,185,617	7,486
Austria	612	1,771,203,676	42,100,580	8,796
Great Britain	74	920,744,317	42,511,901	7,191
USA	197	864,584,624	19,758,603	2,672
Swiss	107	792,675,128	17,688,878	3,256
Hungaria	420	762,316,640	27,045,842	3,128

Table 11. Number of foreign companies in Romania, overall turnover, net profit and number of employees, per country of origin, in 2016

Origin country (2016)	Number of foreign companies	Overall turnover (lei)	Net profit (lei)	Number of employees
TOTAL	7,312	54,512,126,957	3,379,723,886	161,180
TOTAL (Germany excluded)	6,070	33,491,360,755	1,789,485,494	96,095
<u>Germany</u>	1,242	21,020,766,202	1,590,238,392	65,085
Italy	3,125	7,537,583,938	500,669,439	26,215
Luxembourg	60	6,429,239,016	286,037,095	14,674
Austria	493	4,309,016,319	233,394,154	11,567
The Netherlands	122	3,312,500,295	82,104,676	11,227
France	293	3,129,397,123	130,713,092	8,760
Swiss	161	1,637,033,616	65,617,404	4,119
Hungaria	334	923,391,855	107,674,953	2,352
Cyprus	54	830,346,039	39,730,311	1,523
Great Britain	80	675,912,567	53,814,513	1,767

In 2016, 17% of foreign companies in the WRD originated from Germany. In 2010 they represented 18%, while in this period both the number of German companies (-17%) and the number of other foreign companies in the WRD decreased by -11%.

Foreign companies (excluding those from Germany) had an average of 16 employees in 2016, and in 2010 - 15 employed people. In German companies there was an average of 52 employees, in 2016, while in 2010 there were only 26 employed people. Thus, German companies invested largely in employment and they doubled the size of the company throughout a period of 6 years – opposite to the trend of the other foreign investors.

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In 2016, a German company in the WRD had on average, three times more the staff of another company with foreign capital. In 2016, the companies with German capital had a share of 39% of the overall turnover of all foreign companies. In 2010 that share was 30%. In absolute numbers, the German companies managed to significantly increase their turnover in this time period (+ 121%), while the overall turnover of the other foreign companies increased by only 53%.

This means that German companies have also operated successfully in this area. The net profit of the German companies almost tripled between 2010 and 2016 (+ 168%), while the other foreign companies managed to register an overall net profit of 59%, during the same period. In this way, German companies were also more efficient in this field than the rest of the foreign competitors.

2.4. Analysis of foreign direct investments and German direct investments in the West Region of Development and the component counties

There are shown below the average overall turnover, as well as the net profit of German and foreign companies in WDR:

Table 12. Number of foreign companies, excluding the German ones, in the West Region of Development, overall turnover, overall turnover per foreign company, net profit of foreign companies, excluding the German ones, net profit per foreign company, in 2010 and 2016

Year	Number of foreign companies, excluding the German ones	Overall turnover (in lei) of foreign companies, excluding the German ones	Overall turnover per foreign company	Net profit of foreign companies, excluding the German ones	Net profit per foreign company
2010	6,784	21,810,709,618	3,215,022	1,124,299,684	165,728,137
2016	6,070	33,491,360,755	5,517,522	1,789,485,494	294,808,153
	Relative variation	53%	71.7%	59.2%	77.9%

Table 13. Number of German companies in WRD, overall turnover, net profit of German companies and net profit per company, in 2010 and 2016

Year	Number of German companies	Overall turnover (in lei) of German companies	Overall turnover (in lei) per German company	Net profit (in lei) of German companies	Net profit (in lei) per company
2010	1,501	9,517,676,309	6,340,890	594,639,493	396,162
2016	1,242	21,020,766,202	16,924,932	1,590,238,392	1,280,385
	Relative variation	121.5%	168.3%	167.7%	223.2%

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In 2010 a German company in the WRD, on average, almost doubled the overall turnover of another foreign company. The gap widened even more in 2016, due to the constant economic growth of German companies, and it eventually tripled. The same is true of average net profit. Meanwhile, a German company earned over four times more than other foreign companies, although the same German company achieved only 50% more than foreign companies, six years ago. The increase of overall turnover and net profit of the German companies followed an almost “explosive” trend during a period of 6 years. The absolute number of integrative German companies is distributed over the four counties of the WRD as follows:

Table 14. Number of German companies in component counties of the WRD, in 2010 and 2016, as well as the recorded deviations

Number of German companies in the total on WDR	2010 absolute value (percentage)	2016 absolute value (percentage)	The change in the number of companies, 2010-2016, absolute value (percentage)
TOTAL	1,501	1,242	- 259 (- 17)
Arad	358 (24)	283 (23)	- 75 (- 21)
Caras-Severin	126 (8)	96 (8)	- 30 (- 24)
Hunedoara	94 (6)	79 (6)	- 15 (- 16)
Timis	923 (61)	784 (63)	- 139 (- 15)

The Table below shows the share and development of German companies' overall turnover in the counties of the WRD:

Table 15. The share in German companies' overall turnover within the WRD and component counties, in 2010 and 2016, as well as the recorded deviations

Specifications	2010 absolute value (percentage)	2016 absolute value (percentage)	Change of overall turnover per company in 2016, compared to 2010, in absolute value (percentage)
TOTAL	9,517,676,309	21,020,766,202	11,503,089,893 (121)
Arad	2,927,019,138 (31)	7,113,306,750 (34)	4,186,287,612 (143)
Caras-Severin	870,368,274 (10)	1,098,311,575 (5)	227,943,301 (26)
Hunedoara	55,419,758 Irrelevant	51,530,197 Irrelevant	Irrelevant
Timis	5,664,869,139 (60)	12,757,617,680 (61)	7,092,748,541 (125)

The overall turnover (overall transactions) of the German companies within the WRD is *de facto* distributed between Timis and Arad counties. The increase in transactions in both absolute and percentage figures occurred almost exclusively in these two counties.

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Hunedoara County did not record relevant transactions of German companies. Caras-Severin County recorded high losses in 2016, as compared to 2010. Although turnover did increase by the 26%, Caras-Severin County, in 2016, had only 5% of WDR overall turnover. This example obviously shows the amounts that companies from Arad and Timis counties achieve in these categories. The absolute increase of turnover in Timis County, if considered alone, in the period 2010-2016 (+7,092,748,541 lei) is 6.5 times higher than the overall turnover in Caras-Severin County (1,098,311,575 lei). Furthermore, the German companies' turnover increase in Arad County, over the same period, is 4 times higher than the overall turnover in Caras-Severin County.

2.5. Analysis of net profits and number of employees of the German companies in West Region for Development and component integrative counties

It is hereinafter provided the share and net profit changes for German companies within the WRD:

Table 16. Net profits of German companies in the WRD and component counties, in 2010 and 2016, as well as the recorded deviations

Share of component counties in the WRD net profit	Year 2010 absolute value (percentage)	Year 2016 absolute value (percentage)	Changes related to companies' net profit over the period 2010-2016 absolute value (percentage)
TOTAL	594,639,493	1,590,238,392	995,598,899 (167)
Arad	82,870,107 (14)	273,200,591 (17)	190,330,484 (230)
Caras-Severin	28,541,708 (5)	12,322,314 (1)	- 16,219,394 (- 57)
Hunedoara	3,881,153 (1)	5,137,663 Irrelevant	Irrelevant
Timis	479,346,525 (81)	1,299,577,824 (82)	820,231,299 (171)

The net profits of the German companies in the WDR have increased as a percentage in recent years and more than the overall turnover (+ 167% compared to + 121%). The economic growth is concentrated here too exclusively in Timis and Arad counties. In Caras-Severin County, the net profits declined during the considered period. In Hunedoara County, they rank, in accordance with very low values, on a dismal place to the WRD.

The overall number of employees in the WRD German companies is shown below, as well as their share per county, and its development regarding the overall number of employees of the WRD German companies:

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Number/overall share of German companies' employees, related to the overall share of foreign companies' employees within the WRD	Year 2010	Year 2016	Changes related to the number of employees over the period 2010-2016
	absolute value (percentage)	absolute value (percentage)	absolute value (percentage)
TOTAL	38,444	65,085	26,641 (+ 69)
Arad	14,399 (37)	18,369 (28)	3 970 (+ 28)
Caras-Severin	4,446 (12)	6,628 (10)	2,182 (+ 49)
Hunedoara	283 (1)	281 (0)	Irrelevant
Timis	19,316 (50)	39,807 (61)	20,491 (+ 106)

Although there was an absolute increase of employed people in Arad County, by around 4,000 employees in German companies, the percentage of employees of German companies in Arad County compared to the overall number of employees of the WRD German companies decreased by 9%. Similar values are valid for Caras-Severin County. Despite the strong expansion of German companies in terms of employed people (+ 50% of employees in German companies), the percentage for the county in the overall number of WDR employees has decreased further.

The phenomenon is explained by the evolution of the employment trend in Timis County. The importance of this county is clearly highlighted here. In Timis County, the absolute number of employees in the companies with German capital participation doubled. Considered by itself, the increase of employment per unit in German companies of Timis County, for the period 2010-2016, exceeds the overall number of employees in German companies in the Arad County, which ranks second. In this case, we could talk about a "boom" of employment in Timis County.

We intend to go on correlating the statistics of WDR foreign and German companies to the general statistics of Romania and the WRD. The problem that arises here is that not all of the WRD foreign and German companies have published their economic balances, so the results obtained are partly inaccurate. However, the results do allow some conclusions, since certain trends can be recognized at least partly.

We therefore present the employment figures for Romania, the WRD, foreign companies and foreign companies per WDR county, excluding those of German companies, as well as those of German companies per each county in the WRD (NCSP, 2017, p. 11):

FÖLDI, N. (2019).*Analysis of the volume and provenance of direct foreign investments in the West Region for Development in Romania, with a focus on German direct investments***Table 18.** Overall number of employees in economy, foreign companies and German companies in Romania, West Region for Development and Arad County, in 2016

Employees	2016 absolute value
RO	4,759.400
WDR	510,400
Arad	125,300
Arad (foreign companies)	33,916
Arad (German companies)	18,369

The foreign companies in Arad County employed a total of 27% of the overall employed people in the private sector of the county. 14.7% of the overall employed people in the county are found in the companies with German capital.

Table 19. Overall number of employees in economy, foreign companies and German companies in Romania, West Region for Development and Caras-Severin County, in 2016

Employees	2016 absolute value
RO	4,759.400
WRD	510,400
Caras-Severin	53,100
Caras-Severin (foreign companies)	8,366
Caras-Severin (German companies)	6,628

Foreign companies in Caras-Severin County employed 15.7% of the overall employees of the county private economy. Only the companies with German capital from Caras-Severin County have 12.4% of the overall employed people of the county.

Table 20. Overall number of employees in economy, foreign companies and German companies in Romania, West Region for Development and Hunedoara County, in 2016

Employees	2016 absolute value
RO	4,759.400
the WRD	510,400
Hunedoara	106,900
Hunedoara (foreign companies)	5,169
Hunedoara (German companies)	281

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Foreign companies in Hunedoara County employed a total of 4.8% of the overall number of employees in the county's private sector. Only the German capital companies in Hunedoara County comprise 0.3% of the county's overall employed people.

Table 21. Overall number of employees in economy, foreign companies and German companies in Romania, West Region for Development and Timis County, in 2016

Employees	2016 absolute value
RO	4,759,400
the WRD	510,400
Timis	225,100
Timis (foreign companies)	113,729
Timis (German companies)	39,807

Foreign companies in Timis County employed 50.5% of the overall number of employees in the county's private sector. Only the German capital companies in the Timis County include 17.6% of the county's overall employed people.

Table 22. Overall number of employees in economy, foreign companies and German companies in Romania and the West Region of Development, in 2016

Employees	2016 absolute value
RO	4,759,400
WRD	510,400
WRD (foreign companies)	161,180
WRD (German companies)	65,085

Foreign companies in the WRD employed a total of 31.5% of the overall employed people of the region's private sector. Only the German capital firms in the WRD employed 12.7% of the region's overall number of employees.

Starting from the number of about 7,500 German companies in Romania, with 250,000 employees (Deutschlandfunk, 2017; Spiegel, 2017) and the data provided by RCCI (Romanian Chamber of Commerce and Industry), it would appear that in the WRD, respectively only in Timis and Arad counties, there are 1/5 of all the German companies in Romania and almost 1/4 of all employed people in German companies in Romania. A German medium-sized company in Romania would have around 33 employees, at the average level of a foreign company in the country, i.e. 32 employees. Therefore, the German companies in Caras-Severin (69 employees), Arad (65 employees) and Timis (51 employees) counties are much larger than the medium-sized German companies in Romania.

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The German share of each county's overall turnover in the WRD, together with the overall share of foreign capital are further correlated with the overall turnover. And here comes the problem brought about by the fact that not all companies have published their balance sheets, so we cannot have exact results here. However, clear conclusions can also be drawn here based on obvious trends.

The values of turnover (transactions) of foreign and German companies in the WRD refer to 2016 (see data from NTRO). The data regarding the percentage shares of foreign capital, Romanian and state capital refer to 2015, because 2016 data have not yet been published.

In Arad County the overall turnover of all foreign companies for 2016 is 14.05 billion lei. Of the overall turnover of the county, 60% represents foreign capital (Ziarul Financiar, 2017, p. 29). By extrapolating, we will obtain an overall turnover of all companies for 2016, of 23.4 billion lei. Based on this value, the German share in the turnover of Arad County would be around 30.3%. In 2015, the overall turnover of Arad County was 27 billion lei.

In Caras-Severin County, the overall turnover of all foreign companies amounts to 1.5 billion lei. Of the county overall turnover, 36% consists of foreign capital (Ziarul Financiar, 2017, p. 29). By extrapolating, this would mean a total turnover of all companies for 2016, of 4.7 billion lei. Based on this value, the German share in the turnover of Caras-Severin County would be around 36%. In 2015, the overall turnover of Caras-Severin County was 5.6 billion lei.

In Hunedoara County, the total turnover of all foreign companies was 1.6 billion lei. Of the county overall turnover, 26% consists of foreign capital (Ziarul Financiar, 2017, p. 29). By extrapolating, we will obtain an overall turnover of all companies for 2016, of 5.71 billion lei. Based on this value, the German share in the turnover of Hunedoara County would be about 1%. The overall turnover of Hunedoara County was in 2016 of 9.8 billion lei.

In Timis County, the overall turnover in 2016 of all foreign companies was 37 billion lei. Of the county overall turnover, 62% consisted of capital (Ziarul Financiar, 2017, p. 29). By extrapolating, we will obtain a total turnover of all companies for 2016, of 59.5 billion lei. Based on this value, the German share of the overall turnover of Timis County would be around 21.2%. In 2015, the overall turnover of Timis County was 51.8 billion lei.

2.6. The ranking of the TOP 3 foreign companies in the West Region of Development and component counties

As can be seen, below is shown the ranking of TOP-3 companies in 2016 in WDR counties by turnover, number of employees and net profit. The data were verified in the official database of companies (www.listafirme.ro).

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TOP-3 companies	Turnover in billion lei	Number of employees	Profit in million lei
Arad	Takata (Japan) 2.6 billion	Takata (Japan) 4,347	Takata (Japan) 110 million
	Coficab (Multinational) 1.4 billion	Leoni (Germany) 3,988	Coficab (Multinational) 64 million
	Webasto (Germany) 1.1 billion	Kromberg/Schubert (Germany) 2,840	Astra Rail (Luxembourg) 54 million
Caras-Severin	Bordnetze (Germany - Japan) 0.64 billion	Bordnetze (Germany - Japan) 5,480	TMD Friction (Germany) 66 million
	TMK Resita (Germania) 0.39 billion	Delphi Packard (Germany - Multinational) 1,850	Metro Imob. (Germany) 11 million
	Delphi Packard (Germania - Multinational) 0.37 billion lei	TMK Resita (Germany) 715	Power Trade (Romania) 9 million
Hunedoara	Arcelormittal (Netherlands - Lux.) 0.47 billion	Complexul Energetic (RO - state) 5,790	Sarmismob (RO - Italia) 16 million
	Complexul Energetic (RO - state) 0.40 billion	Societatea Național Închideri Mine (RO - state) 1,070	Besser (Italia) 11 million
	Eurosport DHS (China - Germany) 0.26 billion	APA Prod (RO - state) 1.070	Eurosport DHS(China - Germany) 11 million
Timis	Continental (Germany) 6.5 billion	Profi Rom Food (Multinational) 9,469	Continental (Germany) 918 million
	Profi Rom Food (Multinational) 3.5 billion	Continental (Germany) 8,489	Hella (Germany) 158 million
	Hella (Germany) 2.3 billion	Delphi Packard (Multinational) 6,033	Profi Rom Food (Multinational) 127 million

This table enables one to figure out exactly not only the origin and nature of the activity of different investors' fields, but also the various amounts of investments in each county. For instance, the turnover of the 3rd ranked company in Timis County represents double the turnover of the 1st ranked company in Arad County. The company that ranked third by its overall turnover in Arad County is in turn larger than both companies from the first place in Caras-Severin and Hunedoara counties taken together. A similar situation can be identified when the four counties are compared in terms of the number of people employed or net profits.

Timis County is clearly dominant among the WRD counties, in each category, followed by Arad County, which obviously ranks second, in general, among the WRD counties. "Continental" is the company with private capital that realizes the highest net profits in Romania. Only the state-owned companies "Hidroelectrica" and "OMV-Petrom" from Bucharest / Ilfov, as well as "Romgaz" in Sibiu register larger net profits.

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The strong influence of state-owned companies in Hunedoara County is obvious.

The supremacy of a single company is to be observed in Caras-Severin County.

According to RDA West, the most important investors in Arad County are particularly active in the manufacturing industry, especially in the fields of auto parts, machinery and electrical installations. Important German investors include the companies "Contitech" and "BOS", which are also active in car production, as well as the company "EKR-Elektrokontakt" in the electrical industry and the company "Hanes" in the textile industry.

In the Timis County, investors are concentrated in the manufacturing industry. Auto parts production is also an important branch there. Other important industrial areas are the food and electrical equipment industry. Other important German investors producing in the automotive sector are "Dräxlmaier", "Contitech" and "Mahle", as well as the manufacturer of communications antennae "Kathrein" and the cable manufacturer "Kromberg & Schubert", and "Linde AG" in the field of gas technology too. In the Timis County, more and more German and foreign IT companies such as "SAP", "Atos" and "Bosch Service GmbH" are active.

The analysis of the above statistics clearly indicates that Timis County is not only the engine of economic growth in the WRD, but of the entire country as well.

As far as FDI is concerned, Arad County is also in an actually good position especially with respect to German direct investments within the WRD. For instance, there are more employees in German companies in Arad County than in all foreign companies in Caras-Severin and Hunedoara counties together. The absolute number of German companies has generally decreased in the WRD; the number of employees has doubled nevertheless. Smaller companies apparently withdrew during the economic crisis in WDR, but the remaining ones continued to invest. As a result, the number of people employed by the companies doubled, and besides record values have been obtained regarding the overall turnover and the net profit.

3. Conclusions

German companies have recorded increases in the employed people, especially in Timis County. Arad and Caras-Severin counties have also reported significant employment increases in German companies, while the share of employees of German companies in Hunedoara is almost irrelevant. In Hunedoara County, the number of employees in foreign companies declined severely, while in the whole WDR the trend of larger companies is increasing, as resulting from the average number of employees (Ianos & Guran, 1993; Moraru, 2013).

The increase in the size of companies is also noticeable in the case of German companies. In the counties of Arad, Caras-Severin and Timis, the German investments ranks first in relation to the total of the foreign investments, both in terms of overall turnover, net profit

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and absolute number of employed people. In total, there are 3,125 Italian companies in the WRD, i.e. 150% more than German companies. However, Italian companies generate only 35% of the turnover and register only 33% of the profit of German companies. In addition, the Italian companies comprise only 40% of the employees of the German companies.

Given that most FDI (foreign direct investment) has been made in Romania by companies with Dutch and Austrian capital, and Germany ranks third at the national level, the WRD holds an outstanding position, as German companies clearly dominate therein, both in terms of turnover and net profits and number of employees.

Austria and the Netherlands considered together make up only 35% of the total number of employees of German companies and register only 20% of the net profit and 36% of the turnover of German companies. German companies are obviously the engine of economic growth throughout the WRD. The center of monetary / financial weight is located in Timis and Arad counties.

Abbreviations

FDI	Foreign Direct Investments
NTRD	National Trade Register Office
NCSP	National Commission for Strategy and Prognosis
RDA West	Regional Development Agency (RDA) West
WRD	the West Region of Development of Romania

Data Sources

- National Commission for Strategy and Prognosis
- National Trade Register Office
- www.listaфирme.ro

References

- Anghel, M.G., Anghelache, C., Avram, D., & Burdea, D. (2017). Investițiile străine directe ca parte acumulată a avuției naționale. *Revista română de statistică*, supliment nr. 10/2017.
- Auswärtiges Amt (2016). *Rumänien: Beziehungen zu Deutschland*. Retrieved from <https://www.auswaertiges-mt.de/de/aussenpolitik/laender/rumaenien-node>.
- Banca Națională a României (2016). Evoluția investițiilor străine directe (ISD) în România. Retrieved from <http://www.bnr.ro/Investitiile-straine-directe-%28ISD%29-in-Romania-3174.aspx>
- Benedek, J. (1995). Teorii de localizare și dinamizarea lor. *Studia Universitatis Babeș-Bolyai, Geographia, 1-2*, 113-118.
- Comisia Națională de Prognoză (2017). Proiecția principalilor indicatori economico - sociali în profil teritorial până în 2021.
- Comisia Națională de Prognoză (2011). Proiecția principalilor indicatori economico - sociali în profil teritorial până în 2014.
- Deutsch-Rumänische Industrie und Handelskammer (AHK-RUMÄNIEN) (2014). Fördermittel für Rumänien.
- Deutsch-Rumänische Industrie und Handelskammer (AHK-RUMÄNIEN) (2013). Gründung einer GmbH. Retrieved from <https://www.pfalz.ihk24.de/international/komp-rumaenien/wirtschaftsrecht-und-steuern/rechtsformen-in-rumaenien-2899962>.

FÖLDI, N. (2019).*Analysis of the volume and provenance of direct foreign investments in the West Region for Development in Romania, with a focus on German direct investments*

- Deutsch-Rumänische Industrie und Handelskammer (AHK-RUMÄNIEN) (2013). Grundstückserwerb in Rumänien. Retrieved from http://www.ahkrumaenien.ro/fileadmin/AHK_Rumaenien/user_upload/Grundstueckerwerb_Juli_2014.pdf
- Deutsch-Rumänische Industrie und Handelskammer (AHK-RUMÄNIEN) (2015). Konjunkturbericht Rumänien 2015. Bukarest.
- Deutsch-Rumänische Industrie und Handelskammer (AHK-RUMÄNIEN) (2014). Zukunftsmarkt Rumänien. Bukarest.
- Deutsch-Rumänische Industrie und Handelskammer (AHK-RUMÄNIEN) (2015). Zukunftsmarkt Rumänien. Bukarest.
- Deutsch-Rumänische Industrie und Handelskammer (AHK-RUMÄNIEN) (2016). Zukunftsmarkt Rumänien. Bukarest.
- Deutsch-Rumänischer Wirtschaftsverein Arad (DWR ARAD) (n.d.). Retrieved from <http://www.drw.ro>
- Deutschlandfunk (2017). *Deutsche Unternehmen in Rumänien. Hoffen auf mehr Rechtsstaatlichkeit*. Retrieved from http://www.deutschlandfunk.de/deutsche-unternehmen-in-rumaenien-hoffen-auf-ehr.769.de.html?dram:article_id=378677
- Deutschsprachiger Wirtschaftsclub Banat (DWC BANAT). (n.d.). Retrieved from www.dwc.ro
- Germany Trade and Invest (2015). *Recht kompakt - Rumänien*.
- Germany Trade and Invest (2016). *Wirtschaftstrends kompakt*. Jahreswechsel 2015/16 Rumänien.
- Haas, H., & Neumair, S. (2008). *Wirtschaftsgeographie*. 2. Auflage. Darmstadt.
- Horobeț, A., & Popovici, O. (2017). *Investițiile străine directe: evoluția și importanța lor în România*. Studiu realizat în parteneriat de Academia de Studii Economice București și Consiliul Investitorilor Străini. București.
- Ianos, I., & Guran, L., (1993). *Regionale Aspekte ausländischer Investitionen in Rumänien seit 1990*, österreichische Osthefte. Jahrgang 35/1993, Heft 4.
- InvestRomania (2016). *Foreign Investors Guide 2016*. Retrieved from <http://investromania.gov.ro/web/business-in-romania/the-foreign-investors-guide-2016>
- Moraru, C. (2013). Foreign direct investment and economic growth in Romania. *Theoretical and Applied Economics*, XX, 5 (582), 125 -134.
- Pagina principală a Regiunii Vest, România. (n.d.). Retrieved from <http://www.regiuneavest.ro>
- Spiegel (2017). *Europas Wachstumsmeister ist ... Rumänien!* Retrieved from <http://www.spiegel.de/wirtschaft/unternehmen/rumaenien-deutsche-firmen-investieren-wirtschaft-boomt-a-1180955.html>
- Staudacher, C. (2005). *Wirtschaftsgeographie regionaler Systeme*. Wien.
- Ziarul Financiar (2014). *Germania are peste 10.000 de firme în România cu afaceri de 19 mld. euro și profituri de 800 mil. euro. Întrebarea este câte vor fi și ce afaceri vor avea în cinci ani*. Retrieved from <http://www.zf.ro/companii/germania-are-peste-10-000-de-firme-in-romania-cu-afaceri-de-19-mld-euro-si-profituri-de-800-mil-euro-intrebarea-este-cate-vor-fi-si-ce-afaceri-vor-avea-in-cinci-ani-13573017>
- Ziarul Financiar (2017). *Capitalul privat românesc*, ediția a II-a. Retrieved from <https://www.piarom.ro/wp-content/uploads/2017/02/brosura-PIAROM-ianuarie-2017.pdf?x44818>