
The impact of FDI on economic growth in Romania and EU countries during the current economic crisis

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Abstract

Sovereign debt crisis in the euro area countries , yet amplifies a number of vulnerabilities in the ability of European economic integration to overcome the crisis and resume growth the effect unfavorable to Romania whose economy depends to a large proportion of over 70 % of exports and imports in the EU27 countries . In the crisis year 2012, when GDP fell by exports increased , so has recovered downturn caused by the crisis in 2009, the new 17% achieving a surplus , which is a proof to the fact that short-term relationship between GDP and exports is not relevant . The importance of the subject of FDI targeting their origin, in the alternative 's effects , and that since the streams have become important - it is the affirmation of multinational companies as influential in the contemporary world . Today's Study on FDI practically merges with that of multinational corporations and World Economics macro assessments are completed leaving microeconomic considerations , legal , managerial , administrative and even psychological .

Article highlights the influence of FDI on economic growth in Romania , the trend of imports , exports , respectively .

Key words: economic growth, direct foreign investments, export, import.

An important factor that must be considered is the targeting share they hold foreign strategic investors , generally in sectors and branches of national economy (GDP creation) as well as exports and imports.

Thus, the Romanian economy , FDI enterprises have a share of 70 % in exports and imports , and in some sectors of the economy over 85 % (banking sector). Given this specific situation of Romania , inevitably raises

two important theoretical and methodological issues and practical approach undisputed :

- a) responsibility, commitment and ability FDI for economic development, sustainable national economic and financial crisis that Romania being a particularly interesting test in terms of realism approaches to both theoretical and practical on the contribution of FDI to enroll Romania Romania's exit from the crisis and restoring growth thereof;
- b) importance, the primary end result of the impact of FDI on host country's economic growth , socio-economic effectiveness of ISD, and especially the policy of reinvestment in the host country and the expatriation of profits to the parent company.

These findings, in international comparative context, highlights the existence of economic disparities, high technological and between Romania and developing countries, although there is hope that their relative reduction through economic integration in the European Union, generating convergence in reality since 2009 there is an increase in those gaps that continue in 2013 due to the prolonged crisis, both in Romania and in other EU countries Mebrat which questions the expected impact of Romania upon accession its EU path to fit nominal and real convergence process in favor of "burning stages" (leapfrogging) and catching up (catching up). In international statistics (UNCTAD) , foreign direct investment are evaluated by two important variables: FDI flow and stock of FDI. Both FDI flows and stocks of FDI to the entry and exit of foreign capital from a country or region.¹

ISD is a flow size and the amount of stock. It is a stream that size worldwide has dropped dramatically during the crisis (2008-2009) , then these FDI flows recovered .

1. Geamănu M., *Contribuția investițiilor străine directe la dezvoltarea economică a României, în condițiile integrării UE și ale globalizării*, doctoral thesis, Romanian Academy, 2013

Flows of FDI during 2006-2011

Table no. 1

-mil. dollars-

region	Inflows of FDI						Outflows de ISD					
	2006	2007	2008	2009	2010	2011	2006	2007	2008	2009	2010	2011
World	1.463.351	1.975.537	1.790.706	1.197.824	1.309.001	1.524.422	1.415.094	2.198.025	1.969.336	1.175.108	1.451.365	1.694.396
Developed Countries	981.869	1.310.425	1.019.648	606.212	618.586	747.860	1.152.034	1.829.578	1.580.753	857.792	989.576	1.237.508
Europe	639.814	899.191	569.026	398.935	356.588	425.266	793.937	1.279.540	1.024.605	458.103	568.414	651.387
UE27	585.030	853.966	542.242	356.631	318.277	420.715	691.764	1.204.747	957.798	393.618	482.905	561.805
Romania	11.367	9.921	13.909	4.844	2.940	2.670	423	279	274	-88	-20	32
Austria	7.933	31.154	6.858	9.303	4.265	14.128	13.670	39.025	29.452	10.006	7.732	30.451
Belgium	58.893	93.429	193.950	61.744	81.190	89.142	50.685	80.127	221.023	9.205	55.709	70.706
Bulgaria	7.805	12.389	9.855	3.385	1.601	1.864	177	282	765	-95	229	190
Cyprus	1.834	2.226	1.415	3.472	766	276	887	1.240	2.717	383	679	1.828
Czech Republic	5.463	10.444	6.451	2.927	6.141	5.405	1.468	1.620	4.323	949	1.167	1.152
Denmark	2.691	11.812	1.824	3.917	-7.397	14.771	8.206	20.574	13.240	6.305	3.467	23.413
Estonia	1.797	2.716	1.729	1.839	1.540	257	1.107	1.747	1.112	1.549	133	-1.458
Finland	7.652	12.451	-1.144	398	6.733	54	4.805	7.203	9.297	4.917	10.471	5.417
France	71.848	96.221	64.184	24.219	30.638	40.945	110.673	164.310	155.047	107.130	76.867	90.146
Germany	55.626	80.208	8.109	24.156	46.860	40.402	118.701	170.617	72.758	75.391	109.321	54.368
Greece	5.355	2.111	4.499	2.436	373	1.823	4.045	5.246	2.418	2.055	979	1.788
Ireland	-5.542	24.707	-16.453	25.960	26.330	13.102	15.324	21.146	18.949	26.616	17.802	-2.148
Italy	42.581	43.849	-10.835	20.077	9.178	29.059	43.797	96.231	67.000	21.275	32.955	47.210
Latvia	1.663	2.322	1.261	94	379	1.562	170	369	243	-62	21	93
Lithuania	1.817	2.015	1.965	66	753	1.217	291	597	336	217	79	165
Luxembourg	31.837	-28.260	11.216	22.408	9.211	17.530	7.747	73.350	11.759	7.547	15.123	11.741
Malta	1.838	805	802	746	1.063	539	30	14	291	114	57	21
Netherlands	13.978	119.383	4.549	36.042	-8.966	17.129	71.175	55.606	68.334	28.180	55.217	31.867
Poland	19.603	23.561	14.839	12.932	8.858	15.139	8.883	5.405	4.414	4.699	5.487	5.860
Portugal	10.908	3.063	4.665	2.706	2.646	10.344	7.139	5.493	2.741	816	-7.493	12.639
United Kingdom	156.186	196.390	91.489	71.140	50.604	53.949	86.271	272.384	161.056	44.381	39.502	107.086
Slovakia	4.693	3.581	4.687	-6	526	2.143	511	600	530	904	327	490
Slovenia	644	1.514	1.947	-653	359	999	862	1.802	1.440	260	-212	112
Spain	30.802	64.264	76.993	10.407	40.761	29.476	104.248	137.052	74.717	13.070	38.341	37.256
Sweden	28.941	27.737	37.153	10.023	-1.347	12.091	26.593	38.806	31.326	25.908	17.956	26.850
Hungary	6.818	3.951	6.325	2.048	2.274	4.698	3.877	3.621	2.234	1.984	1.307	4.530

Source: UNCTAD WIR 2011, page 169

Unprecedented increase in FDI flows between developed countries and those in developing countries, as well as within each of the two groups of countries is an area of research as attractive as it is complex, both in terms of manifestation of the growing globalization and in terms of benefits and costs in the country of origin and the host country of FDI. Countries with the highest rates of FDI inflows in 2011 were Belgium (with 89 142 million), followed by the United Kingdom (with 53 949 million) and France (with 40 945 million). Countries with the lowest values of FDI inflows in 2011 were: Romania (to 2670 million dollars), Slovakia (with 2143 million dollars), Slovenia (999 million dollars), Estonia (257 mil. dollars). It notes that Romania has many fewer FDI inflows and outflows (do not have capacity to export capital). It also shows that increased foreign direct investment by 2008; in 2009 declined and will decline further in 2010 and 2011. From Tables 2 and 3, it can be seen that, on average, Romania, where FDI inflows, FDI recovery progress in 2007-2011 increased 3.7 times, and in the case of FDI outflows increased 8, seven times.

**Evolution pre-crisis recovery in major groups of countries
during 2006-2011**

Table no. 2

region/ economy	Inflows of FDI	
	2007-2011 (mil. dollars)	2011/2007
world	451.115	1,3
Developed countries	562.565	1,8
Europe	473.925	2,1
EU27	433.251	2
Romania	7.251	3,7
Bulgaria	10.525	6,6
France	55.276	2,4
Germany	39.806	2
Netherlands	102.709	7
United Kingdom	142.441	3,6

Source: own calculations based on data from UNCTAD WIR 2011

**Evolution pre-crisis recovery in major groups of countries
during 2006-2011**

Table no. 3

region/ economy	Outflows of ISD	
	2007-2011 (mil. dolari)	2011/2007
world	503.629	1,3
Developed countries	592.070	1,5
Europe	628.153	2
EU 27	642.942	2,1
Romania	247	8,7
Bulgaria	92	1,5
France	74.164	1,8
Germany	116.249	3,1
Netherlands	23.739	1,7
United Kingdom	165.298	2,5

Source: own calculations based on data from UNCTAD WIR 2011

**Evolution of FDI flows in the EU with mobile base indices
in the period 2006-2011**

Table 4

-%-

region	Inflows FDI					Outflows ISD				
	2007	2008	2009	2010	2011	2007	2008	2009	2010	2011
World	135,0	90,6	66,9	109,3	116,5	155,3	89,6	59,7	123,5	116,7
Developed Countries	133,5	77,8	59,5	102,0	120,9	158,8	86,4	54,3	115,4	125,1
Europe	140,5	63,3	70,1	89,4	119,3	161,2	80,1	44,7	124,1	114,6
UE27	146,0	63,5	65,8	89,2	132,2	174,2	79,5	41,1	122,7	116,3
Romania	87,3	140,2	34,8	60,7	90,8	66,0	98,2	-32,1	22,7	-160,0
Austria	392,7	22,0	135,7	45,8	331,3	285,5	75,5	34,0	77,3	393,8
Belgium	158,6	207,6	31,8	131,5	109,8	158,1	275,8	4,2	605,2	126,9
Bulgaria	158,7	79,5	34,3	47,3	116,4	159,3	271,3	-12,4	-241,1	83,0
Cyprus	121,4	63,6	245,4	22,1	36,0	139,8	219,1	14,1	177,3	269,2
Czech Republic	191,2	61,8	45,4	209,8	88,0	110,4	266,9	22,0	123,0	98,7
Denmark	438,9	15,4	214,7	-188,8	-199,7	250,7	64,4	47,6	55,0	675,3
Estonia	151,1	63,7	106,4	83,7	16,7	157,8	63,7	139,3	8,6	-1.096,2
Finland	162,7	-9,2	-34,8	1.691,7	0,8	149,9	129,1	52,9	213,0	51,7
France	133,9	66,7	37,7	126,5	133,6	148,5	94,4	69,1	71,8	117,3
Germany	144,2	10,1	297,9	194,0	86,2	143,7	42,6	103,6	145,0	49,7
Greece	39,4	213,1	54,1	15,3	488,7	129,7	46,1	85,0	47,6	182,6
Ireland	-445,8	-66,6	-157,8	101,4	49,8	138,0	89,6	140,5	66,9	-12,1
Italy	103,0	-24,7	-185,3	45,7	316,6	219,7	69,6	31,8	154,9	143,3
Latvia	139,6	54,3	7,5	403,2	412,1	217,1	65,9	-25,5	-33,9	442,9
Lithuania	110,9	97,5	3,4	1.140,9	161,6	205,2	56,3	64,6	36,4	208,9
Luxembourg	-88,8	-39,7	199,8	41,1	190,3	946,8	16,0	64,2	200,4	77,6
Malta	43,8	99,6	93,0	142,5	50,7	46,7	2.078,6	39,2	50,0	36,8
Netherlands	854,1	3,8	792,3	-24,9	-191,0	78,1	122,9	41,2	195,9	57,7
Poland	120,2	63,0	87,1	68,5	170,9	60,8	81,7	106,5	116,8	106,8
Portugal	28,1	152,3	58,0	97,8	390,9	76,9	49,9	29,8	-918,3	-168,7
UK	125,7	46,6	77,8	71,1	106,6	315,7	59,1	27,6	89,0	271,1
Slovakia	76,3	130,9	-0,1	-8.766,7	407,4	117,4	88,3	170,6	36,2	149,8
Slovenia	235,1	128,6	-33,5	-55,0	278,3	209,0	79,9	18,1	-81,5	-52,8
Spain	208,6	119,8	13,5	391,7	72,3	131,5	54,5	17,5	293,4	97,2
Sweden	95,8	133,9	27,0	-13,4	-897,6	145,9	80,7	82,7	69,3	149,5
Hungary	57,9	160,1	32,4	111,0	206,6	93,1	61,7	88,8	65,9	346,6

Source: own calculations based on data from UNCTAD WIR 2011

From the table above it can be seen that , in 2007-2011, in Romania, FDI inflows fell by 9.2 % in 2011 compared to 2010, with 29.3 % in 2010 compared to 2009, with 65.2 % in 2009 compared to 2008 increased by 40.2 % in 2008 compared to 2007 and from 2006 to 2007 decreased by 12.7 % . From the table above it can be seen that , in 2007-2011, in Romania, FDI

inflows declined by 160 % in 2011 compared to 2010, with 77.3 % in 2010 compared to 2009, with 32.1 % in 2009 compared to 2008, by 2.8 % in 2008 compared to 2007 and from 2006 to 2007 decreased by 34 % .

The purpose of quantitative analysis based on patterns of foreign direct investment was to identify mutual influence with different intensities from one period to another, between FDI and its determinants , and the performance indicators of the Romanian economy and foreign investment direct influence as a major factor . A result that FDI have a greater impact on GDP than the reverse .In order to verify the results of the quantitative analysis of the effects of FDI based on regression analysis and correlation , simple and multiple factor introducing time lag (time- lag) in a multiple regression , the outcome variable GDP and FDI and exports are explanatory variable time delay to GDP respectively one, two and three years knowing that usually investment results is achieved , not entirely in the year they were made , but later. Our analysis was based on data Eurostat indicators for EU-27 GDP , exports and FDI for the period 2008-2011. Regression analysis used is LAG by introducing the factor of time lag (time- lag) in a multiple regression , the outcome variable GDP and FDI and exports are offset as explanatory variables to GDP with that one, two and three years ..

Hypotheses established are :

1. $GDP_{2012}=f(GDP_{2011}; export_{2011}, FDI_{2011})$
2. $GDP_{2012}=f(GDP_{2010}; export_{2010}, FDI_{2010})$
3. $GDP_{2012}=f(GDP_{2009}; export_{2009}, FDI_{2009})$

We used Eviews, the results were verified by Jarque-Bera test and Breusch Godfrey test.

The results of the calculations, confirmed by those of other foreign research reveals inconclusive unambiguous links or biunique, different intensities between FDI, GDP growth and exports. Even empirical data shows, for example, that in the peak years of the economic crisis in Romania, 2009 and 2010, the negative trend of GDP in 2010 exceeded exporture highest recorded in crisis, even if GDP declined for two consecutive years.

$$1. GDP_{2012}=f(GDP_{2011}; export_{2011}, FDI_{2011})$$
$$GDP_{2012}=0.34+0.97GDP_{2011}-0.31Export_{2011}+0.04FDI_{2011}$$

The relationship between $GDP_{2012}, GDP_{2011}, export_{2011}, FDI_{2011}$ is linear and very strong. The regression model is valid, correctly identified statistically. The parameters of the model are significant statistically.

The model does not present autocorrelation. It can be use for prognosis. $GDP_{2011}, export_{2011}, FDI_{2011}$ explain in about 83.14% the variation of GDP_{2012} .

$$2. GDP_{2012}=f(GDP_{2010};export_{2010},FDI_{2010})$$
$$GDP_{2012}=0.72+0.98GDP_{2010}-0.67export_{2010}+0.02FDI_{2010}$$

The relationship between $GDP_{2012}, GDP_{2010}, export_{2010}, FDI_{2010}$ is linear and very strong. The regression model is valid, correctly identified statistically. The parameters of the model are significant statistically. The model does not present autocorrelation. It can be use for prognosis. $GDP_{2010}, export_{2010}, FDI_{2010}$ explain in about 89.14% the variation of GDP_{2012} .

$$3. GDP_{2012}=f(GDP_{2009};export_{2009},FDI_{2009})$$
$$GDP_{2012}=0.62-0.21GDP_{2009}+0.63export_{2009}+0.034FDI_{2009}$$

The relationship between $GDP_{2012}, GDP_{2009}, export_{2009}, FDI_{2009}$ is linear and very strong. The regression model is valid, correctly identified statistically. The parameters of the model are significant statistically. The model does not present autocorrelation. It can be use for prognosis. $GDP_{2009}, export_{2009}, FDI_{2009}$ explain in about 97.13% the variation of GDP_{2012} .

CONCLUSIONS

In conclusion, we believe that the literature on the general fund of the favorable impact of foreign direct investment are emerging and less favorable size or their favored when it comes to the ratio of their effects in the host and home country if from those previously presented is added and a number of other aspects of the transfer of value between the subsidiary and the parent company by the so-called transfer pricing unfavorable host country relations inechivalente barter (barter) between the two , a relationship based lending and repayment mainly on financial and currency speculation on the stock market .

In our opinion, both macroeconomic approach and the point of FDI on national economies must be based on the principle of economic efficiency in the broadest sense of his, which requires the inclusion of addition effects and financial costs iplicate parties (stakeholders) and externalities , both positive and negative FDI generates time horizons short, medium and long term.¹

1. In this regard, see "Cost Benefit Analysis of Investment projects Funded by EU Structural and Cohesion Funds" which examines issues complex based RIRE RIRF and just procedures to

Gap of three years , highlights the strong link between GDP and FDI , which confirms our initial assertion that investment generates stretch magnitude effects on the medium and long terms .

However , many authors recommend a causal relationship tinting GDP FDI -export -import in view of the fact that it can be different from one period to another and more, can have impacts meanings and sometimes for longer more or less long , not only positive but also negative or counterproductive.

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include positive and negative externalities of FDI.