



FOREIGN DIRECT INVESTMENT

2011

1. INTRODUCTION

This report provides an overview of the main developments in foreign direct investment (FDI) statistics¹ for 2011, as published by the Statistics Department of the Central Bank of Cyprus. The analysis concentrates on the main regions and economic activities related to investments by non-residents in Cyprus and investments by residents abroad. The main conclusions of the analysis are the following:

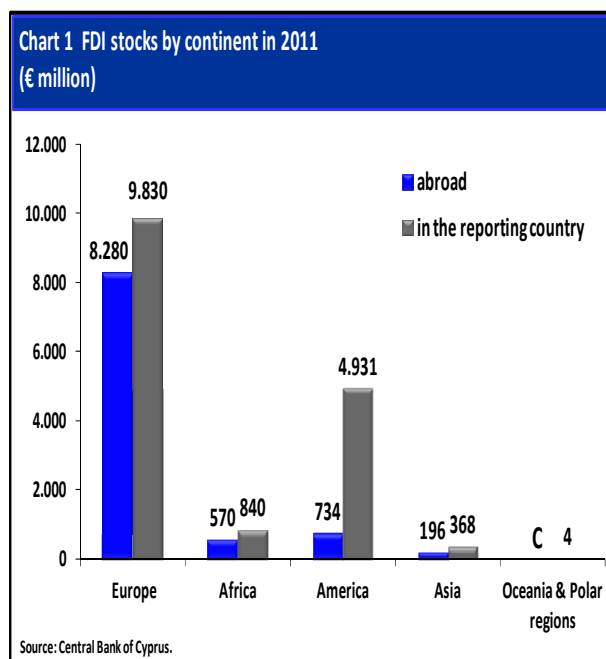
- Most of the investments placed by residents abroad are directed to the “financial and insurance services” sector of Europe.
- In the case of investments placed by non-residents in Cyprus, in addition to the “financial and insurance services” sector, these are also directed to the “professional, scientific and technical activities” sector.
- The Netherlands and the UK are both the main investment destinations for resident investors abroad as well as the country of residence of most foreign investors placing investments in Cyprus.
- A considerable reduction in stock positions abroad was recorded in the case of Greece due

¹ For more information concerning the definition and scope of foreign direct investment statistics please refer to the appendix.

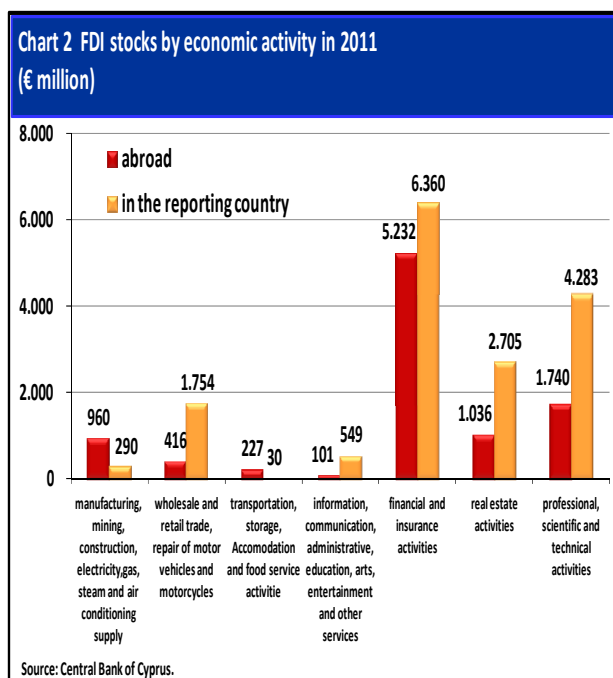
to the PSI associated with the Greek banking sector.

2. FOREIGN DIRECT INVESTMENT STOCKS

Stock volumes differ considerably by continent as illustrated in **Chart 1**. Most direct investments of residents abroad (assets) are directed to Europe, where the total amount of FDI assets recorded for 2011 was €8,3 billion. In each of the other continents the stock positions for FDI assets remain below the €1 billion benchmark.



With regards to liabilities (investments placed by non-residents in Cyprus), the majority of investments come from Europe (€9,8 billion) and America (€5 billion). For Oceania and the Polar Regions the investment amount abroad is subject to confidentiality restrictions (C) and therefore cannot be reported.



In **Chart 2** FDI stocks² are broken down by economic activity. FDI stocks abroad are mainly concentrated in the “financial and insurance activities” sector with the total stock for 2011 closing at €5,2 billion. There are also significant investments in the “professional, scientific and technical activities” and “real estate

² The analysis of FDI positions abroad is reported according to the activity of the non-resident enterprise while the analysis for FDI positions in the reporting economy is reported according to the activity of the resident enterprise. In the case of flows (Section 3) both investments abroad and in the reporting economy are classified according to the activity of the resident party.

activities” sectors of €1,7 and €1 billion, respectively. With regard to FDI stocks in Cyprus, most of the investments are accounted for by the “financial and insurance activities” sector (€6,4 billion). However, there are also significant investments in the “professional, scientific and technical activities” (€4,3 billion) and “real estate activities” (€2,7 billion) sectors. The comparison of inward and outward investment in the aforementioned sectors reveals that the amount of foreign investment in Cyprus is higher than the amount invested by residents in the same sectors abroad.

3. FOREIGN DIRECT INVESTMENT FLOWS

Following the analysis of the previous section, the FDI flows for 2011 are also broken down by continent in **Chart 3** (p. 3). The sign preceding each amount is of particular importance in understanding the changes in each category and the reader is, therefore, required to refer to the appendix for more detailed explanations regarding the possible sign outcomes of FDI flows. Investments by residents abroad have increased in America (by €606 million) and Africa (by €469 million) but have decreased in Europe (by €421 million). A reduction was also recorded for Oceania and the Polar Regions. However the amount cannot be reported due to confidentiality restrictions (C). A different situation is observed for FDI investments by non-residents in Cyprus.

There were increases in flows from Europe (€694 million), Africa (€419 million) and America (€125 million). In contrast, investors from Asia decreased their positions in Cyprus (withdrawals) by €251 million.

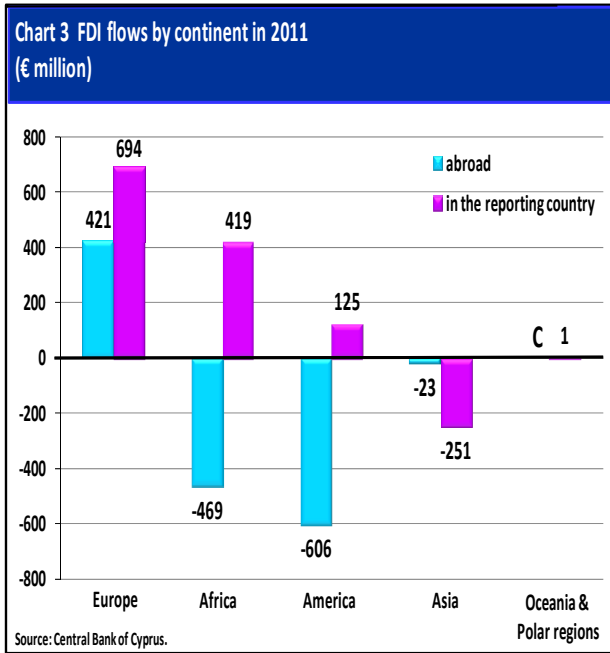
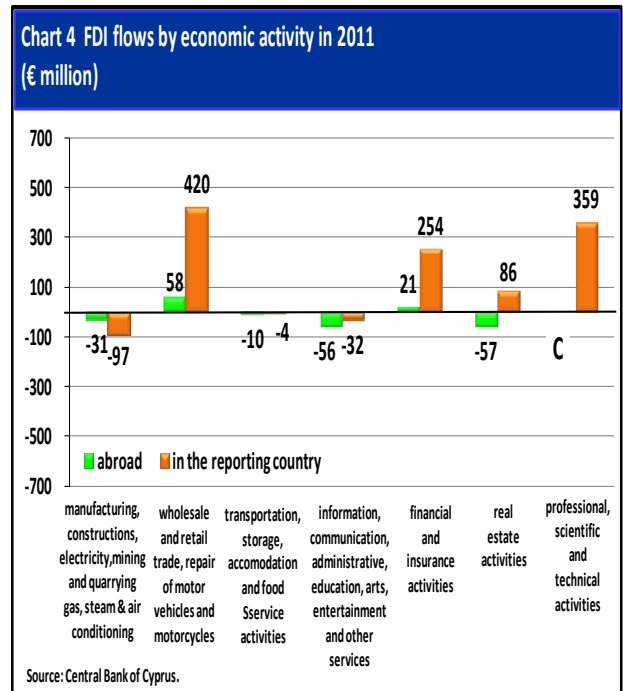


Chart 4 classifies FDI flows by economic activity, using the same classification structure as in Chart 2 for FDI stocks. There is no common trend between the different sectors. Beginning with FDI investments placed by residents abroad, increases in flows were recorded in the “professional, scientific and technical activities” sector. However, the amount in this case cannot be reported due to confidentiality restrictions (C). Increases were, to a smaller extent, recorded also in four of the other sectors. Withdrawals of investments placed by residents abroad have been recorded in the “wholesale and retail trade, repair of motor vehicles and motor cycles” (€58 million) and “financial and insurance activities” (€21 million) sectors.

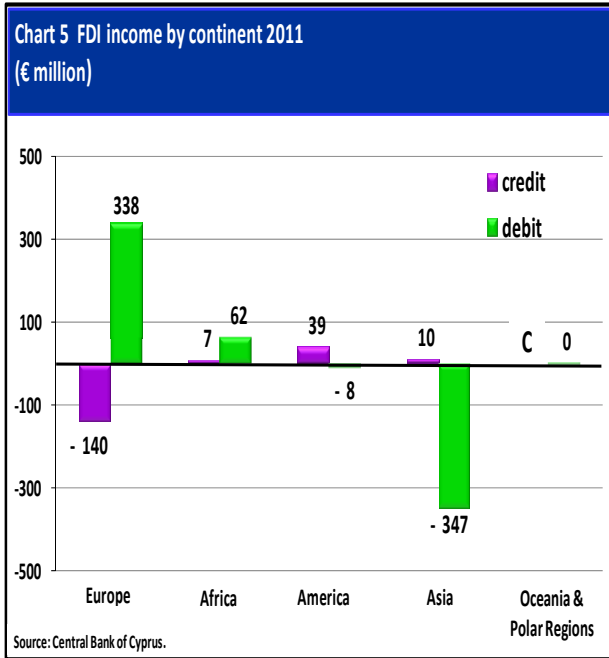
FDI investments by non-residents in Cyprus increased in four economic activity sectors, namely,

“wholesale and retail trade, repair of motor vehicles and motor cycles”, “financial and insurance activities”, “real estate activities” and “professional scientific and technical activities”. The first of these sectors recorded the highest increase in flows by €420 million. Withdrawal (reduction) of investments from Cyprus were recorded in only two sectors: “manufacturing, construction, electricity, mining and quarrying, gas, steam and air conditioning supply” and “information, communication, administrative, education, arts, entertainment and other services”. However, the amounts involved in the aforementioned cases were relatively small (€97 million and €32 million, respectively).



FDI income payments and receipts by residents from abroad constitute an important component of FDI statistics and are decomposed by continent in Chart 5 (p. 4). These statistics provide useful information to investors regarding the profitability of their investments in foreign countries and can be used as a useful basis for comparing the returns from alternative investment channels, like portfolio

investment (e.g. bonds) and other investment (e.g. long-term interest bearing deposits).



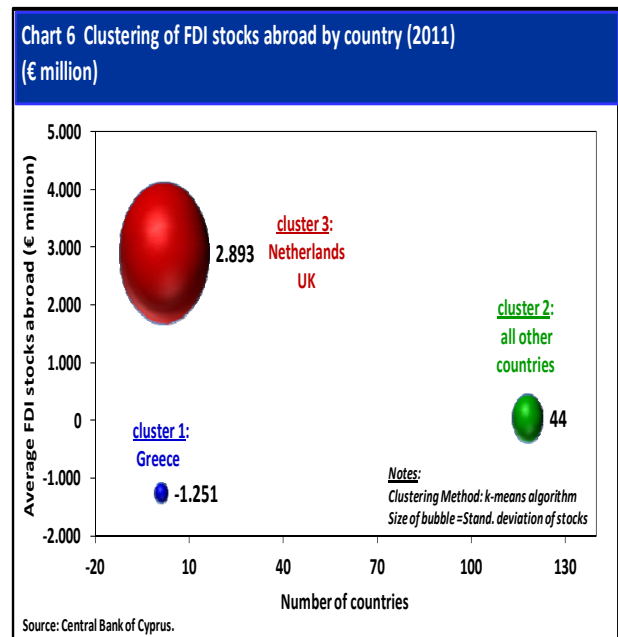
The great majority of income payments abroad (debits) were directed to European investors (€338 million) and, to a smaller extent, to investors from Africa (€62 million). In contrast, losses were realised by Asian (€347 million) and American (€8 million) investors who invested in Cyprus. In the case of credits, income receipts from abroad were realised only from investments in Africa (€7 million), America (€39 million) and Asia (€10 million). Losses of €140 million were realised from investments placed by residents in Europe, primarily from resident investments in the Greek banking sector.

4. COUNTRY SIMILARITIES IN STOCK POSITIONS

In this section a cluster analysis (based on the k-means algorithm³) is applied to the FDI stock data, in

³ This algorithm aims to partition a sample of observations into k clusters in which each observation belongs to the cluster with the nearest mean.

order to identify homogeneous groups of countries which have similar stock positions towards Cyprus. Such an analysis is useful for the development of marketing strategies and programmes in order to promote FDI.⁴



When examining the FDI stock positions abroad three main clusters can be identified and these are depicted in **Chart 6**. The number of countries in each group (bubble) is measured on the horizontal axis and the vertical axis measures the average FDI stock value in each group (estimated as a simple un-weighted average of the stock positions of the countries participating in each group). The size of each bubble is proportional to the standard deviation (variability) of the stock values in the

⁴ This clustering approach is economically efficient since only a limited number of marketing programmes need to be developed, one for each group of countries. In a different case, it would require much more resources to develop individual marketing programmes for all countries.

associated group⁵. Cluster 3 is by far the most important group with two members, namely the Netherlands and the United Kingdom (UK). These are the most important FDI destination countries for resident investors with an average stock position of €2,9 billion.

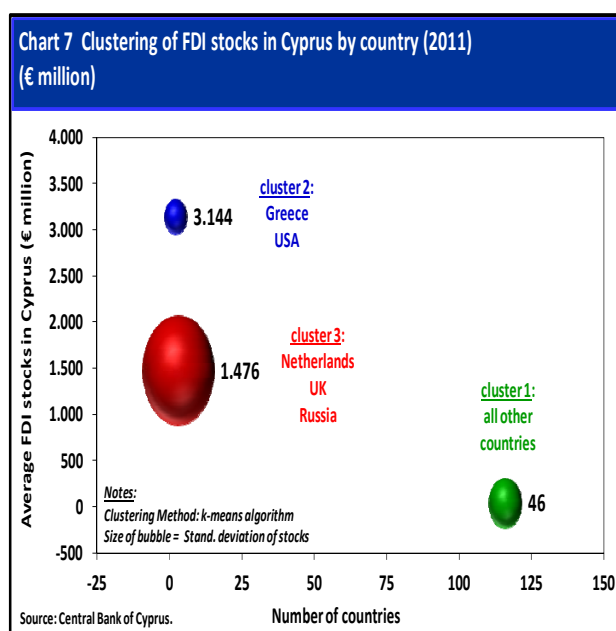
Cluster 1 consists of only one country, Greece, which has a negative stock value of €1,3 billion. This was also the only country in the dataset with a negative stock position and is due to the accumulated losses realised by the investments in the Greek banking sector. All the other countries have been grouped into cluster 2 since no further homogeneous groups have been identified in the data. The average stock position in this group is €44 million, which is considerably smaller than the average in cluster 3.

The results of the cluster analysis, when applied on the foreign stock positions in Cyprus, are depicted in **Chart 7**. Similarly, with the stock positions abroad three distinct groups have been identified. Cluster 2 is the most important group and comprises two countries: Greece and the USA. The average stock value in this group is €3,1 billion and the size of the bubble indicates greater similarity between these countries than in the other groups. Second in importance is Cluster 3 with three countries (the Netherlands, the UK and Russia) and an average stock value of €1,5 billion. All the remaining countries have been grouped into Cluster 1 since investors from these countries have relatively small FDI stock positions in Cyprus.

5. COUNTRY-ECONOMIC ACTIVITY ASSOCIATIONS

The analysis that follows concentrates on identifying associations between countries and economic activities⁶. In **Chart 8** (p. 6) a two dimensional spatial representation map is presented, that exhibits the associations between selected countries (or groups e.g. offshore financial centres) and economic activities for FDI stock positions abroad. The exact description of each economic activity is provided in **Table 1** (p. 6).

The results were derived by applying the correspondence analysis statistical method on the stock positions of the different countries and



⁵ The standard deviation (variability) provides an indication of the degree of homogeneity within each group. However, when the number of countries in a group is small, the standard deviation should be expected to be high due to the small sample size. Large values (bigger bubbles) indicate less homogeneous groups, characterised by less similar countries.

⁶ The identification of associations between countries and economic activities is a key insight in order to identify FDI preferences by country. If there is knowledge regarding the preferences of investors coming from specific countries, marketing and investment opportunity programmes can be designed accordingly and become more targeted and relevant. This should be expected to maximise return on investment, by emphasizing aspects and opportunities in economic sectors that interest investors the most.

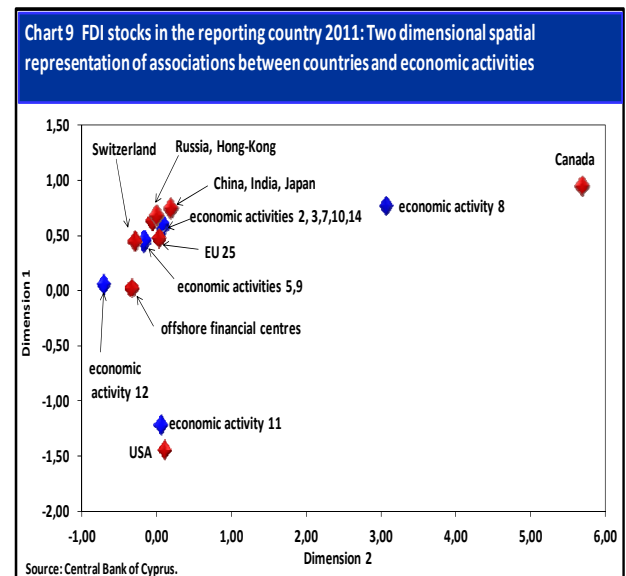
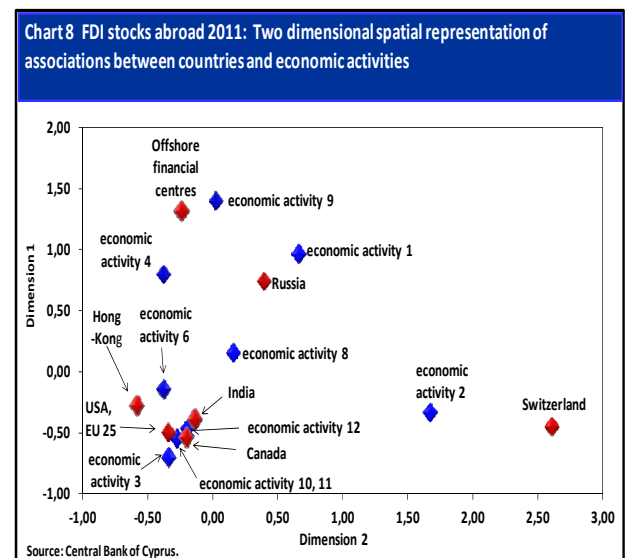
economic activities. The distance between the countries in the two dimensional space is a measure of their similarity in receiving FDI from resident investors. For example, Switzerland and Russia are far from each other, suggesting that their profiles for FDI abroad are different. In contrast, India and Canada have similar profiles. Distances between points representing economic activities are interpreted in the same way. The two dimensions of the chart represent measurement scales derived after transformation of the original data. It is also possible to compare the positions of countries and economic activities jointly. In this case each country will lie in the neighbourhood of the economic activity in which the country's FDI activity is more prominent.

Table 1 Description of economic activities

| Economic Activity | Description |
|-------------------|--|
| 1 | Mining and quarrying |
| 2 | Manufacturing |
| 3 | Electricity, gas, steam and air conditioning supply |
| 4 | Construction |
| 5 | Wholesale and retail trade; repair of motor vehicles |
| 6 | Transportation and storage |
| 7 | Accommodation and food service activities |
| 8 | Information and communication |
| 9 | Financial and insurance activities |
| 10 | Real estate activities |
| 11 | Professional, scientific and technical activities |
| 12 | Administrative and support service activities |
| 13 | Education |
| 14 | Arts, entertainment and recreation |
| 15 | Other service activities |

The graphical output in **Chart 8** suggests that Canada, India and the group of the 25 European Union countries (EU25), exhibit similarities as far as FDI destinations for resident investors are concerned and are mainly associated with economic activities 3, 10, 11, and 12. Other associations identified from the output are as follows: Offshore financial centres – economic activity 9, Russia – economic activity 1, Hong-Kong - economic activity 6 and Switzerland – economic activity 2.

Chart 9 provides a similar analysis for FDI stocks in Cyprus (owned by non-residents). Canada and the USA appear to have different FDI profiles from the other countries. Switzerland, Russia, Hong-Kong, China, India, Japan and the group of EU 25 countries present similarities in terms of origins of FDI in Cyprus and are primarily associated with economic activities 2, 3, 5, 7, 9, 10 and 14. Additional associations identified by the analysis include: Offshore financial centres – economic activity 12 and USA – economic activity 11.



APPENDIX: DEFINITIONS

According to the IMF definition, foreign direct investment (FDI) reflects a lasting interest of an entity resident in one economy in an enterprise resident in another economy. They consist primarily of equity participation giving a controlling stake in excess of 10 percent in the foreign enterprise, greenfield investments and several other special cases.

In general, FDI covers the investment activities of resident entities:

1. whose equity share capital is directly owned by non-residents with participation of at least ten percent and/or
2. whose equity share capital is directly owned by related non-resident entities with participation of less than ten percent and/or
3. who are non-autonomous branches of non-resident entities and/or
4. who own directly at least ten percent of the equity share capital issued by non-resident enterprises and/or
5. who own directly less than ten percent of the equity share capital issued by related non-resident enterprises and/or
6. who have legal non-autonomous foreign based branches or branch offices.
7. who have borrowed funds (e.g. loans or trade credits) from related non-resident entities, or lent funds (e.g. loans or trade credits) to related non-resident entities, or issued debt securities (short term or long term) which are held by related non-resident enterprises, or hold debt securities (short term or long term) issued by related non-resident enterprises and/or

8. who directly own real estate abroad.

Similarly, FDI cover the acquisition of real estate by non residents in the reporting economy.

When equity participation is below the ten percent threshold, it is classified as portfolio investment. Based on the definitions described above, FDI can be separated into: (a) investment abroad (residents investing in foreign countries) and (b) investment in the reporting country (non-residents investing in the local economy). There are two common exceptions to this FDI definition: (i) reverse investment (i.e. when a subsidiary company invests capital in the “mother” company and the two are located in different countries) and (ii) when lending takes place with the same group (i.e. the subsidiary lends money back to the “mother” company which is located in another country).

In line with the definitions and scope of the balance of payments and the international investment position of a country, two forms of time series variables are generated from FDI activities: stocks and flows.

Stocks refer to the level of assets or liabilities of FDI at a point in time. This information is included in the International Investment Position statement and provides: (a) the total amount of FDI assets (abroad) owned by residents and (b) the total amount of FDI liabilities (in the reporting country) that residents have towards non-residents.

FDI flows refer to transactions carried out within a specific period, the time accumulation of which (over several periods) forms the observed FDI stock positions after taking into consideration changes due to price and exchange rate fluctuations as well as other changes (e.g. reclassifications, write downs).

FDI flows also include FDI income payments. Income credits include receipts of dividends and interest from abroad by resident investors plus reinvested earnings accrued to residents from abroad. In contrast income debits concern payments of dividends and interest by resident entities to foreign (non-resident) investors and reinvested earnings accrued to non residents from their investments in the reporting country.

Flows are recorded in the balance of payments which records the inflows (in the reporting country) and outflows (abroad) of funds related to the financial transactions of the residents of a country, plus the capital and current accounts. The sign preceding each flow amount is of particular importance in understanding the changes in each category. In principle, the following interpretations apply:

FDI flows abroad:

- A negative sign indicates an increase in FDI abroad undertaken by residents (outflow).
- A positive sign indicates a reduction (withdrawal) in FDI abroad undertaken by residents (inflow).

FDI flows in the reporting country:

- A positive sign indicates an increase in FDI in Cyprus undertaken by non-residents (inflow).
- A negative sign indicates a reduction (withdrawal) in FDI in Cyprus undertaken by non-residents (outflow).

FDI income receipts from abroad (credits):

- A positive sign indicates an increase in FDI income receipts by residents from their investments placed abroad.

- A negative sign indicates the realization of losses by the FDI placed by residents abroad.

FDI income payments abroad (debits):

- A positive sign indicates an increase in FDI income payments by the FDI investments placed by non-residents in the reporting country.
- A negative sign indicates the realisation of losses by the FDI placed by non-residents in the reporting country.