



WORKING PAPER

The Tunisian Integration into Global Value Chains

The role of offshore regime & FDI

Iheb Sammoud and Souad Dhaoui

EMNES Working Paper N° 21 / February 2019

Abstract

This paper focuses on the study of Tunisia's integration into the global value chains (GVCs) and the role of the offshore regime and foreign direct investment (FDI) in this process. After the brief illustration of the origin of the GVC concept, this document tackles indicators that give more precise picture of the integration level, as well as the positioning of Tunisia in the GVCs. From our analysis, it appears that the offshore regime and FDI currently constitute an essential element of this economic development process. Foreign affiliates play an important role in the participation of the GVCs of Tunisia. The country shows a high level of participation in GVCs in many industrial activities (textiles, clothing and leather, chemical industry, agri-food industry but more particularly, the sector of mechanical-electrical and electronic industries) and services (business services). In Tunisia, forward linkages are less pronounced than backward linkages with GVCs. This dynamic motion may be expected to continue if Tunisian businesses have denied access to technological development. In addition, restrictive regulations for the offshore regime and the FDI may hinder trade links between foreign affiliates and Tunisian firms.

JEL codes: F1, F14, F15, F21, F6, O55

Keywords: Tunisia, Trade, global value chains, foreign direct investment, export performance, offshore sector

Iheb Sammoud is a chief economist at the Tunisian Institute of Competitiveness and Quantitative Studies (ITCEQ) Souad Dhaoui is a chief economist at the Tunisian Institute of Competitiveness and Quantitative Studies (ITCEQ).

EMNES Working Papers disseminate economic and policy research relevant to EMNES research programme and aim to stimulate discussions from other economists and policy experts in the field.

Available for free downloading from the EMNES website (www.emnes.org) © EMNES 2019

Introduction

One of the most significant economic transformations over the last two decades has been the increasing importance of global value chains (GVCs) in managing production and coordinating trade links between countries. In the literature developed on the concept itself and its role in the growth of economies, GVCs, were first described as commodity chains, then global commodity chains, and finally took their current name (Bair, 2010). Indeed, until the end of the 1970's, the concept of global value chains was approached with little work on commodity chains (Bair, 2005). The basic idea was to trace all the input transformation stages that describe the process leading to a final product (Hopkins et Wallerstein, 1977). The concept of global commodity chains was later introduced into the work of Gary Gereffi (1994), describing for instance the clothing and the raw materials chain (cotton, wool or synthetic fibers) to finished products (clothes).

In fact, the GVCs have become a key element of international trade and an effective tool to address the multiple socio-economic challenges of countries. Experience shows that participation in GVCs positively affects development, in terms of technology and competence¹. Currently, more than half of the world imports of manufactured goods are in intermediate goods (primary goods, spare parts and components, and semi-finished goods), and more than 70% of services global imports are in intermediate services, such as companies' services. Exports include a growing share of added value imported from abroad. In the OECD area, an increase in Trade Openness Index by one percentage point would result in multifactor productivity growth of 0.2% after 5 years and of 0.6% in the long term (Egert and Gal, 2017).

In its process of integration into the global economy, Tunisia has focused on exports promotion, which has allowed it to improve its economy attractiveness. The offshore regime and foreign direct investment (FDI) are now essential parts of this economic development process, and key assets for the country's integration into global value chains.

The 1972 law introduced benefits to foreign investments and the export sector through a special regime designed to encourage businesses to invest, create jobs and export. These benefits were reinforced by the enactment of the Investment Incentive Code in 1993 and the New Investment Law in 2017².

The offshore regime contributed in 2016 to 78% of non-energy goods exports. The stock of foreign direct investment, as a percentage of GDP, is very high compared to several emerging countries and the OECD, accounting for almost 70% (OECD 2018). The inflow, also, has held up well in recent post-revolution years (2% of GDP), rising by 12.8% at the end of 2017 and reaching 2,244.4 MD (million dinars). Also, for the distribution sector of foreign investments, there is a sharp rise of the industry sector (+ 21.6%) and of services (+ 13%) compared to 2016. The implementation of the new investment law of 2017 led to a reduction of restrictions on FDI (OECD, 2018), paving the way for a further rise.

¹ « Diagnostic de la chaîne de valeur industrielle : un outil intégré », Rapport ONUDI, 2011.

² <http://www.legislation.tn/sites/default/files/codes/investissement.pdf>.

In 2018, there are 2007 fully exporting foreign-invested companies operating in the sectors of industries and services, of which 1,393 are 100% foreign. These companies represent nearly 71% of the total companies operating in the offshore regime mainly dominated by European companies that invest and coordinate in more than one countries in the region. In terms of FDI, the non-energy flow recorded in 2017 resulted in 492 investment operations with a total value of 1,318.2 MTND, creating thus 10,300 new jobs. In addition, France (30.5%), Italy (16.5%) and Germany (11.6%) retain their status as Tunisia's strategic partner.

Tunisia's participation in the GVCs is characterized by a strong presence of offshore companies, especially in textile, mechanic, electric, electronic, chemicals and food industries. Offshore companies' Trade balance has risen steadily to reach 9% of GDP in 2016.

Even though important results have been obtained in terms of integration into GVCs thanks to the offshore regime and FDI, several questions have been raised on Tunisia's ability to create sector activities that would permit to benefit from the added value of commodities coming from developing countries and on the competitiveness of sectors, which are not, generating income and employment. In fact, and in order to meet these challenges, the integration and quality upgrading on GVCs could be a way for a better structural transformation of the productive fabric for Tunisia.

This paper develops some indicators that give a more accurate picture of Tunisia's integration and position on GVCs, in order to emphasize on the importance of the offshore regime and FDI in this integration process. Finally, it will present conclusions and recommendations.

Chapter 1: Tunisia in Global Value Chains

GVC research is divided into two main categories. The first focuses on the theoretical reasons for their existence (Findlay, 1978, Dixit and Grossman, 1982, Markusen and Venables, 2007, Grossman and Rossi-Hansburg, 2008, Baldwin and Venable, 2010, Baldwin and Robert-Nicoud, 2010). Costinot et al., 2013), types of governance and determinants (Gereffi et al., 2005, Antràs and Chor, 2012), and the implications for trade patterns and factor prices (Yi, 2003; Kohler, 2004). The second focuses on case studies of value chains involving individual companies and some industries, such as textiles and clothing, and agricultural products (of the 650 studies published since 1986 listed in the Global Value Chain Initiative Web site at Duke University, over 70% fall into this category). More recently, an increasing number of studies have described the extent and the growth of GVC-related trade (Hummels et al., 2001, Kimura et al., 2007, Sydor, 2011).

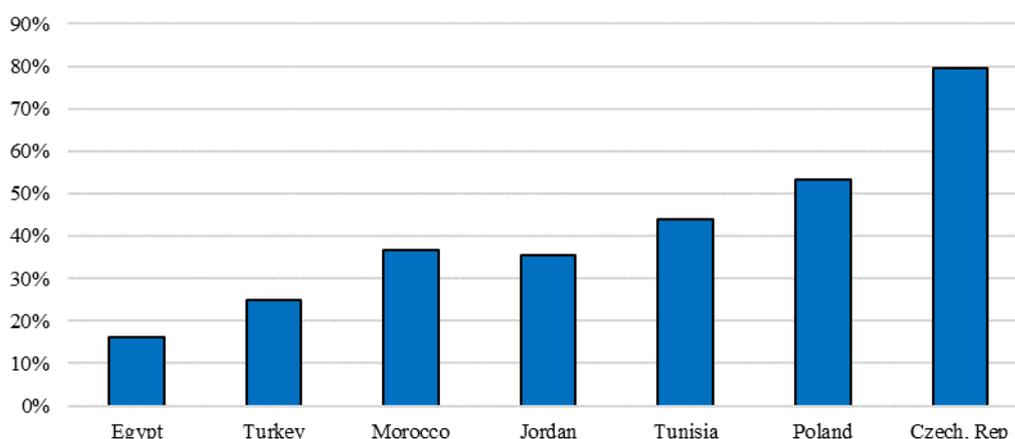
In the 2000s, there was a shift in the terminology of global commodity chains to global value chains, the latter coming from the analysis of trade and industrial organization as a value-added chain in the literature of international affairs (Porter, 1985). The concept of value chain is not different from the commodity chain, but it is more ambitious in the sense that GVCs attempt to capture the determinants of global industries' organization (Bair, 2005).

At the managerial level literature distinguishes between two main aspects describing global value chains: namely, chains controlled by the producers and chains controlled by the buyers. Producer-driven global value chains stand for high-technology sectors such as the pharmaceutical industry. Since these industries depend on technology and R & D, leading companies control product design process as well as most fragmented assemblies in different countries. In buyer-driven chains, retailers and brand-marketing specialists control production, which can be fully outsourced, with a focus on marketing and sales. Global value chains with lower capital requirements and fewer skilled workers are usually organized in this way, as shown by the clothing production line (Gereffi, 1994).

The "Sharing of world production" (Yeats, 1997), "International fragmentation" (Jones and Kierzkowski, 1990), "Vertical specialization" (Hummels and Yi, 1999), "Multi-stage production" (Dixit and Grossman, 1982), "Subcontracting", "Offshoring" and "Outsourcing". All these different terms are related to the growing importance of vertical production chains and vertical trade between countries, despite some differences. Fragmentation theory, for example, focuses on production activities and examines how international fragmentation occurs when costs can be lowered due to differences in labor productivity (Ricardian model) and / or differences in supply and factor prices (Heckscher-Ohlin model) between different locations. The concept of GVCs is usually interpreted in a broader sense to encompass all activities of business value chains, including production, distribution, sales and marketing, R & D, innovation, and so on. So, non-cost factors also influence the evolution of GVCs, such as entry into new emerging markets and access to strategic assets and foreign knowledge.

1. Tunisian exports : a favorable dynamic and a focus on sophisticated products

Figure 1. Exports of goods and services in 2017 (% of GDP)



Source: WDI data base /WB

The share of Tunisian exports in GDP increased to 44%, well beyond the level observed in Egypt, Morocco and most other countries in the region, and above Poland and the Czech Republic's levels. These two countries have known, as the case of Tunisia, a post-revolutionary transition (the velvet revolution in the Czech Republic in 1989 and the transition of Poland from the planned economy to the market economy in 1989). They had to dismantle a planned economy that is considered as one of the most rigid ones in the region and make a successful transition to a market economy.

The share of manufactured goods in total exports increased to 76%, well beyond the level seen in Egypt, Morocco, Jordan and most other countries in the region. Joining the World Trade Organization in 1995, the gradual easing on tariff and non-tariff barriers, the signing of free trade agreements but, more particularly, the creation of an attractive offshore regime (for totally exporting companies), played an important role in this performance dynamic. Tunisia has also obtained the status of privileged partner in 2012 along with the ongoing negotiations on the Deep & Comprehensive Free Trade Agreement.

Figure 2.1. Decomposition of tunisian gross exports

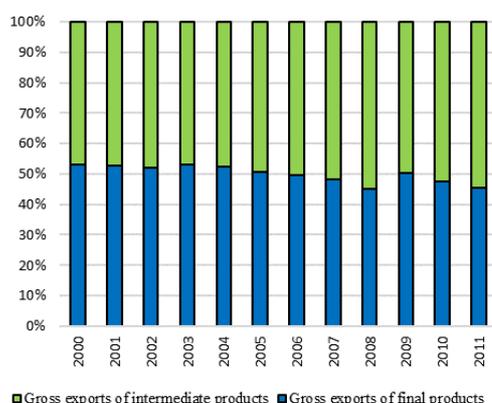
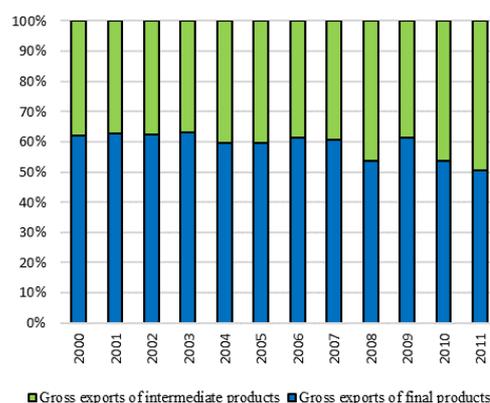
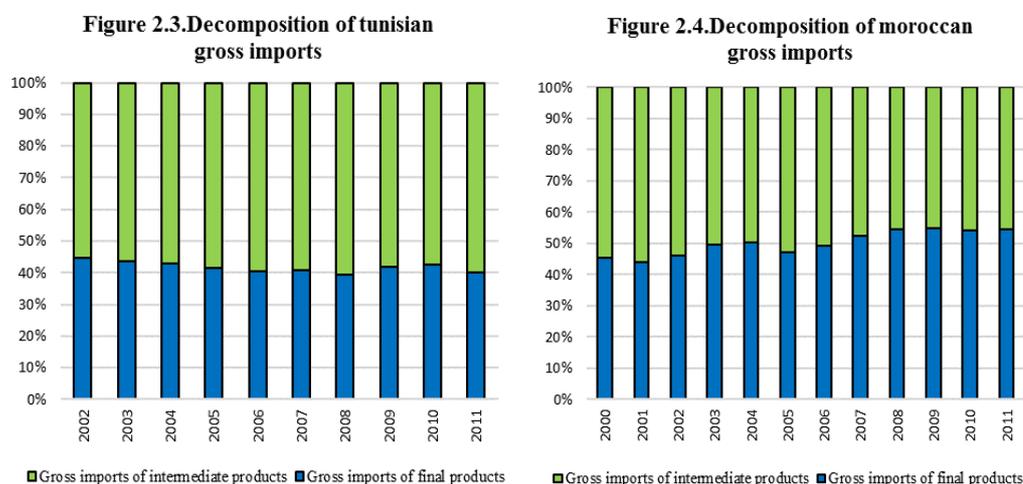


Figure 2.2. Decomposition of moroccan gross exports

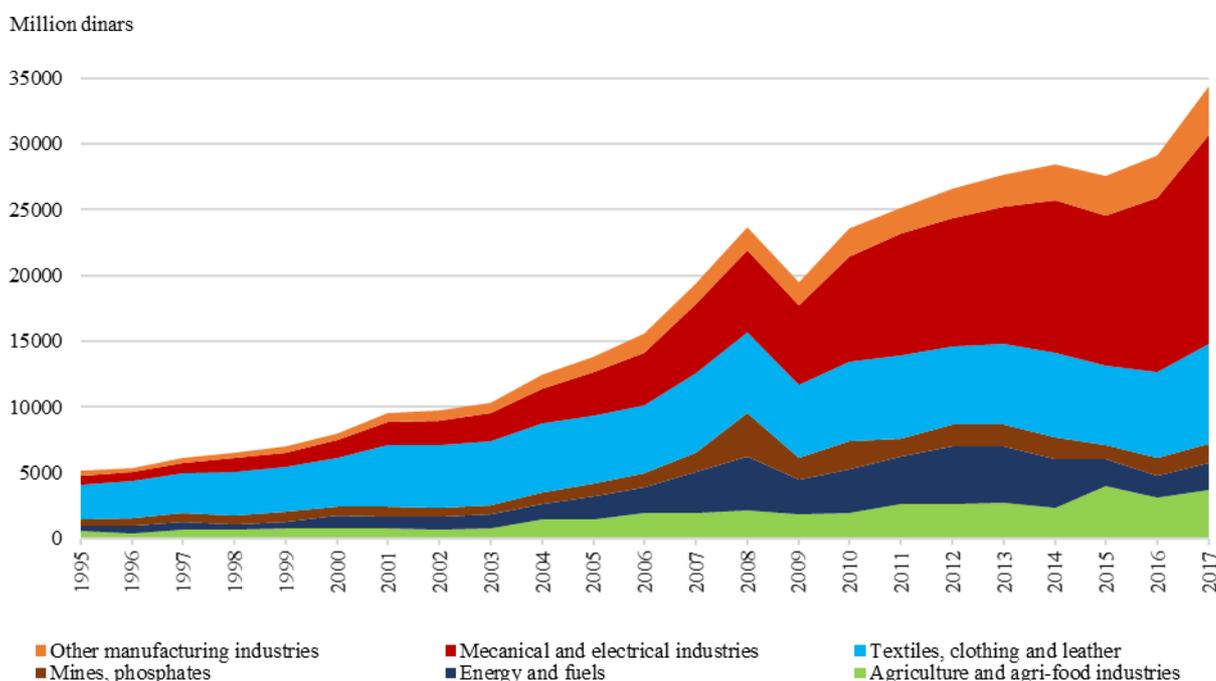




Source: Authors calculation from TiVA data/ OECD

Export analysis shows that intermediate products represent an important component of Tunisia's merchandise trade, accounting for 54.7% of total gross exports and 60% of its imports in 2011 (TiVA / OECD). These values exceed those of some economies in the region, for example Morocco (intermediate products accounting for 49.5% of total gross exports and 45.3% of its imports in 2011), and the OECD average. In addition, intermediate and capital goods are the most dynamic merchandise trade in the last decade in Tunisia.

Figure 3. Evolution of export structure by sector between 1995 and 2017

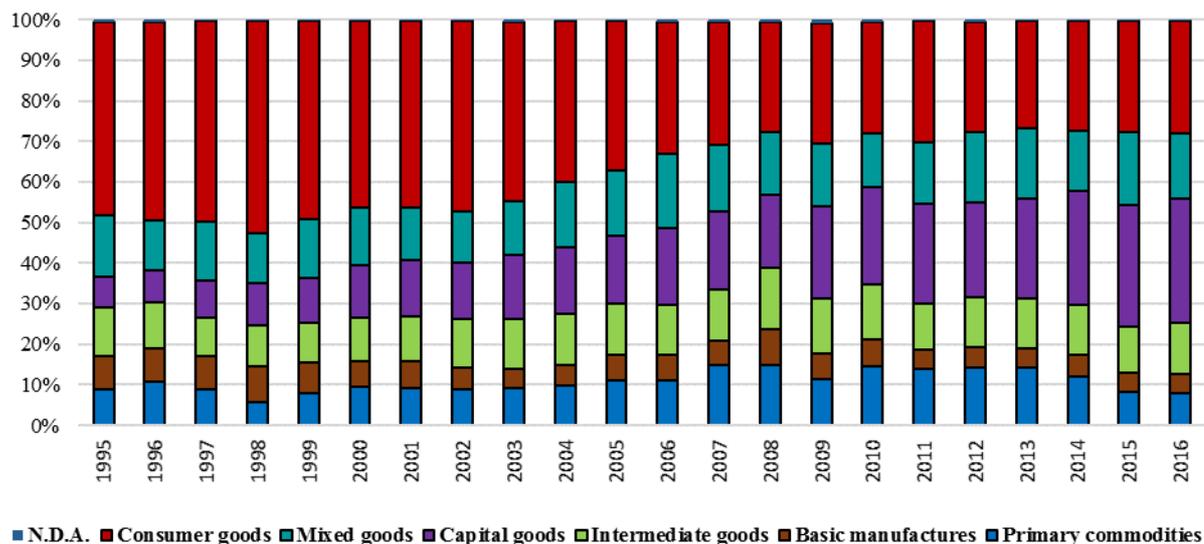


Source: Calculation of authors from INS data.

The structure of manufacturing exports has undergone a significant transformation, with the mechanic and electric industries becoming the leading export sector. This is also reflected in the increase in the share of exports of intermediate and capital goods. Tunisian exports have also been diversified and quality upgraded. Tunisia is the Maghreb country with

the largest number of exported products with a noteworthy comparative advantage (OECD 2018b). The structure of exports has also evolved in favor of technology and skills intensive products (see figure .3). The performance of the electronics, mechanic and electric, pharmaceutical and plastic industries are particularly good, reflecting a long-standing investment in the education sector, particularly science and engineering (OECD 2018b).

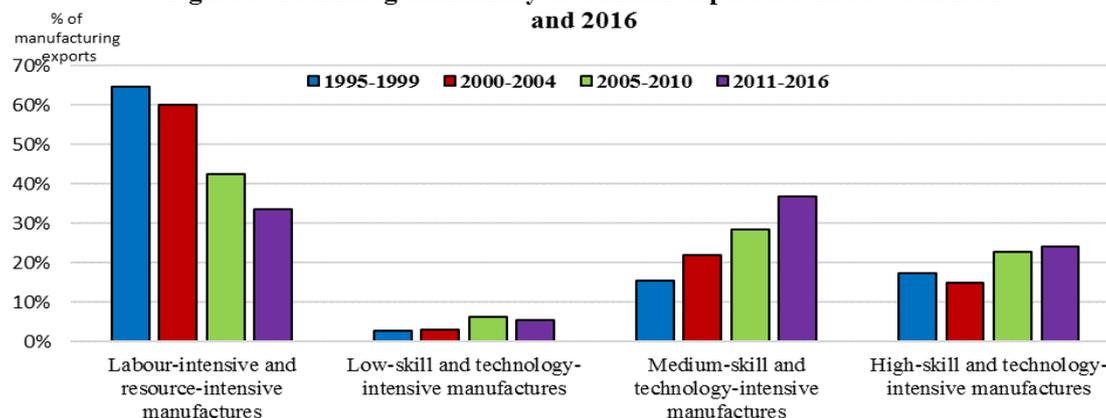
Figure .4. Evolution of Tunisian exports structure by type of use between 1995 and 2016



Source: Authors calculation from CHELEM data

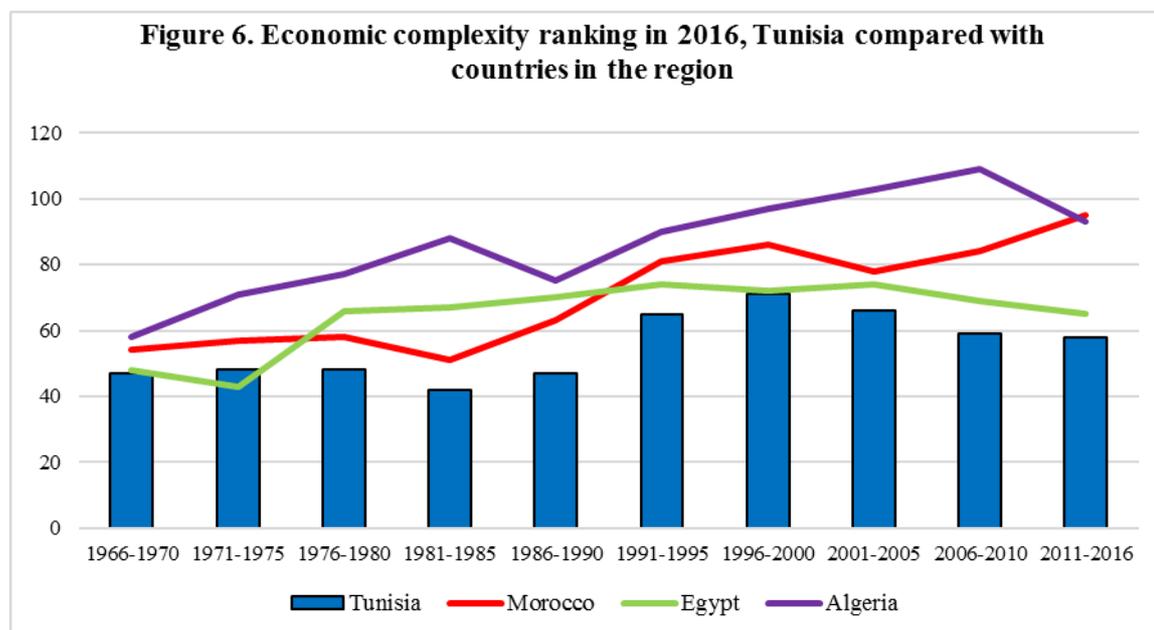
The structure of Tunisian exports by type of use has undergone a significant transformation during the last decade, with the positioning of the mechanical and electrical industries as the leading export sector with strong potentials (from 2008). In addition, the share of high-tech manufacturing exports in total exports improved significantly between 2000 and 2015, from 3.4% to 6.3%. As for the share of exports of ICT products, the latter has increased from 1.4% to 5.4% of total exports of goods. This reflects an orientation of exports towards more sophisticated products (see Figure 5).

Figure 5. Technological intensity of Tunisian exports between 1995 and 2016



Source: Calculation of authors from INCTADE dataset.

Tunisian exports strongly grew in volume and quality, driven by the traditionally job-rich manufacturing sector (Figure 6 and 7). The share of manufactured goods in total exports increased to 76%, well above the level seen in Egypt, Morocco, Jordan and most other countries in the region.



Source: The Observatory of Economic Complexity (OEC/2018)

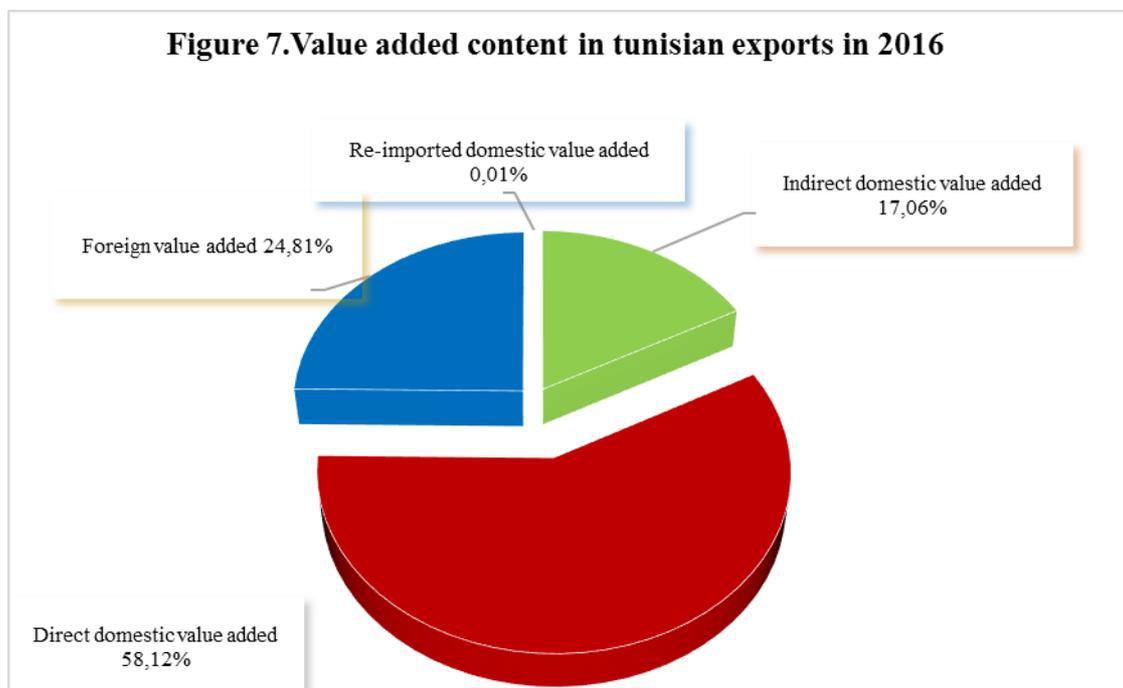
Tunisia has made considerable progress on economic complexity. It displays the highest value of the ECI Economic Complexity Index of all African and regional economies (OEC, 2018). This growth reflects the importance of the stock of knowledge endowed by the company reflected through the diversification and sophistication of the products they manufacture (Haussmann, Hidalgo et al, 2011). This trend started, especially after 1995, when the free trade agreement with the European Union was signed. It can also be explained by the implementation of the privatization program from 1987 and the enacting of the December 1993 law of the Investment Incentives Code.

All of these structural reforms and regional agreements have allowed Tunisia to attract foreign investment in the manufacturing industry and create an attractive regime for fully exporting companies - known as offshore regime. The establishment of the fully exporting business regime has helped to facilitate Tunisia's integration into GVCs. This scheme, created in 1972, offered tax and regulatory incentives to companies engaged in export activities with the aim of boosting Tunisian exports (see annex). Currently, companies established under this scheme account for 90% (NSI) of gross manufacturing exports and FDI in the main Tunisian economic sectors, such as the mechanical, electrical, electronic and textile industries. This explains this global trend before 1995.

2. Tunisia's participation in CVMs: a significant increase and a potential to be exploited

In principle, GVCs benefit developing nations by easing entry into global markets. They allow firms in developing countries to access global markets by producing specific tasks without having to develop side industries as a precondition. The required inputs and services do not have to be locally produced; they can be imported. This makes it easier for international

corporations to locate, say, specific auto components or a narrow stage of production in consumer electronics in developing countries (D.Rodrik, 2018).



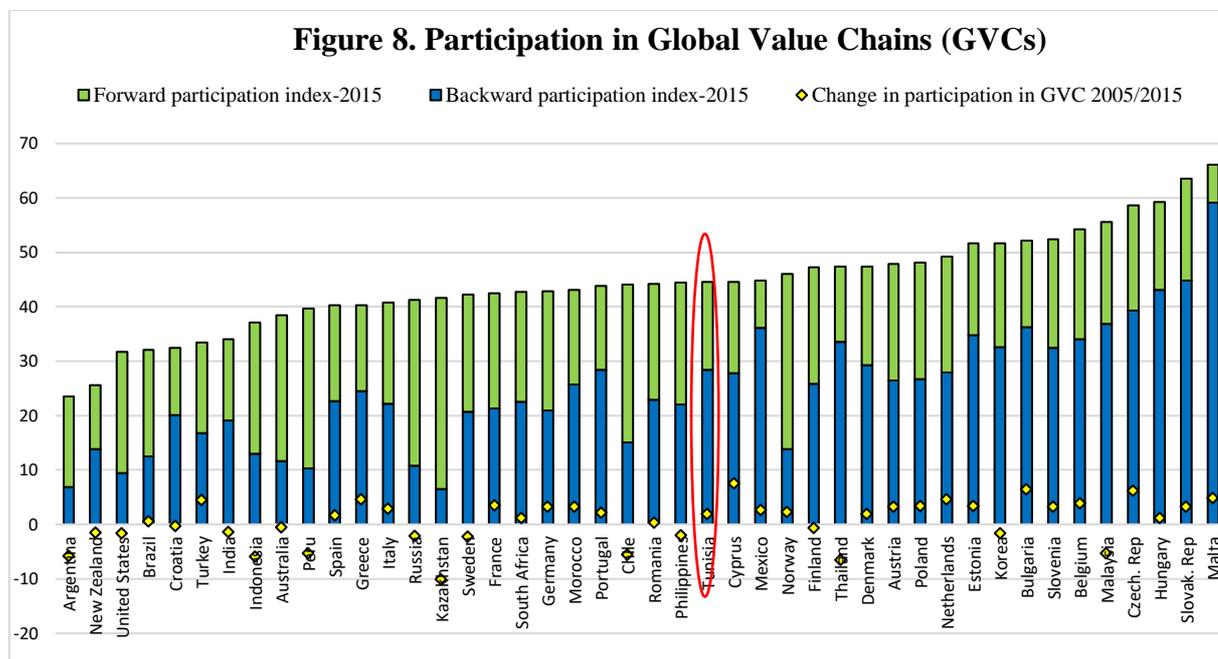
Source: Authors calculation from TiVA data/ OECD

Note :

- 1/ *Indirect domestic value-added (by industry) reflects the direct contribution made by an industry in producing a good or service for export.*
- 2/ *Indirect domestic value-added (by industry) reflects the indirect contribution of domestic supplier industries made through domestic (upstream) transactions.*
- 3/ *Reimported domestic value-added (by industry) reflects the domestic value-added that was exported in goods and services used to produce the intermediate imports of goods and services that the industry in question consumed.*

Tunisia's contribution to domestic value added in gross exports accounts for nearly 75% of total value added. This suggests that Tunisia relies heavily on both imported inputs and the export of intermediate products used in the exports of their partners. This can be explained by the size of a country's economy (Cattaneo et al., 2013), but also by differences in the specialization choices adopted by the country itself. Indeed, a relative specialization in the production of primary goods requires greater local production of inputs than their imports.

Backward integration in GVCs refers to the share of foreign value added in a country's exports. Forward integration is the share of a country's value-added exports, which is exported to other countries.

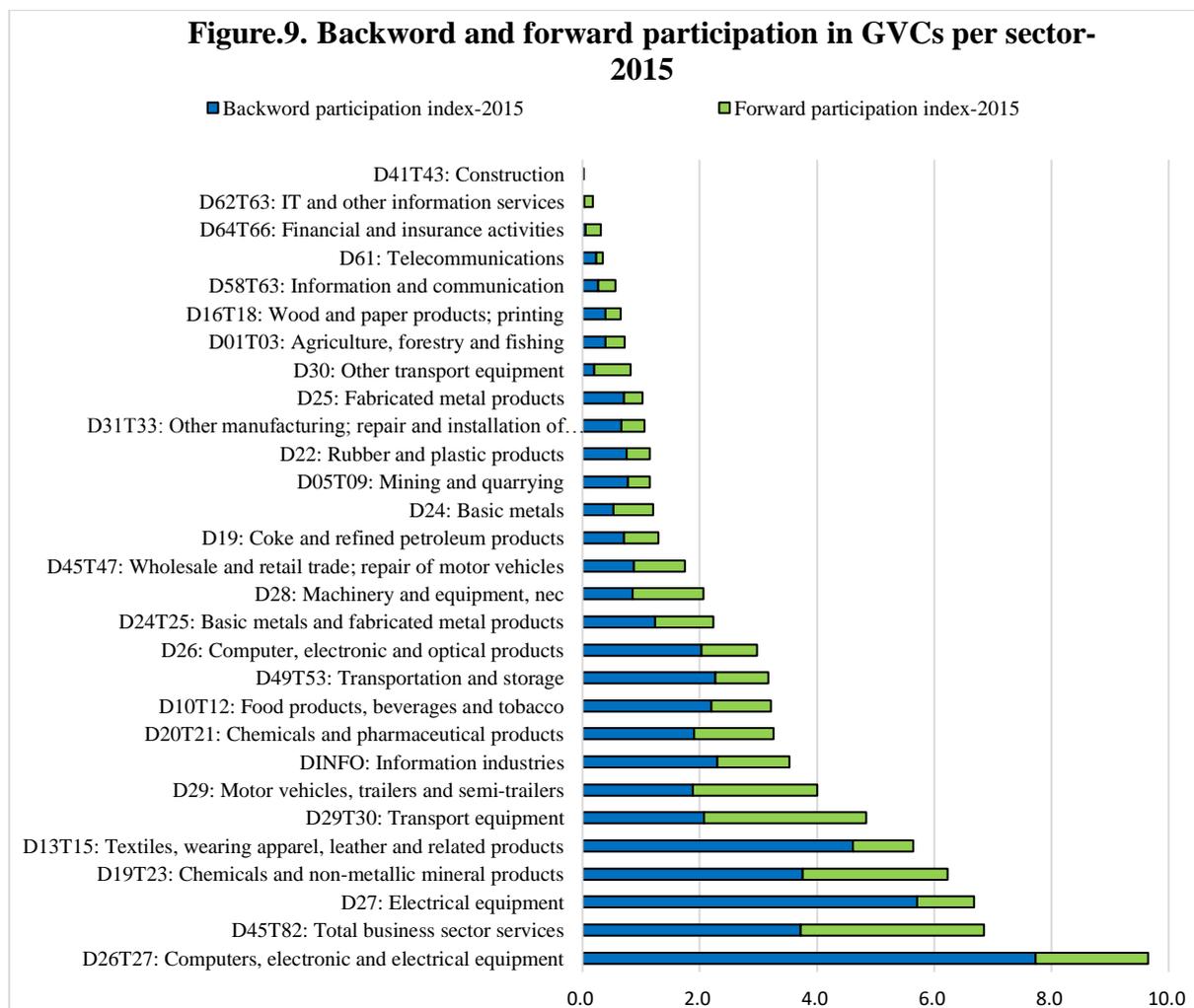


Source: Authors calculation from TiVA data/ OECD

Figure.8. shows the backward and the forward integration levels of some countries in comparison with Tunisia in 2015, as well as the evolution of the GVC participation index compared to the year 2005. Tunisia has a similar backward and forward GVC integration level to that of other countries in the region, with the difference that backward integration is higher in Tunisia than in other countries, particularly because of the dynamic imports of intermediate goods by fully exporting companies.

Recent researches on value-added trade are essentially based on the notion of vertical specialization developed by Hummels et al. (2001) and defined as "the value of imported intermediate goods incorporated in a country's exports", that is, the export content of imported products. This measure only partially reflects participation in GVCs. It does not take into account the stages of production that do not use foreign inputs. Koopman et al. (2010) propose an index of GVC participation that takes into account export content of imported products (upstream participation) and local value added incorporated as intermediate inputs in third country gross exports (downstream participation).

The participation index is the sum of the foreign value added incorporated into a country's exports and the value added exported indirectly (the value of locally produced inputs used in third country exports).), expressed as a percentage of gross exports. This index reports on upstream and downstream participation. It is calculated here from the TiVA database.



Source: Authors calculation from TiVA data/ OECD

Note: We chose the method used by H. H. Bass (2016) by weighting the values of upstream participation by the weight of each sector or industry in exports to align with the method of calculation of downstream participation. . (H. H. Bass (2016): "Tunisia's Progress in Integration into Global Value Chains: Achievements and Obstacles", Contribution to the African Development Perspectives Yearbook (ADPY), Vol 18: Africa's Progress in Regional and Global Economic Integration (2016)

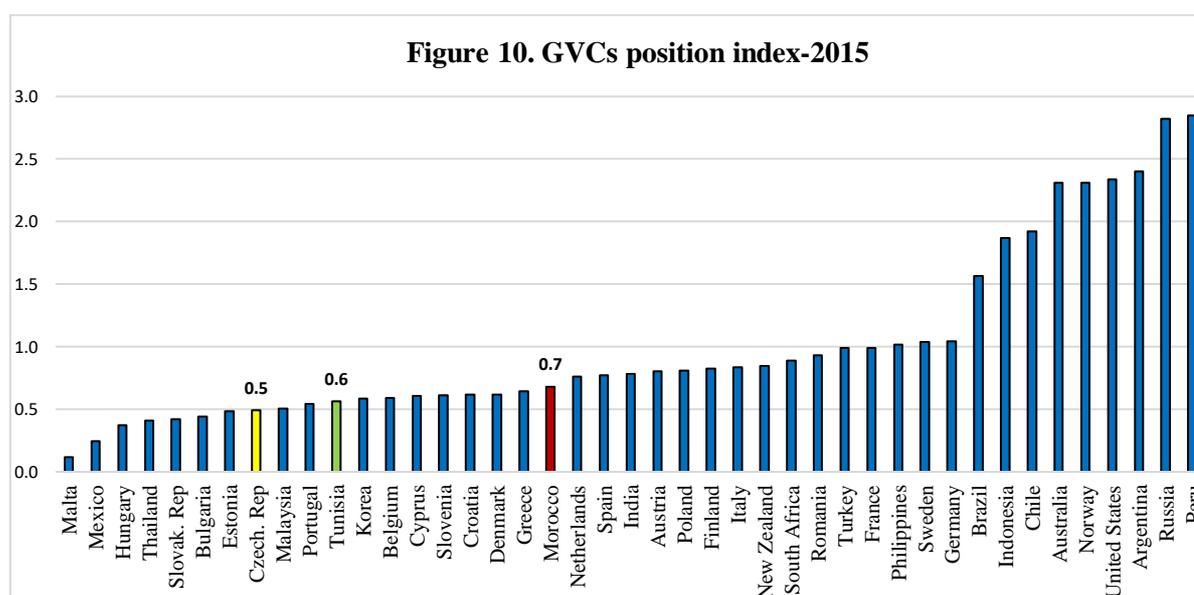
Tunisia shows a high level of participation in GVCs in many industrial activities (textile clothing and leather, chemical industry, agri-food industry but more particularly, the sector of mechanical-electrical and electronic industries) and services (business services).

The developed textile and clothing industry, since the 1970s, constitute a large share of Tunisian exports. This industry is based on a practical subcontracting system through which the raw materials are sent by the dominant companies, transformed in Tunisia, and then returned to these same companies. But even though this strategy was effective in the 1980s and 1990s, this development model is starting to be outdated. Upgrading the textile and clothing value chain can be done through the following actions: The development of textile processing for the automotive industry, technical textiles for construction. Also, the identification of new niches for the garment industry (small series, sustainable

differentiation). And, the integration of new processes and technologies using synthetic fibers.

In 2017, the mechanical, electrical and electronic industries sector accounted by itself for more than 18% of all industrial companies in the offshore regime. Most of the electric and electronic production is integrated into three value chains: automotive (230 companies working in the automotive components sector), aeronautics (81 subcontractors for components and aircraft maintenance) and household appliances.

This remarkable performance is mainly due to the development of the automotive sectors and aerospace components that represent the main global value chains in Tunisia. The content of domestic value added of Tunisia's exports remains low in the industrial sectors (less than 50%). This observation can be explained by a great dependence on imports of intermediate goods. This is mainly due to a predominance of investors in the offshore sector, who import a large part of their inputs to Tunisia and re-export them after their assembling. This unbundling of trade shows that intermediate goods are the main engine of the growth of Tunisian trade. This result is in perfect concordance with world trade.



Source: Authors calculation from TiVA data/ OECD

For a more comprehensive measure of a country's GVC integration, we present an index that looks at the position of a country or industry in GVCs. The position index in the GVC is the work of Koopman et al. (2010)³, and it indicates whether a country specializes in the early stages of the production chain or at the end. Koopman et al. (2010) define the position index in GVCs as the ratio of the use of intermediate goods supplied by a country in the exports of other countries and the use by the country itself of imported intermediate goods in its own production.

At the global level, the shares of indirect value added (IDVA) and foreign value-added (FVA) are equal; therefore, the average $IDVA / FVA$ ratio is equal to one. This means that a

³ Position Index in GVCs = $(IDVA/EXP) / (FVA/EXP)$.

ratio greater than 1 indicates that the country is forward in the GVCs. In this case, the country may be considered as a producer of raw materials intended for export, or as a supplier of locally produced intermediate products intended for third countries, or both at the same time.

A ratio of less than one means that the country is backward in GVCs. This implies that the country in question uses a large part of the imported intermediate goods in its production of final goods intended for export. In other words, it specializes mainly in assembly activities (value added at the end of the production process).

Tunisia is relatively located at the end in GVCs and its integration is more based on manufacturing products and mainly focused on assembly activities, despite a slight change in this index since 1995 from 0.49 to 0,6 in 2015. It should also be noted that it is important to look at the participation index and the positioning index together, in order to have a correct picture of the degree of integration of a country (or industry) in the global value chains (Koopman et al, 2011).

This positioning of the country's economy at the level of GVCs granted many important factors to Tunisia in comparison with several other developing countries. First, Tunisia has, over time, experienced more investment in infrastructure and manufacturing capacity in a number of sectors, such as transportation, which has allowed the flow of goods to integrate smoothly into the CVM. Also, the country has a level of industrial infrastructure, especially in light manufacturing, which could be used to promote the expansion of trade. Secondly, North Africa, and in particular Tunisia, has a geographical advantage, particularly because of its proximity to one of the world's largest markets which is the EU. Time to market and on-time delivery are the main requirements of modern global value chains. This gives Tunisia an important advantage in its trade relations with the EU.

Third, Tunisia has a preferential access to a number of important markets, including the EU (through association and free trade agreements). In most cases, this preferential access is relatively stable and can potentially develop industrial capacity in the region through these market opportunities. Fourthly, the Tunisian economy tends to accumulate a level of managerial and organizational capacities that allow it to meet the conditions of global value chains in significant proportions. Tunisia also has a relatively developed private sector in a set of agricultural and industrial activities with, in general local capacities in the managerial and technical fields of a high level. This should promote integration into global value chains.

Chapter 2 : Offshore regime and FDI: major determinants of Tunisia's integration into GVCs

1. The offshore regime: Fast expansion, strong employability and export performance

The dynamism of exports and the progress of Tunisia in GVCs are closely linked to FDI and operational companies in the offshore regime. The number of foreign companies has increased almost six times between 1996 and 2016 (see figure 11.1.)⁴; their share in formal paid employment in the private sector has almost doubled since 1996 to almost 20%. The number of offshore companies increased more than 14 times between 1996 and 2016. Their share in formal paid employment in the private sector has almost doubled since 1996 to 34% in 2016 (see figure 11.2). The offshore sector accounted for 19.3% of total employment (OECD 2018b). In the industrial sector, offshore firms represent 44% of companies employing at least 10 employees and employing 64% of formal wage employment.

Figure 11.1. Evolution of the number of offshore companies

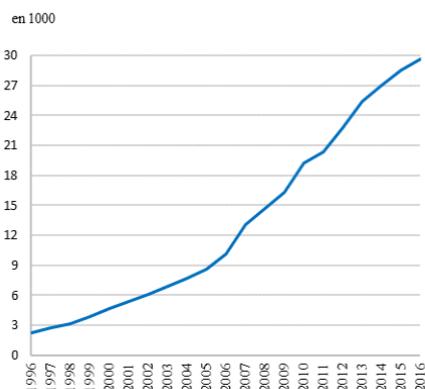


Figure 11.2. Formal paid employment of the private sector in companies benefiting from the offshore regime

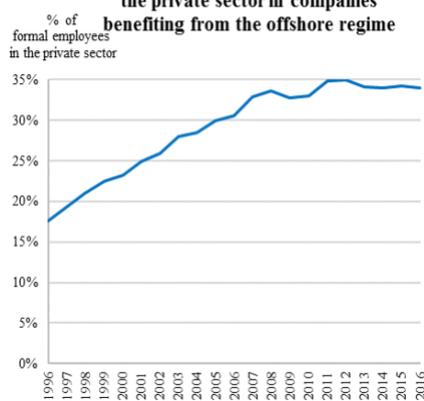
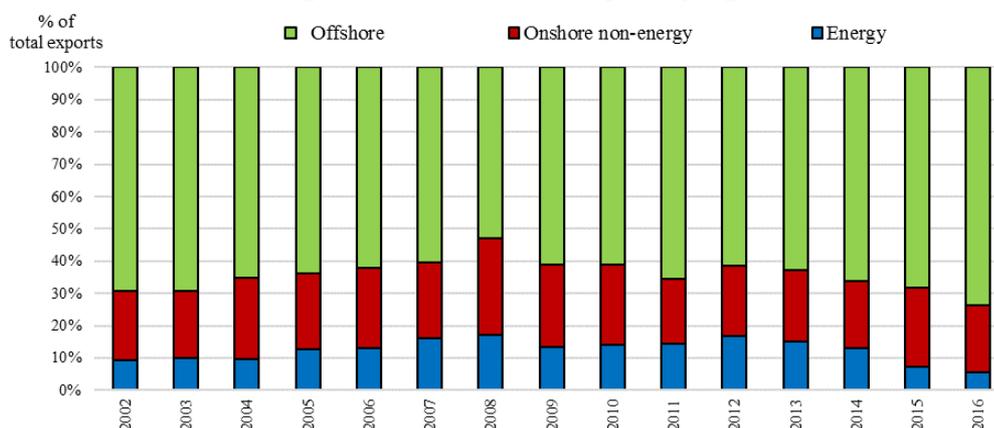


Figure 11.3. Distribution of exports by regime

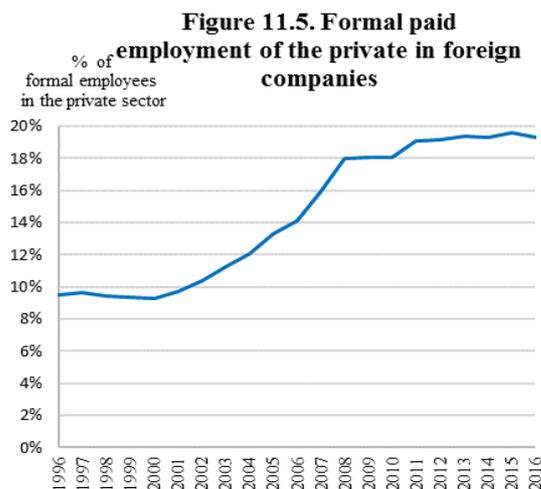
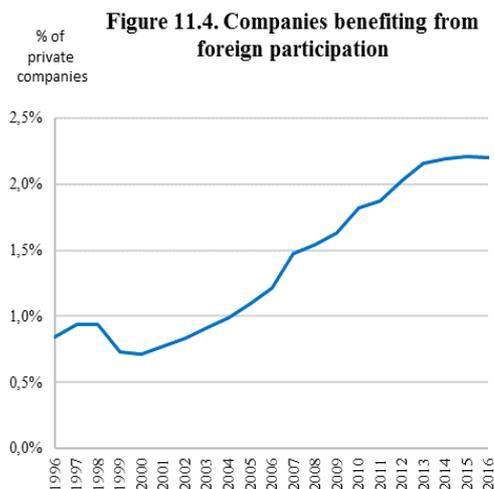


Source: Authors calculation from INS data.

Offshore companies - exempt from customs duties on import and export, benefiting from a reduced tax rate (10% au lieu de 25%) and especially simplified administrative

⁴ National Register of Companies (NRC) / INS.

procedures and better access to transport services - contributed, in 2016, to 78% of non-energy merchandise exports and accounted for 36% of total non-energy imports (see Figure 11.3). Tunisia's participation in GVCs is mainly due to activities in which the presence of offshore companies with strong foreign participation is strong (notably textile, mechanical, electrical and electronic industries, chemicals and agri-food) (APII-2018). Also, since February 2017, these companies can sell 30% of their turnover on the Tunisian market with prior payment of acquired customs duties. However, they remain subject to the same labor regulations as on-shore companies.



Source: Authors calculation from INS data.

2. Foreign direct investment a pillar for a better integration of Tunisia in the GVCs

The offshore sector and foreign direct investment are strongly linked. Foreign-invested enterprises account for 44% of all offshore enterprises. APII figures for companies with more than 10 employees show that 55% of offshore companies are foreign companies. Indeed, the strong presence of foreign firms has been associated with high foreign direct investment in recent decades. The number of these enterprises has considerably progressed between 1996 and 2016, from 0.8% to 2.2% (see Figure 11.4) of the total number of operating companies in the private sector. Their share of formal wage employment in the private sector is close to 20% (see Figure 11.5).

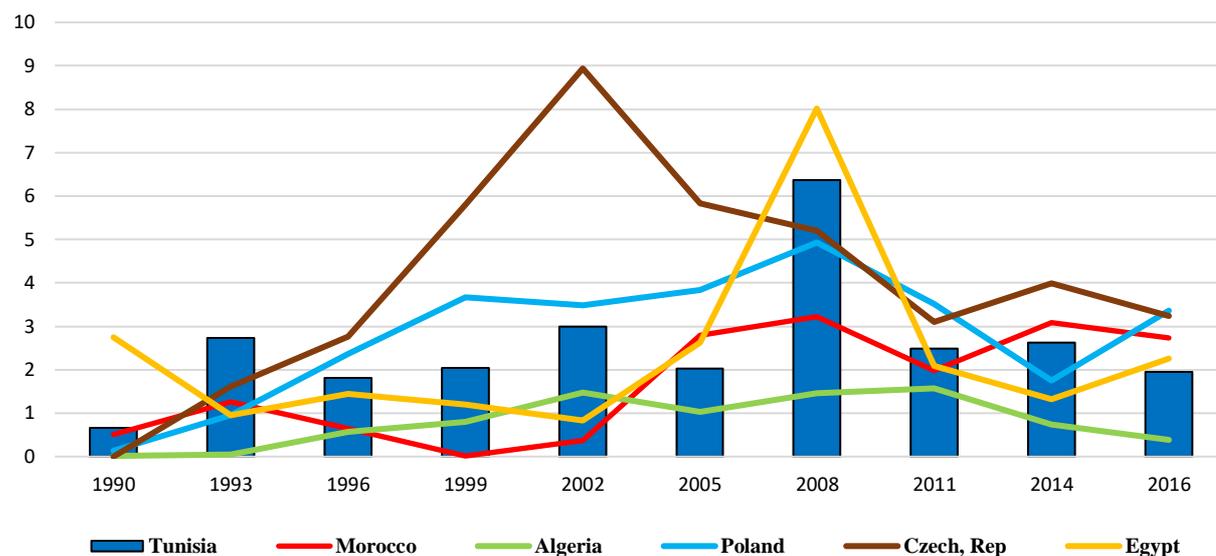
Foreign direct investment is one of the major driving forces of international economic integration. It can be a factor of financial stability, promote economic development and improve the well-being of the social body (Romer, 1994; Moran et al, 2005; Blomstrom et al, 1994.). If it benefits from a favorable context in terms of public action, it can constitute an important vehicle for the development of local businesses and contribute to improving the competitiveness of the host country by promoting the transfer of technology and know-how among economies and allows the host country to promote its products more widely in international markets (Moran et al, 2005).

Usually, the impact of FDI on firms and the domestic economy is through two mechanisms: an extension effect by which FDI contributes to the growth of the intermediate

goods sector. This leads to increased specialization of input sectors and a spillover effect by which domestic firms can benefit, even in part, from foreign firms knowledges. This transfer of technology and knowledge requires a timely and favorable regime for foreign capital and imports.

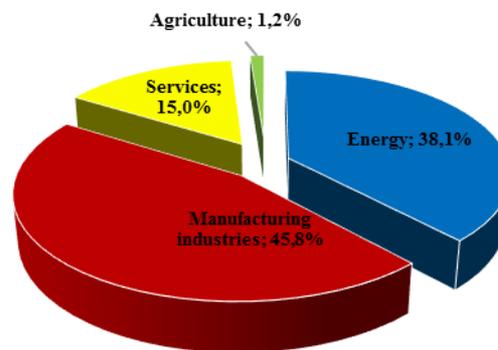
Moreover, some other studies show that technology transfer and its effects tend to disappear under the effect of distortion of commercial policy (Bouoiyour and Toufik (2002)). Also, a positive and significant impact of FDI is so related to the ability of foreign firms to disseminate spillovers to domestic firms. The existence of a training effect essentially depends on the links between local and foreign firms and the absorptive capacity of local firms (Kumar and Pradhan, 2002). Indeed, FDI can crowd out local investment because domestic firms can not compete with their concurrents because of size limitations, financing and the power of marketing.

**Figure 12. Foreign direct investment, net inflows (% of GDP)
(moving average of 3 years)**



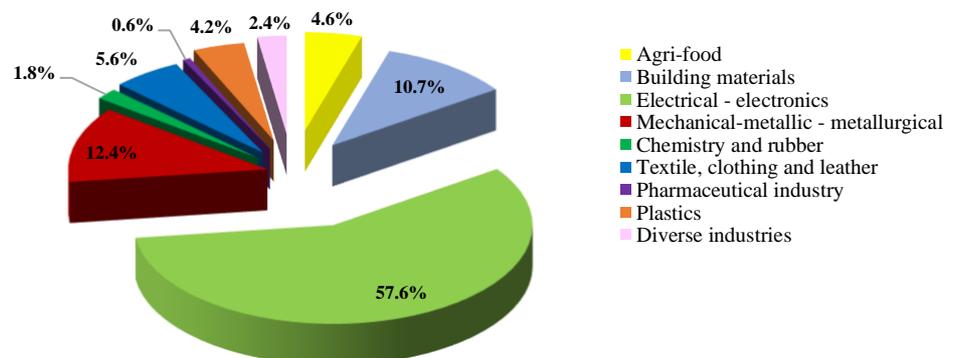
Source: WDI/WB

Tunisian FDI stock reached \$ 28.7 billion in 2017. This represents about 71.3% of the country's GDP. At the end of 2017, the foreign investments recorded an amount of 2,244.4 MTND. In comparison to the last three years, these investments recorded fluctuation of 12.8% compared to 2016, -5.2% compared to 2015 and 14.1% compared to 2014 (Figure 12). In terms of FDI origin, France is in first position with nearly 45% of total FDI excluding energy. Germany is in second place with almost 10% of total non-energy FDI. Italy is in third place with almost 7% of total FDI excluding energy. In terms of job creation, France, Italy and Germany rank 1st, 2nd and 3rd respectively.

Figure 13. FDI distribution by sector in 2017

Source: FIPA (2017).

FDI flows attracted by Tunisia since 1990 mostly affect the energy sector. In second place come the industrial sector and the services sector. The share of FDI for manufacturing activities in relation to total FDI increased from 18.2% in 1996 to 45.8% in 2017 (figure 13). These investments are mainly directed towards the textile, clothing and leather industries, the mechanical-electrical and electronic industries (whose electrical and electronic activities account for 58% of total manufacturing FDI), the agri-food and chemical industries (see figure 14).

Figure 14. Distribution of industrial FDI in 2017

Source: FIPA (2017).

It should be mentioned that investment in manufacturing industries remained concentrated in low value added and assembly activities, which explains Tunisia's positioning in value chains. In Tunisia, there is investment in capacity, which generally aims to respond to an increase in the demand for goods and services or extension effect, which is intended to increase the production capacity of the entity. Indeed, the FDI attracted by Tunisia are for the most part intended to increase the production capacity of companies. The capital stock increases since new machines are added to the old ones.

However, the importance of these investments in Tunisia in the manufacturing sector does not lie in technology transfers but in employment. Opportunities for spillovers or technological externalities related to FDI are limited in the Tunisian manufacturing sector.

These companies have few economic links with the rest of the economy. Taxation, administrative and customs procedures constitute a barrier to the development of subcontracting relationships between foreign and local companies and, more generally, to the training and technology transfer effects of offshore foreign companies on the Tunisian economy. The decommissioning between offshore and onshore regimes would allow Tunisia to climb into GVCs and to reap more benefits, particularly in terms of technological progress, job creation and wealth. Indeed, GVCs (reducing GVCs), reducing its own import barriers, and particularly those affecting intermediate inputs, can also increase its competitiveness in global markets (GVCs Trade Report-2017).

The implementation of the new investment law from 2017⁵ will result in a reduction of restrictions on foreign direct investment (OECD, 2018), paving the way for a further rise in FDI. The latter forms a necessary but not sufficient condition for productivity growth and insertion into GVCs. The latter requires an institutional quality materialized by competition through the minimization of entry barriers and a business climate favorable to the use of new technologies and innovation in compliance with the law rule. To exploit the human capital, the companies established in Tunisia must, likewise, diversify their customers.

⁵ The new Investment Law, which came into force on the 1st of April 2017, allows freedom of investment and grants open access to the Tunisian market. Hence, with the revision of economic activities requiring prior authorization, foreigners can freely invest in all sectors covered by the law and can own up to 100 % of the project's capital without authorization. The new Investment Law offers many advantages such as :

- Abolition of the authorization of the Superior Commission of Investment (49 activities) for foreigners,
 - Reduction in the number of authorizations and revision of the specifications,
 - Total freedom of foreign participation in the capital for offshore companies,
 - Freedom of access to land ownership for the realization of investment,
 - Freedom to transfer funds (profits, dividends and assets) abroad.
- Offshore companies also enjoy several benefits, especially:
- They are exempt from import duties on the inputs incorporated into the re-exported products and therefore do not deal with the customs administration if they are exclusively exporters.
 - They enjoy privileged access to port services.
 - They are subject to a reduced rate (10% instead of 25%) of corporation tax. They have a limited interaction with the tax administration throughout the tax-free period.
 - Fully exporting enterprises whose capital is 66% or more owned by non-residents and financed by foreign exchange imports are considered non-resident "foreign exchange" and, therefore, are not subject to exchange regulations.

Conclusion

Two-thirds of world trade now takes place via GVCs in which production crosses at least one border and typically many borders (*World economic Forum, Jun 2018*). Since 2008, GVC trade accounted for 60–67% of global trade value-added, reflecting the importance of the GVC phenomenon (*The Global Value Chain Development Report -2017*). This new data on global trade participation represents an opportunity for small and medium-sized enterprises (SMEs) to intensify their integration into GVCs to reap the benefits. Such a finding only supports the ability and capacity of the Tunisian economy to integrate and climb into GVCs, which could improve the competitiveness of its SMEs, generate sustainable growth and create decent jobs.

GVCs offer the Tunisian economy the opportunity to specialize in intermediate products and services. Several sectors offer significant potential development for Tunisia, such as on-site processing of usually-exported raw products (hydrocarbons or agricultural products), or the creation of high value-added niche products from traditional sectors (such as technical textiles). Tunisia's participation in GVCs remains dependent on its economic situation, which suffers from several difficulties, namely a workforce that is less and less adapted to the needs of the market, political, economic and social uncertainties, worn out and insufficient logistical infrastructures and the turbulent economic situation in the partner countries following the crisis in the euro zone.

Companies that do not operate in the offshore regime suffer from the multiplicity of customs duties, which is often accompanied by controls on the nature of imported goods and red tape. This generates costs and has a negative impact on the export competitiveness of onshore companies (OECD 2018). In addition, restrictions on competition, and in particular the licensing and authorization system (OECD, 2018), make it difficult for incumbent onshore companies to diversify and improve their competitiveness. In short, and in order to seize these potentialities of GVCs, Tunisia must make considerable efforts in several areas:

- Accelerate the development and diversification of the economy;
- Promote the development of new dynamic comparative advantages;
- Facilitate participation in higher value-added segments in global value chains;
- Improve the business climate;
- Strengthen industrial capacities and adapt trade policies to the new requirements of GVCs. Among other things, we must evaluate imports and exports, reduce delays and customs duties and think about internal regulatory and borders measures.
- Réduire la dichotomie offshore-onshore car le modèle onshore-offshore n'est plus adapté pour soutenir le développement de l'économie tunisienne.
- Entreprendre des mesures de facilitation des échanges pour réduire les coûts de transaction des entreprises locales et encourager les échanges entre les entreprises des deux régimes.
- Undertake trade facilitation measures to reduce transaction costs for local businesses and encourage trade between companies in both regimes.
- Reinforce logistical infrastructures as the improvement of logistics services, in particular, is essential to ensure the effectiveness of participation in GVCs.
- Multilateral market opening should be favored, as barriers between third countries, upstream and downstream, can be as important as those set up by direct partners.
- Education and anti-corruption reforms need to be undertaken at all levels. GVCs require sound public institutions that ensure compliance with contract terms,

adequately protect property rights and investors, ensure the impartiality of the judiciary and fight corruption.

- There is a need for greater interactivity between the offshore and onshore regimes and, in particular, between foreign and local companies, which creates a two-part segmentation of the economy in two very different ways: the first stands for a well developed offshore sector, accounting for 4% of all companies, generating 34% of formal paid employment in the private sector and playing a very important role in Tunisia's participation in GVCs by exporting near 80% of non-energy exports, the second stands for a less efficient onshore sector that suffers from several handicaps and of which more than 60% of its exports are exports of agricultural, energy, mining and phosphate products, which are characterized by a relatively-short chain of production and low added value.

References

1. Baldwin, R. et Venables, A. J. « Spiders and snakes: Offshoring and agglomeration in the global economy. » *Journal of International Economics*, 90(2), 245-254, 2013
2. Bass. H. H (2016): "Tunisia's Progress in Integration into Global Value Chains: Achievements and Obstacles"; Contribution to African Development Perspectives Yearbook (ADPY), Vol. 18: Africa's Progress in Regional and Global Economic Integration (2016).
3. Beghin, J.; Maertens, M. et Swinnen, J. F. M. « Non-Tariff Measures and Standards in Trade and Global Value Chains. » *Annual Review of Resource Economics*, 7, 2015.
4. Blomström, M., Lipsey, R.E. & Zejan, M. (1994), « What Explains Developing Country Growth? », dans *Convergence and Productivity: Gross-National Studies and Historical Evidence*, W. Baumol, R. Nelson et E. Wolff eds, Oxford, Oxford University Press.
5. Cattaneo, O, G. Gereffi, S. Miroudot & D. Taglioni (2013): "Joining, upgrading and being competitive in global value chains: a strategic framework", World Bank Policy Research Working Paper, (6406).
6. Dietzenbacher, E. and I. Romero (2007), "Production Chains in an Interregional Framework: Identification by Means of Average Propagations Lengths", *International Regional Science Review*, No. 30, pages 362-383.
7. Dhaoui. S & I. Samoud (2016): « Investissement direct étranger et transfert de technologie : cas des industries manufacturières tunisiennes » ; ITCEQ (2016) / Notes et Analyses de l'ITCEQ n°13/ Avril 2016;
8. Gereffi, G. (1994), "The organization of buyer-driven global commodity chains: how US retailers shape overseas production networks", in G. Gereffi and M. Korzeniewicz (eds), *Commodity Chains and Global Capitalism*, Westport, CT: Praeger, pages 95-122.
9. Gereffi & Fernandez-Stark (2011), "Global Value Chain Analysis: A Primer", Center on Globalization, Governance & Competitiveness (CGGC), Duke University, North Carolina, USA.
10. Fally, T. (2012). "Production Staging: Measurement and Facts", University of Colorado-Boulder, May.
11. Foreign Affairs and International Trade Canada (2011), *Global Value Chains: Impacts and Implications*, Trade Policy Research 2011, A. Sydor (editor), Minister of Public Works and Government Services Canada.
12. Hausmann R., C. A. Hidalgo., S. Bustos, M. Coscia, A. Simoes et M. Yildirim (2011): "Atlas of Economic Complexity: Mapping Paths to Prosperity, Massachusetts Institute of Technology and Center for International Development", Harvard University.
13. Joumard. I, S. Dhaoui et H. Morgavi (2018) : « Insertion de la Tunisie dans les chaînes de valeur mondiales et rôle des entreprises offshore », Documents de travail du Département des Affaires économiques de l'OCDE No. 1478/2018.
14. Koopman. R, W. Powers, Z. Wang & S. J Wei (2010): "Give credit where credit is due: tracing value added in global production chains?", Working Paper 16426 <http://www.nber.org/papers/w16426> NBER/2010.
15. Moran, T., Grabam, E. & Blomstrom, M. (2005), "Does Foreign Direct Investment Promote Development?" Washington: Institute for International Economics.
16. OECD (2018): , Étude économique de l'OCDE sur la Tunisie□, Paris. OEC (2018): The observatory of economic complexity
17. Samoud. I (2017): « Chaines de valeur et intégration de la Tunisie dans l'économie mondiale, Notes et analyses de l'ITCEQ N° 50 – 2017.
18. The Global Value Chain Development Report -2017.

EMNES Working Papers disseminate economic and policy research relevant to EMNES research programme and aim to stimulate discussions from other economists and policy experts in the field.



About EMNES

The Euro-Mediterranean Network for Economic Studies - EMNES is a network of partners and associates research institutions and think tanks working on the Mediterranean region. EMNES aims to provide a renewed vision for socio-economic development in the Mediterranean region, mainly focusing on employment creation, social inclusion, and sustainable development.

EMNES areas of research include the role of institutions and institutional reforms, macro-economic policies, private sector and micro, small and medium sized enterprises and employment creation, role of education, innovation, skill mismatch and migration, finance, regulation and the real economy and regional integration.

EMNES will produce books, studies, scientific and policy papers and will disseminate through the organization of annual conferences, and workshop meetings in the region bringing together leading senior and junior researchers, academics, policy makers and representatives of the civil society to discuss and debate optimal policies for the future of the region.

EMNES is built on four core principles: independence, excellence, policy relevance and deep knowledge on Euro-Mediterranean affairs.

EMNES Network Partners

Centre for European Policy Studies (CEPS) (Belgium)

Euro-Mediterranean University (EMUNI) (Slovenia)

Free University of Berlin (FUB) (Germany)

Institut Tunisien de la Compétitivité et des Etudes Quantitatives (ITCEQ) (Tunisia)

Institut des Hautes Etudes Commerciales (IHEC) (Tunisia)

Euro-Mediterranean University of Fes (UEMF) (Morocco)

Institut Agronomique et Vétérinaire Hassan II (IAV) (Morocco)

University of Cairo - Faculty of Economics and Political Science (FEPS) (Egypt)

Yarmook University (YU) (Jordan)

Euro-Mediterranean Economists Association (EMEA) (Spain)

Forum for Euro-Mediterranean Innovation in Action (FEMIA) (France)

Institute of Computers and Communications Systems - E3M lab, National Technical University of Athens (ICCS) (Greece)

Istanbul Policy Center - Sabanci University (IPC) (Turkey)

Institute of Studies for the Integration of Systems (ISINNOVA) (Italy)

University of Barcelona Regional Quantitative Analysis Group (UB-AQR) (Spain)

Centre International de Hautes Etudes Agronomiques Méditerranéennes - Istituto Agronomico Mediterraneo di Bari (CIHEAM) (Italy)

Fondazione Eni Enrico Mattei (FEEM) (Italy)

Other partners – See www.emnes.org

EMNES funding: European Commission and EMNES partners.

Disclaimer

The EMNES documents are produced with the financial assistance of the European Union within the context of the EU project “Support to economic research, studies and dialogue of the Euro-Mediterranean Partnership” under contract number ENPI/2014/354-488. The contents of EMNES documents are the sole responsibility of the authors and can under no circumstances be regarded as reflecting the position of the European Union.