|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Indicators | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
| Inflow (USD, millions) | 432.5  | 692.5  | 585.7  | 201.4  | 211.9  | 468.1  | 92.5  | 333.9  |
| Outflow (USD, millions) | 0.2  | -1.2 | -13.8 | 11.2  | 1.8  | -0.0 | -7.7 | -1.5 |
| Inward stock (USD, millions) | 2,763.8 | 3,746.7 | 4,131.6 | 4,525.5 | 4,439.3 |  4,781.0 |  4,943.0 |  5,533.5 |
| Outward stock (USD, millions) | 62.0  | 38.3  | 67.7  | 84.7  | 96.1  | 99.8  | 121.9  | 95.3  |
| Inflow (% of gross fixed capital formation) | 30.7 | 34.4 | 22.2 | 8.3 | 8.9 |  21.9 |  4.2 |  14.2 |
| Outflow (% of gross fixed capital formation) | 0.0 | -0.1 | -0.5 | 0.5 | 0.1 | -0.0 | -0.4 | -0.1 |
| Inward stock (% of GDP) | 42.1 | 45.9 | 42.0 | 48.6 | 46.8 |  46.0 |  51.6 |  54.0 |
| Outward stock (% of GDP) | 0.6 | 0.8 | 0.9 | 1.0 | 1.2 |  1.2 |  1.0 |  1.0 |
| Value of cross - border M&A sales (USD, millions) | 280 | 53 | 57 | 0 | 46 |  27 | 0 | 0 |
| Number of cross - border M&A sales projects | 5 | 20 | 2 | 0 | 1 |  8 |  7 |  2 |
| Number of FDI Greenfield projects | 27 | 9 | 26 | 18 | 14 |  25 |  32 |  25 |

*Notes:* FDI stocks are presented at book value or historical cost, reflecting prices at the time when the investment was made. For a large number of economies, FDI stocks are estimated by either cumulating FDI flows over a period of time or adding flows to an FDI stock that has been obtained for a particular year from national official sources or the IMF data series on assets and liabilities of direct investment. Data on FDI flows are on a net basis (capital transactions´ credits less debits between direct investors and their foreign affiliates). Net decreases in assets (FDI outward) or net increases in liabilities (FDI inward) are recorded as credits (recorded with a positive sign in the balance of payments), while net increases in assets or net decreases in liabilities are recorded as debits (recorded with a negative sign in the balance of payments). Hence, FDI flows with a negative sign indicate that at least one of the three components of FDI (equity capital, reinvested earnings or intra-company loans) is negative and not offset by positive amounts of the remaining components. These are instances of reverse investment or disinvestment.

**Data source:** UNCTAD, World Investment Report 2014: Annex Tables.

**Table 1**: Indicators of FDI in Macedonia

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | 2004 | % | 2005 | % | 2006 | % | 2007 | % | 2008 | % | 2009 |  | 2010 | % | 2011 | % | 2012 | % |
| World | 2,193 | 100 | 2,087 | 100 | 2,764 | 100 | 3,747 | 100 | 4,132 | 100 | 4,525 | 100 | 4,439 | 100 | 4,781 | 100 | 4,943 | 100 |
| Developed Econom. | 1,929 | 88 | 1,847 | 89 | 2,484 | 90 | 3,396 | 91 | 3,712 | 90 | 4,046 | 89 | 3,943 | 89 | 4,138 | 87 | 4,287 | 87 |
| Europe | 1,891 | 86 | 1,808 | 87 | 2,420 | 88 | 3,330 | 89 | 3,632 | 88 | 3,962 | 88 | 3,878 | 87 | 4,072 | 85 | 4,193 | 85 |
| European Union | 1,691 | 77 | 1,610 | 77 | 2,211 | 80 | 3,065 | 82 | 3,328 | 81 | 3,650 | 81 | 3,644 | 82 | 3,876 | 81 | 4,041 | 82 |
| Austria | 85 | 4 | 68 | 3 | 289 | 10 | 351 | 9 | 466 | 11 | 522 | 12 | 497 | 11 | 539 | 11 | 583 | 12 |
| Belgium | 2 | 0 | 2 | 0 | 1 | 0 | 2 | 0 | 2 | 0 | 2 | 0 | 2 | 0 | 2 | 0 | 22 | 0 |
| Bulgaria | 33 | 2 | 32 | 2 | 56 | 2 | 92 | 2 | 120 | 3 | 133 | 3 | 157 | 4 | 156 | 3 | 188 | 4 |
| Croatia | 21 | 1 | 24 | 1 | 40 | 1 | 65 | 2 | 74 | 2 | 80 | 2 | 96 | 2 | 100 | 2 | 113 | 2 |
| Cyprus | 205 | 9 | 190 | 9 | 240 | 9 | 30 | 1 | 49 | 1 | 69 | 2 | 62 | 1 | 63 | 1 | 76 | 2 |
| Czech Republic | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 0 | 1 | 0 | 1 | 0 | 3 | 0 | 1 | 0 | 2 | 0 |
| Denmark | 0 | 0 | 1 | 0 | 2 | 0 | 2 | 0 | 2 | 0 | 2 | 0 | 2 | 0 | 3 | 0 | 6 | 0 |
| Estonia | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 0 | 16 | 0 |
| France | 27 | 1 | 2 | 0 | 0 | 0 | 15 | 0 | 18 | 0 | 38 | 1 | 173 | 4 | 170 | 4 | 178 | 4 |
| Germany | 96 | 4 | 76 | 4 | 84 | 3 | 126 | 3 | 92 | 2 | 89 | 2 | 95 | 2 | 112 | 2 | 111 | 2 |
| Greece | 360 | 16 | 329 | 16 | 422 | 15 | 570 | 15 | 627 | 15 | 548 | 12 | 576 | 13 | 573 | 12 | 576 | 12 |
| Hungary | 483 | 22 | 413 | 20 | 461 | 17 | 620 | 17 | 571 | 14 | 56 | 1 | 463 | 10 | 448 | 9 | 457 | 9 |
| Ireland | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 |
| Italy | 44 | 2 | 44 | 2 | 58 | 2 | 68 | 2 | 77 | 2 | 80 | 2 | 78 | 2 | 84 | 2 | 83 | 2 |
| Luxemburg | 15 | 1 | 18 | 1 | 33 | 1 | 106 | 3 | 96 | 2 | 89 | 2 | 22 | 0 | 20 | 0 | 25 | 1 |
| Netherlands | 141 | 6 | 252 | 12 | 279 | 10 | 635 | 17 | 606 | 15 | 754 | 17 | 735 | 17 | 958 | 20 | 1,033 | 21 |
| Poland | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 12 | 0 | 9 | 0 |
| Portugal | 0 | 0 | 0 | 0 | 2 | 0 | 3 | 0 | 3 | 0 | 2 | 0 | 2 | 0 | 2 | 0 | 2 | 0 |
| Romania | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 2 | 0 | 2 | 0 |
| Slovenia | 139 | 6 | 126 | 6 | 167 | 6 | 244 | 7 | 366 | 9 | 564 | 12 | 533 | 12 | 525 | 11 | 479 | 10 |
| Spain | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| Sweden | 3 | 0 | 3 | 0 | 3 | 0 | 4 | 0 | - 2 | 0 | 5 | 0 | 7 | 0 | 30 | 1 | 28 | 1 |
| United Kingdom | 38 | 2 | 31 | 1 | 70 | 3 | 119 | 3 | 160 | 4 | 111 | 2 | 137 | 3 | 62 | 1 | 51 | 1 |
| Switzerland | 196 | 9 | 194 | 9 | 199 | 7 | 246 | 7 | 279 | 7 | 291 | 6 | 204 | 5 | 164 | 3 | 118 | 2 |
| United States | 35 | 2 | 35 | 2 | 60 | 2 | 53 | 1 | 67 | 2 | 70 | 2 | 50 | 1 | 55 | 1 | 79 | 2 |
| Canada | 1 | 0 | 1 | 0 | 1 | 0 | 3 | 0 | 4 | 0 | 4 | 0 | 6 | 0 | 5 | 0 | 9 | 0 |
| Australia | 3 | 0 | 2 | 0 | 3 | 0 | 3 | 0 | 3 | 0 | 3 | 0 | 3 | 0 | 3 | 0 | 3 | 0 |
| Israel | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 6 | 0 | 6 | 0 | 6 | 0 | 2 | 0 | 3 | 0 |
| Turkey | 36 | 2 | 30 | 1 | 37 | 1 | 51 | 1 | 60 | 1 | 72 | 2 | 65 | 1 | 152 | 3 | 192 | 4 |
| Developing Econom\* | 160 | 7 | 145 | 7 | 128 | 5 | 136 | 4 | 190 | 5 | 187 | 4 | 245 | 6 | 325 | 7 | 305 | 6 |
| Transition Economies | 50 | 2 | 49 | 2 | 93 | 3 | 129 | 3 | 126 | 3 | 168 | 4 | 158 | 4 | 144 | 3 | 150 | 3 |
| South East Europe | 47 | 2 | 43 | 2 | 87 | 3 | 124 | 3 | 123 | 3 | 165 | 4 | 165 | 4 | 149 | 3 | 150 | 3 |
| Albania | 6 | 0 | 4 | 0 | 15 | 1 | 24 | 1 | 33 | 1 | 40 | 1 | 50 | 1 | 47 | 1 | 37 | 1 |
| Bosnia  | 1 | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 3 | 0 | 4 | 0 | 5 | 0 | 6 | 0 | 7 | 0 |
| Montenegro | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 4 | 0 | 3 | 0 |
| Serbia | 40 | 2 | 39 | 2 | 71 | 3 | 98 | 3 | 87 | 2 | 121 | 3 | 107 | 2 | 97 | 2 | 102 | 2 |
| CIS countries\*\* | 3 | 0 | 6 | 0 | 6 | 0 | 5 | 0 | 3 | 0 | 3 | 0 | -7 | 0 | -4 | 0 | 0 | 0 |
| Unspecified | 8 | 0 | 16 | 1 | 22 | 1 | 34 | 1 | 43 | 1 | 53 | 1 | 28 | 1 | 22 | 0 | 10 | 0 |

*Notes:*Developing economies consist of African and Asian developing countries: China, Hong Kong, Taiwan, Singapore, Pakistan, Lebanon, Saudi Arabia and Syrian Arab Republic, Latin America (Belize, Panama) and the Caribbean (Bahamas, British Virgin Islands, Cayman Islands, Netherlands Antilles, US Virgin Islands and Cook Islands);\*\*CIS countries consist of: Azerbaijan, Russian Federation, Ukraine and Uzbekistan.

**Data source**: UNCTAD database, based on data from the National Bank of the Republic of Macedonia\*.

Table 2: FDI stock in Macedonia by geographical origin (millions of US dollar)

**Data source**: UNCTAD, 2014; own calculation

Figure 1: Total Inward FDI stock in Macedonia by source countries for the year 2012

|  |  |
| --- | --- |
| **Testing** |  |
| Hausman Test:  | χ² (16) [p> χ²] | 2277.72 [0.00] |
| Breuch - Pagan LM test:  | χ²(1) [p> χ²] | 143.76 [0.00] |
| Parameter Test:  | F(16, 4547) [p>F] | 20.06 [0.00] |
| Wald Test for heteroscedasticity:  | F(300)[p>F] | 32548.31 [0.00] |
| Wooldridge test for autocorrelation  | F(1,299)[p>F] | 298.802 [0.00] |

*Notes:* Dependent variable is log bilateral FDI stock. t-statistics in brackets, \*\*\*, \*\* and \* indicate significance of coefficients at 1, 5 and 10 per cent, respectively.

Table 3: Performed tests of the static panel models

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | (1) | (2) | (3) | (4) | (5) | (6) |
| VARIABLES | OLS | Robust FE | Robust FE | Robust FE | FGLS | PCSE |
| Log of absolute difference in GDP | 0.149\*\*\* | 0.108\*\*\* | 0.233\*\*\* | -0.223\*\*\* | 0.149\*\*\* | 0.149\*\*\* |
|  | [7.65] | [5.84] | [10.00] | [-4.49] | [8.52] | [5.16] |
| Log of absolute difference in GDP per capita | 0.086\*\*\* | 0.114\*\*\* | 0.106\*\*\* | -0.088\* | 0.086\*\*\* | 0.086\*\* |
|  | [3.83] | [5.17] | [4.73] | [-1.71] | [3.17] | [2.33] |
| Log of distance | -0.505\*\*\* | -0.392\*\*\* | -0.625\*\*\* | -0.758\*\*\* | -0.505\*\*\* | -0.505\*\*\* |
|  | [-12.31] | [-10.45] | [-14.36] | [-11.61] | [-14.32] | [-7.81] |
| Same country | 0.573\*\*\* | 0.459\*\*\* | 0.465\*\*\* | 0.044 | 0.573\*\*\* | 0.573\*\*\* |
|  | [3.86] | [2.87] | [3.26] | [0.21] | [3.63] | [2.75] |
| WTO membership.  | 0.749\*\*\* | 0.245\*\*\* | 0.424\*\*\* | 0.752\*\*\* | 0.749\*\*\* | 0.749\*\*\* |
|  | [10.17] | [3.59] | [5.19] | [11.01] | [12.56] | [6.51] |
| Bilateral FDI agreement | 0.499\*\*\* | 0.078 | 0.058 | 0.573\*\*\* | 0.499\*\*\* | 0.499\*\*\* |
|  | [7.84] | [1.09] | [0.70] | [9.46] | [7.83] | [4.74] |
| Log of openness (-1) | -0.440\*\*\* | -0.106 | -1.563\*\*\* | -0.153\* | -0.440\*\*\* | -0.440\*\*\* |
|  | [-5.08] | [-1.16] | [-9.08] | [-1.81] | [-5.67] | [-3.16] |
| Log of bilateral exports (-1) | 0.010 | 0.070\*\*\* | -0.041\*\* | 0.011 | 0.010 | 0.010 |
|  | [0.64] | [4.84] | [-2.40] | [0.69] | [0.78] | [0.54] |
| Log of schooling | 0.727\*\*\* | 0.165\* | 1.629\*\*\* | 0.886\*\*\* | 0.727\*\*\* | 0.727\*\*\* |
|  | [11.16] | [1.95] | [13.95] | [13.82] | [12.93] | [5.84] |
| Log of transition progress | 0.520\*\*\* | -0.155 | 1.936\*\*\* | 0.457\*\*\* | 0.520\*\*\* | 0.520\* |
|  | [3.44] | [-0.92] | [6.76] | [3.09] | [3.15] | [1.84] |
| Log of Corruption Perception Index | -0.477\*\*\* | -0.375\*\*\* | -1.056\*\*\* | -0.622\*\*\* | -0.477\*\*\* | -0.477\*\* |
|  | [-3.65] | [-2.83] | [-5.11] | [-4.95] | [-3.91] | [-2.26] |
| Log of control of corruption \* FDI (-1)  | -0.064 | 0.006 | 0.034 | -0.043 | -0.064 | -0.064 |
|  | [-0.86] | [0.08] | [0.47] | [-0.61] | [-1.20] | [-0.68] |
| Log of regulatory quality \* FDI (-1)  | -0.265\*\* | -0.184\* | -0.247\*\* | -0.088 | -0.265\*\*\* | -0.265\*\* |
|  | [-2.45] | [-1.83] | [-2.25] | [-0.90] | [-4.35] | [-2.24] |
| Log of government effectiveness \* FDI (-1) | -0.020 | 0.036 | 0.088 | -0.109\*\* | -0.020 | -0.020 |
|  | [-0.36] | [0.70] | [1.49] | [-2.05] | [-0.45] | [-0.31] |
| Log of rule of law \* FDI (-1) | -0.248\*\*\* | -0.222\*\*\* | -0.419\*\*\* | -0.233\*\*\* | -0.248\*\*\* | -0.248\*\*\* |
|  | [-2.76] | [-2.76] | [-4.49] | [-2.86] | [-4.26] | [-2.58] |
| Log of political risk \* FDI (-1) | 0.103\*\* | 0.040 | 0.072 | 0.081\* | 0.103\*\*\* | 0.103\* |
|  | [2.10] | [0.91] | [1.59] | [1.73] | [3.09] | [1.65] |
| Log of voice and accountability \* FDI (-1) | 0.661\*\*\* | 0.500\*\*\* | 0.629\*\*\* | 0.548\*\*\* | 0.661\*\*\* | 0.661\*\*\* |
|  | [7.33] | [5.94] | [7.01] | [6.61] | [11.63] | [5.21] |
| SEE Dummy | 0.077 | -0.292\*\*\* |  | 0.233\*\*\* | 0.077 | 0.077 |
|  | [1.20] | [-3.21] |  | [3.59] | [1.11] | [0.62] |
| Constant | -0.822 | 1.269\* | -1.427\* | 6.015\*\*\* | -0.822 | -0.822 |
|  | [-1.58] | [1.89] | [-1.75] | [7.49] | [-1.45] | [-0.81] |
| Year dummy | No | Yes | No | No | No | No |
| Host country dummy | No | No | Yes | No | No | No |
| Source country dummy | No | No | No | Yes | No | No |
| Observations | 4,879 | 4,879 | 4,879 | 4,879 | 4,879 | 4,879 |
| R-squared | 0.791 | 0.815 | 0.806 | 0.808 |  | 0.791 |
| Number of groups |  |  |  |  | 300 | 300 |

*Notes:* Dependent variable is log bilateral FDI stock. t-statistics in brackets, \*\*\*, \*\* and \* indicate significance of coefficients at 1, 5 and 10 per cent, respectively.

Table 4: Results from estimation of the determinants of bilateral FDI stock

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| FDI - country of origin | 2007 | 2008 | 2009 | 2010 |
|  | Realized | Potential | Realized | Potential | Realized | Potential | Realized | Potential |
| Austria | 288.97 | 33.59 | 273.37 | 13.39 | 465.63 | 34.26 | 522.33 | 33.95 |
| Belgium | 1.00 | 9.50 | 1.00 | 9.79 | 1.00 | 8.78 | 1.00 | 8.64 |
| Denmark | 1.47 | 9.48 | 3.73 | 8.74 | 1.00 | 8.42 | 1.00 | 7.98 |
| Finland | 1.00 | 7.20 | 1.00 | 7.45 | 1.00 | 7.17 | 1.00 | 6.63 |
| France | 1.00 | 11.86 | 1.00 | 12.1 | 1.00 | 11.16 | 2.72 | 10.80 |
| Germany | 54.47 | 26.04 | 26.42 | 13.68 | 1.00 | 12.12 | 32.07 | 21.64 |
| Greece | 622.83 | 46.75 | 599.68 | 16.43 | 527.70 | 41.73 | 515.72 | 41.65 |
| Ireland | 1.00 | 6.97 | 1.00 | 7.04 | 1.00 | 6.63 | 1.00 | 6.53 |
| Italy | 50.1 | 33.7 | 60.4 | 35.8 | 159.0 | 37.4 | 110.3 | 35.0 |
| Netherland | 1.00 | 10.15 | 1.00 | 10.42 | 1.00 | 9.44 | 1.00 | 9.44 |
| Portugal | 1.00 | 6.17 | 1.00 | 6.33 | 1.00 | 5.81 | 1.00 | 5.71 |
| Spain | 1.00 | 9.58 | 1.00 | 9.94 | 1.00 | 8.89 | 1.00 | 8.75 |
| Sweden | 1.00 | 8.70 | 1.00 | 8.84 | 1.00 | 7.99 | 1.00 | 7.59 |
| United Kingdom | 1.00 | 11.40 | 1.00 | 11.57 | 1.00 | 10.09 | 1.00 | 9.74 |
| United States | 4.00 | 9.48 | 4.00 | 9.48 | 4.00 | 8.54 | 4.00 | 8.31 |
| Canada | 1.00 | 5.01 | 1.00 | 5.09 | 1.00 | 4.72 | 1.00 | 4.44 |
| Israel | 1.00 | 7.40 | 1.00 | 7.57 | 1.00 | 7.30 | 1.00 | 6.97 |
| Norway | 1.00 | 9.37 | 1.00 | 9.71 | 1.00 | 9.18 | 1.00 | 8.57 |
| Switzerland | 1.00 | 11.10 | 1.00 | 11.30 | 1.00 | 10.56 | 1.00 | 10.32 |
| Turkey | 1.00 | 13.41 | 22.00 | 23.40 | 25.00 | 21.06 | 40.76 | 21.47 |

*Notes:* Actual FDI stock data is the inward FDI stock in Macedonia from OECD-20 countries: FDI/TNC database, based on data from the National Bank of the Republic of Macedonia*.*

**Data source**: The data on actual FDI stock are sourced from UNCTAD. The data on potential FDI stock are calculated using the estimations from model 5 in table 4.

Table 5: FDI actual and potentials in Macedonia in the period 2007-2012, by country of origin

**Source**: OECD, 2014 own calculation

Figure 2: Ratio of potential-to-realized level of Macedonian inward FDI-stock in the year 2007and 2010, by country of origin