

4. Research findings

4.1 Overview of this section

This section presents the analysis of data and research findings that aims to achieve the research objectives. This section is structured into three major parts. The first section explores the descriptive statistics to be used in this work. The second section carries out the correlation analysis of the variables measured and the third section performs the multiple regression analysis to test (i) the relationship between FDI and FDI determinants and (ii) the relationship between economic growth and FDI.

28 European Union countries are the sample country of this research. They are member countries as on 1st Jan., 2014, which includes Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden and United Kingdom. Annual data are used from 2002 to 2013, which is a span of 12 years.

4.2 Descriptive statistics of variables

4.2.1 FDI

Foreign direct investment includes both of its conceptual meaning and measurement details. Conceptually, FDI, or FDI inflow to the host country specifically, is the long-term investment of featuring business relationship with lasting interest and control enjoyed by the investing entity of the source country (UNCTAD, 2012). The summary statistics of FDI of the 28 EU countries are presented in table 4.1. The average of data is the among the 12 years span of observation.

The data shows that Luxembourg is the country that attracts the largest amount of FDI among EU countries, followed by U.K., France, Germany, Netherlands and Belgium. The fact that Luxembourg is the host country with largest amount of FDI is likely due to the nature of Luxembourg as the heaven of offshore companies in Europe. The amount of FDI inflow are to the companies registered in Luxembourg, but not necessary to the economy of Luxembourg. Therefore, the statistical figures of FDI may not be exactly the same as the conceptual meaning of FDI in economics and finance. From the pattern of FDI, one may consider that a larger economy would attract more FDI. Therefore, a better measure on FDI is according to its proportion to GDP, which is analysed in the next subsection.

FDI (Million Euro)		
country	mean	s.d.
Austria	11,422.9	6,355.7
Belgium	32,275.6	40,052.3
Bulgaria	136.6	165.9
Croatia	181.4	301.1
Cyprus	586.8	580.7
Czech	771.7	725.9
Denmark	6,332.7	4,462.3
Estonia	445.7	577.4
Finland	4,104.6	2,962.9
France	63,220.6	29,723.2
Germany	53,045.5	33,176.5
Greece	1,346.4	951.1
Hungary	2,851.2	2,917.9
Ireland	11,893.1	5,820.0

FDI (Million Euro)		
country	mean	s.d.
Italy	25,260.3	17,639.3
Latvia	80.9	73.5
Lithuania	166.6	121.1
Luxembourg	140,406.3	60,629.0
Malta	70.3	163.4
Netherlands	36,591.5	25,510.3
Poland	2,604.1	2,268.6
Portugal	2,583.7	4,118.8
Romania	13.1	121.8
Slovakia	245.3	268.2
Slovenia	342.8	469.0
Spain	34,163.9	29,053.1
Sweden	19,166.9	4,878.0
U.K.	71,132.8	56,060.0
EU average	18,623.0	36,953.7

Table 4-1 Summary Statistics of FDI, EU countries 2002 – 2013

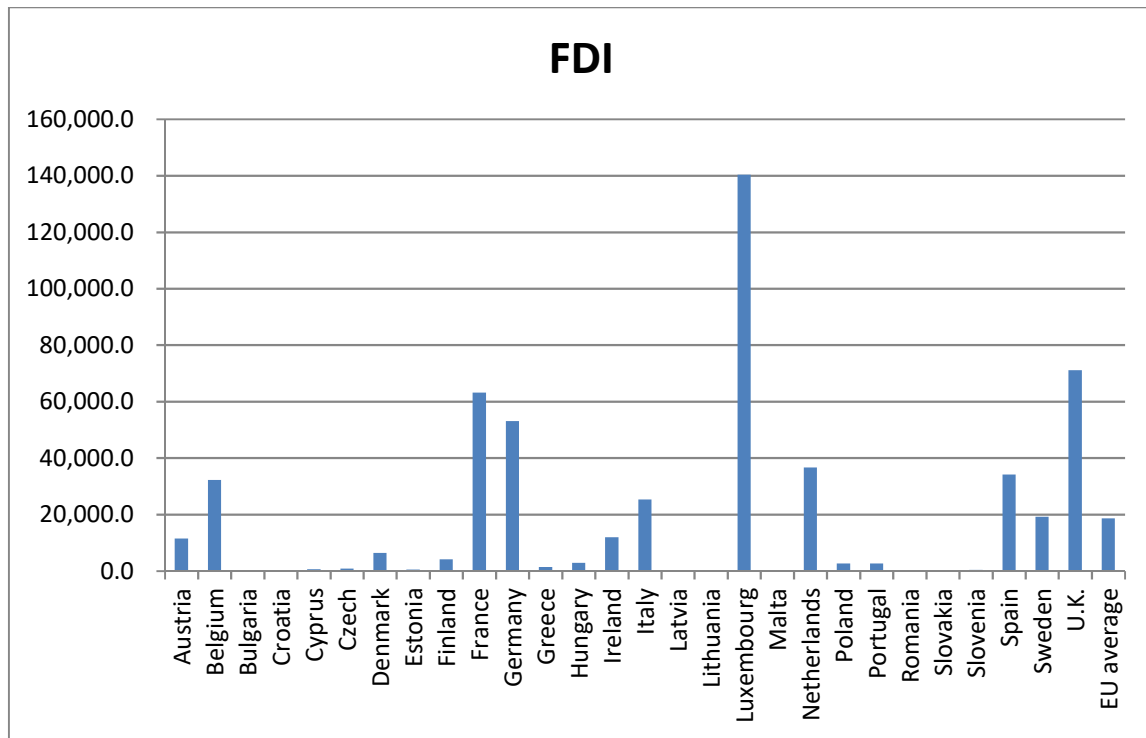


Figure 4-1 Means of FDI, EU countries 2002 – 2013

4.2.2 FDI/GDP

FDI/GDP is the ratio of FDI/GDP. Which measures the size of FDI inflow to the size of the economy, which is measured by GDP. Table 4.1 shows the summary statistics of this figure among 28 EU countries. The figure are in percentage.

FDI/GDP (%)		
country	mean	s.d.
Austria	4.4	2.3
Belgium	10.2	12.0
Bulgaria	0.4	0.6
Croatia	0.5	0.8
Cyprus	4.1	3.5
Czech	0.6	0.5
Denmark	2.9	2.1
Estonia	3.4	3.9
Finland	2.4	1.9
France	3.6	1.7
Germany	2.3	1.4
Greece	0.7	0.5
Hungary	3.1	2.9
Ireland	7.4	3.3

FDI/GDP (%)		
country	mean	s.d.
Italy	1.7	1.2
Latvia	0.5	0.4
Lithuania	0.7	0.5
Luxembourg	415.6	130.0
Malta	1.4	3.3
Netherlands	7.1	5.2
Poland	0.9	0.8
Portugal	1.7	2.5
Romania	0.0	0.1
Slovakia	0.5	0.5
Slovenia	1.2	1.5
Spain	3.8	3.1
Sweden	6.0	1.4
U.K.	3.9	2.7
EU average	17.5	80.3

Table 4-2 Summary Statistics of FDI/GDP, EU countries 2002 – 2013

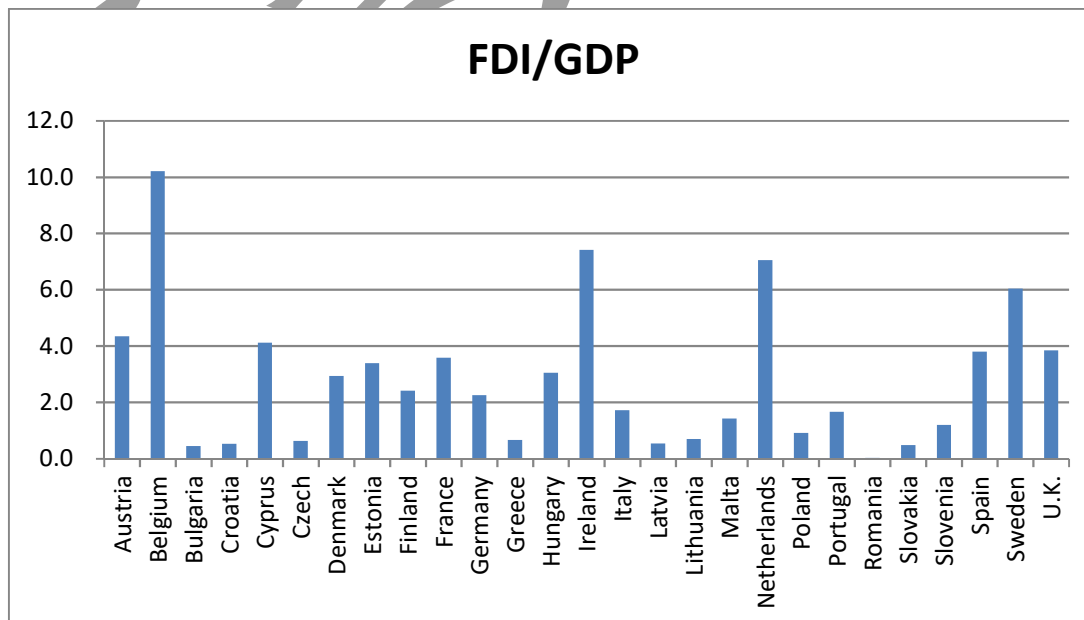


Figure 4-2 Means of FDI/GDP, EU countries 2002 – 2013

4.2.3 Market size and market growth

Market size is an important FDI determinant, which is measured by GDP. Another closely related measure is market growth, which is measured by GDP growth. The patterns of market size are first analyzed in this sub-section. Table 4.3 displays the figure of market size based on GDP. The figures show that the four largest economies in Europe are: Germany, France, U.K. and Italy. The total GDPs of these four countries account for 64% of the total GDPs of 28 EU countries. The other 24 countries only account for about 26% of the total EU economy. Therefore, it is not surprising to find that these four countries have bigger voices and power in the European Union.

GDP (million Euro)		
country	mean	s.d.
Austria	268,509	31,569
Belgium	330,398	38,724
Bulgaria	30,090	8,604
Croatia	39,874	6,414
Cyprus	15,252	2,455
Czech	126,562	28,672
Denmark	221,156	22,110
Estonia	13,622	3,536
Finland	171,310	18,059
France	1,836,548	174,770
Germany	2,399,925	204,586
Greece	200,792	24,325
Hungary	90,939	10,691
Ireland	161,893	16,357

GDP (million Euro)		
country	mean	s.d.
Italy	1,489,889	97,108
Latvia	17,178	5,096
Lithuania	25,756	6,705
Luxembourg	35,109	6,971
Malta	5,734	925
Netherlands	551,191	51,664
Poland	300,292	73,769
Portugal	161,089	11,421
Romania	104,344	35,007
Slovakia	52,714	17,244
Slovenia	32,243	4,510
Spain	965,022	119,706
Sweden	331,796	50,857
U.K.	1,820,947	139,862
EU average	421,435	645,969

Table 4-3 Summary Statistics of market size, EU countries 2002 – 2013

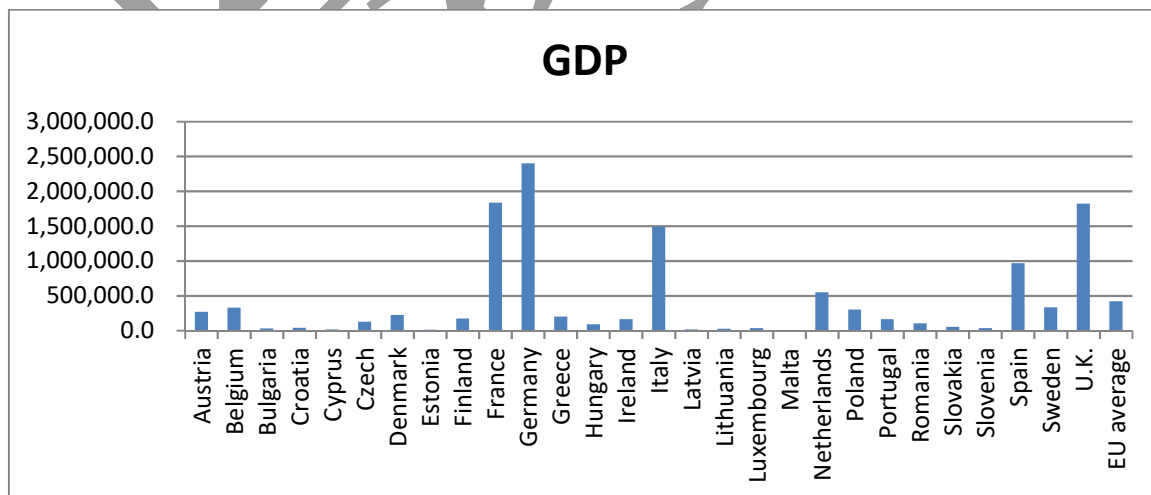


Figure 4-3 Means of market size, EU countries 2002 – 2013

Market growth rate of EU countries is measured by GDP growth rate. The average GDP growth rate is 4.72%. This average rate is simple average but not weighted by the size of economy among EU countries. It is found that there are six countries experienced an ultra high growth rate in the past 12 years: Bulgaria, Estonia, Latvia, Lithuania, Romania and Slovakia. They are all CEECs which are relatively small and in the developing stage. On the other hand, the four largest EU economies are mature markets and their average growth rates are all under 3%.

GDP growth (%)		
country	mean	s.d.
Austria	3.24	2.17
Belgium	3.30	1.99
Bulgaria	8.33	5.99
Croatia	4.60	5.87
Cyprus	3.77	4.87
Czech	6.58	8.04
Denmark	2.82	2.86
Estonia	8.83	9.31
Finland	2.84	3.80
France	2.72	1.97
Germany	2.25	2.48
Greece	2.02	6.39
Hungary	4.63	8.11
Ireland	3.01	6.47

GDP growth (%)		
country	mean	s.d.
Italy	1.85	2.37
Latvia	8.78	12.78
Lithuania	8.49	9.35
Luxembourg	6.12	4.91
Malta	4.03	2.86
Netherlands	2.54	2.59
Poland	5.67	10.34
Portugal	1.79	2.80
Romania	10.67	12.55
Slovakia	10.01	7.65
Slovenia	3.80	4.85
Spain	3.55	4.48
Sweden	4.55	7.34
U.K.	1.41	7.55
EU average	4.72	6.86

Table 4-4 Summary Statistics of market growth rate, EU countries 2002 – 2013

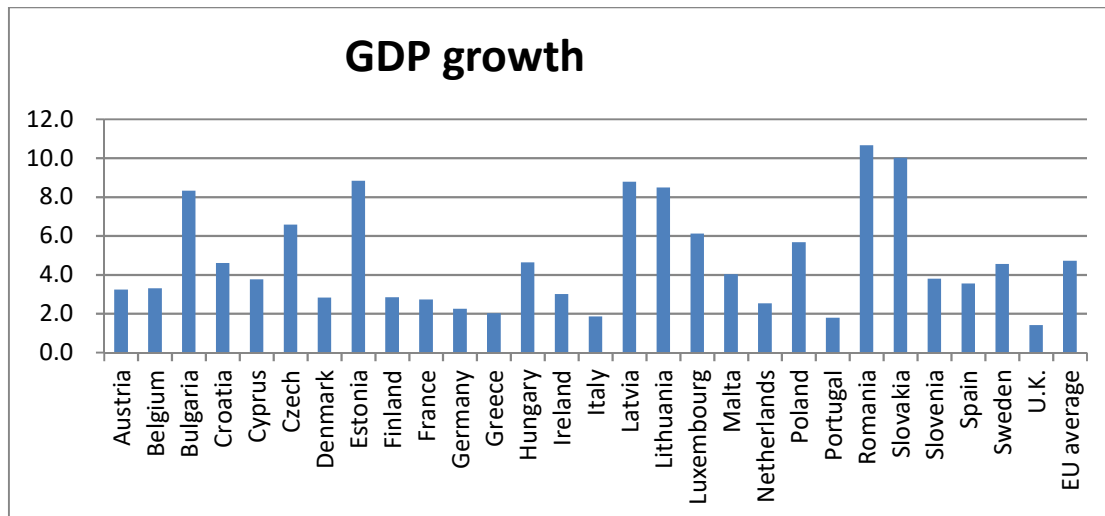


Figure 4-4 Means of market growth rate, EU countries 2002 – 2013

4.2.4 Economic growth

The concept of economic growth is different from market growth that economic growth is measured by GDP per capita, which is the productivity or earning growth of the average citizen in the country. The descriptive statistics of GDP per capita growth is shown in table 4.5 and figure 4.5.

Overall, the figures of GDP per capita growth rate is very close to GDP growth rate. There are six countries experienced GDP per capita growth rate above 8%, which are Bulgaria, Estonia, Latvia, Lithuania, Romania and Slovakia, who are all CEECs. Surprisingly, U.K. has the lowest figure of average GDP per capita growth rate in the past 12 years, which is 0.7% only. The low economic growth rate of U.K. may be due to the

financial tsunami in 2008-2010 which harms the finance industry of U.K. Overall, the CEECs have better performance in terms of GDP per capita growth than the four largest economies in EU.

GDP per capita growth (%)		
country	mean	s.d.
Austria	2.81	2.15
Belgium	2.64	2.01
Bulgaria	8.94	5.77
Croatia	4.97	5.94
Cyprus	1.92	4.66
Czech	6.35	8.02
Denmark	2.41	2.86
Estonia	9.05	9.47
Finland	2.46	3.74
France	2.08	1.84
Germany	2.28	2.42
Greece	2.35	5.67
Hungary	4.84	7.93
Ireland	1.49	5.92

GDP per capita growth (%)		
country	mean	s.d.
Italy	1.30	2.32
Latvia	10.23	12.84
Lithuania	10.02	9.55
Luxembourg	4.28	4.95
Malta	3.43	3.24
Netherlands	2.16	2.65
Poland	5.54	10.57
Portugal	1.60	2.60
Romania	11.08	13.49
Slovakia	9.90	7.67
Slovenia	3.47	4.85
Spain	2.51	3.82
Sweden	3.88	7.20
U.K.	0.70	7.47
EU average	4.45	7.06

Table 4-5 Summary Statistics of GDP per capita growth, EU countries 2002 – 2013