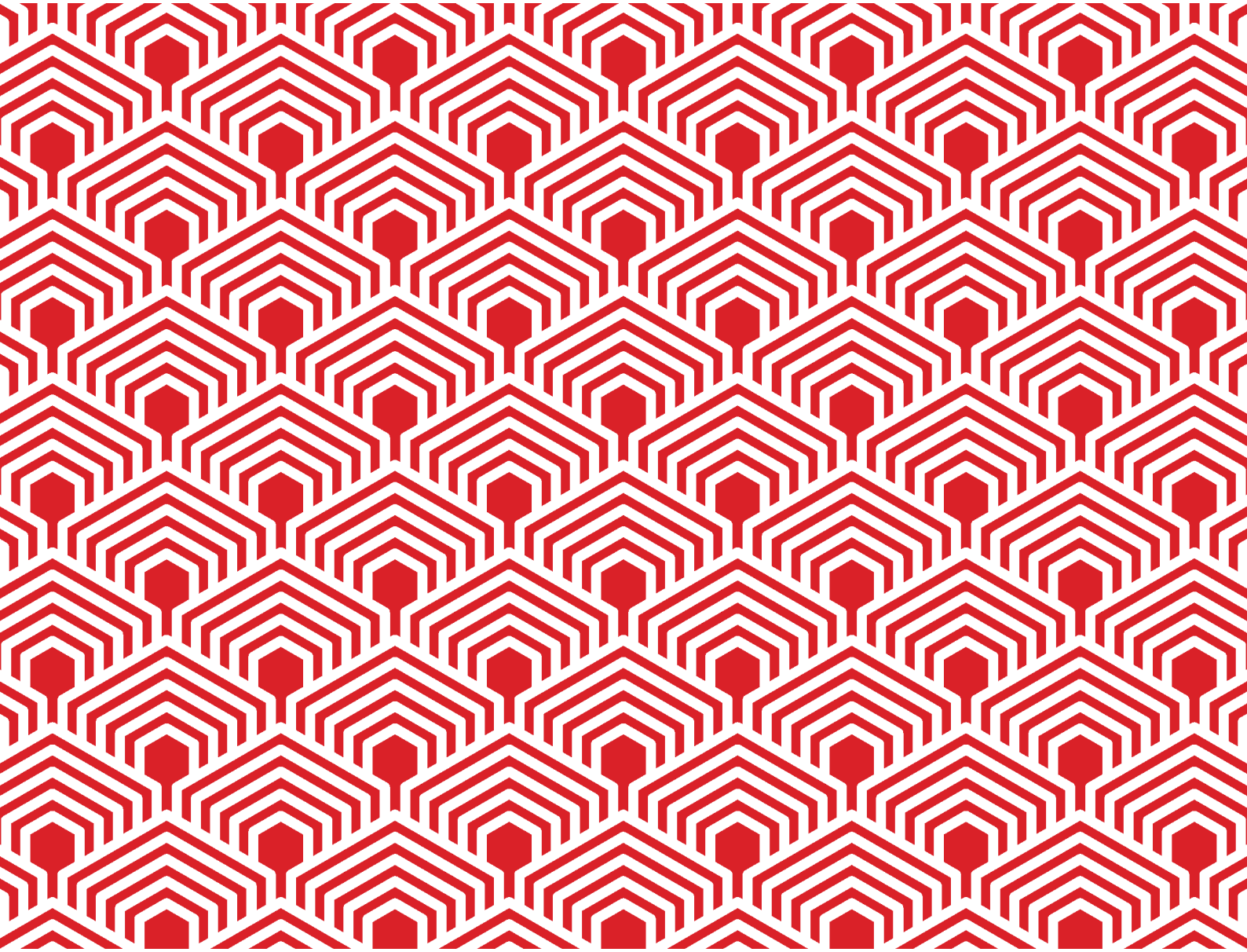
OECD Review of Foreign Direct Investment Statistics

TUNISIA



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OECD Review of Foreign Direct Investment Statistics of TUNISIA

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OECD Report on the Compilation of FDI Statistics in TUNISIA[1]

1. Introduction

Foreign direct investment (FDI) is one of the key ways that economies integrate into the global economy. FDI is not only an important channel for exchanging capital across countries, it is also an important channel for exchanging goods, services, and knowledge and serves to link and organize production across countries. FDI provides a means to create stable and long-lasting relationships between economies, and it can be an important vehicle for local enterprise development. FDI has grown rapidly in recent decades and both the destinations and sources of FDI have expanded with globalisation. Internationally harmonised, timely, and reliable FDI statistics are essential to assess the trends and developments in FDI activity globally, regionally, and at the country level.

FDI is one of the major types of investment included in the balance of payments (BOP) and international investment position (IIP) statistics. The IMF in its *Balance of Payments and International Investment Position Manual, 6th edition* (BPM6) and the OECD in its *Benchmark Definition of Foreign Direct Investment, 4th edition* (BMD4) set the international standards for compiling FDI statistics. BMD4 is completely consistent with the guidance in BPM6 but provides more detailed guidance on the compilation of FDI statistics; for example, BMD4 provides more detailed guidance for compiling FDI statistics by immediate partner country and by industry than BPM6. BMD4 also provides guidance on compiling inward FDI statistics that produce more meaningful measures of inward investment. For example, BMD4 provides guidance on compiling inward FDI statistics by the ultimate investing country. This presentation provides information on the country of the investor who ultimately controls the investment. It also identifies the amount of inward investment that results from round-tripping, which is the channelling abroad of local funds and their subsequent return to the country in the form of direct investment. The recommended measures of FDI statistics in BMD4 produce FDI statistics that are part of the larger System of National Accounts (SNA). The SNA is the internationally agreed standard set of recommendations on how to compile measures of economic activity, such as Gross Domestic Product (GDP), gross national income, trade, and foreign borrowing and lending.

The OECD also hosts the Working Group on International Investment Statistics (WGIIS), which serves as a forum for FDI statisticians from both OECD member countries and non-member countries to share best practices. The WGIIS also conducts research to improve the measurement of FDI. Currently, the WGIIS has an active research agenda exploring issues surrounding the recording of FDI income, reinvested earnings, and dividends; the compilation of FDI statistics by ultimate partner country; and harmonising FDI statistics with other statistics related to globalisation, such as Foreign Affiliate Statistics (FATS) (also called Activity of Multinational Enterprise (AMNE) Statistics). Finally, the WGIIS is responsible for updating the *Benchmark Definition.*

The goal of this project is to review Tunisia's FDI statistics to assess their compatibility with the international guidelines (BPM6 and BMD4); to assess the data sources

[1] This report was prepared by Maria Borga, Senior Statistician and Head of FDI Statistics, and Emilie Kothe, Statistician, in the Investment Division of the OECD's Directorate for Financial and Enterprise Affairs.

and estimation methods used; and to examine both the feasibility and the usefulness of compiling additional series, such as by country of ultimate investor. This report is based on Tunisia's response to a survey asking for information on their FDI statistics; discussions and information provided during and following a workshop on FDI statistics in Tunis in March 2019; on information provided by the Foreign Investment Promotion Agency (FIPA); on other sources of information on data sources and methods, such as the metadata Tunisia provided for the IMF's BOP and IIP statistics; an analysis of their FDI statistics; and our knowledge of best practices for the compilation of FDI statistics.

The OECD has developed a framework for assessing the quality of macroeconomic statistics that focuses on seven dimensions of quality: relevance, accuracy, credibility, timeliness, accessibility, interpretability, and coherence. This report will use this framework in its evaluation of Tunisia's FDI statistics although some of these dimensions are more relevant for FDI statistics than others. The report begins with a summary of recent trends in Tunisia's FDI. This is followed by an assessment based on the quality framework discussed above. Section 4 provides information on possible content that could be included in an analysis that can be released in conjunction with FDI statistics as well as information on the usefulness of FDI statistics in analysis of globalisation more broadly. The last section offers conclusions.

2. FDI Trends of Tunisia

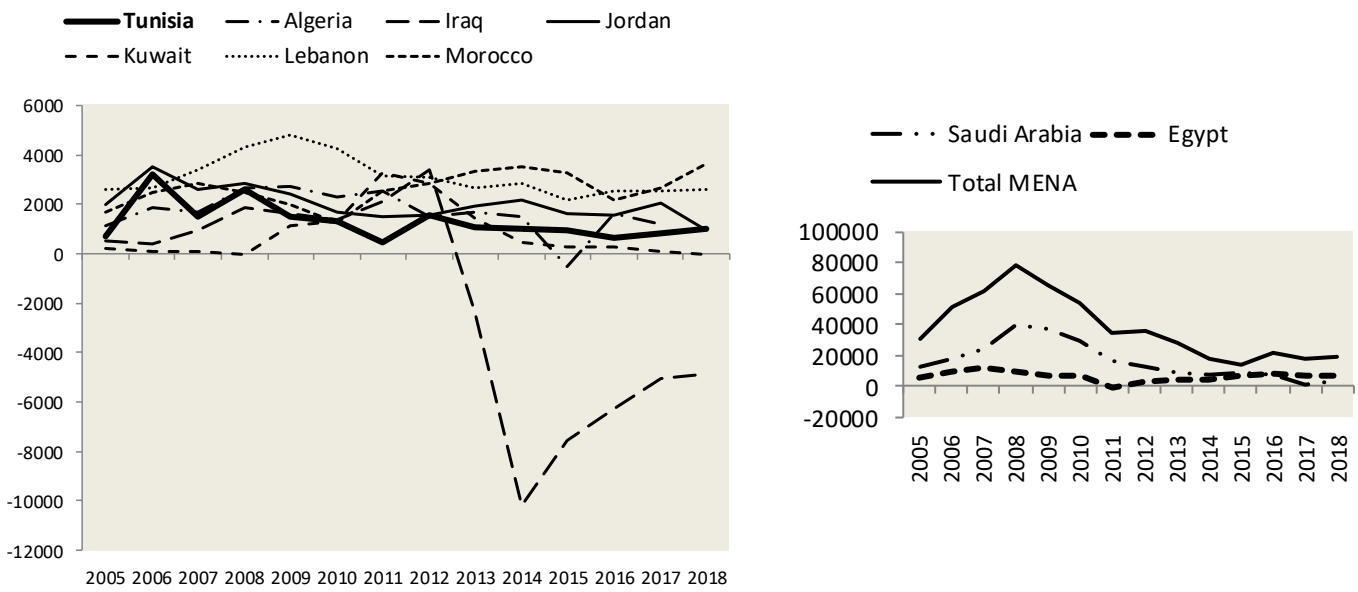
2.1. FDI flows

In 2018, **FDI inflows**[2] in Tunisia increased, by 22% (to USD 989 million), continuing their rising trend observed in 2017 after several years of decline recorded in 2012-2016. In the MENA region as a whole, FDI inflows increased by 9% in 2018 after an 18% decline recorded in 2017 (Figure 1). At the global level, FDI inflows decreased by 30% in 2018 mainly as a result of the US tax reform. Within the OECD and EU areas, FDI inflows dropped in 2018, by respectively 19% and 11% (Figure 2).Those developments were largely driven by large negative inflows from Ireland and Switzerland and by more than USD 20 billion decreases in the United Kingdom, the United States and Germany. In contrast, FDI inflows to non-OECD G20 economies increased by 8%partly driven by increases in China.

Between 2008 and 2011, FDI flows in Tunisia[2] declined at an annual rate of -36%, to reach their lowest level in 2011 at USD 0.4 billion (compared to USD 2.6 billion in 2008). Then, they more than tripled in 2012, to USD 1.6 billion, before starting to decline continuously again between 2013 and 2016. However, they declined more slowly than in 2008-2011, at an annual rate of -17%, before increasing again in 2017 and 2018 by respectively 30% and 22%, but remaining below USD 1 billion. In the MENA region, FDI flows have declined at an annual rate of -18% between 2008 and 2011 and remained stable at an average USD 35 billion in 2011 and 2012. They declined again at an average rate of -20% between 2013 and 2015. They then were very volatile between 2016 and 2018 but remained below USD 30 billion. In contrast, at the global level, in the OECD as a whole and in the EU area, FDI inflows have grown at annual rates of 8%, 10% and 8%, respectively, between 2009 and 2015. Between 2016 and 2018, they declined at an annual rate of respectively -15%, -18% and -13%.

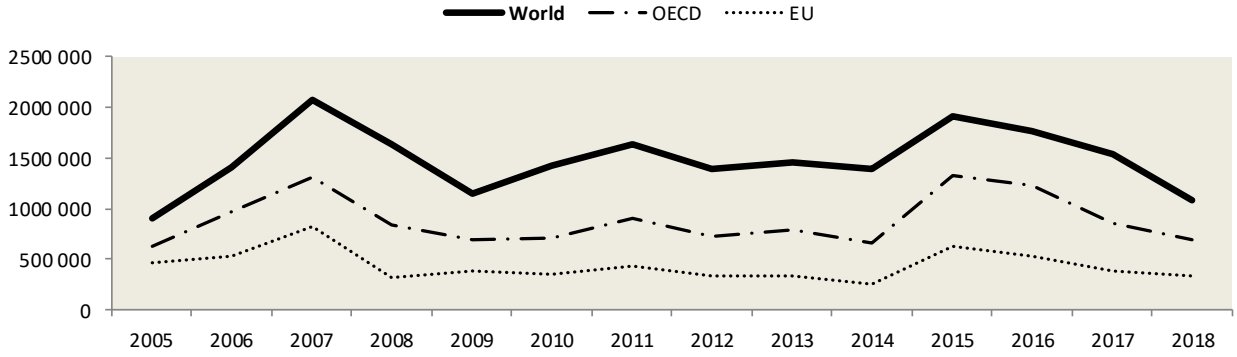
[2] FDI inflows refers to "Net incurrence of FDI liabilities", the BPM6-BOP standard presentation for FDI liabilities as published by the IMF in its BOP IIP database. The CBT uses a different presentation to publish BOP FDI aggregates, this is further described in the *Coherence* section.

Figure 1. FDI flows in Tunisia and selected MENA countries, 2005-2018, USD millions



Note: MENA total aggregate exclude FDI flows in United Arab Emirates (not available), Qatar for 2005-2010 (not available), FDI flows in Libya and Syrian Arab Republic for 2011 onwards (not available) and FDI flows in Yemen for 2016 onwards (not available). . MENA total aggregate for 2018 is estimated using FDI flows for 2017 for Algeria, Bahrain and Djibouti and FDI flows for 2018 for the other countries.
Source: Central Bank of Tunisia and IMF Balance of Payment database (see Annex 1 Table 1 for detailed figures).

Figure 2. FDI flows in selected regions worldwide, 2005-2018, USD millions



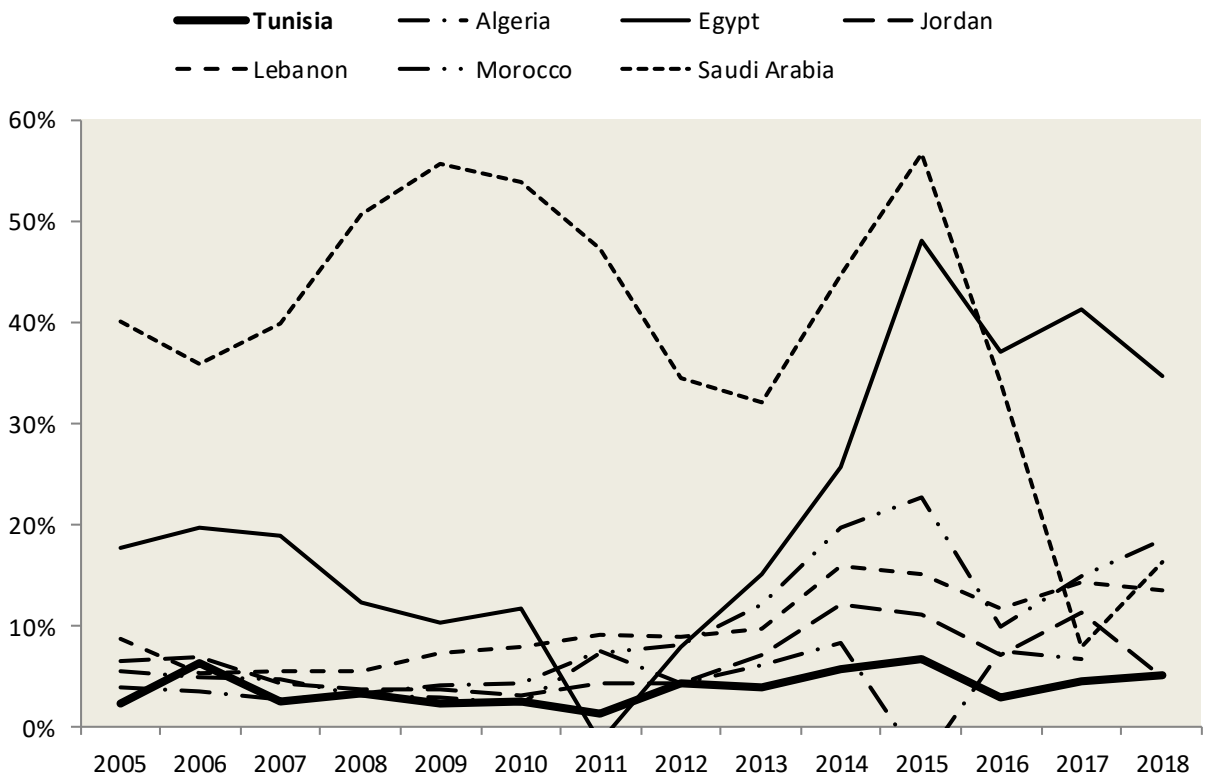
Source: OECD Foreign Direct Investment statistics database (see Annex Table 1 for detailed figures)

In 2018, FDI flows in Tunisia accounted for 5.0% of total FDI flows received in the MENA region as a whole, compared to 4.5% in 2017, 2.8% in 2016 and 6.7% in 2015 (Figure 3). In 2018, Tunisia ranked sixth among the largest recipients of FDI flows in the MENA region[3], after Egypt, Oman, Morocco, Saudi Arabia and Lebanon. However, FDI flows in Tunisia represented 2.4% of its GDP in 2018, which was greater than for the region as a

[3] Algeria, Bahrain and Djibouti are excluded from the 2018 ranking, as FDI inflows for 2018 are not available at the time of writing from the IMF BOP and IIP database.

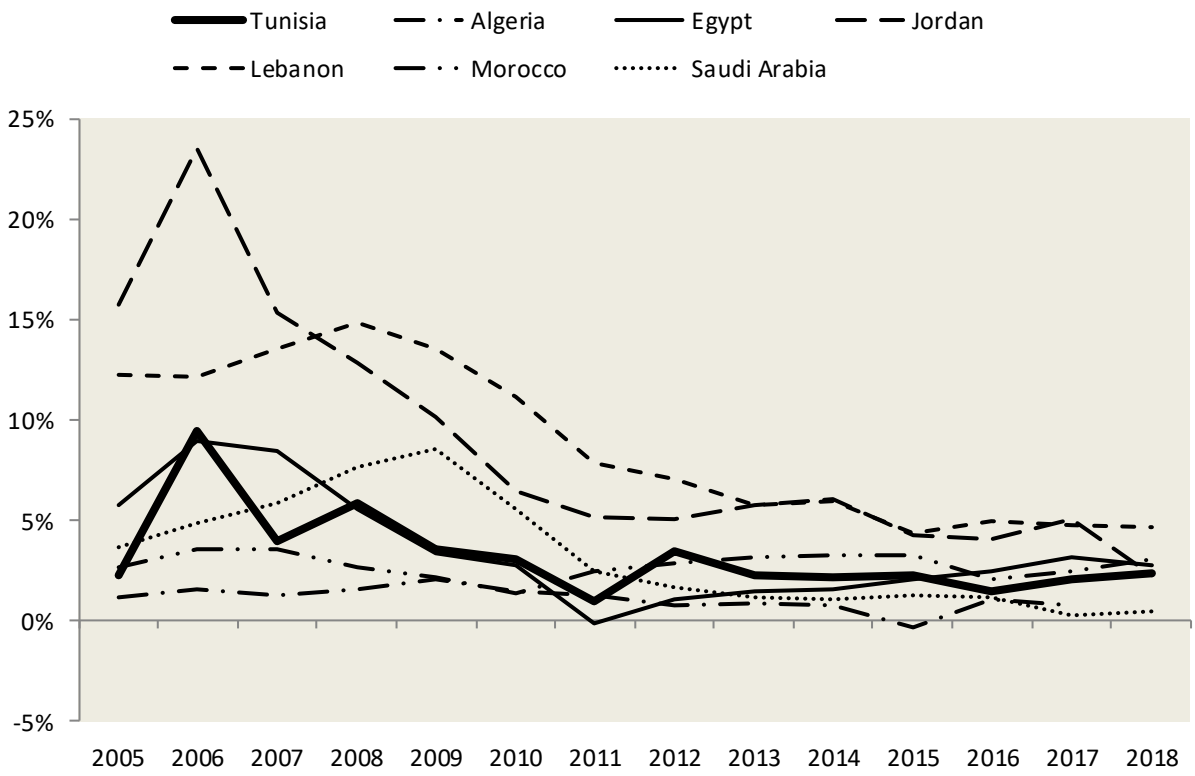
whole (FDI flows to the region were 1.2% of the region's GDP in 2018). FDI as a share of GDP for Tunisia in 2018 was higher than the levels recorded since 2013 but slightly below 3.5% recorded in 2012, and well below the level recorded in 2006 when they reached 9% of GDP (Figure 4).

Figure 3. FDI flows in Tunisia and selected MENA countries, as a share of total MENA



Source: Central Bank of Tunisia and IMF Balance of Payment database (see Annex 1 Table 1 for detailed figures)

Figure 4. FDI flows in Tunisia and selected MENA countries, as a share of GDP



Source: Central Bank of Tunisia, IMF Balance of Payment database and IMF World Economic Outlook (see Annex 1 Table 2 for detailed figures)

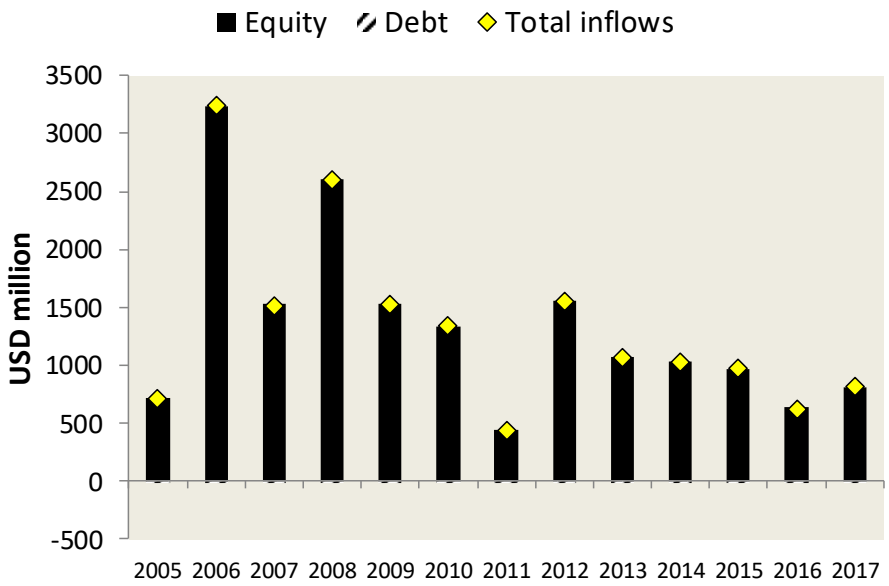
FDI outflows from Tunisia (or net acquisition of FDI assets) available from the IMF BOP database are recorded as 0's for the full period 2005-2018. The CBT publishes BOP FDI aggregates using a different presentation than the standard BOP presentation recommended in BPM6. This is further described in the *Coherence* section. While 'Net incurrence of FDI liabilities" can be retrieved from the BOP FDI flows published by the CBT, "net acquisition of FDI assets" are not available.

The Central Bank of Tunisia (CBT) does not disseminate FDI flows by instrument within its BOP and IIP reports on a quarterly basis but does publish equity and 'other' on an annual basis. The CBT indicated that reinvestment of earnings are combined with equity capital flows under the BOP financial account. However, the CBT thinks that the compilation of reinvestment of earnings would be further improved by using additional sources than solely the International Transaction Reporting System (ITRS) currently used, such as the survey that will be developed to participate in the IMF's Coordinated Direct Investment Survey (CDIS) or by looking at companies' financial statements. The improved measurement of reinvestment of earnings through the use of additional sources is one of the main recommendations under the *Relevance* section. Under the current account, direct investment payments published by the IMF and the CBT include dividends, reinvested earnings and interest from debt, but those are not published separately. The CBT publishes interest from debt separately on an aggregated basis under the general capital income header, but not for direct investment income payments specifically. The instruments breakdown of FDI inflows available from the IMF BOP database show that equity capital inflows (including reinvested

earnings) exceed total flows for the full period 2005-2017 as intracompany debt flows are negative, between USD -12 million and USD -1 million (Figure 5).

For the MENA region as a whole, the instrument distribution of total flows observed in 2017 is comparable to the distribution observed in the pre-crisis period.[4] Intra-company debt flows represented 35% of total inflows in the region in 2017, a level comparable to 2016 but higher than the levels recorded in 2009-2013 when they represented less than 20% of the total. They exceeded equity capital flows in 2014 and 2015, which had decreased as a result of some large negative levels recorded in certain countries. Equity capital flows represented 57% of total flows in 2017, lower than levels recorded in 2012-2013 when they represented 83% and 74% respectively of total flows. They decreased to 37% of total flows in 2013 and dropped to negative levels in 2014. Reinvestment of earnings represented 8%, compared to 7% in 2016. At the global level, intra-company debt flows represented 8% of total inflows in 2017 while equity flows and reinvestment of earnings each represented around 45% of global inflows in 2017, compared to 60% and 31% respectively in 2016. In 2018, preliminary estimates of global reinvestment of earnings were above the equity levels for the first time since 2005, while global intracompany debt flows were negative.

Figure 5. FDI flows in Tunisia by instrument, 2005-2017



Note: The category 'Equity' includes reinvestment of earnings. At the time of writing, the instrument breakdown of FDI inflows (or net incurrence of FDI liabilities) for 2018 was not available from the IMF BOP database.
Source: IMF Balance of Payment database (See Annex 1 Table 4 for detailed figures).

In 2018, 41% of total flows received by Tunisia[5] were in the manufacturing sector. Manufacturing increased from 29% in 2015 to more than 42% in 2016 and has remained

[4] Source: calculations using available information from the IMF BOP database. FDI inflows by instruments are not available for Bahrain (2012 onwards), Libya (2011 onwards), Qatar, Saudi Arabia, United Arab Emirates and Syrian Arab Republic (2011 onwards). When equity and reinvestment of earnings were not available separately, the available value for one of the instruments was divided equally between the two instruments. When debt flows were not available, it was assumed that they corresponded to zero values except for Jordan where equity and debt flows were divided equally between the two instruments.

[5] The industry and geographic breakdown of FDI inflows published by the CBT is available for increases of FDI liabilities only (or FDI receipts), as opposed to net incurrence of FDI liabilities, which

above 40% since then. In contrast, the energy sector represented 33% of total flows received by Tunisia in 2018 compared to more than 50% in 2013-2015. Services activities increased from 15% in 2017 to 23% in 2018 (Table 1). The share of investments in the finance sector increased to 14% in 2018 as compared to 4% in 2017, while the share of real estate and tourism activities as well as telecommunications remained stable at round 5% each.

According to the 2017 annual report on BOP and IIP statistics published by the CBT, in 2017, the European Union accounted for 85.5% of total inflows[5] in Tunisia, compared to 76.5% in 2016. The CBT indicated that this increase was largely due to capital extensions from French investors in the manufacturing sector. The other Arab countries as a group accounted for 8.4% in 2017 compared to 18.3% in 2016. Within Europe, France accounted for 33% of total inflows in Tunisia (compared to 25% in 2016), followed by Austria (25%), Italy (12%), the United Kingdom (9%), and Germany (8%). Among Arab countries, Qatar and Libya accounted for respectively 5% and 2% of total inflows received by Tunisia.

Table 1. FDI flows in Tunisia by economic activity, as a share of total inflows

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Agriculture	1%	1%	0%	0%	1%	1%	0%	0%	0%	1%	0%	0%	1%	1%	3%
Energy	34%	38%	21%	66%	57%	54%	61%	66%	35%	59%	49%	49%	42%	38%	33%
Manufacturing	39%	37%	8%	23%	19%	34%	27%	20%	21%	28%	25%	29%	42%	46%	41%
Services	25%	24%	70%	11%	24%	11%	13%	14%	43%	12%	25%	21%	15%	15%	23%
Real estate & tourism	3%	2%	0%	3%	6%	4%	4%	1%	3%	1%	3%	4%	6%	6%	5%
Telecommunications	15%	10%	69%	4%	1%	7%	6%	12%	30%	5%	5%	5%	5%	4%	4%
Financial sector	5%	12%	0%	0%	11%	0%	0%	0%	10%	5%	13%	8%	0%	4%	14%
Other	2%	1%	0%	3%	6%	1%	2%	0%	0%	1%	5%	4%	4%	1%	0%

Note: The industry breakdown of FDI inflows published by the CBT is available for increases of FDI liabilities only (or FDI receipts), as opposed to net incurrence of FDI liabilities, which are the standard BOP concept for FDI liabilities under BPM6 (net incurrence of liabilities is defined as increases in liabilities minus decreases in liabilities).
Source: Central Bank of Tunisia (see Annex 1 Table 6 for detailed figures).

2.2 FDI stocks and income

The **stock of inward FDI** in Tunisia at-end 2018 was USD 27 billion as compared to USD 17 billion in 2005, equal to 64% of its GDP (Figure 6). For the MENA region, inward FDI stocks represent 34% of MENA GDP[6], slightly below the 40% ratio recorded in the OECD and above the ratio recorded for the G20 (29%). At-end 2018, Tunisia had the fifth largest stock of inward FDI in the MENA region, accounting for 5.0% of the total, after Saudi Arabia (43%), Egypt (22%), Morocco (12%) and Jordan (6.5%).

The **stock of outward FDI** from Tunisia at-end 2018 was USD 454 million as compared to USD 52 million in 2005, representing 1.1% of its GDP (Figure 6). For the MENA region, outward FDI stocks represent 9% of total MENA countries' GDP[7], while total outward FDI stocks from the OECD and from the G20 represent, respectively, 44% and 28%

are the standard BOP concept for FDI liabilities under BPM6 (net incurrence of liabilities is defined as increases in liabilities minus decreases in liabilities).

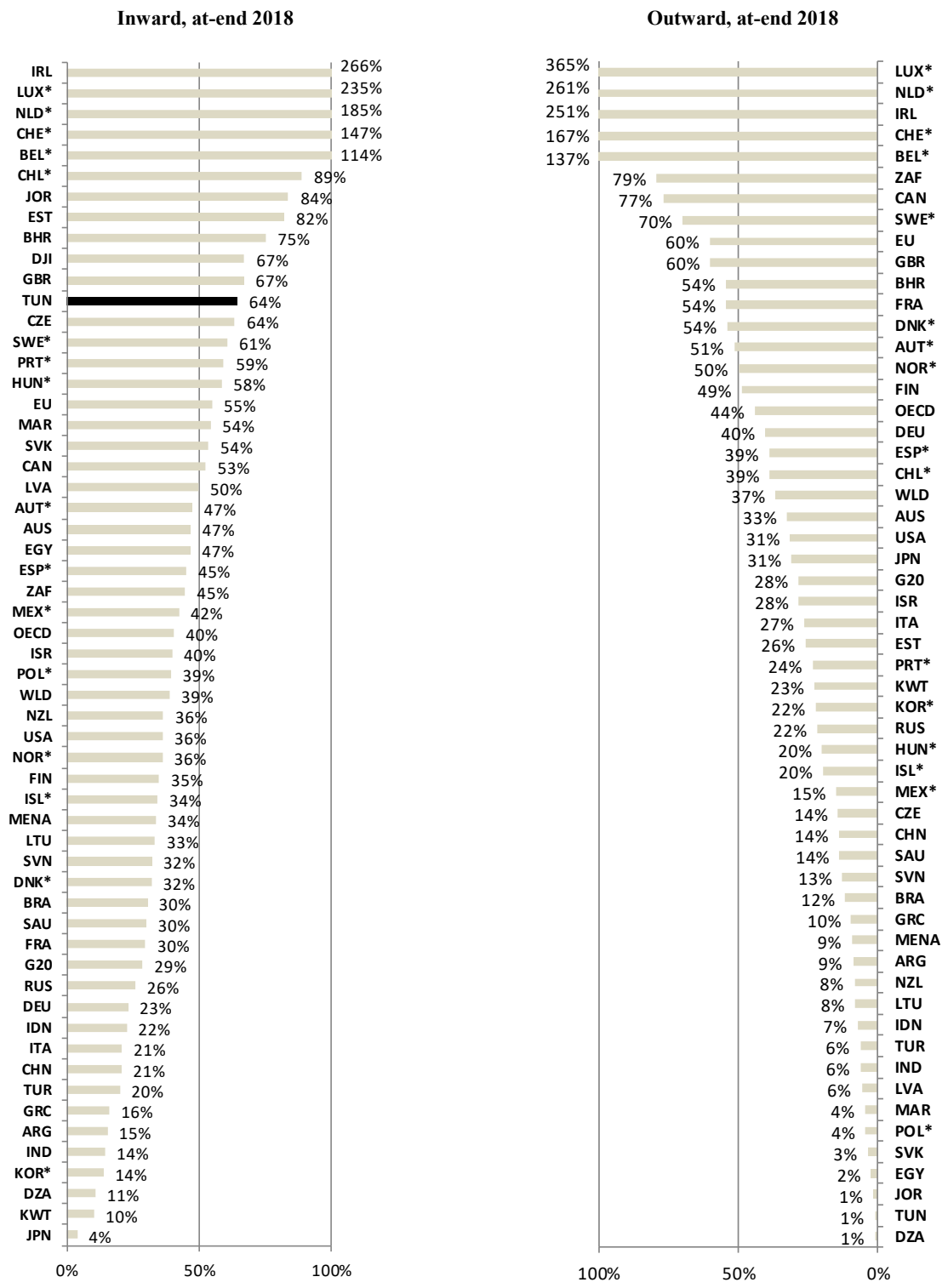
[6] Source: MENA aggregate calculations using available information from the IMF BOP and IIP database and IMF International Finance statistics database. FDI inward positions at-end 2018 (or 2017) and GDP for 2018 were available for Algeria, Bahrain, Djibouti, Egypt, Jordan, Kuwait, Morocco, Saudi Arabia and Tunisia.

[7] Source: MENA aggregate calculations using available information from the IMF BOP and IIP database. FDI outward positions at-end 2018 (or 2017) and GDP for 2018 were available for Algeria, Bahrain, Egypt, Jordan, Kuwait, Morocco, Saudi Arabia and Tunisia

of total OECD and G20 GDP. At-end 2018, Tunisia outward FDI represented 0.3% of total outward FDI stocks of the MENA region. Major investors from the MENA region were Saudi Arabia (61%), Kuwait (19%) and Bahrain (11%).

The Foreign Investment Promotion Agency (FIPA) publishes inward FDI positions by partner country and by industry excluding the energy sector. As described in the *Coherence* section below, inward FDI positions published by the FIPA differ from annual FDI positions published by the CBT as part of IIP statistics for different reasons, which are explained in the *Coherence* section. Once the CBT takes part in the IMF CDIS as indicated in the exploratory survey, the consistency between bilateral FDI positions and FDI aggregate positions published as part of the IIP statistics will likely improve (although differences will remain due, for example, to the asset/liability presentation requested for IIP statistics versus directional presentations requested by the CDIS).

Figure 6. Inward and outward FDI stocks of Tunisia and other countries, as a share of GDP

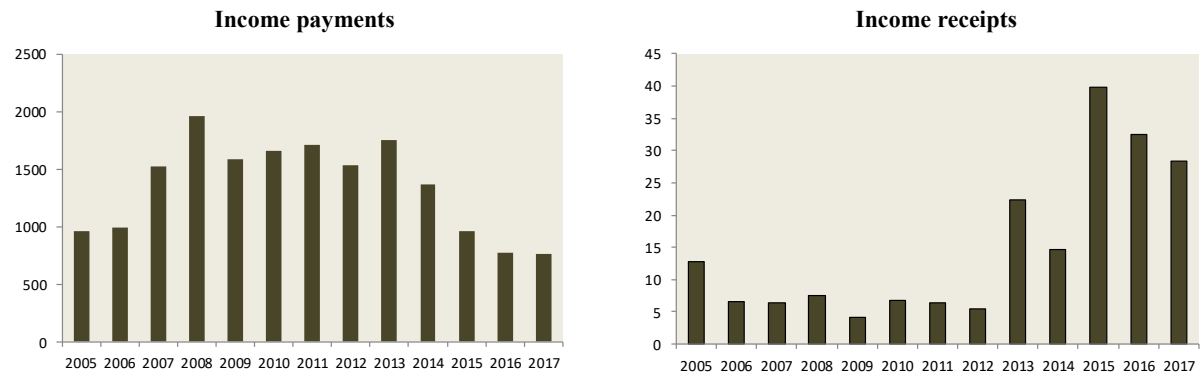


Notes: *Excluding resident SPEs. FDI positions at-end 2018 or latest available year.
Source: IMF Balance of Payments and International Position database, IMF World economic Outlook database and OECD Foreign Direct Investment statistics database.

FDI income received by Tunisian parents from their affiliates abroad continued to drop in 2017[8] to USD 28 million as compared to USD 40 million in 2015 when they reached their highest level. However, they remain well above the levels recorded in 2006-2014 when they were below USD 10 million (Figure 7). Dividends receipts, reinvested earnings and interest from debt are included under total FDI income receipts but they are not available separately. On average in 2016-2017, Tunisia's rate of return on outward FDI was 6.3%, compared to 12.5% on average in six MENA countries for which rates of return on outward FDI could be calculated (Figure 8).[9] The rate of return on outward FDI in the OECD and G20 countries for 2016-2018 averaged 5.1%, but the situation varied widely across countries.

FDI income payments by Tunisian affiliates to their parents abroad continued to drop in 2017, to USD 761 million, while they were above USD 1.5 billion in 2007-2013, reaching a peak in 2008 of USD 2 billion. Dividend payments, reinvested earnings and interest from debt are included under total FDI income payments but they are not available separately. Between 2016 and 2017, Tunisia's rate of return on inward FDI averaged 2.6%, which was below the average of 7.4% recorded in the eight MENA countries for which rates of return could be calculated (Figure 8).[5] The average rate of return on inward FDI in the OECD and G20 countries for 2016-2018 was 6.5%, but the situation varied widely across countries. Information from the 2017 annual BOP and IIP report published by the CBT indicates that in 2017, the European Union received 84.9% of total FDI income payments from Tunisia, the United Kingdom, France and Italy being the major EU recipients (30%, 25% and 10% respectively of total income payments from Tunisia). In the rest of the world, the United States and the other Arab countries as a group received respectively 3.2% and 8.3% of total FDI income payments from Tunisia.

Figure 7. FDI Income payments and receipts of Tunisia, in USD millions



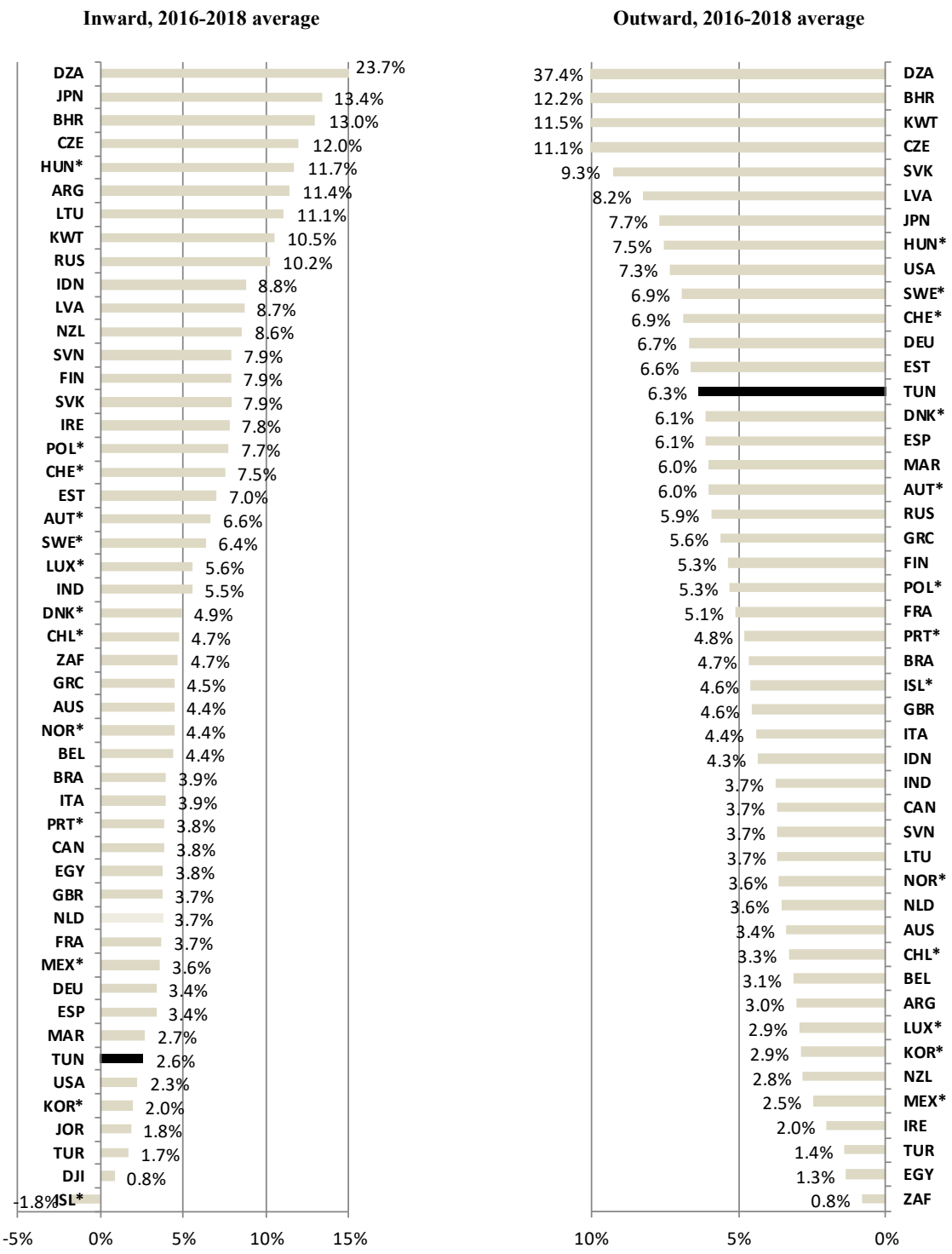
Note: Income on inward and outward FDI include dividends, reinvested earnings and interest from debt but those are not available separately .

Source: IMF Balance of Payments database (see Annex 1 Table 4 for detailed figures)

[8] At the time of writing, FDI income receipts and FDI income payments for 2018 were not yet available from the IMF BOP database, nor from the CBT website.

[9] Rates of return on inward and outward FDI are calculated in this report as the ratio between income on equity FDI and total inward and outward FDI stocks respectively. Based on available information from the IMF BOP and IIP database, rates of return on outward FDI could be calculated for six MENA countries (Algeria, Bahrain, Egypt, Kuwait, Morocco and Tunisia) while rates of return on inward FDI could be calculated for eight MENA countries (Algeria, Bahrain, Djibouti, Egypt, Jordan, Kuwait, Morocco and Tunisia). It includes the average of rates of return for 2016-2018 when 2018 is available, or 2016-2017 otherwise.

Figure 8. Rates of return on inward and outward FDI of Tunisia and other countries



Notes: *Excluding resident SPEs. Rates of return on inward and outward FDI are calculated as the ratio between income on equity FDI and total inward and outward FDI stocks respectively. It includes the average of rates of return for 2016-2018 when 2018 is available, or 2016-2017 otherwise.
Source: IMF Balance of Payments and International investment position database and OECD Foreign Direct Investment statistics database

3. Quality Framework

The OECD quality framework assesses the quality of economic statistics according to seven dimensions: relevance, accuracy, credibility, timeliness, accessibility, interpretability, and coherence. In each section below, the FDI statistics of Tunisia are assessed according to these quality factors. Where possible, comparisons of methods, data sources, and coverage will be made to the FDI statistics compiled by OECD member countries.

3.1 Relevance

Relevance is defined as an assessment of the value contributed by these data. Relevance is characterised by the degree to which the data serve the purposes for which they are sought by users. It depends both on the coverage of the required topics and the use of appropriate concepts.

This section will begin with a discussion of the coverage of Tunisia's FDI statistics compared to the international standards. Because FDI statistics currently published by the CBT are based on BPM5, it will assess their alignment with BPM5 and what improvements in coverage are needed to bring the statistics in line with the latest international standards, i.e., BPM6 and BMD4. The section will continue with a discussion of the extent to which Tunisia's FDI statistics use the appropriate concepts by examining how well aligned they are with the international guidelines for compiling detailed FDI statistics by partner country and by industry. FDI statistics serve two main sets of data users: the first group are BOP and IIP analysts, and the second group are those studying the impact of international investment on the reporting economy. The first group are interested in the aggregate statistics that appear in the BOP and IIP accounts while the second group are often more interested in detailed statistics by partner country and by industry. Given their differing analytical uses for the statistics, it is not surprising that there are differences in the presentations of FDI statistics that they find most useful. While the needs of both users will be considered, extra emphasis will be given to those studying the impact of FDI since that is the main focus of BMD4.

3.1.1. Coverage

There are several different aspects to coverage. The first is whether or not all of the standard FDI statistical series are collected and released to the public. Tunisia (through the Central Bank) releases to the public the full set of FDI statistics--financial flows, income flows, and positions as part of the BOP and IIP statistics[10]--but does not publish the components on a quarterly basis. FDI flows include three major components—equity, reinvestment of earnings and debt--but CBT publishes two categories—equity (which includes reinvestment of earnings) and 'other' on an annual basis. This makes it hard to determine if all of the components are covered. Similarly, income receipts and payments consist of three components—dividends, reinvested earnings, and net interest—but these components are not published separately for FDI specifically, making it hard to determine if they are all covered. For FDI positions, there are two components: equity and debt.

[10] However, in terms of BOP FDI flows, only net incurrence of FDI liabilities can be retrieved from the CBT website while net acquisition of FDI financial assets are not available (they are recorded as 0s for the full period 2005-2017 in the IMF BOP database). As regards FDI income aggregates, only FDI income payments are published by the CBT while FDI income receipts are not available (but they are available in the IMF BOP database). For FDI positions published a part of IIP, both FDI assets and liabilities are published by the CBT.

Information by component is not available from the CBT website or from the IMF IIP database. From the metadata, it is clear that both equity and debt are included in inward positions, but it is not clear whether they are both included in the outward positions.

Two other important parts of coverage relate to how well the statistics cover the population of firms in the direct investment universe as defined in the statistical standards and to how well the elements to be included in each series are covered. These two additional aspects are discussed below.

The most important factor in defining the universe of FDI enterprises is the 10 percent of voting power criterion. FDI is defined as a long lasting investment by a resident in one economy in a business enterprise in another economy; the direct or indirect ownership of 10% or more of the voting power is evidence of such a relationship. Tunisia takes into account the two main criteria when identifying direct investment: the long-term nature of the investment and the 10 percent of voting power criterion. However, contrary to the guidelines, Tunisia does not include enterprises in which the direct investor has more than 10% of the voting power but does not have an influence on management in FDI.

Table 2 provides a summary of these aspects of coverage in FDI statistics for OECD countries. These comparisons are based on the 2016 metadata survey for FDI statistics that the OECD conducted. Results of the metadata survey were released in June 2017 in a metadata database for FDI statistics, available at the following link: http://qdd.oecd.org/subject.aspx?Subject=fdi_metadata. Thirty-four of the thirty-five member countries at that time responded to the survey, and the number indicating yes to the question is shown in the column labelled OECD. The last five columns show the responses from Italy, France, the Netherlands, the United States and Germany, the five largest direct investment partners of Tunisia in the OECD.[11] For the OECD, only 20 out of 33 countries strictly apply the 10 percent of voting power criterion. Most of the exceptions are thresholds applied to the size of the enterprise for inclusion in their FDI statistics; these thresholds are often related to reporting requirements on surveys of FDI and are generally set low enough to ensure adequate coverage of the FDI universe. However, a few countries make exceptions to the 10 percent criterion. Three of the five major OECD investors in Tunisia strictly apply the 10 percent criterion.

Table 2. How OECD countries define direct investment enterprises?

	OECD	IT	FR	NL	US	DE
Strict application of the 10% voting power criterion	20	√	√*	√	√	
Method used to determine FDI relationships:						
Framework for Direct Investment Relationships	23					
Participation Multiplication Method	3				√	
Direct Influence/Indirect Control Method	6		√	√		√
Exclude indirectly owned direct investment enterprises	1					
Other	1	The FDI relationships are determined on the basis of the accounting consolidation perimeter				

Note: *for inward FDI positions only. For inward FDI transactions and outward FI positions, a threshold is applied.
Source: OECD Metadata survey on BMD4.

[11]According to outward FDI positions of OECD countries in Tunisia, from the OECD FDI statistics database.

Because the ownership structures of multinational enterprises (MNEs) can be quite complicated, it can be difficult to make sure that all of the entities under the influence of a common direct investor are identified. BPM6 and BMD4 recommend three different ways of identifying all of the entities in a direct investment relationship, with one method--the Framework for Direct Investment Relationships--being preferred. These methods provide for the identification of indirectly owned enterprises as well as of horizontal relationships to identify all of the entities related to a particular enterprise. The CBT does not currently use any of the methods in the latest standards but instead exclude indirectly owned direct investment enterprises from FDI data. This exclusion could impact the coverage of FDI statistics because any transactions between a direct investor and its indirectly held direct investment enterprises are to be included in FDI.

Almost all of the OECD countries responding to the survey use one of the three recommended methods for identifying direct investment relationships, and none exclude indirectly owned enterprises from FDI data. Major OECD investors in Tunisia use different methods: the United States use the Participation Multiplication Method (PMM); France, Germany and the Netherlands use the Direct Influence/Indirect Control (DIIC) method while Italy uses a simplified DIIC method, which reduces the DIIC to the accounting consolidation perimeter.[12]

The international guidelines provide guidance on the types of loans that should be included in FDI debt statistics. FDI statistics currently disseminated by the CBT as part of BOP and IIP statistics include long term loans, trade credits, financial leases, and 'other' financing, but do not include short term loans and short and long term debt securities as called for in the guidelines. CBT does exclude financial derivatives from FDI as called for in the international standards as well as insurance technical reserves, which can be included in either direct investment or other investment. The CBT indicates that the survey being designed to participate in the CDIS will extend the coverage of short term debt and debt securities in FDI statistics. Finally, the CBT already follows the latest international guidelines regarding the treatment of debt between financial intermediaries. Those transactions are captured by the ITRS, therefore they are already excluded from FDI even if this was not required under BPM5[13]. They are classified under other investment, as in almost all OECD countries.

Fellow enterprises are entities that are not in a direct investment relationship themselves but that have a direct investor in common. Any transactions between fellow enterprises are relevant to FDI statistics because such transactions likely result from the influence of their common direct investor. The international guidelines call for capturing both equity and debt transactions and positions between fellow enterprises in FDI statistics. The CBT does not cover fellow enterprises, noting that it was not required in BPM5. By excluding transactions between fellow enterprises, the CBT could be missing an important segment of FDI transactions and positions; hence, the efforts to cover fellow enterprises as part of

[12] The DIIC method includes all entities in which the direct investor directly owns voting power of 10% or more plus all enterprises that are controlled by them, plus all other enterprises in a continue chain of majority ownership. While included as one of the three recommended methods, the DIIC covers a subset of the entities identified as being in a direct investment relationship under either the FDIR or the PMM.

[13] BPM5 used the concept of 'permanent' debt, which referred to debt between financial intermediaries related to the operations of the direct investment enterprise. Permanent debt was included in FDI but other debt between financial intermediaries was excluded from FDI. BPM6 recommended excluding all debt between financial intermediaries due to the difficulty of identifying 'permanent debt'.

implementing the latest international standards are an important step. According to table 3, 28 OECD countries cover debt transactions (29 countries cover debt positions) between fellow enterprises in their inward FDI statistics and 27 cover them in their outward FDI statistics (26 countries cover them in their outward positions). The United States partially covers them as only fellows that are ultimately controlled by the same parent through a majority ownership chain are covered, while the minority owned ones are excluded.

Table 3. What is the coverage of FDI statistics compiled by OECD countries?

	OECD	IT	FR	NL	US	DE
Inclusion of commercial real estate activities (ISIC4 section L)	34	√	√	√	√	√
Inclusion of private purchase and sale of real estate						
Inward	28	√	√	√		√
Outward	26	√	√	√		√
Type of loans included in FDI debt statistics						
Long term loans	34	√	√	√	√	√
Short term loans	34	√	√	√	√	√
Short and long term debt securities	30	√	√	√	√	√
Very short term debt, such as that arising from cash pooling	30	√	√	√	√	√
Trade credits	31	√	√	√	√	√
Financial leases	26	√	√	√	√	√
Financial derivatives (not recommended in BMD4 and BPM6)	2					
Insurance technical reserves	10	√		√	√	√
Other	8					
Exclusion of debt between affiliated financial intermediaries	32	√	√	√	√	√
Full coverage of debt transactions between fellow enterprises						
Inward	28	√	√	√	Partial	√
Outward	27	√	√	√	Partial	√
Full coverage of debt positions between fellow enterprises						
Inward	29	√	√	√	Partial	√
Outward	26	√	√	√	Partial	√

Source: OECD Metadata survey on BMD4

In FDI statistics, the international guidelines lay out special cases to help clarify what should be covered in FDI statistics. BPM6 and BMD4 call for real estate to be covered in FDI statistics. Tunisia does cover real estate transactions in its inward and outward data. The data source is the ITRS as well as the exchange control authorities for outward FDI. All OECD countries cover commercial real estate transactions in their FDI statistics, and most cover private, or residential, real estate transactions including the major OECD investors in Tunisia except for the United States (table 3).

The international guidelines recommend that construction enterprises that are present in a single economy for more than a year, and thus meet the criterion for residency, and also fulfil the other requirements for being considered a separate institutional unit are to be included in FDI statistics. Similarly, operators of mobile equipment such as ships, aircraft, and drilling rigs, are to be included in FDI statistics if they are resident in the economy for more than a year and meet the other requirements for being considered a separate institutional unit. The CBT covers both construction enterprises and operators of drilling rigs in their FDI statistics when they meet the criteria while aircraft and ships are not relevant.

Special Purpose Entities (SPEs) are entities whose role it to facilitate the internal financing of the MNE but that have little or no physical presence in any economy. As such, it can be difficult to identify the residency of SPEs. BPM6 and BMD4 clarified that SPEs should be assigned residency in the economy where they are incorporated or registered. While the funds that pass through SPEs do not have much impact, if any, on the economy in which they are resident, BPM6 points out that it is important to cover them in the BOP and

IIP accounts because "a) they are an integral part of a direct investor's financial transactions with affiliated enterprises; b) the exclusion of these funds from direct investment would distort and substantially understate direct investment financial flows and positions at the aggregate level; and c) the inclusions of these data in direct investment promotes symmetry and consistency among economies" (BPM6, paragraph 6.34).

Most, if not all, of the financial transactions of SPEs are funds that are simply passing into and out of an economy on its way to other destinations. Such funds—also called pass-through capital or capital-in-transit—distort the country patterns of FDI statistics and cause double-counting in the statistics. As a result, BMD4 recommends the inclusion of SPEs in FDI statistics but also recommends that they be separately identified. The separate identification of FDI associated with SPEs enables these flows and positions to be removed from the aggregate FDI statistics yielding measures of FDI associated with non-SPE, or operating, affiliates. This results in more meaningful measures of direct investment into and out of an economy by removing FDI that involves funds simply passing through the economy via SPEs on their way to other destinations. For the country hosting the SPEs, this recommendation improves the measurement of FDI by excluding inward FDI that has little or no real impact on their economies and by excluding outward FDI that did not originate from their economies. In addition, there are often concerns about the quality of the data collected on SPEs because SPEs have little presence in the reporting economy and because there is often little other data available to confirm their responses. By separately identifying them, the higher quality data available for operating affiliates is separately available. This can be useful for data users who may be concerned about the quality of the data on SPEs, especially in countries where SPEs play a large role.

The CBT indicates that foreign investors do not establish Special Purpose Entities in its economy. The Balance of Payments Committee of the IMF formed a Task Force on SPEs (TF SPE). One output of the TF SPE was a definition of SPEs. The definition specified that "an SPE resident in an economy is a formally registered and/or incorporated legal entity recognised as an institutional unit, with no or little employment up to a maximum of five employees, no or little physical presence, and no or little physical production in the host economy. SPEs are directly or indirectly controlled by nonresidents. SPEs are established to obtain specific advantages provided by the host jurisdiction with the objective to: i) grant its owner(s) access to capital markets or sophisticated financial services; and/or ii) isolate owner(s) from financial risks; and/or iii) reduce regulatory and tax burden; and/or iv) safeguard confidentiality of their transactions and owner(s). SPEs transact almost entirely with nonresidents and a large part of their financial balance sheet typically consists of cross-border claims and liabilities."

In practice, countries use a variety of criteria in determining if an entity is an SPE because it can be difficult to identify SPEs in a comprehensive manner. Table 5 reports the results from the metadata survey for countries that cover SPEs in their statistics. Of the 21 countries that reported SPEs are established in their economy by foreign investors, 19 cover SPEs in their statistics, and 16 report FDI statistics for resident SPEs separately. Most countries use multiple data sources and criteria to identify SPEs in their FDI statistics. The three most important criteria are that the entity has few or no employees, that foreign assets and liabilities account for a substantial share of total assets and liabilities, and that it be foreign owned. Only four countries have a special register for SPEs. While foreigners do not establish SPEs in France, Germany and Italy, they do in the Netherlands which examines number of employees and the share of foreign assets and liabilities in total assets and liabilities, and in the United States (although they are not significant).

As an example, the Central Bank of Hungary works with the Central Statistics Office of Hungary to identify resident SPEs. They use available indicators that capture the main characteristics of the enterprises and to determine that they have minimal links to the domestic economy. The main criteria they examine are: in their balance sheet, the ratio of nonfinancial to financial assets is minimal and these financial assets consist mostly of equity, long-term loans, and securities; they report little turnover, and the turnover they do have derives primarily from exports; the number of staff is very low (1 to 3 persons); they have high capital reserves which they immediately lend or use to purchase equity abroad or establish branches abroad; they have no subsidiary in Hungary or, if they do have a subsidiary in Hungary, it also meets the criteria of an SPE; material costs are negligible; and, finally, the name of the enterprise refers to the off-shore nature of the enterprise.

Table 4. How many OECD countries compile FDI statistics for resident SPEs?

	OECD	IT	FR	NL	US	DE
SPEs are established by non-residents in the economy	22			√	√ but not significant	
SPEs are included in FDI statistics	20			√		
FDI statistics excluding resident SPEs are compiled separately	17			√		
Identification of SPEs through:						
Separate business register for SPEs	4					
Based on industry classification	8					
Based on number of employees	13			√		
Based on share of foreign assets (liabilities) in total assets (liabilities)	12			√		
Based on turnover	6					
Based on foreign control	11			√		
Information from government regulatory and licensing authorities	3					
Other criteria	6					

Source: OECD Metadata survey on BMD4

3.1.2. Statistics by partner country and by industry

The international standards recommend that aggregate statistics be presented according to the asset/liability principle. The asset/liability principle classifies financial and income flows and positions according to whether the direct investment transaction or position is an asset or a liability to the reporting economy. The asset/liability presentation puts the FDI statistics on the same basis as other statistics in the BOP and IIP accounts. As such, these statistics are most appropriate for macroeconomic analyses. For example, looking at the impact of direct investment on the current account of a country, it would be best to use direct investment income receipts and payments measured on an asset/liability basis because the other items in the primary income account are also measured on an asset/liability basis. Similarly, comparing direct investment stocks and financial flows to portfolio investment, both measured on an asset/liability basis, can provide insights into the attractiveness of the economy to direct investors, who are interested in making long term investments that involve undertaking management of the company and likely results in technology transfer and other spill-overs, compared to portfolio investors, who are interested in earning more passive investment income.[14]

[14] For more information on BOP analysis, see BPM6.

In contrast, the directional principle classifies the financial and income flows and positions as to whether the direct investment was by a resident of that economy to another economy (outward) or was an investment by a foreign resident into the economy (inward). The directional basis is useful for examining the motivations and impacts of FDI. It is generally best to use the statistics excluding SPEs because they better represent the actual investment into and out of a country and, thus, the FDI that is more likely to have a significant impact on the economy. The detailed statistics by country and industry on the directional basis are most useful for examining questions, such as which countries are the most important sources of direct investment in the reporting economy and which industries they are investing in. For this reason, BMD4 recommends that detailed statistics by partner country and by industry be compiled on a directional basis. The IMF also recommends that its CDIS be on a directional basis.

Under the directional presentation, the direct investment flows and positions are organized according to the direction of the investment for the reporting economy—either outward or inward. For a particular country, all flows and positions of parents resident in that economy are shown under outward investment, and all flows and positions for affiliates resident in that economy are shown under inward investment. Under the directional presentation, reverse investment is subtracted to derive the amount of total outward or inward investment of the reporting country. So, if a resident parent borrows money from one of its foreign affiliates, this is subtracted in calculating the reporting country's outward investment because it reduces the amount of money that country's parents have invested in their foreign affiliates. Similarly, if a resident affiliate lends money to its foreign parent, this is subtracted when calculating inward investment because it reduced the amount of money that the foreign parent has invested in that country.[15] In contrast, all assets and all liabilities are simply added up under the asset/liability presentation.

BMD4 recommended that the directional principle be extended to transactions between fellow enterprises; thus, this presentation is called the extended directional principle. The extended directional principle better reflects the direction and degree of influence exerted by resident and non-resident direct investors in the reporting economy. That is, a resident fellow did not achieve any influence over a foreign fellow if it made a loan to that foreign fellow—the influence remained with the direct investor common to both fellows. Similarly, a foreign fellow did not achieve any influence over a resident fellow by extending a loan to it—the influence remained with the direct investor common to the fellows.

In BMD4, the recording of flows and positions between fellow enterprises in a reporting economy depends on the residence of the ultimate controlling parent (UCP) of the fellow enterprise because it is the UCP that ultimately controls the transactions of the fellow. While this treatment applies to both equity and debt investments between fellows, equity investments are rare so it is debt that has the biggest impact on the statistics. If the UCP of the fellow enterprise is resident in the economy, then loans by and to the fellow enterprise are treated as outward investment. Any loan from a fellow enterprise to a fellow enterprise resident in another economy is treated as an increase in outward investment by the reporting economy because it represents an increase in the influence that a resident direct investor (the UCP) has on the direct investment enterprise in another economy. Similarly, if the fellow enterprise receives a loan, it reduces outward direct investment just as it would if the UCP had received a loan because such investment reduces the total amount the resident direct investor—the UCP—has invested abroad.

[15] While reverse equity investment is to be treated the same way as reverse debt investment, it is rare so most of the difference between the two presentations is due to differences in the treatment of reverse debt investment.

In compatibility with the international standards, Tunisia presents its aggregate FDI statistics according to the asset/liability principle (although it uses some slightly different presentation for its BOP FDI flows, as further described under the *Coherence* section). ..In terms of detailed FDI statistics, the CBT publishes inward FDI flow and income statistics by geographic detail annually on the asset/liability basis contrary to the recommendations in the international standards, which call for publishing such data on a directional basis. It also publishes for FDI inflows by industry but, again, on the asset/liability basis instead of the directional basis. The geographic and industry breakdowns are published for increases in FDI liabilities only (corresponding to what the CBT publishes as 'FDI receipts'). FDI positions by industry and by partner economy are not yet available and will be published by the CBT once it begins to participate in the CDIS. The FIPA publishes geographic detail for inward FDI flows and positions excluding the energy sector on an annual basis, and these statistics are consistent with FDI inflows published by the CBT with the exception of the difference in industry coverage. The CBT and FIPA publish consistent inward FDI flows by industry, while the FIPA also publishes a detailed industry breakdown for inward FDI stocks but, again, excluding the energy sector.

Table 5 presents the types of FDI statistics disseminated by OECD countries. All OECD countries publish FDI financial transactions and positions by immediate partner country for inward FDI statistics and positions by immediate partner country for outward statistics while all but one publish financial transactions by partner country for outward investment. Almost all OECD countries publish inward and outward FDI statistics by industry. All OECD countries use either the directional principle or the extended directional principle to record these detailed statistics. There are 4 OECD countries, including the Netherlands, that use the directional principle, i.e., those that record transactions between fellow enterprises on an asset/liability basis. Of the other 30 economies, 25, including France, Germany and Italy, base the extended directional principle on the residence of the UCP while 5 base the extended directional basis on the residence of the direct investor. These 5 economies, which include the United States, use the residence of the direct investor because information on the UCP is not available.

While BMD4 makes clear that the extended directional principle based on the UCP is preferred, the experience of OECD economies demonstrates that the extended directional principle based on the residency of the direct investor or the basic directional principle is possible if the information on the UCP is missing. In countries with few fellow enterprises making loans to other parts of the MNE or with few resident UCPs, there may be little actual difference between the extended directional principle and the basic directional principle in practice. Even though fellow enterprises are not covered in their data sources, it should be possible for the CBT and FIPA to use the basic directional principle for these detailed statistics. A change to presenting on a directional basis would provide useful information to users and could be published even before fellow enterprises are covered, at which time the extended directional principle could be instituted.

There is another important principle for the recording of FDI statistics by partner country: the use of the debtor/creditor principle instead of the transactor principle. According to BPM6 and BMD4, the debtor/creditor principle should be used as the basis for the geographical allocation of FDI statistics rather than the transactor principle. Under the debtor/creditor principle, claims and liabilities are recorded according to the country of the party that actually has the financial claim or liability. In contrast, under the transactor principle, the claims or liabilities are allocated to the country of the entity involved in settling the transaction, which could differ from the country of the parents or affiliates undertaking the transaction. Almost all OECD economies (33 out of 34 who responded to the survey)

apply the debtor/creditor principle, and the CBT indicates that is uses the debtor/creditor principle in its geographic allocation.

Table 5. What type of FDI statistics do OECD countries compile?

	OECD	IT	FR	NL	US	DE
FDI by partner country						
Inward FDI transactions by immediate partner country	34	√	√	√	√	√
Inward FDI positions by immediate partner country	34	√	√	√	√	√
Inward FDI positions by Ultimate investing country	13	√	√		√	√
Income on inward FDI by immediate partner country	33	√	√	√	√	√
Outward FDI transactions by immediate partner country	33	√	√	√	√	√
Outward FDI positions by immediate partner country	34	√	√	√	√	√
Income on Outward FDI by immediate partner country	33	√	√	√	√	√
Use of debtor/creditor principle for partner country allocation	33	√	√	√	√	√
FDI by economic activity						
Inward FDI transactions by industry	33	√	√	√	√	√
Inward FDI positions by industry	33	√	√	√	√	√
Income on inward FDI by industry	32	√	√	√	√	√
Outward FDI transactions by industry	32	√	√	√	√	√
Outward FDI positions by industry	33	√	√	√	√	√
Income on Outward FDI by industry	32	√	√	√	√	√
Use of ISIC4 classification for industry allocation	24	√	√	√		√
Compilation of outward FDI according to the activity of the non-resident direct investment enterprise	20	√			√	√*
Compilation of outward FDI according to the activity of the resident direct investor	21		√	√	√	√
FDI statistics are compiled according to the directional/extended directional principle	34	√	√	√	√	√
Method used to record debt transactions between fellow enterprises						
Directional principle based on UCP residency (extended directional principle)	25	√	√			√
Directional principle based on direct investor residency	5				√	
Asset liability principle	4			√		

Source: OECD Metadata survey on BMD4

The financing structures of MNEs have gotten more complex over time in response to several factors, including the need to manage global production networks and the desire to minimize tax and regulatory burdens. This complexity can distort FDI statistics in a couple of ways. First, when MNEs channel investments through several countries, FDI flows are inflated because each flow into and out of each country is counted even if the capital is just passing through. Second, it obscures the ultimate source and destination countries of FDI. To address this issue, BMD4 recommends that countries compile inward investment positions according to the Ultimate Investing Country (UIC) to identify the country of the investor that ultimately controls the investments in their country as a supplemental presentation. That is, the inward position should be shown by UIC in addition to the presentation by immediate partner country and not in place of it. This presentation better captures where the investment in a country is coming from. These statistics show the country of the direct investor who ultimately controls the investment and, thus, bears the risks and reaps the rewards of the investment. This presentation can result in substantial changes in the distribution of inward positions by country and provides information on the countries of the direct investors that ultimately control the foreign investments in the reporting economy.

The ultimate investor is identified by proceeding up the immediate direct investor's ownership chain until an enterprise is reached that is not controlled by another entity (that is, more than 50 percent of the voting power is not owned by another entity). If there is no

enterprise that controls the immediate direct investor, then the immediate direct investor is the ultimate investor. It is often possible to collect information on the UIC on FDI surveys without having to collect information on the whole ownership chain by defining the concept and asking the respondent to provide the information. In the absence of a survey, other sources, such as information available on the company and parent company websites and commercial databases, can be used. However, there will likely be specific cases for which it might be challenging to identify the UIC from existing sources and which may require specific follow-up. To convert from the standard presentation by immediate investing country, the entire FDI position attributed to the immediate direct investor is moved from its country to the country of the ultimate investor. Unlike the presentation by immediate direct investor, the presentation by UIC can show inward investment controlled by investors in the reporting economy; this is inward FDI resulting from round-tripping. Round-tripping is when funds that have been channelled abroad by resident investors are returned to the domestic economy in the form of direct investment. It is of interest to know how important round-tripping is to the total inward FDI in a country because it can be argued that round-tripping is not genuine FDI into an economy. While the UIC presentation is very useful, it is a supplemental presentation and is secondary to the presentation of inward positions by immediate investing country. Thus, the CBT should focus first on its plans to develop the statistics by immediate partner country so that they can take part in the IMF's CDIS. Seventeen OECD countries currently produce inward position by UIC with several more expected to do so in the future.

For the classification of FDI statistics by industry, the classification for inward investment is straightforward with the classification based on the economic activity of the direct investment enterprise being the standard. However, it is not as straightforward for outward investment statistics where the classification could be either by the economic activity of the resident direct investor or by the economic activity of the foreign direct investment enterprise. While BMD4 recommends that countries compile outward FDI statistics by both the industry of the direct investor and the direct investment enterprise, it recognizes that this is unlikely to be possible. Therefore, it gives slight preference to the compilation according to the industry of the direct investment enterprise. For outward statistics, this would provide information on the industries that the economy's MNEs are choosing to invest in overseas. However, both presentations can be useful. Inward FDI flows by industry that are currently disseminated by the CBT and FIPA use an internal industry classification (the 2009 Tunisian Activity Nomenclature) that is synchronised with the NACE (the classification system used in the European Union) and ISIC (the International Standard Industrial Classification). Among OECD economies, 20 compile detailed outward investment statistics according to the industry of the foreign direct investment enterprise and 21 compile according to the industry of the direct investor, of which 7 countries compile according to both (table 5).

3.1.3. Recommendations

The FDI statistics currently disseminated by the CBT are according to BPM5, but the CBT is undertaking steps to implement BPM6 and BMD4, the latest international standards. We offer some recommendations for this implementation with further discussion in some of the later sections.

The key recommendations are:

- In the short term, it would be useful to clarify the current availability of FDI flows and income by instruments in the IMF BOP and IIP database, which differs from what the Central Bank and IMF websites indicates is available in terms of instrument coverage. Differences that currently exist are confusing for the users of the statistics

who might not fully understand what is included in the statistics. In particular, reinvestment of earnings should be published separately from equity capital flows so it is clearer to the users that they are covered in the statistics. For FDI income payments: dividends, reinvested earnings and interest from debt should be published separately under the BOP current account.

- The basic directional principle should be used for the detailed annual FDI statistics and likely could be implemented quickly. Once fellow enterprises are included in the source data, the extended directional principle should be implemented. This is useful for the kinds of analyses that data users often want to do with these detailed statistics. It is also the base that the CDIS is collected on. Since it can be confusing for data users to have two different presentations of FDI statistics, the OECD's WGIIS developed a standard table that can be used to reconcile the two sets of statistics to help users understand the relationship between the two presentations and reconcile the statistics. This presentation is discussed further in the section on *Coherence* of the statistics. This can be used by Tunisia and posted on the CBT website when the statistics are released.
- An important aspect of implementing the latest standards is to cover fellow enterprises. Fellows are entities without a direct investment relationship themselves but that have a direct investor in common; they play an important role in FDI so covering them should be a priority. This can be done by adopting one of the methods for identifying all of the entities in a direct investment relationship recommended in BMD4, such as the Framework for Direct Investment Relationships.
- Ensuring close cooperation between the all of the entities participating in the ad hoc Committee for FDI statistics (the CBT, FIPA, the Industry and Innovation Promotion Agency, the General Directorate for Energy, the Ministry of Industry, the Ministry of Tourism, the Ministry for Agriculture, and the Council for Financial Markets) to ensure the completeness of coverage and to assist in implementing the new international standards. The role of the ad hoc Committee will be discussed further below in the *Credibility* section.
- Improve coverage of debt to include short term instruments as well as debt securities by first identifying potential data sources.
- The CBT indicates that they have plans to participate in the IMF’s CDIS when they implement the latest international standards; this is an important initiative.

Other recommendations include:

- Although the CBT indicates that SPEs do not exist in Tunisia, it is important to monitor whether these entities arise in the future. The CBT could monitor the appearance of SPEs in Tunisia by regularly using the decision tree developed by the IMF’s TF SPE and by working with the National Statistical Institute and other government agencies to monitor the presence of SPEs. This would enable the CBT to separately identify SPEs if such entities appear in the future and would ensure the usefulness and quality of FDI statistics as well as reducing bilateral asymmetries.
- At a later time, develop the UIC presentation for inward FDI positions by partner country, on a supplemental basis, based on the information on the UCP that would be collected for fellow enterprises This presentation is relatively straightforward to implement and can provide important information on who a country's ultimate investing partners really are. Tunisia might encounter challenges in the identification

of the UCP, like many other OECD countries, this is why WGIIS will be developing additional guidance for the identification of the UIC.

3.2 Accuracy

The accuracy of data is the degree to which the data correctly estimate or describe the quantities or characteristics they are designed to measure. Accuracy refers to the closeness between the values provided and the (unknown) true values. Accuracy has many attributes, and, in practical terms, there is no single aggregate or overall measure of it. Key to improving accuracy is the use of reliable data sources and sound estimation methods.

Sound data sources and estimation methods are keys to ensuring the accuracy of FDI statistics. Statistical surveys are considered to be a necessary part of the compilation system for FDI statistics because it is the only way to collect all of the information on intra-firm transactions needed to completely follow the international guidelines for FDI statistics. In practice, countries often rely on a multitude of data sources to compile their FDI statistics; by using information available from other sources, they reduce the reporting burden on companies. For estimation methods, it can be difficult to estimate for non-response due to the volatile nature of some components of FDI statistics.

This section begins with an assessment of the data sources used to compile FDI statistics by the CBT. It, then, discusses estimation methods. Finally, it discusses the valuation methods for FDI positions. A discussion of valuation methods is included in this section because the valuation of FDI equity positions at market value often requires the collection of specific information and the use of estimation methods.

3.2.1 Data sources

Almost all OECD countries use a statistical survey system to compile FDI statistics (table 7) including the five major OECD investors in Tunisia. Currently, BOP and IIP FDI statistics that are disseminated by the CBT use several different data sources, including the ITRS as the primary data source along with administrative data, published sources such as company accounts, information from exchange control authorities and investment approval authorities, and press reports. The administrative data sources include information from the Customs Service and the National Statistics Institute on imports of equipment for investment; monthly surveys of certain sectors of the economy, including manufacturing, energy, tourism, agriculture, and offshore services by various governmental departments; and information from the Tunis Stock Exchange and the Council of Financial Markets on participations exceeding or equal to 10%. It is typical of FDI statistics to need a variety of data sources to ensure complete coverage. Therefore, it is very helpful that under the terms of the ad hoc Committee for FDI, any participants involved in monitoring inward investment are required to provide relevant administrative data to the CBT. OECD countries generally also use a variety of data sources, including ones similar to those used by Tunisia.

Table 6. How many OECD countries use a survey system to compile FDI statistics?

	OECD	IT	FR	NL	US	DE
FDI transactions	28	√	√	√	√	√
FDI income	30	√	√	√	√	√
FDI positions	31	√	√	√	√	√

Source: OECD Metadata survey on BMD4

Reporting requirements are mandatory in all but one OECD country, and confidentiality is protected by Law in all but two countries (table 7). In Tunisia, reporting is compulsory, and confidentiality of the information is also required by Law.

Table 7. What is the legal framework in OECD countries for compiling FDI statistics?

	OECD	IT	FR	NL	US	DE
Reporting requirements are:						
Compulsory	31	√	√	√	√	√
Voluntary	1					
Confidentiality of respondents is protected by Law	32	√		√	√	√

Source: OECD Metadata survey on BMD4

Almost all of the OECD countries that collect data on FDI from surveys make use of a business register with the exception of Germany (table 8), Japan and Mexico. It can be difficult to keep a business register for FDI surveys up-to-date because firms can enter and exit the FDI universe in a number of different ways. For example, a firm can enter as a new establishment or an existing firm can be purchased by a foreign investor; similarly, a firm can exit the universe by being shut down, but it can also be sold to a domestic investor. To ensure that their business registers are kept up-to-date, OECD countries use a wide variety of different sources to update them. Table 8 indicates that France uses the list of transactors from its ITRS system, information from various business registers of other statistical and non-statistical authorities, press reports, direct investment surveys and commercial databases; the Bureau of Economic Analysis in the United States uses business registers maintained by tax and other statistical authorities, press reports, direct investment surveys themselves and commercial databases; Italy uses industry associations, direct investment surveys but also information from the Chamber of Commerce as does the Netherlands. For inward investment, the CBT uses a register of enterprises with foreign participation maintained by the FIPA, which is updated using information from the ITRS, investment promotion authorities, and the stock exchange authorities. For outward investment, the foreign exchange control authorities use a variety of sources to update the business register, including the ITRS, other government agencies, stock exchange authorities, tax authorities, voluntary surveys, a debt register, and press reports.

Table 8. How many OECD countries use a business register?

	OECD	IT	FR	NL	US	DE
Use of a business register	30	√	√	√	√	
Sources used update the business registers:						
International transactions reporting system list of transactors	7		√			
Investment promotion agencies	1					
List of exporters and importers from the international trade system	3					
Business register of another statistical authority	11		√		√	
Business register from government regulatory and licensing authorities	12		√			
Business register from tax authorities	11				√	
Stock exchange authority	4		√			
Industry associations	2	√				
Debt register	1					
Press reports	14		√		√	
Compulsory direct investment surveys	11	√	√		√	
Voluntary direct investment surveys	1					
Commercial databases	6		√		√	
Other	7	√		√		

Source: OECD Metadata survey on BMD4

3.2.2. As part of the implementation of BPM6, the CBT has a plan to improve its data sources to enable it to participate in the CDIS. As part of this effort, the CBT is designing a new FDI survey. In addition, a new law was enacted to make respondents' answers to CBT surveys on FDI compulsory.

Estimation methods

Estimation of some components of FDI statistics can be very difficult due to their volatile nature. However, positions are generally more amenable to estimation because they are likely to change less rapidly than flows. The CBT did not provide any information on estimation methods used.

3.2.3. Valuation

The international guidelines recommend the use of market values to value FDI positions. One reason for this is that the other components of the IIP are measured at market values, so this ensures consistency across the IIP. However, for direct investment enterprises, it can be difficult to produce market values because the equity is often not listed. Therefore, it is often necessary to use alternative measures to develop estimates of FDI positions at market value. BPM6 and BMD4 both offer a variety of methods to estimate market values for unlisted equity. Because differences in valuation can often be an important source of bilateral asymmetries in FDI data, the international community is looking at more standardisation of methods to produce market value. For example, the IMF recommends that countries use own funds at book value in reporting on the CDIS because one of the goals of that survey is to allow countries to make bilateral comparisons in the hopes that they will be able to resolve them and improve their data.

FDI positions disseminated by the CBT as part of the IIP correspond to the accumulation of FDI flows adjusted by the gross fixed capital formation deflator, which is not recommended under the latest international standards. This method does not capture important elements that can impact the value of unlisted equity, including accumulated reinvested earnings, depreciation, holding gains and losses, and other factors that can have significant impacts on the valuation. Therefore, it will be important for the CBT to develop methods, such as asking for the needed information on surveys, to be able to develop market value methods for valuing equity in unlisted enterprises.

The methods described in BMD4 for estimating unlisted equity can be difficult to implement, but there is one method that is accepted as a measure of market value and is widely used by countries--the own funds at book value method. This is the shareholder's equity in the balance sheet of the direct investment enterprise and is equivalent to the book value on the direct investment enterprise's books when International Financial Reporting Standards (IFRS) are followed. This method brings the value of the position closer to current period prices by permitting the revaluing of tangible and financial assets.[16] Because this is a common method for countries to use, it is the recommended valuation method in the IMF's CDIS. Given the intention to participate in the CDIS, it would be good to develop own funds at book value estimates of the positions. As table 9 shows, 29 OECD countries use own funds at book value for valuing at least part of their positions, including France, Germany and Italy. The United States uses book values according to U.S. Generally Accepted Accounting Principles, which results in estimates similar to own funds at book value. The Netherlands use a combination of net asset value excluding goodwill and intangibles, and historic or

[16] It does not permit the recognition of certain intangible assets, and some assets may remain valued at nominal or historic cost.

acquisition cost. The information for Own Funds at Book Value can be collected from surveys. Many companies that operate internationally follow IFRS and could be asked to provide the value on the direct investment enterprise's books if they do follow IFRS. If they follow another accounting standard, they may be able to offer information to convert to IFRS.

Table 9. How do OECD countries value unlisted equity positions statistics by partner country and industry?

	OECD	IT	FR	NL	US	DE
Recent transaction price	2					
Own funds at book value	29	√	√			√
Net asset value including goodwill and intangibles	1					
Net asset value excluding goodwill and intangibles	1			√		
Market capitalisation method	1					
Present value of future earnings	0					
Apportioning global value	0					
Historic or acquisition cost	1			√		
Accumulation of FDI equity flows	2					
Stock market price index applied to accumulated FDI equity flows	0					
Book value	2				√	
Other	2					

Source: OECD Metadata survey on BMD4

3.2.4. Recommendations

- In the OECD survey, the CBT indicated that they have undertaken steps to improve their data sources as part of the plan to implement BPM6. These steps include, for example, making reporting compulsory. This is an important part of ensuring the accuracy of the statistics. However, the methods used also matter. As such, it is important that the CBT develop an alternative to the current method of accumulating flows to estimate FDI positions. The own funds at book value method is widely used and is likely feasible for the CBT to implement on a survey. It is also the method recommended for the CDIS, in which Tunisia intends to participate. The CBT is strongly encouraged to pursue its efforts developing a survey system, as planned, to participate in the CDIS as the use of a survey can provide additional information which is essential for compiling FDI statistics. In particular, it will be a very good source for applying the OFBV method to FDI positions. In addition, using a survey system will be useful to improve the compilation of reinvestment of earnings, as the ITRS currently used is not sufficient to fully capture all the enterprises' earnings.

3.3 Credibility

Credibility is defined as the confidence that users place in those products based simply on their image of the data producer. Confidence by users is built over time. One important aspect is trust in the objectivity of the data. This implies that the data are perceived to be produced professionally in accordance with appropriate statistical standards, and that policies and practices are transparent. For example, data are not manipulated, nor their release timed in response to political pressure.

The ad hoc Committee for FDI statistics in Tunisia can play an important role in assuring and improving the quality of the FDI statistics produced by Tunisia by improving coverage and moving the statistics to BPM6 and BMD4. However, such an arrangement could also raise issues for the credibility of the statistics. These issues can arise from a couple

of areas. First, the existence of multiple agencies responsible for the compilation and dissemination of FDI statistics within a country can be confusing for data users. To avoid this, it is necessary to have coordination between the different agencies involved for FDI statistics. For example, in OECD countries with more than one agency involved in FDI statistics, they often have joint statistical releases to ensure consistency between the statistics and analyses. In Tunisia, if efforts are not already undertaken to ensure consistency between the statistics the CBT and the FIPA publish on inward FDI, they should start. In addition, if full consistency is not possible, any differences should be explained to users. It is important that consistency between the different sets of statistics be ensured with the implementation of BPM6. It is also important that each agency participating in the ad hoc Committee understands the role that it plays and its responsibilities, which seems to be the case in Tunisia. The second issue is that it is important that the providers of statistics be independent from political considerations and pressure. This is especially the case when the agency producing the statistics is part of the Ministry responsible for investment policy. Therefore, it is good that the CBT plays a leading role in the compilation and dissemination of the statistics while still receiving information and support from the other agencies. The CBT indicated that an MOU will soon be established to formalise the Ad-Hoc Committee; this should be used as an opportunity to incorporate the elements discussed above into the governance of the ad hoc Committee. The new law enacted to support the statistical activities of the Central Bank did not change the framework for FDI statistics compilation but rather allowed it to be formalised and regulated.

Compulsory reporting requirements are important factors in enhancing credibility because they improve reporting and raise confidence of data reporters in the care with which their data are handled. Staff training on the international guidelines; collecting, compiling, and analysing the data; and in information technology is another factor to enhance the credibility of the statistics. The CBT provided information on the training that its personnel take on FDI concepts and definitions, provided by both international organisations and through study visits to other Central Banks. They also provide training in IT and processing systems. Finally, adhering to the international guidelines for compiling the statistics[17] as well as subscribing to the Special Data Dissemination Standard of the IMF are important ways to demonstrate credibility in the compilation and dissemination of FDI, and other, macroeconomic statistics.

However, there are additional steps that could be taken to enhance the credibility. Recommendations include:

- It will be important for credibility vis à vis users of the statistics that all sets of FDI statistics produced remain coherent between different agencies releasing them. It would also be useful that agencies disseminating the statistics, release a complete set of statistics so that users do not have to navigate through multiple institution websites to get the information. Credibility will not only be improved through better accessibility of the statistics, but this will also ensure users of the statistics that even if multiple sources are used to compile the statistics, this is the result of a cooperative process among the various institutions involved. Moreover, the centralised dissemination will demonstrate that the quality of the statistics produced is approved by all institutions involved in the compilation process. The cooperation between the agencies involved could be enhanced through a joint statistical release. If it is absolutely necessary that the agencies release different sets of statistics, then the

[17] FDI statistics as part of BOP and IIP currently disseminated by the IMF follow the BPM5 standards. However, there are plans to compile BOP and IIP statistics in line with BPM6 standards.

reasons for the differences need to be clearly and completely explained to users so that they can decide which sets of statistics best meet their needs.

- In addition to subscribing to the SDDS, it is also be valuable to participate in other international exercises, such as the CDIS (as planned).
- Finally, the training of personnel and cooperation with international organisations and other Central Banks should continue in the future.

3.4 Timeliness

The timeliness of data reflects the length of time between their availability and the event or phenomenon they describe, but considered in the context of the time period that permits the information to be of value and still acted upon. The concept applies equally to short term or structural data; the only difference is the timeframe.

The CBT currently produces and publishes timely FDI aggregate series as part of the BOP and IIP accounts. Tunisia subscribes to the IMF Special Data Dissemination Standard (SDDS), which was established to guide IMF members that have, or might seek, access to international capital markets in the provision of their economic and financial data to the public. In accordance with the SDDS guidelines, quarterly FDI transactions are compiled and published three months after the reference period and answers to the exploratory survey indicate that monthly FDI flows are published 1 month after the reference period. These data are available on the IMF Dissemination Standards Bulletin Board[18], which provides a link to the country specific SDDS report (https://www.bct.gov.tn/bct/siteprod/pnrd.jsp?la=AN). At the time of writing, FDI flows for Q1 2019 and annual FDI positions up to 2017 were available on the CBT website as well as in the Financial Statistics Bulletin. FDI flows for the period January-May 2019 were available in the Bulletin's supplement. However, quarterly FDI income, which are produced at T+6 months according to the exploratory survey, could not be located. Only annual FDI income up to 2017 could be found, under the BOP and IIP annual report.

The CBT also currently disseminates inward FDI flows by industry and by partner country[19], as well as FDI income payments by partner country. FDI liability flows cross-classified by partner country and by industry are also available from the CBT website. At the time of writing, FDI inflows by industry and by partner country were available up to 2018, while the other statistics were available up to 2017.[20] Answers to the exploratory survey indicate that a sectoral breakdown is established monthly while the geographic breakdown is established annually, hence the difference in timeliness. The CBT also compiles annual FDI outflows and FDI income receipts by geographic detail but does not publish those statistics while it currently does not compile detailed FDI positions by geographic or industry detail. However, answers to the exploratory survey indicate that CBT plans to join the CDIS as part of the implementation of BPM6, which would mean publishing FDI positions by immediate partner country.

As indicated in previous sections, the FIPA also publishes FDI flows by industry, which are consistent with FDI flows published by the CBT while FDI flows by geographic

[18] http://dsbb.imf.org/pages/sdds/countrylist.aspx

[19] As mentioned in previous sections, geographic and industry detail is published by the CBT for 'increases in FDI liabilities'.

[20] https://www.bct.gov.tn/bct/siteprod/tableau_n.jsp?params=PL120150,PL120140&la=an (FDI flows by industry); https://www.bct.gov.tn/bct/siteprod/documents/Balance.pdf (FDI flows by partner country)

detail are published excluding the energy sector. At the time of writing, FDI flows for 2017 were available from the 2018 FDI report available from the FIPA website[21]. The report also included inward FDI positions by partner country and by industry up to 2018 and excluding the energy sector.

Structural FDI statistics by partner country and by industry can take longer to produce than FDI aggregates compiled for the purpose of the BOP and IIP. OECD recommends to its member countries that inward and outward FDI transactions, positions and income statistics by partner country and by industry be compiled and reported at **T+9 months**. The reporting deadline, fixed on 30 September each year, is similar to Eurostat and the IMF for the reporting of FDI and CDIS statistics. This deadline would be difficult to change due to the established data processing and revision cycles. A few European countries report their FDI statistics by industry details at T+ 21 months to the OECD, as per the requirements of Eurostat. The reporting deadline is well respected by OECD member countries: during the September 2018 reporting exercise, 26 countries reported their FDI statistics for the reference year 2017 to the OECD by the end of October 2018, 6 countries reported between November and December 2018 and 4 countries reported in the course of January.

Recommendations:

- Many OECD countries publish a release calendar for the dissemination of the FDI aggregate statistics (as part of BOP/IIP) and for the annual detailed FDI statistics by partner country and by industry. It would be valuable for the users of the CBT could publish release calendars for the aggregates and the detailed FDI statistics that are currently compiled and that will be compiled and published in the future. Although quarterly FDI flows and annual positions are disseminated in a timely fashion, it would be useful if quarterly FDI income aggregates be timely disseminated as part of the BOP current account at T+3 months as per IMF SDDS standards.
- Tunisia is encouraged to compile and publish detailed annual FDI statistics by partner country and by industry at T+9 months as recommended by the OECD to its member countries, which would also meet the deadline for the IMF's CDIS. It is not recommended to compile and publish such statistics with more than a two year time lag so as to provide users with timely structural information.

3.5 Accessibility

Accessibility reflects how readily the data can be located and accessed. The range of different users leads to such considerations as multiple dissemination formats and selective presentation of metadata. Thus, accessibility includes the suitability of the form in which the data are available, the media of dissemination, and the availability of metadata and user support services. It also includes whether the user has reasonable opportunity to know that the data are available and how to access them.

FDI aggregates (flows and positions) as well as FDI inflows by industry are easily accessible from the CBT website under the general section ‘Statistics’. This broad section is further divided into various main sub-sections, of which ‘External sector’ includes links to various tables: quarterly FDI flows aggregates can be found under the *Balance of payments* heading; annual FDI positions aggregates can be found under the *Global external position* heading; and inward FDI flows by industry can be found under the *Foreign Investment* heading. FDI inflows by partner country as well as FDI income payments by partner country which are also produced by the CBT are less visible as they are not published under the

[21] http://www.investintunisia.tn/En/publications_21_196_D11#.XUggN3kUmUk

statistics section described above. They can be found under the *Publication* section in the Balance of Payments and International Investment Position Brochure.

The accessibility of quarterly FDI flows is well ensured on the CBT website. However, as already mentioned the CBT publishes its FDI financial flows as part of BOP statistics using a different presentation than the standard asset/liability presentation recommended under BPM6. Even though 'net incurrence of FDI liabilities', the standard BOP concept for FDI liabilities, can be retrieved from the series published by the CBT, the different presentation used can pose some accessibility challenges for the users who might not easily find what they are looking for. This issue is further described under the *Coherence* section. Quarterly net incurrence of FDI liability flows[22] can be downloaded in Excel format from the S*tatistics* section described above, and they are also available under the *Publication* section in PDF format in the Financial Statistics Bulletin.[23]. FDI net acquisition of financial assets are not available. In terms of FDI aggregate positions as part of IIP, timely annual FDI positions (assets and liabilities) are available under the *Statistics/External sector/Global external positions* but unlike FDI flows they cannot be loaded under excel format. The accessibility of timely FDI income aggregates payments as part of the BOP current account is less ensured on the CBT website: they are not accessible from the *Statistics* section but only from the *Publication* section under the annual BOP and IIP Brochure. At the time of writing, annual FDI income payments for 2016-2017 were available from the 2017 Brochure, in PDF format. More recent information could not be located from the CBT website.

Long historical time series of quarterly FDI flows aggregates as part of BOP are also available under the *Statistics* section. The user can select quarterly and annual FDI flows – ('Balance FDI' which correspond to net incurrence of FDI liabilities, 'FDI receipts' which relate to increases of FDI liabilities, and 'FDI expenditures' relating to decreases of FDI liabilities) as far back as Q1 1994 and the series can be loaded under Excel format. Annual FDI positions can be loaded as far back as 2012 but cannot be retrieved under excel format. The instruments breakdown of FDI flows could only be located in the CBT annual report in PDF format while it could not be located for FDI positions, although answers to the exploratory survey indicate that equity and debt components are published in the BOP and IIP Brochure.

The accessibility of FDI liability flows by industry[22] is well ensured on the CBT website: they are available under *Statistics/External sector/Other indicators of external sector/Foreign investment* and can be loaded under excel format as far back as 2004. Other FDI indicators are also available under the *Foreign investment* sub-section: FDI liability flows as share of GDP, as a share of Gross Fixed Capital Formation, as a share of medium and long-term foreign capital entry as well as per capita (in USD and Tunisian Dinar millions). As indicated previously, FDI liability flows and income payments by partner country are not available from the *Statistics* section but only in the BOP and IIP Brochure, and it is not possible for the user to retrieve information under excel format or to access longer time series. Moreover, information is less timely: FDI inflows by industry were available up to 2018 at the time of writing under the *Statistics* section, while FDI inflows and income payments by geographic details were available up to 2017 in the brochure.[24] Answers

[22] Corresponds to 'balance FDI' series published by the CBT, defined as FDI receipts minus FDI expenditures.

[23] https://www.bct.gov.tn/bct/siteprod/documents/BSF_ang.pdf

[24] https://www.bct.gov.tn/bct/siteprod/documents/Balance.pdf (see page 49 for FDI income payments by geographic details and page 53 for FDI liability flows by geographic details)

to the exploratory survey also indicate that annual FDI outflows and FDI income receipts by geographic detail are compiled but not published.

As mentioned in previous sections, the FIPA publishes FDI liability flows by industry as well as FDI liability flows by geographic detail excluding the energy sector. The FIPA also publishes FDI liability positions by industry and by geographic detail excluding the energy sector. This information is available under the annual FDI report in PDF format. It is not possible for the user to retrieve the information under excel format. However, as described in the *Coherence* section, there are large differences between FDI positions published by the FIPA and FDI position aggregates published by the CBT as part of IIP statistics.

In terms of metadata accessibility, it was not possible to locate metadata information from the CBT website although responses to the exploratory survey indicate that metadata is disseminated by the CBT. The FIPA provided a metadata questionnaire to the OECD for the purpose of this review. However, metadata could not be found on the FIPA website for users to access.

The following recommendations could be considered by the CBT and the FIPA to improve the accessibility of FDI statistics that they compile and to further increase their relevance and credibility:

- While FDI flows published as part of BOP are accessible from the CBT website, it is important to ensure that the *Statistics* section include the most recent quarterly FDI flows and to maintain consistency with quarterly FDI flows which are published in the Financial Statistics Bulletin and on the IMF SDDS website (although the consistency was ensured at the time of the revised version of this report, there were different data vintages at the time of the first draft). The accessibility of FDI positions as part of the IIP could be further improved if users had the ability to extract series in excel format under the *Statistics* section. It would be most valuable if timely FDI income aggregates as part of the BOP current account be disseminated by the CBT under the *Statistics* section as well as details by instruments for FDI flows, income and positions. Those developments would facilitate FDI trends analysis for the users.
- It would generally be most valuable if all the detailed FDI statistics by partner country and industry compiled by the CBT be published under the *Statistics* section of the CBT website, to improve accessibility. While FDI liability flows by industry are available, it would be clearer for users if FDI liability flows and income payments by geographic detail were also made available in the section, to avoid misinterpretation on the availability of such statistics. Moreover, if the CBT implements the IMF CDIS for bilateral FDI positions in the future, it is important that this information is published on the CBT website together with the other detailed FDI statistics by partner country and by industry.
- When various sets of detailed FDI statistics by partner country and industry are produced, accessibility could be further improved if such statistics be clearly identified through a dedicated section separate from the BOP and IIP sections as many OECD countries do. The existence of a specific section is particularly justified when FDI statistics by partner country and by industry are presented on a directional basis, as opposed to the asset/liability basis for BOP and IIP statistics. While at the moment Tunisia compiles detailed FDI statistics by partner country and industry on an asset/liability basis, the CDIS and BMD4 call for the compilation of those statistics according to the extended directional principle. The *Statistics/External sector/other indicators of the external sector indicators* section on the CBT website could be re-

arranged so it only contains the FDI aggregates indicators currently available (see list of indicators described in paragraph 76) while the detailed FDI statistics could be published under an 'FDI' dedicated sub-section, hence clearly showing separately the availability of BOP, IIP and FDI by partner country and industry information.

3.6 Interpretability

Interpretability reflects the ease with which the user may understand and properly use and analyse the data. The adequacy of definitions of concepts, of target populations, of variables and of terminology underlying the data and information describing the limitations of the data, if any, largely determines the degree of interpretability.

FDI statistics is one of the more complicated areas of statistics for users to understand and use because the users may not be familiar with the BOP and IIP concepts that underlie the data. As such, providing guidance to help them understand and use the statistics is very important. An important part of this guidance is providing references to the international standards that can help users understand the statistics. As described under the *Coherence* section, the CBT uses a different presentation than the standard BOP presentation for publishing its BOP FDI flows and this can make it difficult for users to interpret what is published by the CBT. It would be useful to provide some explanations on the differences that exist between what the CBT and the IMF publish in terms or BOP FDI flows. In addition, providing metadata and methodologies (as discussed above in the *Accessibility* section) can also be very useful.

Particular efforts will have to be dedicated in assisting users in understanding the new FDI series which might be published in the future from the implementation of BPM6 as there could be major breaks in series due not only to expanded coverage, such as of fellow enterprises, but also to changes in methods. For example, some countries that switched from the accumulation of flows to estimate positions to estimates based on information from surveys, such as own funds at book value, have seen substantial revisions, which users can have difficulty understanding and which may harm the credibility of the statistics if not explained well. The transition period will be challenging, and the OECD is happy to provide the CBT and FIPA examples of country's experiences who faced similar transition periods when their sources for compiling FDI statistics changed.

Finally, providing an analysis with the dissemination of FDI statistics can be very useful by, for example, helping users understand the trends and movements in the statistics. The CBT indicated that it does release such an analysis; possible elements to include in an analysis of FDI statistics are discussed further below in section 4.

3.7 Coherence

Coherence reflects the degree to which the data are logically connected and mutually consistent. Coherence implies that the same term should not be used without explanation for different concepts or data items; that different terms should not be used without explanation for the same concept or data item; and that variations in methodology that might affect data values should not be made without explanation. If two data series purporting to cover the same phenomena differ, the differences in time of recording, valuation, and coverage should be identified so that the series can be reconciled. Coherence has four important sub dimensions: within a dataset, across datasets, over time, and across countries.

Coherence across FDI datasets published by Tunisia can be assessed by comparing total inflows[25] published as part of FDI statistics by industry, of FDI statistics by partner country and total inflows published as part of balance of payments statistics by the CBT (Table 11). The very small differences existing between FDI flows published as part of BOP and as part of FDI flows by industry are likely due to different data vintages. Comparisons between FDI statistics published by the CBT and the FIPA in its 2018 FDI Report (Table 12) show that both publish coherent FDI flows by industry. The FIPA also publishes FDI flows by geographic detail but exclude the energy sector, hence, the totals differ.[26] For FDI positions, total liability positions published by the CBT as part of IIP as well as total inward positions excluding the energy sector published by the FIPA are indicated in Table 12 for information only, given that they are not comparable. FIPA excludes the energy sector and publishes in constant 2010 prices; moreover, the FDI liability positions published as part of IIP by the CBT correspond to accumulation of FDI flows.

Table 11. Coherence of total FDI inflows* from FDI statistics by industry and from Balance of Payments statistics published by the CBT

Tunisian Dinar millions	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**
FDI flows receipts* as part of BOP	1019	4407	2075	3404	2287	2176	1628	2519	1832	1831	2004	1945	2157	2790
FDI flows receipts* by industry	1016	4403	2071	3398	2278	2164	1616	2504	1814	1806	1967	1901	2132	2742

Note: * BOP FDI flows are published by the CBT for 'FDI receipts', 'FDI expenditures' and 'FDI balance'. Industry detail is published by the CBT for 'FDI receipts', which corresponds to increases in FDI liabilities only

Source: Central Bank of Tunisia

Table 12. Coherence of FDI statistics published by the CBT and by the FIPA

	Tunisian Dinar millions	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**
CBT	**FDI flows – Receipts* - BOP**	1832	1831	2004	1945	2157	2790
	FDI flows - Receipts* by industry	1814	1806	1967	1901	2132	2742
	FDI flows – Receipts* by partner country*			1967	1901	2128	
	FDI positions liabilities - IIP	55613	58744	64563	67688	72458	80193
FIPA	**FDI flows - Receipts* by industry**	1814	1806	1967	1901	2132	2742
	FDI flows – Receipts* by partner country (excl. energy sector)					1322	1832
	Inward FDI positions by industry (excl. energy sector)****						25409
	Inward FDI positionsby partner country (excl. energy sector)****						25409

Note: * BOP FDI flows are published by the CBT for 'FDI receipts', 'FDI expenditures' and 'FDI balance'. Industry and geographic details are published by both the CBT and FIPA for 'FDI receipts', which correspond to increases in FDI liabilities only . FDI flows receipts by partner country from the CBT were extracted from the 2017 annual BOP report.Inward FDI psoiotns published by the FIPA correspond to increases in liabilities only and they are published at constant 2010 prices in the FIPA annual FDI report 2018.

Source: Central Bank of Tunisia and FIPA .

Coherence across FDI datasets published by Tunisia and other international organisations can be assessed by comparing FDI statistics published as part of BOP and IIP

[25] As already mentioned, the geographic and industry detail published by both the CBT and FIPA are for 'FDI receipts', which correspond to increases in FDI liabilities only.

[26] Moreover, it appears that FIPA's statistics only include creations and extensions of capital. Hence, debt flows are not covered.

by the CBT and by the IMF (Table 13). BOP annual series published by the CBT and by the IMF are presented differently for FDI financial flows and this creates confusion for the users who may find it difficult to interpret what the CBT publishes as BOP FDI flows and to reconcile them with what the IMF publishes for Tunisia in its BOP database. While the standard presentation for BOP FDI aggregates under BPM6 is the asset/liability presentation ('net incurrence of FDI liabilities' and 'net acquisition of financial assets'), the CBT publishes three different FDI series: FDI receipts, FDI expenditures as well as the balancing item between the two series. Net incurrence of FDI liabilities which are published in the IMF BOP database, correspond to what the CBT publishes as the balance between FDI receipts and FDI expenditures. FDI net acquisition of financial assets are recorded as 0 in the IMF BOP database while they are not available from the CBT website**.** For FDI positions, FDI series (assets and liabilities) as part of IIP are fully consistent between the CBT website and the IMF BOP and IIP database (there are very minor differences likely due to data vintages, as at the time of writing 2018 FDI positions were not yet reflected in the IMF IIP database). FDI income payments aggregates for 2016-2017 available in the 2017 annual BOP report published by the CBT are consistent with FDI income debits from the IMF BOP database, small differences are likely due to data vintages.

Table 13. Coherence of BOP and IIP FDI series published by the Central Bank of Tunisia and the IMF

FDI flows *USD million*	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**
CBT (receipts)	785	3311	1620	2762	1694	1520	1156	1612	1127	1078	1022	905	892	1054
CBT (expenses)	72	71	104	162	169	185	723	58	69	54	51	283	81	65
CBT (balance)	713	3240	1515	2601	1525	1334	433	1554	1059	1025	971	623	810	623
IMF (net incur. of liabilities)	713	3240	1515	2601	1525	1334	433	1554	1059	1025	971	623	810	

FDI positions *USD million*	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**
Assets														
CBT	52	89	117	153	231	287	297	296	308	287	291	461	498	454
IMF	52	89	117	153	231	287	297	296	308	287	291	461	502	
Liabilities														
CBT	16840	21832	26193	28525	31277	31364	31544	32604	33772	31563	31771	28926	29217	26820
IMF	16840	21832	26193	28525	31277	31364	31544	32604	33772	31563	31771	28940	29469	

FDI income - *USD million*	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**
Credits														
CBT														
IMF	13	7	6	7	4	7	6	5	22	15	40	33	28	
Debits														
CBT*												769	765	
IMF	962	988	1523	1958	1588	1658	1716	1533	1756	1362	960	769	761	

Note: BOP and IIP FDI flows and positions extracted from the CBT in millions of Tunisian Dirhams were converted into USD millions using average period exchange rates for FDI flows and spot end rates for FDI positions.

*FDI income payments for 2016-2017 were extracted from the CBT annual report on BOP and IIP, page 49.

Source: Central Bank of Tunisia and IMF Balance of Payment database

Lack of coherence across statistics presented in different locations and in different contexts is very problematic for users and erodes their confidence in the statistics. The system

in Tunisia, which relies on cooperation between FIPA and CBT in the compilation and dissemination of FDI statistics presents the possibility for incoherence between statistics promulgated by the two agencies. For example, once the CBT starts disseminating bilateral FDI positions as part of the CDIS, it will be important that differences that may arise with bilateral positions published by the FIPA be explained to users. While it can be difficult, there are steps that can be taken to enhance coherence and explain why differences exist when they are inevitable. Recommendations to enhance coherence include:

- Differences that currently exist between FDI flows published as part of BOP statistics by the CBT and by the IMF should be resolved The CBT is strongly encouraged to publish its BOP FDI flows using the standard BOP concepts (net incurrence of liabilities and net acquisition of financial assets) as it will improve the interpretability of the statistics published for the users and improve the coherence with the statistics published for Tunisia in the IMF BOP database. In the meantime, existing differences in presentation should be explained to users.
- In most OECD countries, there are differences between FDI statistics published as part of BOP/IIP and FDI statistics by partner country and by industry that are due to the asset/liability presentation versus directional presentations, differences in the timing of revisions, and, for selected countries, to valuation methods or the use of different data sources. In the case of Tunisia, there are currently no differences between FDI liabilities flows published as part of BOP and FDI liability flows by industry because the CBT does not apply the directional principle to its FDI flows by industry. In the future, if Tunisia has plans to implement and publish the directional principle for its FDI statistics by partner country and by industry, we suggest that a reconciliation table between the two presentations be available on the CBT website. The WGIIS has developed a standard table that countries can use as part of their dissemination of FDI statistics to explain the relationship between the asset/liability and directional presentations. The table is based on a reconciliation table used by the Swiss Central Bank and is available in Annex 2 of the present document.
- Finally, as many other countries, FDI statistics compiled by Tunisia are subject to bilateral asymmetries with the mirror statistics produced by the counterparts countries (Table 14). Bilateral differences in FDI statistics are probably much greater than for most other statistics due to the general difficulty in capturing data from very large and complicated multinational enterprises (MNEs). Other issues, such as differences in valuation, definitions, and methods also contribute. For this reason, international organisations involved in the collection of FDI statistics have set up various fora to enable national compilers of FDI statistics to discuss and reduce those bilateral asymmetries. Eurostat created the FDI Network; IMF has conducted exercises for bilateral comparisons of CDIS data; and the OECD organises bilateral meetings between WGIIS delegates who are willing to meet and discuss specific bilateral asymmetries. Tunisia is encouraged to pursue bilateral comparisons of its FDI statistics with its major FDI partners in particular when it will start implementing the IMF CDIS for bilateral FDI positions, and to participate, if possible, in the bilateral comparison exercises launched by International Organisations.

Table 14. Bilateral comparison of inward FDIflows* published by Tunisia and outward FDI flows published by selected OECD investors in Tunisia

	2016	2017			2016	2017
Inward FDI flows in Tunisia from:				**Mirror outward FDI in Tunisia from:**		
France	172	251		France	46	52
Austria	183	188		Austria	n	n
Italy	82	87		Italy	154	265
United Kingdom	117	69		United Kingdom	-5	0
Germany	76	57		Germany	20	39

Note: * IGeographic details are published by the CBT for increases in FDI liabilities only. Bilateral FDI flows published by the CBT were converted into USD millions using average exchange rates.

Source: CBT (2017 annual report on BOP and IIP, page 53) and OECD for mirror outward FDI.

4. Analysis of FDI statistics

As discussed above in the section on interpretability of the statistics, providing an analysis with the publication of FDI statistics can be very useful to users of the statistics. FDI statistics can be particularly difficult for users to understand and interpret as not all of the concepts are familiar. In addition, when there is a requirement to protect the confidentiality of company-sensitive information, it can be difficult for users to understand what is underlying the movements from one period to the next. It is possible to convey this information to data users in an analysis accompanying the release of the statistics as CBT indicates that it does. In the first section below, some information that can be included in an analysis of FDI statistics is presented. This is followed by a description of some useful indicators that can be constructed using FDI statistics; these could be in addition to the indicators that the CBT already produces for FDI statistics as discussed in the *Accessibility* section. In both cases, the focus is more on analysing the impact of FDI on the reporting economy and less on BOP or IIP analysis because the former is more the focus of BMD4; BPM6 provides information on BOP and IIP analysis. Finally, the last section discussed two horizontal projects at the OECD that use FDI statistics.

4.1. Information to include in an analysis of your FDI statistics

When releasing FDI statistics, it is important to include an analysis explaining the major changes in the series. For financial flows, it can be useful to examine the detail by the components of FDI financial transactions even if that detail is not published. Financial flows consist of three components: equity capital, reinvestment of earnings, and intercompany debt. Equity capital is often associated with new investments, such as greenfield or M&As, even though it can also reflect capital contributions or other restructuring. Nevertheless, equity capital flows are often taken as a sign of the amount of new investments a country is attracting or making. Reinvestment of earnings is the portion of earnings that the parent decides to reinvest in the affiliate rather than receive as a dividend. This component of financial flows tends to be the least volatile. Changes in the reinvestment of earnings can reflect both changes in the earnings of affiliates and in the share of earnings that parents choose to distribute. The reinvestment ratio is the share of earnings that the parent reinvests; it can be an indication of the parent's perception of investment opportunities available through the affiliate: if the parent sees the opportunity to make profitable investments in its affiliates, the parent might choose to reinvest more money in them. However, many other factors can influence the share of earnings reinvested. For example, if the parent is in need of cash, they might pay higher

dividends. Intercompany debt is usually the most volatile component of total financial flows and is often driven by the short term financing needs within a company rather than larger overall macroeconomic phenomena. As such, intercompany debt is often the most difficult aspect of financial flows to explain. Intercompany debt flows can often switch direction as large loans are received and then paid off.

By explaining the movements in the components of financial flows is important because it can provide insights into the nature of FDI and whether the investment climate in a country is improving or not. For example, identifying whether a large increase in inflows is due to an increase in equity capital, reinvested earnings, or intercompany debt can be useful. For each of these it can help to provide more information. For example, it can be helpful to specify whether an increase in equity capital flows was due to investments in existing affiliates or due to new investments in the country. For reinvested earnings, it can be useful to identify if a decrease is due to a drop in earnings overall for affiliates or a drop in the share that direct investors were choosing to reinvest. Each of these reasons has different implications for the overall understanding of what is behind the movements. For example, a drop in inward investment due to repaying an intercompany loan would be interpreted differently from a drop in inward investment due to a drop in equity capital flows.

This type of information can be conveyed in such a way as to protect confidentiality by the use of words to describe the importance of different factors. For example, saying that the increase in equity capital flows was largely or mostly driven by new investments conveys to the user that this was an important factor without having to divulge a specific number or share that could be considered sensitive. Saying that the drop in inflows was largely due to repayment of intercompany debt but sell-offs also contributed conveys the relative importance of these factors without, again, providing specific figures that could be sensitive.

Positions are the accumulated value of direct investments measured at a specific point in time, such as the end of a quarter or of a year. The inward position indicates the overall value of foreign direct investors' investment in the reporting economy, and the outward position indicates the degree of penetration of resident direct investors in foreign countries. The change in the position from one point in time to the next is due not only to the financial flows during the period but also to changes in prices, exchange rates, and other changes in value, such as the write-down of assets. It is important to provide this information to users to help them understand what is driving the change in position. Looking at how the position has changed over time, can give an indication of structural changes in the economy, such as opening up to foreign investment.

4.2. Indicators

This section gives some examples of indicators that can be constructed using FDI statistics. These indicators can provide information to answer common questions about FDI.

4.2.1. Ratio of FDI to GDP

Users are often interested in understanding the role that FDI plays in both home and host countries. A common way to judge the importance of FDI to an economy is to compare the size of the outward and inward financial and income flows and positions to GDP. By normalising these measures by GDP, it allows for comparisons across countries. For these indicators, the statistics on a directional basis excluding resident SPEs are best to use in answering these questions because they distinguish between inward and outward investment and because they exclude funds that are simply passing through the economy on their way to another destination via SPEs.

Such measures show the extent of globalization through FDI at a given point in time. For example, the ratio of inward direct investment financial flows to GDP shows the relative attractiveness of the economy to FDI for that time period, and the ratio of inward and outward stocks to GDP shows the extent of globalisation of the economy at a point in time. Looking at how these indicators change over time can shed light on the role of FDI in globalizing the economy over time and can provide information on structural changes in direct investment, such as greater openness to foreign investment. Looking at stocks can give a clearer picture as flows can be significantly affected by one-time events.

GDP is often used to normalize FDI flows and stocks because it is widely available on a timely basis. However, there are other statistics that can provide meaningful measures of the importance of FDI to an economy, including inward investment as a share of gross fixed capital formation. However, care should be taken in interpreting this ratio as FDI flows may be related to changes in ownership of existing capital rather than the formation of new capital, such as with mergers and acquisitions.

4.2.2. Top investing partners

Users are often interested in identifying the most important investing partners. It is possible to construct an indicator showing inward investment for a particular country over total inward investment. These can be constructed with either financial flows or positions, depending on the question; if the question is which country is the most important source of FDI in a particular period, say the most recent quarter, then flows can be used. If instead the question is asking for the most important investing countries on a long term basis, then positions should be used. For inward investment, there are two possible series that can be used to answer this question. The first is the standard series by immediate partner country; it is the most widely available. The second is the supplemental series by ultimate investing country. While this is preferable because this series identifies the country of the investor who ultimately controls the investment, it is not as widely available and is available for positions only.

For outward investment, again it is best to use directional statistics excluding resident SPEs. However, these statistics will not give a very precise picture when parents in a country channel FDI through SPEs in other countries. For that, it would be necessary to have statistics that look through non-resident SPEs, or, even better, statistics by the ultimate host country. The development of such statistics is being discussed in the WGIIS, but they are not yet available.

4.2.3. Top industries for FDI

This can be answered using the standard series by industry of the affiliate and constructing indicators as discussed above for identifying the most important industries for FDI. However, the outward investment statistics may again give a distorted picture of the most important industries if parents are channelling their FDI through non-resident SPEs.

4.2.4. Rates of return on FDI

The rate of return is an indication of the profitability of an investment. The simplest way to calculate the rate of return is as earnings compared to the stock of investment. It is possible to compare the rates of return on both outward and inward investment to rates of return in the domestic economy as a whole to see how they compare to all businesses for a country. Looking at rates of return over time can indicate whether investments in resident enterprises are becoming more profitable and whether those enterprises are becoming more competitive, but it is important to note that cyclical or structural factors can affect rates of

return. It is also possible to compare rates of return on FDI to other types of investment, such as portfolio investment.

4.2.5. BOP or IIP analysis

BPM6 provides more examples of BOP and IIP analysis, but it may be useful to have one example. Examining the composition and size of a country's liabilities and assets can shed light on its vulnerability to crises. By providing consistent information on the composition and size of assets and liabilities by functional category of investment (for example, direct investment or portfolio investment) and by instrument (for example, equity or debt), a country's IIP provides important insights into how vulnerable its economy is to external market conditions. For example, assessing the share of total debt liabilities in direct investment is important because the returns to creditors of debt liabilities in direct investment depend on the performance of the debtor. In contrast, the returns to creditors on debt liabilities in portfolio investment do not depend on the performance of the debtor but are required even if the debtor is in difficulty, and, hence, pose a greater risk to the economy. For these types of analyses, the aggregate statistics presented according to the asset/liability principle are the most appropriate to use.

4.3. OECD horizontal projects using FDI statistics

At the OECD, FDI statistics are being used to inform policy making. For example, the OECD is carrying out a large project on Base Erosion Base erosion and profit shifting (BEPS), which refers to tax avoidance strategies that exploit gaps and mismatches in tax rules to artificially shift profits to low or no-tax locations. Over 100 countries and jurisdictions are collaborating to implement measures to tackle BEPS. Many indicators are required to measure a phenomenon as complicated as BEPS, and FDI statistics are used in some of these indicators. For example, high levels of FDI relative to GDP could be due to tax avoidance. However, it could also be due to a positive investment climate, so care must be taken in interpreting these indicators. Another example is comparing rates of return on FDI investment in SPEs and non-SPEs in an economy, which could indicate use of SPEs to avoid taxes. Complete description of indicators can be found here: http://www.oecd.org/ctp/measuring-and-monitoring-beps-action-11-2015-final-report-9789264241343-en.htm

Another project that the OECD is pursuing is the integration of FDI income statistics into the Trade in Value Added (TiVA) Framework. The core TiVA indicators identify the value added in each country in the production of goods and services that are consumed worldwide. However, TiVA indictors do not currently consider the role of investment in these global value chains. The OECD is working to address this gap in a number of ways, one of which is integrating FDI income into the TiVA framework. This will shed light on an important discussion on how the income that is generated from FDI is distributed and how much of that income 'sticks' within the host economy. While one of the main contributions of TiVA is the splitting of exports into domestic and foreign (i.e., imported) value added parts, only some parts of the value added of foreign-owned firms are expected to remain in the economy; these 'sticky' parts include wages and taxes. However, the other part – the operating surplus or profits – is typically less 'sticky' because it accrues to the foreign parent. It is the foreign parent that decides whether these profits are reinvested in the affiliate or are repatriated to the home country. This is not a negligible part: OECD AMNE data indicate that around 45% of value added produced by foreign owned firms consists of operating surplus and hence can (potentially) be repatriated. Integrating FDI income into the TiVA framework is an important first step to develop statistics on the role of foreign investment in

GVCs and the income it generates, as well as in the broader effort to better capture ownership information in economic statistics.

5. Summary of recommendations

The goal of this project was to review the FDI statistics compiled by Tunisia to assess their compatibility with the international guidelines for compiling FDI statistics (the Balance of Payments Manual and the Benchmark Definition); to assess the data sources and estimation methods used; and to examine the feasibility and the usefulness of compiling additional series, such as inward FDI positions by ultimate investing country. The OECD used its framework for reviewing the quality of macroeconomic statistics in the review. This framework examines seven dimensions of quality: relevance, accuracy, credibility, timeliness, accessibility, interpretability, and coherence. The work was carried out largely through a questionnaire and review of data and metadata provided on the CBT, FIPA, and IMF websites.

Currently, Tunisia is disseminating FDI statistics under BPM5, and disseminates those statistics in line with the timeliness recommendations of the IMF. The CBT is currently undertaking the implementation of BPM6, which offers the opportunity not only to improve the quality of the FDI statistics disseminated but also to improve their usefulness to data users. As such, there are a few recommendations that we think it would be helpful for the CBT to keep in mind as they implement BPM6 and BMD4 and begin to participate in the CDIS.

The first set of recommendations relates to improving the coverage, methods, and data sources that are needed to achieve these goals. The key recommendation, therefore, is to enable close cooperation between all of the entities participating in the ad hoc Committee for FDI statistics to ensure completeness of coverage in data sources and to assist in implementing the new international standards. This cooperation should extend to ensuring coherence between all sets of FDI statistics disseminated by different agencies. It would also be useful that agencies disseminating the statistics release a complete set of statistics so that users do not have to navigate through multiple institution websites to get the information. This will reassure users of the statistics that even if multiple sources are used to compile the statistics, this is the result of a cooperative process among the various institutions involved. Moreover, the centralised dissemination will demonstrate that the quality of the statistics produced is approved by all institutions involved in the compilation process. The cooperation between the agencies involved could be enhanced through a joint statistical release. If it is absolutely necessary that the agencies release different sets of statistics, then the reasons for the differences need to be clearly and completely explained to users so that they can decide which sets of statistics best meet their needs.

To improve coverage, it is first necessary to clarify the current coverage of the statistics by specifying if all instruments are covered in the BOP and IIP statistics published by the CBT and provided to the IMF. It will also be important to improve the compilation of reinvestment of earnings using additional sources like the survey that will be developed for participation in the CDIS because the ITRS that is currently used is not sufficient to capture total earnings which are necessary to compile reinvestment of earnings. Following this, recommendations to improve the coverage include: covering fellow enterprises by adopting one of the methods, such as the Framework for Direct Investment Relationships, recommended in BPM6 and BMD4; improving the coverage of debt instruments; and regularly monitor the emergence of SPEs to make sure that they are covered in the aggregate statistics and can further be separately identified.

Implementing the latest international standards will also require changes in methods. The most important of these is to develop an alternative to the current method of accumulating flows to estimate FDI positions; a feasible alternative is the own funds at book value method, which is widely used, including in the CDIS. Another very important recommendation is to publish the detailed statistics by partner country and by industry according to the directional principle. The basic directional principle could be implemented rather quickly with the extended directional principle being used once fellow enterprises are included in the source data. FDI statistics by country and by industry on the directional principle are more useful for the kinds of analyses that data users often want to do with these detailed statistics. It is also the base that the CDIS is collected on.

In implementing the latest standards, the CBT should ensure that there is no loss of the timeliness with which the statistics are currently released. In addition, it would be useful if the detailed statistics were to be released within 9 months of the reference year, as is the practice for many other countries. This would also meet the deadline for participation in the CDIS and would provide users with timely information. Finally, it is important that the training of personnel and cooperation with international organisations and other Central Banks should continue in the future.

The second key recommendation relates to improving the accessibility and usefulness of the FDI statistics to data users. Items under this recommendation include updating the Statistics section of the CBT website so that it houses a complete set of FDI statistics of the most recent vintage; so that users can download files in excel; and so that the most recent vintage of data available; that it houses FDI income statistics as well as FDI flows and position statistics by instrument; and so that it houses the detailed statistics by partner country and industry. It may also be useful to have a separate section dedicated to the detailed statistics by partner country and by industry as many OECD countries do, especially if the statistics are published according to the directional principle while the aggregate statistics are published according to the asset/liability principle.

It is also recommended that metadata information be posted on the website as well as links to the international standards for users to better understand the concepts and definitions used in FDI statistics. Finally, , the CBT should adopt the standard BOP presentation for its BOP FDI flows to enhance their interpretability. In the meantime, the differences that currently exist between FDI flows published as part of BOP statistics by the CBT and by the IMF should be clarified and explained to users.

The third recommendation is to ensure that there is a communication policy in place to explain to users the likely significant revisions and breaks in series that will result from implementation of BPM6 and BMD4.

The final recommendation is to explore further enhancements to the statistics. One of the most useful enhancements is the presentation of inward FDI position statistics by ultimate investing country. However, we recommend that Tunisia disseminates as a first step timely FDI positions and flows by immediate counterpart partner country, which would be in line with the international standards.

ANNEX 1. FDI statistics of Tunisia

Table A.1. FDI flows in Tunisia and MENA countries, in USD millions

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018 p
Algeria	1156	1841	1687	2639	2747	2300	2571	1500	1692	1502	-538	1638	1201	
Bahrain	1049	2915	1756	1794	257	156	781	1545	3728	1519	65	243	519	
Djibouti	22	108	195	228	97	37	79	110	286	153	124	160	165	
Egypt	5376	10043	11578	9495	6712	6386	-483	2798	4192	4612	6925	8107	7409	6798
Iraq	515	383	972	1856	1598	1396	2082	3400	-2335	-10176	-7574	-6256	-5032	-4885
Jordan	1984	3544	2622	2827	2413	1688	1486	1548	1947	2178	1600	1553	2030	950
Kuwait	234	121	112	-6	1114	1305	3259	2873	1434	486	285	292	113	-10
Lebanon	2624	2675	3376	4333	4804	4280	3137	3111	2661	2863	2159	2568	2559	2632
Libya	1038	2064	4689	4111	1371	1784	0	0	0	0	0	0		
Morocco	1671	2461	2826	2466	1970	1241	2521	2842	3361	3525	3253	2153	2680	3626
Oman	1538	1596	3332	2952	1486	1243	1629	1365	1612	1286	-2172	2265	2917	6342
Palestinian Authority	36	19	20	52	300	180	239	63	190	160	105	296	203	263
Qatar							939	396	-840	1040	1071	774	986	-2186
Saudi Arabia	12097	18293	24319	39456	36458	29233	16308	12182	8865	8012	8141	7453	1419	3209
Syrian Arab Republic	500	659	1242	1466	2570	1469								
Tunisia	**713**	**3240**	**1515**	**2601**	**1525**	**1334**	**433**	**1554**	**1059**	**1025**	**971**	**623**	**810**	989*
United Arab Emirates														
Yemen	-302	1121	917	1555	129	189	-518	-14	-134	-233	-15	0		
MENA total	**30251**	**51082**	**61158**	**77822**	**65550**	**54220**	**34464**	**35273**	**27716**	**17952**	**14399**	**21870**	**17978**	**19612**[e]
Memo items:														
World	**909256**	**1410453**	**2069449**	**1640090**	**1149103**	**1427017**	**1638240**	**1395696**	**1464945**	**1396658**	**1917602**	**1760552**	**1536175**	**1081831**
OECD	**620009**	**964686**	**1312859**	**844882**	**692488**	**717168**	**900564**	**724923**	**783996**	**666289**	**1328012**	**1229820**	**852027**	**690014**
EU	**459057**	**530089**	**829114**	**318762**	**380590**	**358309**	**427209**	**331154**	**342680**	**248021**	**635540**	**525267**	**384782**	**340738**

Note: MENA total aggregate exclude FDI flows (not available) in Libya (2011-2016) , the Syrian Arab Republic (2011 -2016), the United Arab Emirates (2005-2016) and Yemen (2016). Data for 2018 is estimated using FDI inflows available for 2018, and 2017 otherwise.
*2018 FDI inflows for Tunisia were collected from the Central Bank of Tunisia in millions of Tunisian Dinars and converted into USD millions using period average exchange rates. The 'FDI balance' serie between FDI receipts and FDI expenses (published by the CBT) was used, in order to be consistent with the net incurrence of liabilities published by the IMF as a part of the BOP standards.

Source: Central Bank of Tunisia for FDI flows of Tunisia for 2018; IMF Balance of Payment for the other MENA countries and OECD Foreign Direct Investment statistics database.

Table A.2. FDI flows in Tunisia and selected MENA countries, as a share of GDP

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018 p
Algeria	1.1%	1.6%	1.2%	1.5%	2.0%	1.4%	1.3%	0.7%	0.8%	0.7%	-0.3%	1.0%	0.7%	0.0%
Bahrain	6.6%	15.8%	8.1%	7.0%	1.1%	0.6%	2.7%	5.0%	11.5%	4.5%	0.2%	0.8%	1.5%	0.0%
Djibouti	3.1%	14.1%	23.0%	23.1%	9.5%	3.3%	6.4%	8.1%	19.7%	9.6%	7.2%	8.5%	8.1%	0.0%
Egypt	5.7%	8.9%	8.4%	5.6%	3.4%	2.8%	-0.2%	1.0%	1.5%	1.5%	2.1%	2.4%	3.1%	2.7%
Iraq														
Jordan	**15.8%**	**23.5%**	**15.3%**	**12.9%**	**10.1%**	**6.4%**	**5.2%**	**5.0%**	**5.8%**	**6.1%**	**4.3%**	**4.0%**	**5.1%**	**2.3%**
Kuwait	0.3%	0.1%	0.1%	0.0%	1.1%	1.1%	2.1%	1.7%	0.8%	0.3%	0.2%	0.3%	0.1%	0.0%
Lebanon	12.2%	12.1%	13.6%	14.8%	13.5%	11.1%	7.8%	7.1%	5.7%	5.9%	4.3%	5.0%	4.7%	4.6%

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018 p
Libya	2.2%	3.8%	6.9%	5.6%	2.7%	2.6%								
Morocco	2.7%	3.6%	3.6%	2.7%	2.1%	1.3%	2.5%	2.9%	3.1%	3.2%	3.2%	2.1%	2.5%	3.1%
Oman	4.9%	4.3%	7.9%	4.8%	3.1%	2.2%	2.4%	1.8%	2.0%	1.6%	-3.2%	3.4%	4.1%	7.8%
Palestinian Authority														
Qatar							0.6%	0.2%	-0.4%	0.5%	0.7%	0.5%	0.6%	-1.2%
Saudi Arabia	3.7%	4.9%	5.9%	7.6%	8.5%	5.5%	2.4%	1.7%	1.2%	1.1%	1.2%	1.2%	0.2%	0.4%
Syrian Arab Republic	1.7%	1.9%	3.1%	2.8%	4.8%	2.4%								
Tunisia*	2.2%	9.4%	3.9%	5.8%	3.5%	3.0%	0.9%	3.5%	2.3%	2.2%	2.2%	1.5%	2.0%	2.4%*
United Arab Emirates														
Yemen	-1.8%	5.9%	4.2%	5.8%	0.5%	0.6%	-1.6%	0.0%	-0.3%	-0.5%	-0.03%	0.00%		
Total MENA	**3.5%**	**5.0%**	**5.3%**	**5.4%**	**5.2%**	**3.7%**	**1.9%**	**1.8%**	**1.4%**	**0.9%**	**0.8%**	**1.2%**	**1.0%**	**1.2%**

Note: FDI inflows are not available for Libya (2011-2016) , the Syrian Arab Republic (2011 -2016), the United Arab Emirates (2005-2015) and Yemen (2016). GDP is not available for the Palestinian Authority and Iraq.
*2018 FDI inflows for Tunisia were collected from the Central Bank of Tunisia in millions of Tunisian Dinars and converted into USD millions using period average exchange rates. The 'FDI balance' serie between FDI receipts and FDI expenses (published by the CBT) was used, in order to be consistent with the net incurrence of liabilities published by the IMF as a part of the BOP standards.Source: Central Bank of Tunisia for FDI inflows of Tunisia for 2018 ;IMF Balance of Payment database for the other MENA countries and IMF World Economic Outlook database (GDP).

Table A.3. FDI outflows from MENA countries, in USD millions

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018 p
Algeria	55	79	147	318	214	219	534	-41	-272	-19	101	47	-3	
Bahrain	1135	980	1669	1620	-1791	334	894	-516	-532	394	-3191	880	-229	
Egypt	92	148	665	1920	571	1176	626	211	301	253	182	207	199	323
Iraq	89	305	8	34	72	125	366	490	227	242	148	304	78	188
Jordan	163	-138	48	13	72	28	31	5	16	83	1	3	7	-8
Kuwait	5142	8211	9784	9091	8582	5890	10773	6741	16648	13108	5440	6403	7038	2833
Lebanon	715	875	848	987	1126	487	937	1030	1976	1241	660	1005	1065	1253
Libya	128	474	3933	5888	1165	2722	131	2509	708	-78	395	440		
Morocco	74	451	632	316	479	580	248	360	445	431	657	579	1012	665
Oman	234	275	-37	584	109	1498	1223	885	934	1356	335	357	2424	716
Palestinian Authority	32	129	35	-4	69	58	-239	34	-34	187	75	-45	-18	-38
Qatar							10109	1840	8021	6748	4023	7902	1695	3523
Saudi Arabia	-350	-39	-135	3498	2177	3907	3430	4402	4943	5396	5390	8936	7280	21219
Syrian Arab Republic	0	0	0	0	0	0								
Tunisia	0	0	0	0	0	0	0	0	0	0	0	0	0	
MENA Total	**7510**	**11750**	**17597**	**24264**	**12846**	**17024**	**29061**	**17949**	**33380**	**29344**	**14215**	**27016**	**20546**	**30443**

Note: MENA total aggregate exclude FDI flows from Djibouti (2005-2016), Qatar (2005-2010), Syrian Arab Republic (2005-2016), the United Arab Emirates (2005-2016) and Yemen (2005-2016) which were not available. Data for 2018 is estimated using FDI inflows available for 2018, and 2017 otherwise. Net acquisition of financial assets of Tunisia are published by the IMF as 0s. It was not possible to collect from the CBT website the corresponding series.
Source: IMF Balance of Payment database for the other MENA countries.

Table A.4. FDI aggregates from Balance of Payment of Tunisia, in USD millions

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018p
Total inward positions	16840	21832	26193	28525	31277	31364	31544	32604	33772	31563	31771	28940	29469	26820
Equity	16840	21832	26193	28525	31277	31364	31544	32604	33772	31563	31771	28940	29469	

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018p
Debt														
Total income debit	962	988	1523	1958	1588	1658	1716	1533	1756	1362	960	769	761	0
Income on equity debits	16840	21832	26193	28525	31277	31364	31544	32604	33772	31563	31771	28940	29469	
Dividends Debits														
RE debits														
Interests debits														
Total liability flows	713	3240	1515	2601	1525	1334	433	1554	1059	1025	971	623	810	989*
Equity	716	3241	1526	2609	1529	1339	439	1560	1071	1027	971	631	814	
RE														
Debt	-3	-1	-10	-9	-4	-4	-6	-6	-12	-3	0	-8	-4	
Total outward positions	52	89	117	153	231	287	297	296	308	287	291	461	502	454
Equity	52	89	117	153	231	287	297	296	308	287	291	461	502	
Debt														
Total income credit	13	7	6	7	4	7	6	5	22	15	40	33	28	
Income on equity credits														
Dividends credits														
RE credits														
Interests credits														
Total asset flows (CBT)	0	0	0	0	0	0	0	0	0	0	0	0	0	
Equity														
RE														
Debt														

Note: *2018 FDI inflows for Tunisia were collected from the Central Bank of Tunisia in millions of Tunisian Dinars and converted into USD millions using period average exchange rates. The 'FDI balance' serie between FDI receipts and FDI expenses (published by the CBT) was used, in order to be consistent with the net incurrence of liabilities published by the IMF as a part of the BOP standards. Net acquisition of financial assets of Tunisia are published by the IMF as 0s. It was not possible to collect from the CBT website the corresponding series.

Source: Central Bank of Tunisia and IMF Balance of Payment database.

Table A.5. FDI flows in Tunisia by partner country, in TND millions

(En MDT, sauf indication contraire)	**Energie**		**Industries manufacturières**		**Autres secteurs**		**Total**	
	2016	**2017**	**2016**	**2017**	**2016**	**2017**	**2016**	**2017**
Union européenne	**677**	**765**	**713**	**850**	**64**	**205**	**1.454**	**1.820**
En% du total	***85,1***	***94,4***	***88,9***	***87,3***	***21,1***	***59,6***	***76,5***	***85,5***
dont :								
France	4	22	335	487	30	98	369	607
Autriche	385	451	8	4	0	0	393	455
Italie	122	113	55	98	0	0	177	211
Grande Bretagne	159	153	92	15	0	0	251	168
Allemagne	0	0	163	137	0	0	163	137
Espagne	0	0	34	75	3	2	37	77
Pays-Bas	3	7	1	4	27	61	31	72
Luxembourg	0	0	1	5	6	41	7	46
ALENA	**3**	**2**	**8**	**12**	**2**	**1**	**13**	**16**
En% du total	***0,4***	***0,2***	***1,0***	***1,2***	***0,7***	***0,3***	***0,7***	***0,8***
dont :								
Canada	3	2	1	1	0	0	4	3
Etats-Unis	0	0	7	11	2	2	9	13
Pays arabes	**84**	**7**	**61**	**53**	**204**	**119**	**349**	**179**
En% du total	***10,6***	***0,9***	***7,6***	***5,4***	***67,3***	***34,6***	***18,3***	***8,4***

dont :								
Qatar	0	0	0	1	59	82	59	83
Libye	0	0	11	35	70	0	81	35
Emirats Arabes Unis	13	3	32	5	24	16	69	24
Koweït	0	0	2	3	0	20	2	23
Algérie	71	5	4	5	0	0	75	10
Autres pays	**32**	**36**	**20**	**59**	**33**	**19**	**85**	**113**
En% du total	***4,0***	***4,4***	***2,5***	***6,1***	***10,9***	***5,5***	***4,5***	***5,3***
dont :								
Suisse	0	0	13	31	0	19	13	50
Ukraine	13	32	0	0	0	0	13	32
Japon	0	0	3	14	0	0	3	14
Indonésie	10	1	0	0	0	0	10	1
Total	**796**	**810**	**802**	**974**	**303**	**344**	**1.901**	**2.128**

Note: FDI inflows by partner country published by the CBT corresponds to 'increases in liabilities' as opposed to 'net incurrence of liabilities' published by the IMF as part of BOP standards (net incurrence of liabilities = increases minus decreases in liabilities)..
Source: Central Bank of Tunisia – Annual Report on BOP and IIP 2017

Table A.6. FDI flows in Tunisia by industry, in TND millions

	2004	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**
Total FDI	796	1016	4403	2071	3398	2278	2164	1616	2504	1814	1806	1967	1901	2132	2742
Agriculture	10	7	14	8	19	17	2	2	4	12	8	9	21	26	77
Energy	274	386	940	1359	1934	1234	1317	1063	886	1077	892	970	796	810	910
Manufacturing	312	375	347	486	642	772	574	331	532	507	454	566	802	975	1129
Services	200	248	3102	218	804	256	272	220	1082	218	452	422	282	321	626
Real estate & tourism	22	17	18	72	199	85	95	23	77	19	52	86	107	130	134
Telecommunications	121	99	3056	80	40	154	127	194	758	88	83	98	103	76	103
Financial sector	38	120	22	0	371	0	0	0	243	99	226	156	5	84	386
Other	19	12	6	66	194	17	50	3	4	12	91	82	67	31	3

Note: FDI inflows by industry published by the CBT corresponds to 'increases in liabilities' as opposed to 'net incurrence of liabilities' published by the IMF as part of BOP standards (net incurrence of liabilities = increases minus decreases in liabilities)..
Source: Central Bank of Tunisia

Table A.7. FDI flows in Tunisia by partner country, excluding the energy sector, in TND millions, 2018

Objet	**Création**			**Extensions et autres**			**Total**			
Pays	**Projets**	**IDE**	**Emplois**	**Projets**	**IDE**	**Emplois**	**Projets**	**IDE ↓**	**Emplois**	**% IDE**
France	36	8.54	327	168	618.32	3805	204	626.86	4132	34.2%
Qatar	1	59.60	5	5	420.12	227	6	479.72	232	26.2%
Italie	34	7.01	493	116	147.44	1170	150	154.45	1663	8.4%
Allemagne	11	6.12	199	35	130.33	1965	46	136.45	2164	7.4%
Émirats arabes unis	2	8.05	31	14	80.03	545	16	88.08	576	4.8%
Royaume-Uni	-	-	-	15	82.62	779	15	82.62	779	4.5%
Autriche	2	0.16	38	5	49.29	183	7	49.45	221	2.7%
Suisse	3	0.23	7	17	33.09	410	20	33.32	417	1.8%
États-Unis	2	0.47	59	12	27.53	311	14	28.00	370	1.5%
Espagne	-	-	-	18	20.25	380	18	20.25	380	1.1%
Pays-Bas	-	-	-	18	19.12	318	18	19.12	318	1.0%
Libye	8	5.79	62	11	9.90	76	19	15.69	138	0.9%
Belgique	-	-	-	23	15.22	247	23	15.22	247	0.8%
Monaco	-	-	-	2	12.04	82	2	12.04	82	0.7%
Japon	-	-	-	4	10.48	521	4	10.48	521	0.6%

Portugal	1	0.02	7	2	8.74	27	3	8.76	34	0.5%
Maroc	1	0.10	17	5	6.73	29	6	6.83	46	0.4%
Arabie saoudite	1	0.02	10	8	6.44	192	9	6.46	202	0.4%
Singapour	-	-	-	2	5.39	42	2	5.39	42	0.3%
Algérie	3	0.32	7	4	4.67	123	7	5.00	130	0.3%
Luxembourg	-	-	-	8	4.07	75	8	4.07	75	0.2%
Koweït	-	-	-	4	4.00	97	4	4.00	97	0.2%
Mauritanie	-	-	-	1	3.90	15	1	3.90	15	0.2%
Irak	1	0.05	6	1	3.74	55	2	3.78	61	0.2%
Jordanie	2	0.04	3	4	2.07	20	6	2.11	23	0.1%
Inde	-	-	-	2	2.01	34	2	2.01	34	0.1%
Oman	1	1.99	15	-	-	-	1	1.99	15	0.1%
Chine	1	0.20	0	1	1.77	11	2	1.97	11	0.1%
Grèce	-	-	-	1	0.96	0	1	0.96	0	0.1%
Corée du Sud	-	-	-	2	0.92	3	2	0.92	3	0.1%
Panama	-	-	-	1	0.53	6	1	0.53	6	0.0%
Roumanie	1	0.24	267	2	0.05	20	3	0.29	287	0.0%
Îles Maurice	-	-	-	2	0.28	24	2	0.28	24	0.0%
Canada	2	0.22	0	-	-	-	2	0.22	0	0.0%
Gibraltar	-	-	-	1	0.21	4	1	0.21	4	0.0%
Norvège	-	-	-	1	0.19	4	1	0.19	4	0.0%
Turquie	1	0.08	0	1	0.06	60	2	0.14	60	0.0%
Liban	1	0.11	2	1	0.00	0	2	0.11	2	0.0%
Malte	-	-	-	3	0.10	2	3	0.10	2	0.0%
Suède	1	0.04	3	1	0.01	0	2	0.04	3	0.0%
Cameroun	2	0.01	1	-	-	-	2	0.01	1	0.0%
Égypte	1	0.01	2	-	-	-	1	0.01	2	0.0%
Russie	-	-	-	1	0.01	10	1	0.01	10	0.0%
Niger	1	0.00	2	-	-	-	1	0.00	2	0.0%
Total (hors énergie)	110	99.41	1458	455	1 732.64	10 011	565	1 832.06	11 469	100%

Source: Foreign Investment Promotion Agency (FIPA) of Tunisia – Annual report 2018

Table A.8. FDI flows in Tunisia by industry published by the FIPA, in TND millions

IDE (MTND)	**2 014**	**2 015**	**2 016**	**2 017**	**2018***
IDE	**1806.4**	**1967.0**	**1901.3**	**2131.5**	**2742.0**
Energie	891.7	970.3	796.4	810.0	910.0
Industrie	454.3	565.7	801.4	974.6	1 129.4
Services	452.4	421.7	281.7	321.3	626.1
Agriculture	7.9	9.30	21.94	25.6	76.5

Source: Foreign Investment Promotion Agency (FIPA) of Tunisia – Annual report 2016

Table A.9. Inward FDI stocks by industry (excluding the energy sector), at-end 2018, in TND millions, 2010 constant prices

Secteur	**Nombre**	**Invest.**	**IDE**	**% IDE / Total**	**% IDE / Invest.**	**Emplois**
Total - IDE (hors énergie)	**3486**	**42 036,26**	**25 408,53**	**100%**	**60,44%**	**386 312**
Matériaux de construction	**93**	**5 207,10**	**4 341,71**	**17,09%**	83,38%	**9 017**
Electrique et Electronique	**266**	**2 428,16**	**1 971,96**	**7,76%**	81,21%	**91 798**
Textile et habillement	**1097**	**1 971,61**	**1 684,77**	**6,63%**	85,45%	**123 362**
Mécanique, métallique et métallurgique	**369**	**1 995,24**	**1 555,52**	**6,12%**	77,96%	**25 373**
Agro-alimentaire	**197**	**1 766,63**	**1 024,60**	**4,03%**	58,00%	**17 733**

Chimie et caoutchouc	**85**	**1 920,34**	**988,56**	**3,89%**	51,48%	**6 902**
Industrie Pharmaceutique	**40**	**1 128,60**	**718,41**	**2,83%**	63,66%	**7 288**
Plasturgie	**133**	**646,70**	**525,70**	**2,07%**	81,29%	**11 856**
Industries diverses	**190**	**595,93**	**408,17**	**1,61%**	68,49%	**9 368**
Cuir et chaussures	**136**	**326,14**	**319,23**	**1,26%**	97,88%	**19 334**
Industrie	**2606**	**17 986,45**	**13 538,64**	**53,28%**	**75,27%**	**322 031**
Télécommunications	**7**	**19 041,37**	**8 432,53**	**33,19%**	44,29%	**11 853**
Transport	**6**	**415,75**	**415,24**	**1,63%**	99,88%	**591**
Autres services	**66**	**216,20**	**118,36**	**0,47%**	54,75%	**985**
Services informatiques	**199**	**95,71**	**77,03**	**0,30%**	80,48%	**6 939**
Formation professionnelle	**8**	**113,08**	**66,78**	**0,26%**	59,06%	**254**
Centres d'appel	**59**	**61,41**	**58,22**	**0,23%**	94,80%	**17 031**
Promotion immobilière	**3**	**50,76**	**50,37**	**0,20%**	99,24%	**21**
Etudes et conseils	**263**	**43,28**	**37,73**	**0,15%**	87,17%	**2 912**
Travaux publics	**5**	**17,04**	**6,96**	**0,03%**	40,87%	**156**
Technologies de l'environnement	**19**	**6,46**	**3,96**	**0,02%**	61,24%	**363**
Animation jeunesse et enfance	**3**	**3,46**	**1,73**	**0,01%**	49,96%	**17**
Act. prod. & ind. cult.	**3**	**0,20**	**0,14**	**0,00%**	70,23%	**33**
Service	**641**	**20 064,72**	**9 269,05**	**36,48%**	**46,20%**	**41 155**
Hébergement	**97**	**3 014,86**	**1 944,78**	**7,65%**	64,51%	**16 289**
Animation	**36**	**187,45**	**150,90**	**0,59%**	80,50%	**921**
Divers tourismes	**20**	**153,82**	**148,24**	**0,58%**	96,37%	**500**
Tourisme	**153**	**3 356,13**	**2 243,92**	**8,83%**	**66,86%**	**17 710**
Agricole	**54**	**432,08**	**256,16**	**1,01%**	59,28%	**4 361**
Aquaculture	**5**	**97,25**	**60,52**	**0,24%**	62,23%	**292**
Pêche	**17**	**54,68**	**29,99**	**0,12%**	54,85%	**443**
Services agricoles	**10**	**44,95**	**10,25**	**0,04%**	22,80%	**320**
Agriculture	**86**	**628,96**	**356,92**	**1,40%**	**56,75%**	**5 416**

Source: Foreign Investment Promotion Agency (FIPA) of Tunisia – Annual report 2018

Table A.9. Inward FDI stocks by partner country (excluding the energy sector), at-end 2018, in TND millions, 2010 constant prices

Pays	Nombre	Invest.	IDE ↓	% IDE / Total	% IDE / Invest.	Emploi
Total IDE (hors énergie)	**3486**	**42 036.26**	**25 408.53**	**100%**	**60.44%**	**386 312**
Émirats arabes unis	**40**	**16 879.419**	**5 730.83**	22.55%	33.89%	13 883
France	**1413**	**7 413.922**	**4 124.08**	16.23%	55.88%	143 416
Qatar	**6**	**3 199.413**	**2 900.01**	11.41%	90.95%	2 524
Italie	**867**	**3 448.422**	**1 973.26**	7.77%	58.39%	64 662
Allemagne	**268**	**2 846.895**	**1 457.42**	5.74%	51.29%	69 573
Espagne	**61**	**2 714.106**	**1 524.75**	6.00%	58.76%	6 658
Portugal	**42**	**1 018.781**	**980.67**	3.86%	95.46%	2 799
Pays-Bas	**89**	**1 183.705**	**809.68**	3.19%	65.69%	16 276
Libye	**90**	**1 110.256**	**764.58**	3.01%	68.36%	6 964
Royaume-Uni	**88**	**882.519**	**498.50**	1.96%	58.87%	18 534
Brésil	**3**	**664.785**	**664.72**	2.62%	99.98%	290
Arabie saoudite	**46**	**2 042.175**	**614.51**	2.42%	28.50%	6 564
Koweït	**19**	**1 582.942**	**498.66**	1.96%	28.06%	4 564
Turquie	**30**	**460.475**	**435.77**	1.72%	94.49%	1 363
États-Unis	**68**	**725.847**	**408.02**	1.61%	60.00%	12 070
Suisse	**97**	**724.414**	**338.38**	1.33%	49.76%	12 975
Belgique	**202**	**431.656**	**240.15**	0.95%	56.87%	17 721
Inde	**5**	**514.631**	**163.17**	0.64%	31.31%	744
Luxembourg	**48**	**415.024**	**185.46**	0.73%	47.40%	10 468
Japon	**13**	**345.163**	**150.09**	0.59%	50.75%	5 227
Jordanie	**16**	**308.742**	**153.54**	0.60%	50.61%	1 398
Autriche	**20**	**172.657**	**104.16**	0.41%	61.27%	4 449
Malte	**14**	**260.997**	**74.61**	0.29%	29.48%	1 818
Bahamas	**2**	**88.532**	**81.04**	0.32%	90.35%	1 598
Corée du Sud	**6**	**64.299**	**60.96**	0.24%	94.80%	2 304
Singapour	**3**	**71.482**	**61.56**	0.24%	86.38%	461
Maroc	**35**	**78.224**	**53.53**	0.21%	69.47%	1 652
Russie	**12**	**203.876**	**42.65**	0.17%	25.85%	856
Algérie	**60**	**210.481**	**40.59**	0.16%	20.81%	3 020
Irak	**13**	**151.913**	**48.02**	0.19%	31.53%	1 186
Suède	**7**	**127.092**	**49.31**	0.19%	37.02%	1 357
Canada	**21**	**255.440**	**21.87**	0.09%	8.68%	1 211
Grèce	**10**	**60.713**	**21.41**	0.08%	38.20%	627
Monaco	**6**	**42.760**	**20.62**	0.08%	50.54%	693
Chine	**14**	**34.497**	**19.97**	0.08%	59.99%	754
Panama	**11**	**31.997**	**17.15**	0.07%	59.68%	1 008
Liban	**24**	**87.033**	**14.02**	0.06%	16.94%	709
Norvège	**7**	**21.479**	**9.79**	0.04%	45.12%	203
Îles Maurice	**3**	**31.502**	**9.80**	0.04%	30.61%	296
Irlande	**9**	**13.661**	**6.15**	0.02%	49.93%	2 268
Pakistan	**2**	**4.174**	**4.17**	0.02%	100.00%	17
Égypte	**7**	**5.934**	**5.38**	0.02%	87.76%	268
Syrie	**16**	**5.988**	**4.51**	0.02%	76.81%	245
Roumanie	**11**	**46.473**	**3.32**	0.01%	7.18%	912
Soudan	**1**	**18.000**	**4.50**	0.02%	25.00%	122
Gibraltar	**2**	**10.585**	**3.62**	0.01%	34.38%	133
Ukraine	**3**	**25.060**	**1.97**	0.01%	10.19%	290
Chypre	**9**	**25.137**	**1.90**	0.01%	13.38%	537
Australie	**3**	**1.995**	**0.63**	0.00%	33.29%	256
Slovénie	**1**	**0.912**	**0.89**	0.00%	98.00%	105
Bermudes	**1**	**0.556**	**0.56**	0.00%	100.00%	45
Danemark	**4**	**3.681**	**0.70**	0.00%	21.06%	473
Bahreïn	**3**	**0.777**	**0.66**	0.00%	80.32%	48

Pays	Nombre	Invest.	IDE ↓	% IDE / Total	% IDE / Invest.	Emploi
Palestine	**3**	**0.878**	**0.31**	0.00%	35.71%	28
Rwanda	**1**	**2.968**	**0.56**	0.00%	19.00%	105
Oman	**1**	**0.214**	**0.21**	0.00%	100.00%	12
Rép. Tchèque	**1**	**1.146**	**0.38**	0.00%	33.00%	58
Macédoine (A.R.Y.M)	**1**	**0.332**	**0.17**	0.00%	50.00%	46
Seychelles	**4**	**0.114**	**0.10**	0.00%	90.05%	6
Bangladesh	**1**	**2.427**	**0.12**	0.00%	5.00%	26
Bulgarie	**1**	**0.272**	**0.11**	0.00%	40.00%	25
R.D du Congo	**1**	**0.062**	**0.06**	0.00%	100.00%	2
Cameroun	**3**	**0.068**	**0.06**	0.00%	84.62%	3
Islande	**1**	**0.151**	**0.04**	0.00%	25.00%	90
Hongrie	**1**	**0.560**	**0.04**	0.00%	8.00%	18
Niger	**1**	**0.017**	**0.02**	0.00%	100.00%	1
Finlande	**1**	**0.030**	**0.03**	0.00%	100.00%	5
Thaïlande	**1**	**0.015**	**0.01**	0.00%	100.00%	2
Serbie	**1**	**0.011**	**0.01**	0.00%	100.00%	2
Cap Vert	**1**	**0.085**	**0.02**	0.00%	24.00%	29
Estonie	**1**	**0.025**	**0.01**	0.00%	20.00%	5
Pologne	**1**	**0.025**	**0.01**	0.00%	25.00%	2

Source: Foreign Investment Promotion Agency (FIPA) of Tunisia – Annual report 2018

ANNEX 2. Proposed Table to Reconcile the Asset/Liability and Directional Presentations of FDI Positions

By principle and type of capital	Asset/liability principle			Directional principle														
				Reporting country direct investment abroad							Foreign direct investment in reporting country							Direct investment, net
	Direct investment assets[1]	Direct investment liabilities[2]	Direct investment, net	Total	Equity capital			Lending and debt securities (net)[3]			Total	Equity capital			Lending and debt securities (net)[5]			
					Total	Equity assets of resident direct investor in direct investment enterprise	Equity liability of resident direct investor to direct investment enterprise	Total[4]	Assets	Liabilities		Total	Equity liability of resident direct investment enterprise to direct investor	Equity assets of resident direct investment enterprise in direct investor	Total[6]	Assets	Liabilities	
2014	1393357	903977	489380	1065992	1012748	1012748	0	53244	250601	197357	576612	528787	528787	0	47825	130008	177833	489380
2015	1485942	966144	519798	1152052	1076258	1076258	0	75794	283806	208013	632254	576413	576413	0	55842	125877	181719	519798
2016	1532476	999503	532973	1194750	1104038	1104038	0	90712	296488	205776	661777	612049	612049	0	49728	131950	181678	532973

1 Sum of the following four components: Reporting country direct investment abroad, equity assets of resident direct investor in direct investment enterprise + Reporting country direct investment abroad, lending and debt securities (net), assets + foreign direct investment in the reporting country, equity assets of resident direct investment enterprise in direct investor + foreign direct investment in reporting country, lending and debt securities (net), assets.

2 Sum of the following four components: foreign direct investment in reporting country, equity liability of resident direct investment enterprise to direct investor + Foreign direct investment in reporting country, lending and debt securities (net), liabilities + Reporting country direct investment abroad, equity liability of resident direct investor to direct investment enterprise + Reporting country direct investment abroad, lending and debt securities (net), liabilities.

3 Net lending of reporting country direct investors to direct investment enterprises and other related companies abroad. Other related companies are those companies which are in the same multinational enterprise group as the reporting country direct investor, but which are neither its directly or indirectly owned affiliates nor its direct or indirect investors (i.e. fellow companies).

4 Assets minus liabilities.

5 Net lending of direct investment enterprises in the reporting country to foreign direct investors and other related companies abroad. Other related companies abroad are those companies which are in the same multinational enterprise group as the resident direct invest enterprise, but which are neither its direct or indirect investors nor its direct or indirectly owned affiliates (i.e. fellow companies).

6 Liabilities minus assets.

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