



United Nations
Economic Commission for Africa

Promoting Regional Value Chains in North Africa





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Note

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Foreword

The increasing importance of global value chains in the management and coordination of production and trade relations between countries was one of the major changes witnessed over the last two decades. This trend led to greater production fragmentation, growing inter-country trade exchange as well as a change in production governance, mainly in developing countries.

In the 1960s and 1970s, North African countries started diversifying their economies using import-substitution strategies (Morocco, Tunisia) or heavy industrialization strategies (Algeria and Egypt). This effort was maintained –to varying degrees– in the 1980-1990s. According to the study on the economic structures of North African countries, conducted by the ECA Office for North Africa in 2007, most of these countries made some progress from the mid-1980s until 2007, as industry and services took a growing share of the economy. Diversification indexes confirmed this trend, mainly for Egypt, Tunisia and, to a lesser extent, Morocco.

Until the 2000s, North African countries failed to adopt the necessary strategies to better organize and plan this diversification process which, in most cases, was initiated by the private sector. Few countries supported their diversification process with proactive public policies mainly in the areas of financing, training, research, access to foreign markets and integration in global value chains.

Furthermore, North African countries' attractiveness and competitive advantages, mainly in terms of labor costs, were gradually eroded by social changes, the development of middle class and the rise of new competitors. Their competitive advantage has been impaired by the liberalization of international trade following the establishment of the WTO and the gradual shift of the global economic core from Europe to Eastern Asia.

The global economy is currently witnessing the development of global value chains (GVC) in which intermediate goods and services are being traded through fragmented production processes and spread across several countries. In this system, multinational companies play a pivotal role and, according to UNCTAD, GVCs coordinated by these companies have triggered nearly 80% of the global trade of inputs and products. The strong growth of communication networks contributed widely to this transformation.

In the light of this, developing countries' integration in global trade is gradually taking place through their inclusion in GVCs (trade-generated added value accounts, on average, for nearly 30% of developing countries' GDPs) and through the support to the private sector using proactive public policies with regard to financing, research and access to foreign markets.

GVCs' contribution to development goes beyond the positive correlation between the participation in GVCs and the growth rate of GDP per capita. Indeed, it also leads to long-term positive economic impacts on industrial sophistication.

In this regard, North African countries' industrial sophistication takes place through the structural transformation of their economies and a more significant participation in GVCs. In order to attract a greater share of the added value generated by GVCs, countries should adopt appropriate development strategies and position themselves strategically in high value added segments.

In the 2000s, North African countries launched national strategies to upgrade their industries to take advantage of GVCs, however, their strategies have quickly proven their limits due to the size of the region's economies and their low capacity to integrate in the most profitable segments of these chains.

Despite North African countries' diversification efforts, their share in the global manufactured product market remains insignificant, accounting for slightly over 1% between 1975 and 2008, while the share of Eastern Asian countries jumped from 1.7% to 20% (ECA, 2012).

North African countries have engaged in industrial sophistication processes and developed policy instruments including the set-up of medium and long-term multi-sectoral strategies as well as the establishment of special economic zones, in order to become gradually part of global industrial production processes. However, this approach – which focused mainly on the national scale- was impeded by the small size of North African economies and their weak capacity to become part of GVC's most dynamic segments. North African countries were unable to get the most of their potential through an integrated development approach for the region.

Nevertheless, according to participants in the African Development Forum, the steady rise in labor costs in a number of global manufacturing leaders, combined with the increasing importance of South-South investments and of knowledge sharing, could help Africa in general, and our region in particular, increase its labor force and undertake more sophisticated activities to encourage industrialization and diversification processes. At the same time, in the absence of any control, the steady interest in African natural resources could exacerbate dependency towards commodity exports. This is the theoretical basis to take into consideration for a more strategic involvement of Southern partners, by ensuring that South-South trade relations generate a greater added value and encourage regional value chains.

Improving North African countries' integration in GVCs will require strengthening regional integration - an important tool to provide collective and efficient responses to these challenges and help North Africa become more dynamic and the driving force of Africa's transformation process.

Given the current challenges and context, and based on the recommendations of the 27th ICE meeting on the theme "Unlocking North Africa's potential as a growth pole", the ECA Office for North Africa conducted a study on "Developing regional value chains to accelerate the diversification and sophistication of North African economies". The outcomes of this study made it possible to assess where North Africa lies with regard to GVCs, on the one hand, and on the other hand to identify the possible approaches and necessary conditions to promote regional value chains in North Africa, as well as between North Africa and other African regions, for a sustainable, transformative and job-generating growth in Africa.

Karima Bounemra Ben Soltane

Director, ECA-NA

Executive summary

This document is the output of a study ordered by United Nations Economic Commission for Africa (UN-ECA), North Africa Office, as a recommendation of the expert's round table of the 29th session of intergovernmental expert's commission held in rabat on March 4th 2014. During this round table, a clear diagnostic of the region was established and showed that:

- a. Industrialization is central to fostering effective structural transformation in North Africa,
- b. the countries of the sub region are only marginally active in world trade, they are hampered by growing structural deficits, in large part as a result of limited diversification of their production systems, and they face many challenges requiring stronger and more sustainable and inclusive growth;
- c. the participation of countries in world trade increasingly takes place within global value chains and access to these chains involves many prerequisites, particularly in terms of logistics and the institutional and legal environment, which requires significant human, financial and public policy investments;
- d. regional trade makes up only 4.8 per cent of overall North African trade and the share of manufactured goods in trade flows is falling,
- e. the development of regional value chains can be an important lever for addressing challenges through:
 - accelerating the sophistication and diversification of economies,
 - promoting the development of new dynamic comparative advantages and,
 - facilitating the participation in higher value-added segments of global value chains.

Following the presentations and discussions, a number of recommendations were made by the experts from Member States. The most important recommendations were:

- To identify the growth sectors in RVCs by "mapping" the strengths and comparative advantages of each country in the sub region and identifying the levers and challenges to be overcome in order to set in motion truly effective regional cooperation;
- To adopt a systematic approach that will establish priorities between the various value chains; to identify the various actors and their linkages and interactions; to analyze the technological capabilities and economic performance; and to formulate a strategy for the upgrading of selected value chains, while considering the regulatory and institutional dimensions;
- To develop partnerships between ECA and other international and regional organizations in order to improve the availability of statistical information and to increase the real impact of efforts to create and manage knowledge and formulate programs and projects.

The methodology used for conducting the study was based on a combination of desktop review and field investigations in all countries of the region, except for Mauritania.

Data and documented information have been extracted from governmental sources, statistical databases, mainly UNCOMTRADE, OECD, the World Bank, and reports and publications about the topic. This report provides an overview of regional trade and investment flows and of trade and investment flows between the region and the rest of the world. It should be stated clearly that macro-level trade and investment data do not perfectly capture trade and investments in GVCs. Nonetheless, there are serious limitations on data availability in some countries in the region that limit the ability to develop a better measure of GVC trade at this stage. Furthermore, GVC trade databases such as the TiVA-OECD database do not cover the region yet. There is also limited data on regional trade in services. Never-

theless, it is recommended that the overview analysis provided in this report be developed further in future work to use a more fine-tuned measure of trade in GVCs particularly at a sectoral level.

Major finding of the study are:

- Regional integration in North Africa is very low in terms of trade and investments.
- North African countries are vertically integrated to global value chains in a competition position towards each other, with little horizontal connections.
- FDI is a key leverage for the integration of North African countries in GVC but this is still largely done through foreign, mostly European firms, investments in few countries in the region separately. There are very few examples of foreign firms investing and coordinating their activities in more than one country in the region and there is a limited role of regional firms in building regional integration and regional value chains in the context of global value chains.
- Important political, transportation and logistical bottlenecks remain in place and affect trade in the region.
- A GVC gap is identified between two groups of countries in the region, between GVC integrated and GVC non-integrated countries. This relates to industrial development, linkages to the global economy, integration in international trade agreements, regulatory frameworks, and logistics and transportation issues.

The key policy recommendations are:

- Development of joint production sharing platforms.
- Promoting regional upgrading and relocation.
- Development of GVC corridors and exploiting the important location of the region.
- Development of a segmented strategy of RVCs.
- Investment in knowledge, building institutional capacities and research on RVCs.
- Identification of potential regional value chains
 - One of the study outcomes was to identify potential value regional value chains based on the strengths and opportunities of the countries in the region:
 - Automobile
 - Aeronautics
 - Oil and gas transformation and derived products
 - Solar energy supply industry
 - Iron and steel transformation and products
 - Three sectors of interest are still to be studied from the regional value chain point of view:
 - Agro-food industry
 - Apparel and textile
 - Services

This being a first step study, few points need to be highlighted in regard to future research and work in the context of this project:

- To go deeper in regional sectoral studies for selected value chains and sectors of interest, with detailed identification of actors and products, local/global value chains structure and value-added generation.

- To run a study on knowledge/education challenges and regional initiatives on education and skills upgrading.
- To improve and encourage transversal coordination among the countries around the value chain approach through existing institutions and agencies.
- To launch a study on services value chains potential in the region and its integration to services global value chains.



Part 1: North Africa in global value chains and regional development

1. Introduction

One of the important shifts in the organization of global production and trade that has taken place over the last two decades is the growing importance of global value chains in managing and coordinating production and trade linkages across countries. This included a tendency toward more fragmentation in production and more trade in parts and components across countries and also a changing nature of governance of production particularly in developing countries.

A number of studies and policy projects have implemented the basic ideas behind the global value chain framework. The overall narrative was simple enough. Developing countries are integrated in the global economy through global value chains that are governed by lead firms that are almost exclusively based in the advanced economies. They capture a small share in the final value of their products due to the powerful position of lead firms and to the fact that many of the higher value added activities in these networks are located in higher income economies. To achieve development, developing countries need to integrate in global value chains but also upgrade in global value chains by moving to higher value added activities. The policy implication of this analysis is that governments and international development agencies need to help countries integrate in these chains through building linkages with lead firms, improve infrastructure, and maintain standards of production and also help firms to upgrade within these chains through targeted sectoral programmes.

While important outcomes have been achieved in different countries through this approach, global and regional economic developments in the last few years have raised questions about the viability of this approach to continue to drive economic and social development in developing countries. First, the GVC agenda has stressed on the importance of upgrading as a key to achieve economic and social development. The focus was initially on economic upgrading while more recent studies have highlighted the importance of looking beyond that into social upgrading. Nonetheless, the limits to upgrading are becoming increasingly visible. In sectors where developing countries are already integrated, major obstacles face their firms in regard to upgrading beyond a certain point in the value chain with the highly value adding components in these chains highly controlled by lead firms partially due to the fact that some of these components are closely linked to the final market (research and development, design, etc). Secondly, the shifts in growth in the global economy and the growing demand of non-traditional markets on the one hand and the stagnation in demand in some traditional markets have led to questions about the “Eurocentric” nature of the GVC framework and its focus on the markets of the advanced economies. This is being translated in growing interest in regional markets and their potential as a route for industrial development and in emerging markets and the implications of forming new global value chains centred around these markets on issues such as upgrading and distribution of activities.

This project aims at looking into these issues in the context of the North Africa region. This report will provide a brief theoretical discussion of the issue of regional value chains and then move to look into

the position of North Africa in global value chains and the current situation in regard to regional value chains in the region. This will be used to develop key issues and tools that will be covered during the project. Conclusions and policy implications will then be discussed.

2. Regional Value Chains in a Changing World Economy

The world economy has experienced important shifts in its organization and governance over the last few decades. First, the rapid decline in trade barriers and in transportation and communication costs enabled a rapid expansion in global trade and a rapid shift in the nature of this trade through a move to more fragmented networks of production, growth in trade in parts and components, and in intra-firm trade. Second, the shifts in the political economy of many developing countries beginning in the 1980s have led to a change in the role of national governments in shaping the position of their countries in the global economy and in the way their economic sectors are integrated in global networks of trade and production. A key outcome of these two shifts has been the integration of many developing countries in what became known as global value chains with growing role of these chains in governing production, trade, labour, and social and environmental standards in the developing world. In most developing countries, this integration was mainly in GVCs targeting the advanced economies particularly the United States and Europe and was often, with the key exception of Asia, based on a model of integrating individual developing countries in GVCs centred on the advanced economies with little integration between these developing countries themselves.

The economic and social implications of these shifts and of the integration of developing regions in global value chains have been mixed between different countries and also within the same country. In the “success” cases, this integration triggered a range of economic, social, industrial, and technological dynamics that led to a complete transformation in the economic situation of areas that used to be amongst the poorest in the world. In other cases, such success was limited and the ability of developing countries to use their integration in global value chains to boost economic and social development processes have been somewhat limited. The integration of individual developing countries, or more accurately specific regions and economic zones in these countries, and the limited integration between these countries in these GVCs have also resulted in varying developmental impacts in many developing countries and lack of “development continuity”. Areas that are highly integrated in GVCs often have relatively advanced infrastructure, links to transportation networks, communication networks, etc, in comparison to adjacent areas that are not integrated in these networks. In many countries, this contributed to rising economic and social inequality and even to political instabilities in a number of cases.

In the last few years, more attention has been given to the limitation of a GVC development approach focused on the integration of individual developing countries and individual areas within these countries in GVCs targeting the advanced economies. This was driven partially by the global economic crisis that began in 2008 and led to stagnation in the demand from the advanced economies that had earlier represented the growth engine of this model. It was also driven by the fact that the model that was the most successful in the previous period and that was more resilient to the global crisis was the “Asian model” that combined integration in global value chains with growing regional specialization and a crucial role for regional value chains (RVCs). This has led researchers and policy makers to focus more on the potential for promoting regional value chains as a way to strengthen economic and social development processes in developing countries.

Nonetheless, more work is needed to understand why regional value chains are important and how to foster them. The question of why is fundamental as efforts to eliminate the obstacles to the creation of regional value chains (logistics, trade barriers, etc) are unlikely to be successful without efforts to

create the economic factors that make such RVCs attractive for different local and global economic actors. This has been seen in many developing regions where efforts to create regional free trade areas had relatively limited impact on trade flows reflecting the fact that such efforts have been focused on the policy level without a deeper understanding of the economic benefits of such flows. In fact, some cases in East Asia (China and Taiwan for instance) suggest that when economic benefits can be reaped through regional integration and flows (trade, FDI, etc), such integration could take place even in the absence of a very supportive policy environment. The key challenges thus for other developing regions is to understand and align the policy environment level with the economic fundamentals level. This, however, does not mean that trade facilitation and the elimination of barriers to regional value chains are not important. In many developing countries, a key issue that limits regional integration is that these countries are often better connected with key advanced economies than their regional partners. This includes issues such as communication networks, trade and business networks, and transportation and logistics services. Such model of integration helps orient these economies toward integration with the advanced economies and limit regional integration between developing countries. Trade policy plays an important role in this as well. Many developing countries are better integrated in the markets of the advanced economies through preferential trade agreements that offer preferential market access to these countries. Regional trade initiatives have generally been less successful in creating a similar degree of integration. This is becoming more important today as the shift from “shallow integration” to “deep integration” in international trade negotiations and agreements might cement the integration of few developing countries in the markets of the advanced economies through a high degree of policy harmonization. Meanwhile, developing countries that are not part of such deep integration processes will find it more difficult to integrate economically not only with the advanced economies but also with their regional neighbours. In some developing regions, this threatens to move the gap of integration or non-integration in global value chain from a trading and manufacturing gap that could be bridged through investments and policy intervention into a deeper institutional and regulatory gap that will be more difficult to bridge in the future.

The question facing developing countries, thus, is how to develop policies that will encourage economic actors to consider diversifying their export and trade relations. In countries that are highly integrated in the markets of the advanced economies, it is completely natural for economic actors to pay limited attention to other markets. In the case of North Africa, for instance, the scale and higher unit values of exporting to the European market makes it natural for, say, Moroccan firms to focus on that market rather than spend efforts to export to regional or other developing markets with smaller markets, lower unit values, and more difficult logistical environment. From a wider developmental perspective, however, such engagement could help promote industrial and trade development in each country and complement the benefits of exporting to the EU in addition to offering more ability to deal with political, economic, and trade shifts in the relationship with the EU. Integration in EU-focused GVCs offers important advantages in terms of scale and in terms of process upgrading to producers in the developing countries. The scope to upgrade beyond a certain point is, however, far more difficult in the advanced economies than it can be in other regional or developing markets. For producers from a developing region, functional upgrading by moving into branding, retailing, or research & development could almost be impossible in their exports to the EU. It, however, can be achieved in exports to other developing countries. In addition, diversification in trade relations offer better protection to developing countries in the face of political, economic, and trade shifts in their relationships with the advanced economies. From a policy perspective, thus, there is clear benefit in creating regional value chains. These should not be seen as replacements of existing linkages in GVCs centred on the advanced economies but as complements through a combined developmental strategy that aims to benefit from integration in regional and global markets and value chains at the same time.

3. The Position of North Africa in the Map of Global Value Chains

One of the regions that have experienced growing integration in global value chains with far less regional integration is the North Africa region. This reflected a number of important factors the region benefit from in comparison to many other developing countries particularly Sub-Saharan Africa. First, most countries in the region have historically experienced more investments in infrastructure and also in manufacturing capacities in a number of sectors. Some of these countries had a relatively advanced transportation infrastructure that enabled smoother flows of goods in GVCs. They also had a degree of industrial infrastructure especially in light manufacturing that could be utilized to serve the expanding trade. Second, the region has a geographical advantage particularly due to its proximity to one of the largest markets in the world, the EU market. Time-to-market and on-time delivery are key requirements of modern GVCs and places that have the ability to respond to changes in market demand quickly have an advantage in products that are more sensitive to time which are often higher value products. This gives North Africa an important advantage in its trade relations with the EU. Thirdly, many countries in the region enjoy preferential market access to a number of key markets particularly the EU through association and free trade agreements and also the United States in the cases of some of the countries in the region. In most cases, this preferential access is relatively stable creating a potential for building industrial capacities in the region based on these market opportunities. Fourth, few countries of the region have accumulated a degree of managerial and organizational capacities that enable these countries to meet the requirements of GVCs. Few countries in the region have a relatively developed private sector in a range of agricultural and industrial activities with a generally high degree of local capacities in managerial and technical activities. This should not only enable integration in global value chains but also should enable a faster process of upgrading by moving into new activities and new markets by firms from the region.

This potential has not been exploited fully. The region, overall, has not exploited these advantages to the full potential of the region. Even in the European market in which the region has a clear advantage, the share of countries from the region in total imports remained rather disappointing. The progress that has been achieved remained also highly fragmented and varied significantly not only between countries but also within these countries. Some areas in Egypt, Morocco, and Tunisia for instance have benefitted from integration in GVCs to expand employment and improve social conditions. Other areas in those countries and in other countries have, however, lagged behind. Furthermore, the growing integration in GVCs in the region has not been matched by a similar growth in production fragmentation and regional value chains in the region. This was one of the factors limiting the potential for the region in developing its position in the global economy and also in targeting alternative domestic and export markets. This chapter will discuss four important issues related to the integration of the region in GVCs: Trade in manufactured and agricultural products, foreign direct investments, logistics and transportation, and economic policy.

3.1 Different levels and strategies of integration into GVCs

North Africa doesn't cover a single integration model to GVCs reflecting different natural endowments and different historical economies policies. The area could be split to two groups of countries:

- **First group** is formed by Algeria Libya and Mauritania, their common characteristic is that their integration to GVCs is by the ends of chains: they mainly export commodities, meaning oil and gas for Algeria and Libya, and iron ore and fishery primary products for Mauritania; and they import approximately all their needs in manufactured goods, and in inputs for their local industry. Their economic performance is linked to commodities price fluctuations, and economic crises,

and local industry and agriculture are not enough developed to substitute imports. The economy is heavily controlled by public administration and the largest part of the GDP is produced by state owned enterprises (SOE). However, looking at the economic infrastructure, there are differences between the countries of this group, in particular when looking to the respective sizes of the economy. Among them Algeria has large financial capacities.

- **Second group** is formed by Tunisia, Egypt and Morocco. They have all achieved, to a certain extent, a shift from commodities/raw material/agricultural exports to manufactured exports. They also have a larger space for the private sector although their governments have important economic role in primary sectors and banking/insurance. Their economies are deeply integrated to GVC through:
 - FDI controlling a significant part of exporting industries.
 - International Free trade agreements with EU, ALENA and regional (GAFTA, AGADIR).
 - Products manufactured in these countries are at various levels of the value chains, from the beginning (raw/primary product transformation), to the core (subcontracting/intermediary products manufacturing) to the final stages (assembling).
 - Low cost labor competitiveness factor.
 - Specific incentives for exporting foreign or local investors.

Those countries have similar comparative and competitive advantages and are facing similar challenges.

- The common advantages include:
 - Proximity to the EU market.
 - Business environment that is pro-GVC integration.
 - Low cost labor.
- The common challenges include:
 - High dependence on EU market
 - Low cost and low technological intensity inputs to the GVC, which means on one hand, lower value capture, and on the other hand, higher threats from other production areas (Asia, Latin America) which are developing capabilities with innovation capture and technological input.
 - Low integration of local suppliers and inputs, which leads to a lack of inclusivity and distortions in access to wealth.
 - Low demand for local skills in their GVC exports.

This group presents as well some differences among the countries; these differences are mainly on:

- Different sizes of raw materials or first transformation products as per Morocco which phosphate production and exports weighs considerably in the GDP
- Some local value chains length as for Egypt with cotton transformation value chain, or fruits and vegetables transformation value chain.

Figure 1: Group 1 dominant integration model

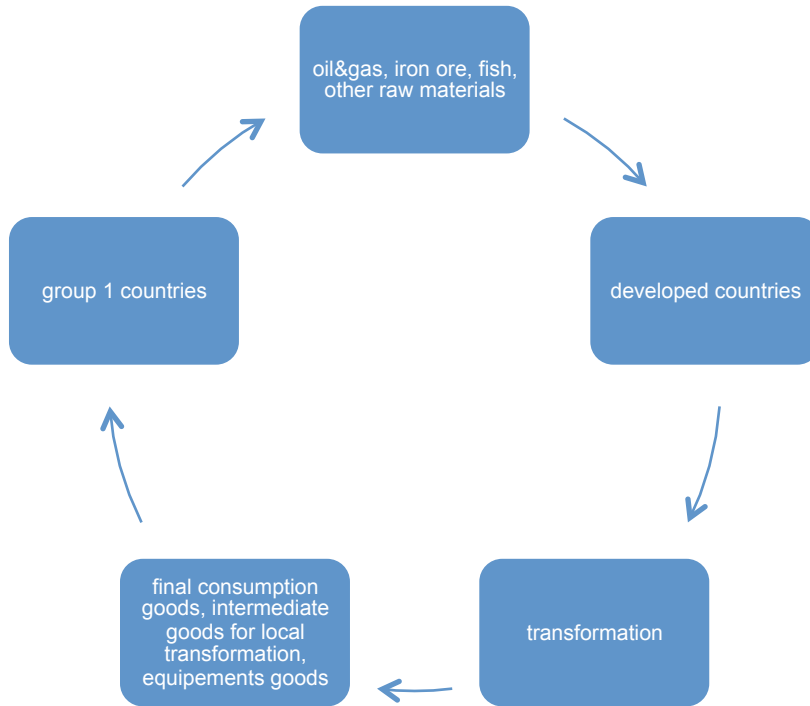
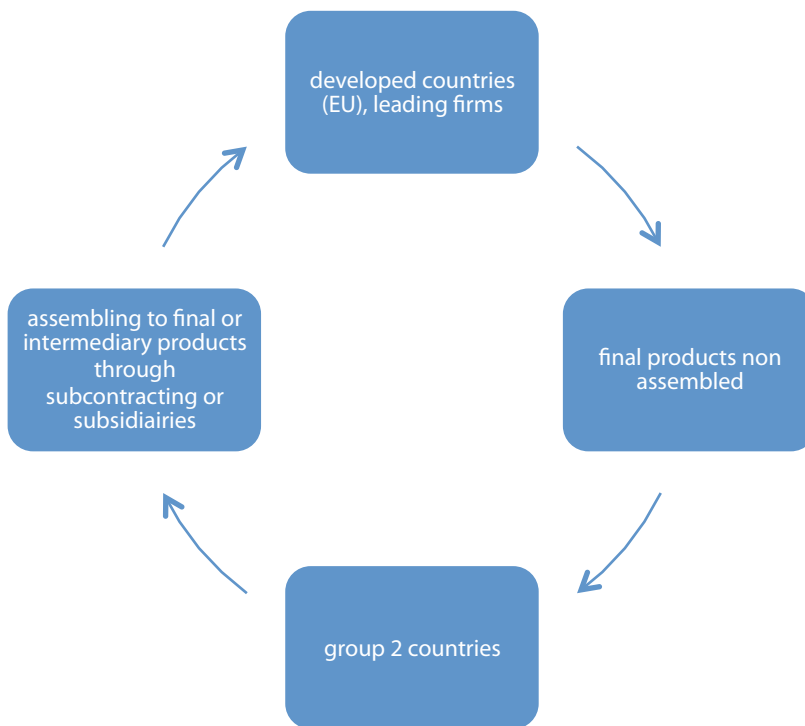


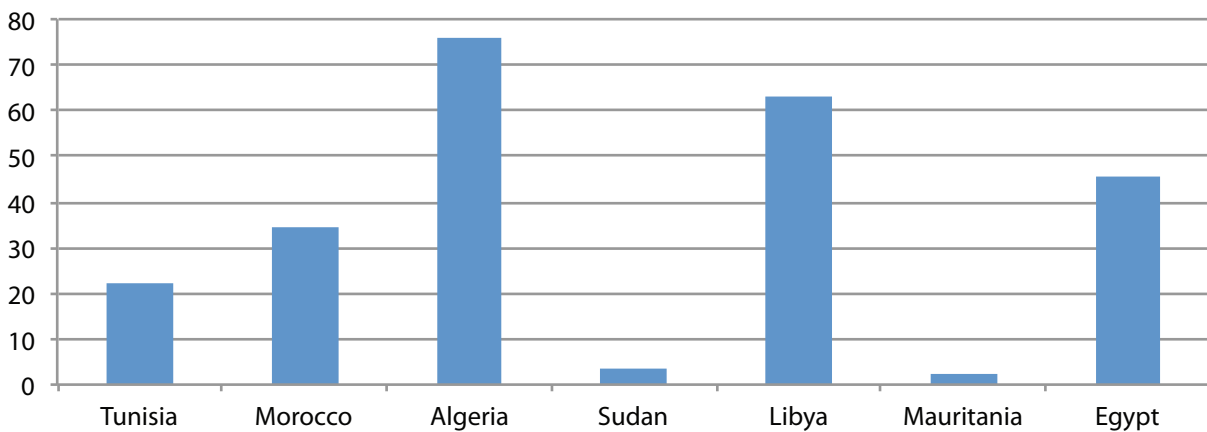
Figure 2: Group 2 dominant integration model



3.2 The region’s performance in Trade in Manufactured and Agricultural Products

The countries in the region differ significantly in the role of trade and exports in their economies. Algeria, Libya, and Egypt are the major three exporters from the region with each country exporting more than US\$ 40 billion in 2012.

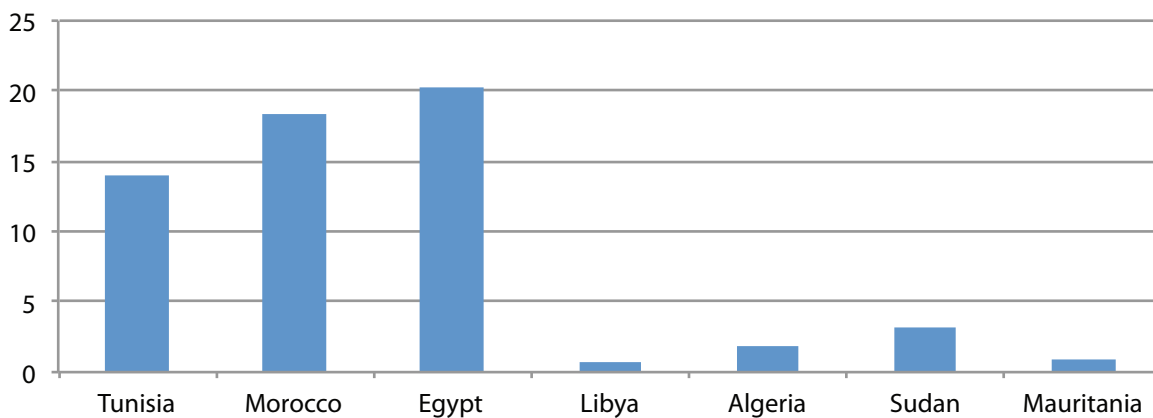
Figure 3: Exports of Goods and Services, US\$ billions, 2012¹



Source: The World Bank, 2014

The picture, however, changes dramatically when excluding natural resources. Algeria and Libya are highly dependent on oil exports with very limited exports of agricultural and manufactured products. Egypt, Morocco, and Tunisia are the three key exporters of these products from the region.

Figure 4: Exports of SIC 0: Agricultural, forestry, and fishery products, SIC 2 and SIC 3: manufactured goods², US\$ billion, 2012³



Source: UN Comtrade, 2014

During the period 2000-2012, exports from the region in manufacturing and agricultural product that are more likely to be governed by value chain arrangements (SIC 0: Agricultural, forestry, and fishery products, SIC 2 and SIC 3: manufactured goods) have increased substantially. This increase, however, was highly concentrated in three countries in the region Tunisia, Morocco, and Egypt who together

1 Libya data is for 2008.

2 Due to the very limited data on Sudan, many of these figures exclude trade with Sudan.

3 Libya figure is for 2010.

accounted for slightly less than 90% of these exports in 2012 with rest accounted for jointly by Libya, Algeria, Sudan, and Mauritania (Libya reported no data for 2012 but its share in 2010 stood at only 1.5% in 2010).

Table 1: Exports of SIC 0: Agricultural, forestry, and fishery products, SIC 2 and SIC 3: manufactured goods⁴, US\$ billion

	2000	2002	2004	2006	2008	2010	2012
Tunisia	5	6.1	8.6	10	15.7	13.9	13.9
Morocco	6.6	7.1	9	11.3	17.1	15.8	18.3
Egypt	2.6	2.6	3.9	4.5	14.2	18.7	20.2
Libya	n.a	n.a	n.a	n.a	1.5	0.8	n.a
Algeria	0.58	0.67	0.73	0.84	1.5	1.4	1.9
Sudan	n.a	n.a	n.a	n.a	n.a	n.a	3.2
Mauritania	0.07	0.07	0.14	n.a	0.3	0.5	0.9
Total	14.85	16.54	22.37	26.64	50.3	51.1	58.3

Source: UN Comtrade, 2014

In terms of export markets, the European Union is the key export market for the region in these agricultural and manufactured products. This is particularly strong in the case of Tunisia, Morocco, and Algeria. Nevertheless, the small scale of Algerian exports of these products limits the extent to which we can develop broad conclusions from this. In the cases of Morocco and Tunisia, however, the conclusions from table 1 and table 2 are clear: Morocco and Tunisia are highly integrated in European value chains of agricultural and manufacturing goods. The same can be said in regard to Egypt but the dependency on EU GVCs is smaller and the higher difference between the EU share and OECD share is explained by the higher share of exports to non-EU OECD members from Egypt. In comparison to Tunisia and Morocco, Egypt has a higher combined share to the rest of North Africa and to Sub-Saharan Africa (20.9%) in comparison to 13.7% for Tunisia (mostly North Africa), and 7.6% for Morocco.

Table 2: Export Markets of SIC 0, SIC 2, and SIC 3, 2010

	Share of the EU	Share of EU and other OECD Countries	Share of Sub Saharan Africa	Share of the Rest of North Africa
Tunisia	72%	75.2%	2.7%	11%
Morocco	63.1%	70%	4.6%	3%
Egypt	28.3%	42.8%	10%	10.9%
Libya	44.7%	58.9%	0.06%	27%
Algeria	68.2%	70.6%	6.5%	9.1%
Sudan	n.a	n.a	n.a	n.a
Mauritania	24.9%	72.9%	21.3%	0.6%

Source: UN Comtrade, 2014

Another important observation from the tables above is the small scale of regional trade in agricultural and manufactured goods. This indicates limited regional integration whether this integration was aimed at export markets such as the EU or other markets such as the North Africa or Sub-Saharan African market.

The data also shows the very limited integration of Libya, Algeria, Sudan, and Mauritania in global value chains in agricultural and manufactured products. In what follows, we look briefly at the evidence of GVC integration in both groups countries of the region, with more focus on the three where the data shows a degree of GVC integration.

⁴ Due to the very limited data on Sudan, many of these figures exclude trade with Sudan.

3.3 National strategies for integration in value Chains

3.3.1 Egypt, Morocco and Tunisia in Global Value Chains

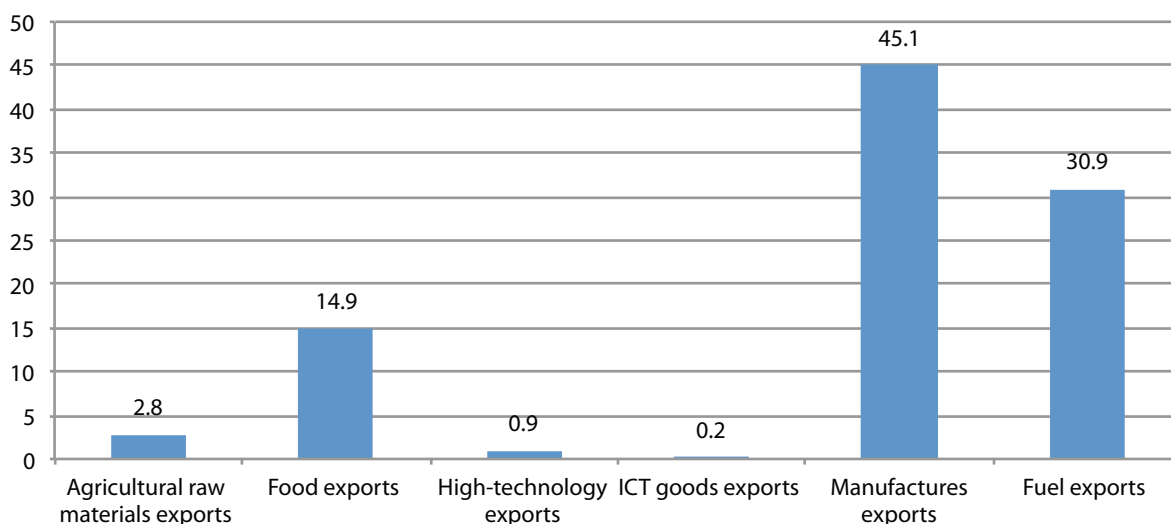
1. Egypt in Global Value Chains

a) A more diversified integration

Egypt has been one of the early “globalizers” in the region with efforts to liberalize trade, attract foreign direct investments, and boost integration in GVCs started in the 1980s. Similar to many developing countries, special economic zones have been a cornerstone of this strategy through the establishing of industrial areas throughout Egypt especially in the Northern part of the country. More recently, Egypt has started to focus on developing industrial relations with Asia particularly China and India. The special economic zone of Ain-Sokhna is being built in cooperation with China and a number of industries and joint ventures with Chinese companies are already producing in this SEZ (fiberglass, high- and low-voltage electrical equipment, textiles and petroleum equipment). A number of clusters are developed in Ain-Sokhna SEZ including the automotive industry, petrochemicals, pharmaceuticals, food processing and textiles.

In terms of trade, manufactured, fuel, and food exports account for the overwhelming majority of Egyptian exports. The country has a smaller share of ICT and high technology exports in comparison to Tunisia and Morocco.

Figure 5: Share of Egypt Total Exports, percentage, 2011



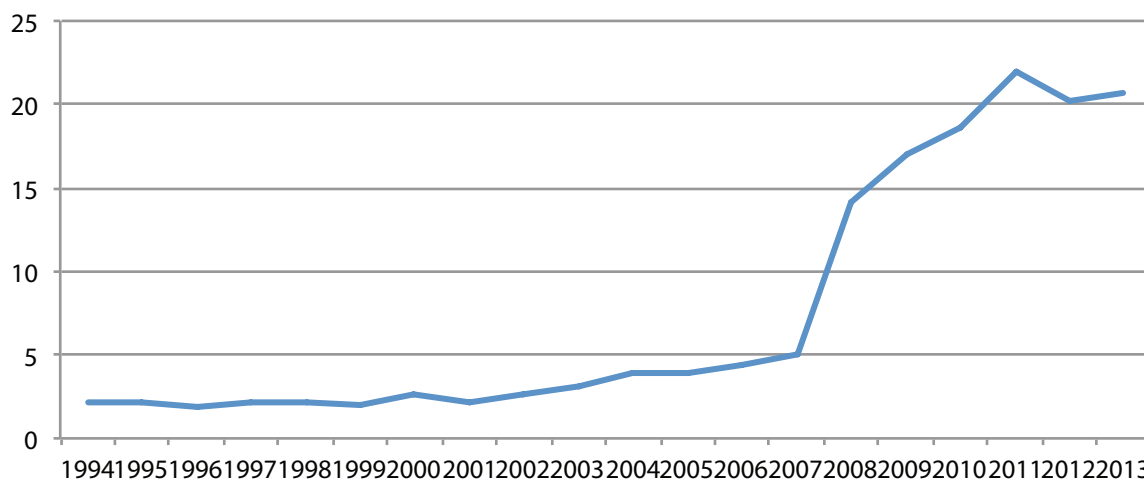
Source: the World Bank, 2014

In comparison to the other two “GVC-integrated” countries in the region, Tunisia and Morocco, Egypt has a more diversified profile of GVC integration with less dependency on the EU market. First, Egypt has substantial exports to the US market reflecting a number of factors including the preferential market access to that market. Second, Egypt has a more diversified export profile with exports to Arab countries, African countries, and other Asian countries accounting for a significantly larger share of Egyptian exports in comparison to Tunisia and Morocco (table 2). In addition, Egypt enjoys an important logistical position in the region due to the importance of the Suez Canal in global trade. The rise of Asia as an economic power in the last two decades and the crucial role of the Suez Canal in Asian trade with Europe, the Middle East, and, to a less extent, the United States, had added to this logistical importance. The upgrading and globalization of the Chinese economy in particular in addition to a possible increase in shipping costs will add to this logistical importance and create an opportunity for

using this to foster economic and industrial development not only in Egypt but in other countries in the region.

Similar to the cases of Morocco and Tunisia, Egyptian exports of manufactured and agricultural products have increased substantially over the last two decades.

Figure 6: Egypt Exports of SIC 0, SIC 2 and SIC 3, US\$ billion



Source: UN Comtrade, 2014

In terms of agricultural and manufactured exports, five product categories account for a large share of Egyptian exports. Primary metal products account for 30% of total Egyptian exports of agricultural and manufactured products followed by chemical products, food products, agricultural products, and apparel products.

Table 3: Egyptian Key Agricultural and Manufacturing Exports, 2010

Product	\$ billion	Share
Primary metal products	3.88	20.8%
Chemicals and allied products	3.34	17.9%
Food and kindred products	2.62	14%
Agricultural Products	2.14	11.5%
Apparel and related products	1.7	9%

Source: UN Comtrade, 2014

In primary metal products, Egypt has a generally diversified export market with relatively high shares for countries in the Middle East and North Africa region and also in Sub-Saharan Africa. The share of the EU in these products is 21.8% of Egyptian exports while more than half of Egyptian exports of primary metal products go to Saudi Arabia (12.8%), South Africa (8.9%), Libya (6.3%), Nigeria, Jordan, Lebanon, and Turkey. In chemicals, the EU accounts for 46% of Egyptian exports, Turkey for 13.3%, with other markets in the Middle East and North Africa (Jordan, Lebanon, Libya, Morocco, Algeria) accounting for a large share of the remaining exports. Similarly, the EU accounts for a relatively small share of Egypt food exports, with a share of 11.4% in 2010, which was smaller than the share of Libya (14.9%), and close to the shares of Saudi Arabia (10.4%). Sudan had a share of (6.6%), Iraq (4.1%), Jordan (4.1%), Kenya (4.5%), and Morocco (3%). In agricultural products, the EU accounts for 30.9% of Egyptian exports, Saudi Arabia (13.3%), Russia (8.4%), and India (5.5%). In apparel, the United States is the largest importer of Egyptian exports with a share of 48.6%, followed by the EU (39.6%) with the rest of the exports divided between a numbers of mostly regional markets.

Egypt's textiles sector is engaged in the full range of GVC related activities – from cotton cultivation to production of fabrics and ready-made wear – thus creating about 30% of manufacturing job opportunities. Compared to the other North African countries, Egypt is the only country showing significant growth at the international level in this GVC:

Table 4: Apparel exports table for the fastest growing developing countries (exports in current USD millions)

Country	2005	2011	Percentage gain
Panama	10	2,017	19359%
Mali	0	0	6196%
Samoa	0	0	4303%
Burundi	0	0	2615%
Ethiopia	2	35	1365%
Togo	0	4	1362%
Azerbaijan	0	6	1143%
Chile	47	441	831%
Egypt	184	1,380	651%
Yemen	0	3	524%

Source: WTO database.

Table 5: Textile exports fastest growing developing countries 2005-2011 (exports in current USD millions)

Country	2005	2011	Percentage gain
Egypt	272	1,485	446%
Viet Nam	725	3,772.00	420%
China	41,050	94,411	130%
Bangladesh	705	1,590	125%
India	8,331	15,016	80%
Turkey	7,076	10,772	52%
Malaysia	1,356	2,036	50%
Thailand	2,764.00	4,072.00	52%
Indonesia	3,353	4,791	43%
Pakistan	7,087	9,082	28%
WORLD TOTAL	202,000	294,000	45%
Swaziland	174.8	85.4	-51%
Togo	0.28	4.1	1362%
Zambia	3.8	0.38	-90%

Source: WTO database.

Both tables 4 and 5 are extracted from aid for trade WTO/OECD sector study on textiles.

In ICT Value chain, Vodafone, Orange, Microsoft, Intel and Oracle have set up operations in Egypt that serve their global clients in the information and communication technology (ICT) sector. These players' operations in Egypt span the entire GVC, from new product development to provision of technical solutions to their global clients in state-of-the-art call centers.

The aviation sector provides the greatest opportunities for Egypt to expand its participation in regional and global GVCs. According to the Ministry of Aviation, Egypt has acquired a license for a satellite-based communication and navigation system that would cover the whole of Africa. Furthermore, Egypt is exploring opportunities to become the trainer of choice for Africa's national and private sector airlines.

b) Development Strategies

An industrial development strategy was set since 2006 aiming to broaden Egypt's integration into the global economy through new niches in medium- to high-technology clusters. Building on this effort, the Ministry of Communications and Information Technology (MCIT) has launched an ICT strategy (2013-17) that aims to foster deeper public-private sector collaboration. The strategy calls for strengthening legislation and technology infrastructure to transform Egypt into an ICT hub for North Africa. The strategy mandates MCIT to create an EGP 20 million fund to provide incentives for SMEs to capture value in the GVC's upstream activities in the areas of mobile and open-source applications.

Two important observations can be made from the above discussion. First, in comparison to Morocco and Tunisia, Egypt has a more diversified export profile both in terms of products but also in terms of markets. While the EU remains an important market, Egypt is far less dependent on this market than Tunisia and Morocco. Egypt is also better integrated in regional markets including North Africa and the Middle East and Sub-Saharan Africa and increasingly Asia. Second, with the exception of apparel, Egypt is less integrated in fragmented processing/assembly trade networks with many of its manufactured and agricultural exports originating locally. To an extent, the apparel industry is an exception as it used imported fabrics from Asia in addition to locally-produced fabrics. The better integration of Egypt in non-EU global value chains and its more diversified export profiles in addition to its important logistical location grants Egypt additional importance when thinking about promoting regional value chains in North Africa.

2. Morocco in Global Value Chains

a) The integration profile is changing

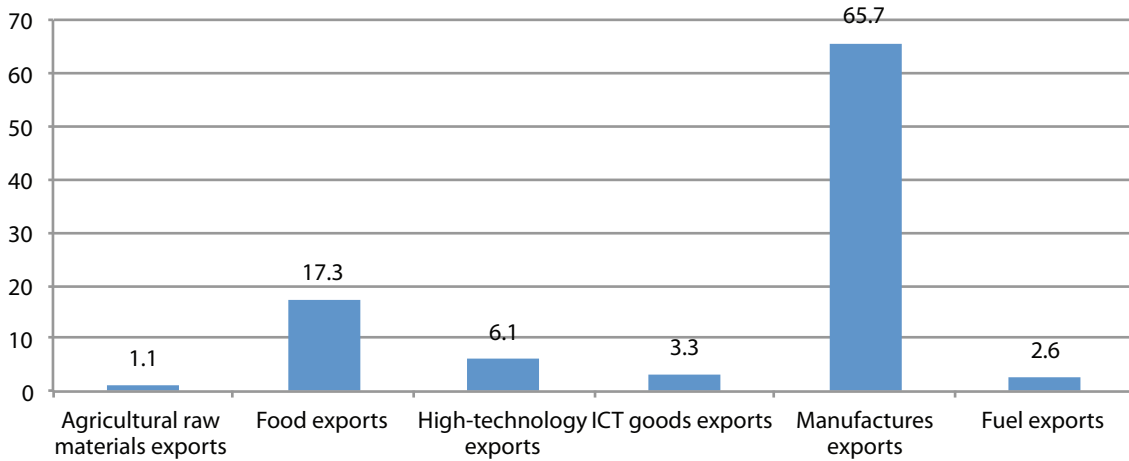
Moroccan exports following independence were concentrated in phosphate exports. Import substitution policy led to the building of industrial capacities in light manufacturing and low-technology products; sectors that underpinned the integration of Morocco in global value chains particularly in the textile and apparel industries. With this dependence on textile and apparel and on simple electronics failing to allow further upgrading, especially with competition from Asia, a new strategy was set starting from early 2000's, penned in a National Program for Industrial Emergence that entered in force since 2005. This strategy aimed to attract new international investment to Morocco with the goal to develop new products and new markets. This program was turned into a National Compact for industrial Emergence in 2009 (PNEI: Pacte National d'Emergence industrielle), with an update in 2013.

The fundamental elements of Moroccan strategy for integration in GVC are:

- Attractiveness to FDI.
- Recognition of global companies leadership.
- Industrial platforms.
- Logistic hubs and in particular TANGER-MED logistic and port.
- Financial platform and adapted funding systems.

Manufactured and food exports contribute the largest share of Moroccan exports with the two accounting for more than 80% of total exports.

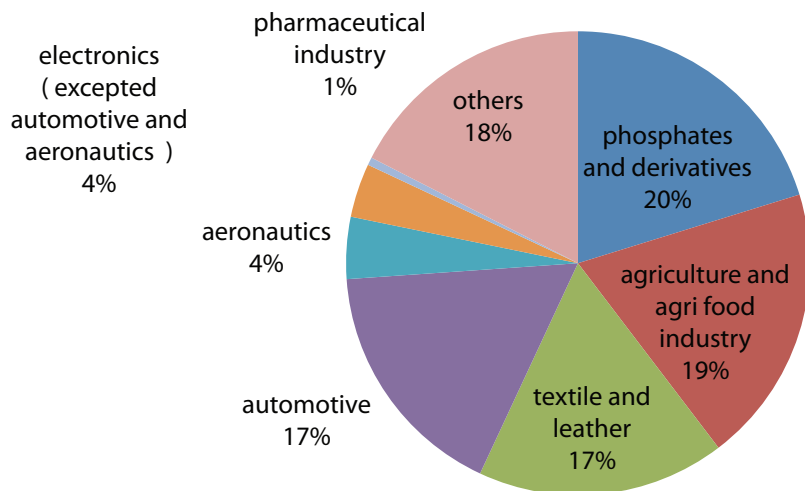
Figure 7: Share of Morocco Total Exports, percentage, 2011



Source: the World Bank, 2014

In terms of sectors, phosphate and chemical derivatives, agriculture, textiles, and automotive are the most important Moroccan export sectors.

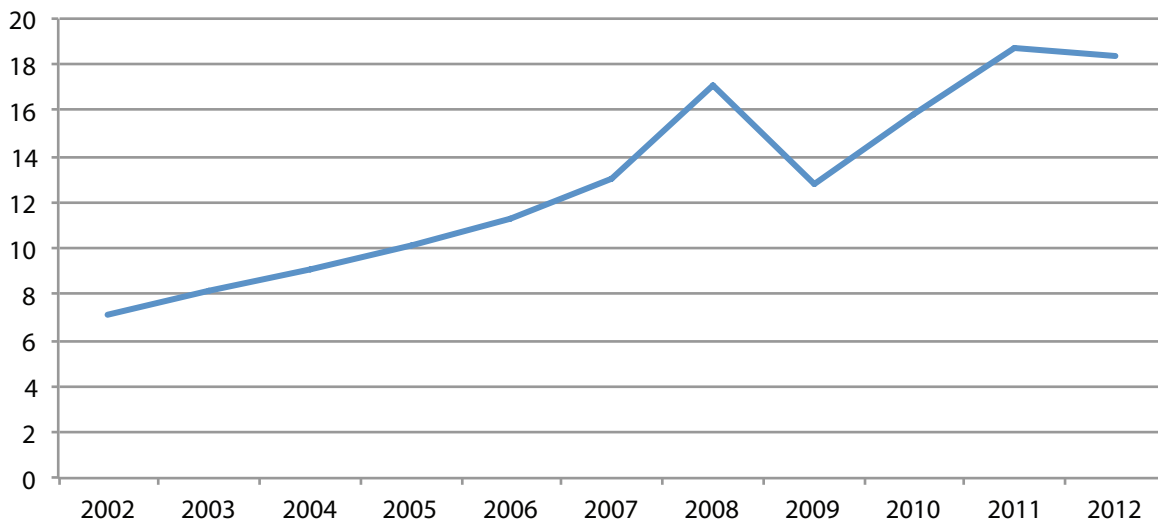
Figure 8: Structure of Morocco's exports by sectors, 2013



Source: Office des Changes

Morocco has achieved rapid expansion in its manufactured and agricultural exports over the last two decades largely due to growing integration in global value chains.

Figure 9: Morocco Exports of SIC 0, SIC 2 and SIC 3, US\$ billion



Source: UN Comtrade, 2014

Morocco is highly dependent on the EU market in agricultural and manufacturing exports. The top two export categories are the same as Tunisia (apparel and electronic and electrical equipment). In addition, Morocco exports chemicals and agricultural products to the EU. In apparel, France and Spain are the main export markets of Morocco with a share of 39.3% for Spain and 38.3% for France. In Electronic and other electrical equipment, France is the main export market for Morocco with a share of 52.4% followed by Spain with a share of 22.5%. France, Belgium, and Netherlands are the main markets for chemical products from Morocco. In regard to agricultural products, France is the main importer from Morocco (53.7%), followed by Spain and Netherlands.

Table 6: Moroccan Key Agricultural and Manufacturing Exports to the EU, 2010

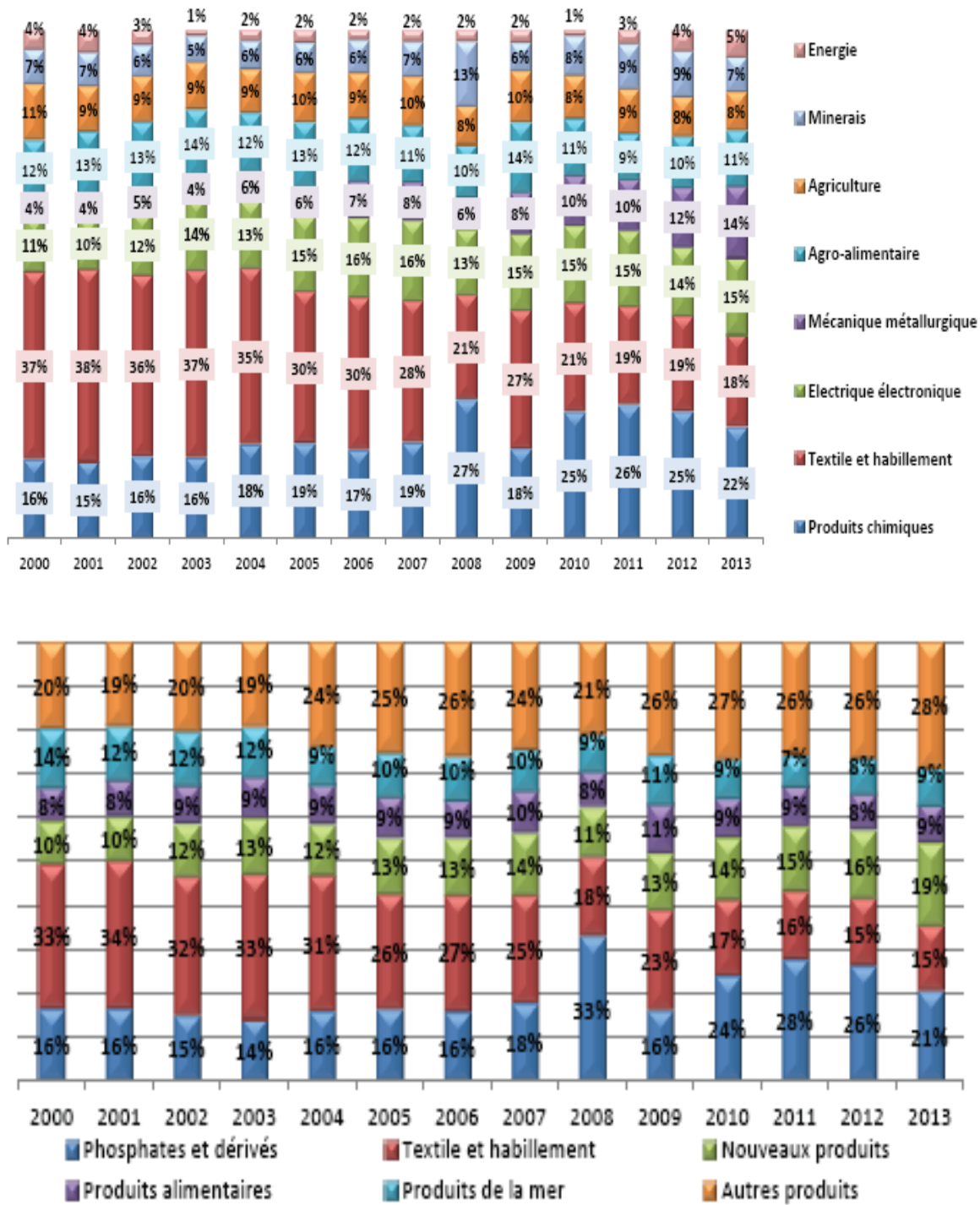
Product	\$ billion	Share
Apparel and other finished products made from fabrics and similar materials	3.03	30.3%
Electronic and other electrical equipment and components except compute equipment	1.56	15.6%
Chemicals and allied products	1.06	10.6%
Agricultural products	0.85	8.5%

Source: UN Comtrade, 2014

In terms of imports, Morocco imported a total of US\$ 1.87 billion of textile products in 2010. The EU supplied US\$ 1.22 billion from the total (65%). Spain, Italy, and France were the top three suppliers. China was the leading non-EU supplier of textiles to Morocco. In electronic and electrical equipment, Morocco imported a total of US\$ 2.85 billion in 2010. The share of the EU was 51.5% with France capturing almost 50% of the share of the EU. Main non-EU suppliers were China, Singapore, and Korea. Similar to Tunisia, the data shows a relatively high integration of Morocco in EU-centred GVCs especially those focused around France and Spain with networks of assembly and processing linking Morocco to those countries.

During the period since 2000, it should be noted that the structure of exports changed, and although the chemical sector (phosphate raw and industrial exports) and electric and electronic sectors have shown a growth in exports, the traditional textile and leather exports are showing a trend to decline in their relative part of exports, with faster growth in exports in new mechanic and steel sector (including automotive industry).

Figure 10: Evolution of Morocco exports profile since 2000



Source: MCINET

Phosphate and derivative products

Phosphates raw minerals and derivative chemicals industrial products are one of the main exports from Morocco. The activities are developed across the entire value chain covering it from the extraction to fertilizer and phosphoric acid production as well as other derivatives. The local segment of the value chain is controlled by OCP, the largest industrial company in Morocco. Considering Morocco's large reserves in phosphates (first reserves in the world) and the growing need for phosphate derivatives and downstream products, it is expected that this sector will pursue to play a crucial role in Morocco's trade and its integration into GVCs.

Textile and clothing

Textile and clothing is another main industrial exporting sector in Morocco. This sector presents great similarities with Tunisian one, with a labor low cost strategy, low value added products and high foreign content in exported goods. The concentration on the European Market and inside, a concentration on a limited set of countries (France /Spain) is another weakness for the sector. This sector is led by foreign firms and foreign ordering companies who send primary or intermediate goods for transformation and re-exports to destination, which contributes to the low value-added of the sector. While new competitors are emerging from Asia and possibly Africa in the near future, it is very difficult to upgrade from the current business model without changing the product and market approach. A small part of the textile industry is moving to "new products" category, with the use of synthetic fiber and technical textiles.

Automotive industry

This industry is a growing new sector of exports (14% growth of exports) in Morocco. It is mainly led by foreign investments (43% of the total investments in manufacturing sectors in Morocco 2012) and broadly oriented to exports, with a share of 17% of Morocco's total exports in 2013.

The automotive industry has 2 basic components:

- Cable and wire industry (included in electronics industry data) (49% of automotive sector exports and 8.4% of overall exports)
- Automotive assembly (included in mechanical industry data) which represents 40% of sectors exports and narrowly 7% of overall exports.

Other activities are about manufacturing seats, transformation of plastics and gum, steel parts transformation, and the whole of them are around 11% of the automotive exports.

The automotive assembly sector is still dominated by assembling cars in the Tangiers platform with RENAULT plant. This investment is around 340 000 units per year, mostly oriented to exports (90% of volumes) and is intended to extend to 400 000 cars per year.

Local integration is in progress and it is reaching 40% in volume with a target for RENAULT management to reach 55% by 2016.

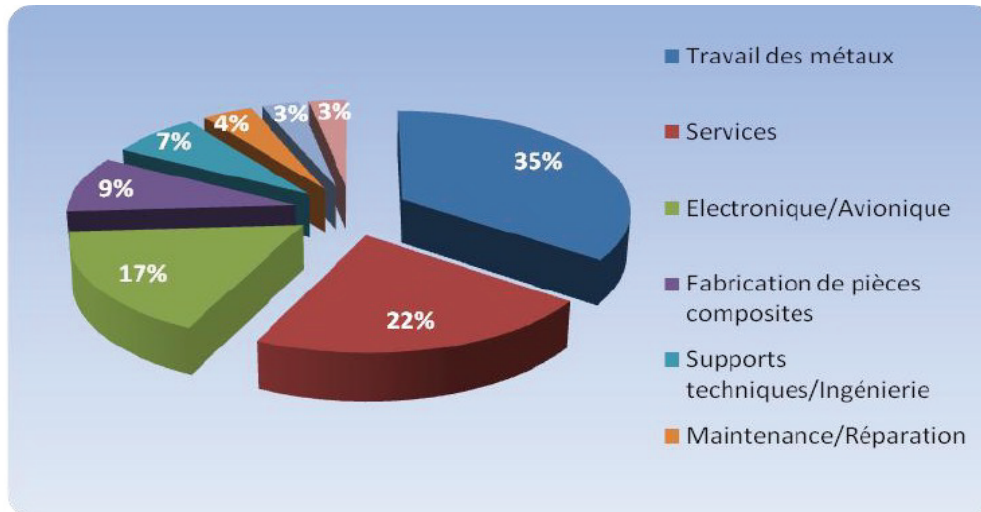
New car makers are reportedly showing interest to invest in similar platforms in TANGIERS.

Aeronautics

Specific government measures like aeronautic industrial parks (example of MIDPARC) and adapted funding opportunities have led Morocco to deepen its old presence in aeronautics value chain. Morocco's integration to GVC is made possible through the following businesses:

- Airplanes maintenance and repair
- Metal works
- Electronics and avionics including Cable and wires assembling
- Composite parts manufacturing
- Technical support and engineering
- Services

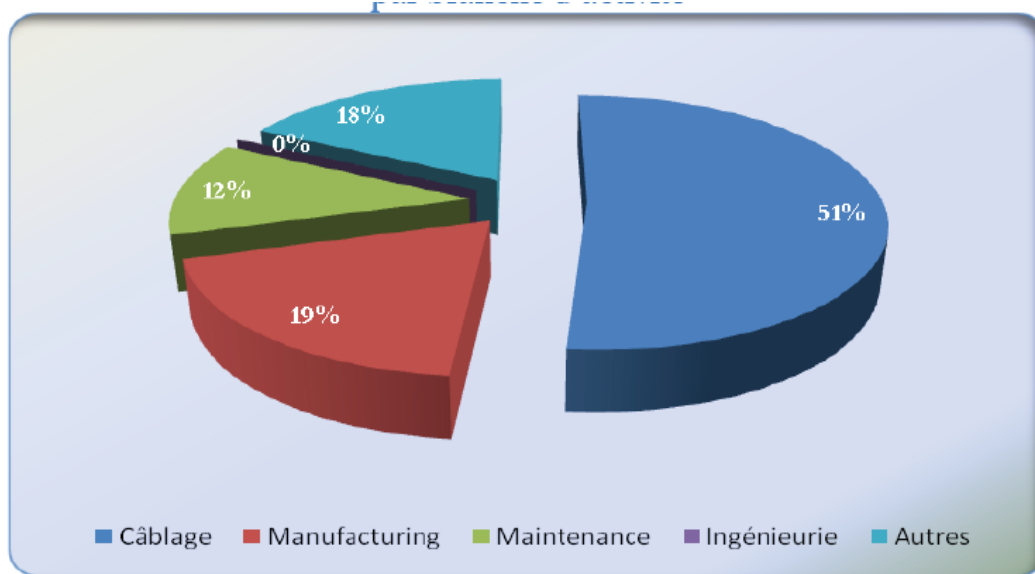
Figure 11: Aeronautics businesses in Morocco by turnover



Source: GIMAS

However, looking to activities and products exports, aeronautics in Morocco are still concentrated on cables and wires (within electronics business line), manufacturing and maintenance. All activities are turned to exports with tier 1/tier 2 positions.

Figure 12: Activities and product/services in aeronautics in Morocco



Source: Office des Changes

The aeronautic sector weighs for 4% of exports in 2013, showing a good growth figure (87% growth of exports from 2008 to 2013 and turnover annual growth of 25% 2000-2010. GIMAS sources)

The value chain is governed by foreign investments with around 100 firms operating, among of which some international leaders like SAFRAN, EADS, BOMBARDIER and ZODIAC.

b) Updated strategies

Six economic sectors – known as Morocco’s Global Jobs (*Métiers mondiaux du Maroc* - MMM) – have been identified and supported due to their strong potential for growth: aeronautics, offshoring (sub-contracted activities from outside the country), agrifood, textiles, electronics and automobiles. The pharmaceutical and chemical sectors were added to the list in February 2013. The choice of sec-

tors was motivated by a re-casting of the country's natural strategy from being based on geographical location and availability of cheap labor to one based on logistics and competitive offer.

The updated strategies are commonly based on:

- Strengthening the industrial platforms offers with the free trade zone status
- Improving logistical infrastructure special with large ports backed with logistical hubs
- Upgrading skills through training institutes with specialized profiles
- Financial incentives with frontal supports and adapted funding mechanisms.

Automotive

The PNEI sets three main objectives for the sector:

- To attract new car makers for assembling tourism cars with increasing integration level from local suppliers.
- To upgrade in the components and part value chain and capture more value added, with a move in the value chain with existing and new component global manufacturers.
- To develop specialty vehicles industry like buses, heavy trucks, and special transportation vehicles.

Off-Shoring

This sector is a strong way to integrate in GVC, mostly through customer services, R&D, BPO (business process outsourcing) and ITO (information technology outsourcing). The PNEI aims to consolidate good results from 2006 up to date by a consolidation process especially with Offshoring areas.

Aeronautics

A similar strategy to automotive is set with the following objectives:

- To upgrade electronic sector to embarked electronic systems.
- To develop aeronautics software activities.
- To develop engineering activities.
- To capture more components and parts assembling activities.
- To capture more maintenance activities.
- To develop transformation activities like customization, retrofit, and dismantlement of airplanes.
- To develop composite materials industry.

Agri-food industry

Upgrading in GVC objectives a linked to

- Development of packaged products instead of bulk exports, especially for olives olive oil and "argane" products and spices as well.
- Development of high value added products like flowers and medicinal plants

Electronics:

The upgrading strategy is based on the development of industrial electronics (specialty electronics), around three sub sectors and to cover the whole value chain from conception/development to production:

- Mechatronics.
- Embarked electronics
- Electronics for industrial needs

Textile and leather:

The strategy is based on:

- The change of the business model from limited operations subcontracting to integration of upstream operations like finishing coating, and printing.
- The development of fast fashion, jeans and sportswear down streaming.
- To develop new activities/products down streaming like textile houseware finished shoes instead of semi products.

Renewable energies:

Morocco has an important solar program aiming to respond to local needs (20% of local electrical input in 2020) and to exports of electricity as well. This program has several components as:

- Developing an industrial framework for solar and wind energy devices and components.
- Developing solar and wind fields.
- Developing energy transportation networks.

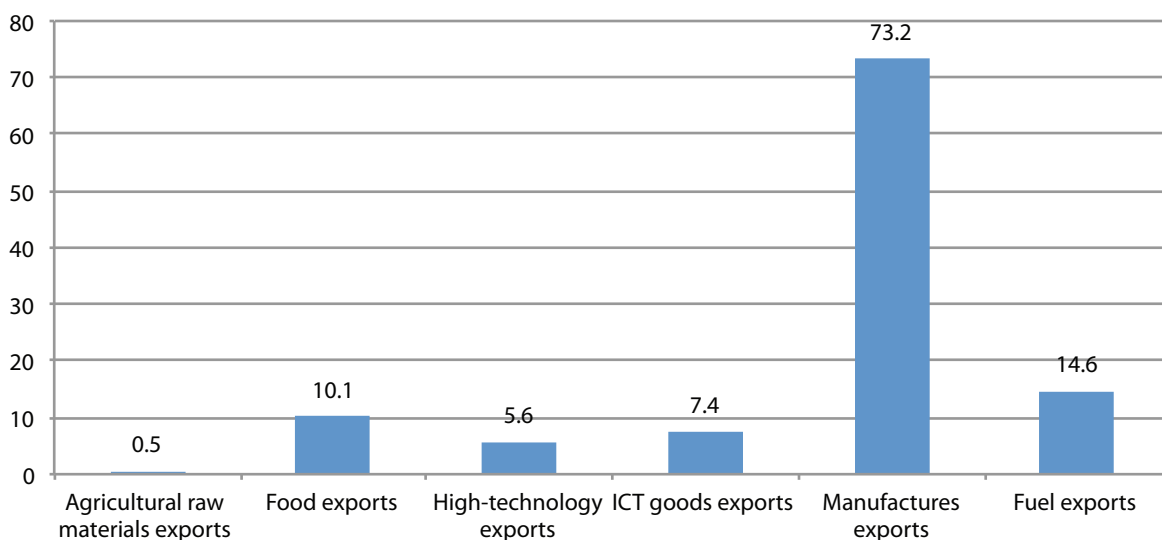
3. Tunisia in Global Value Chains

a) A model reaching its limits

Since the 1970s, Tunisia has opted for an economic model oriented toward exports and industrialization, supported by a proactive policy of public investment in physical and human capital, and of attracting FDI through a law favoring enterprises that export their entire production. In 2013, there were 2 614 wholly exporting enterprises, generating 323 262 jobs. Mainly dominated in the early 1960s by the agricultural sector, the structure of Tunisia's economy has changed profoundly in favor of industry and services. The key driver of this transformation, aside with a strong political voluntarism is the proximity to Europe, main partner and main market, with which an association agreement was signed in 1995, establishing over time, a free trade zone, taking effect in 1998. The Association Agreement, with the EU and Tunisian state common program to upgrade the competitiveness of Tunisian SMEs, have led to a better integration of Tunisian economy in GVCs.

Manufactured exports account for a significant share of overall Tunisia exports with some exports of high technology and ICT goods.

Figure 13: Share of Tunisia Total Exports, percentage, 2011



Source: the World Bank, 2014

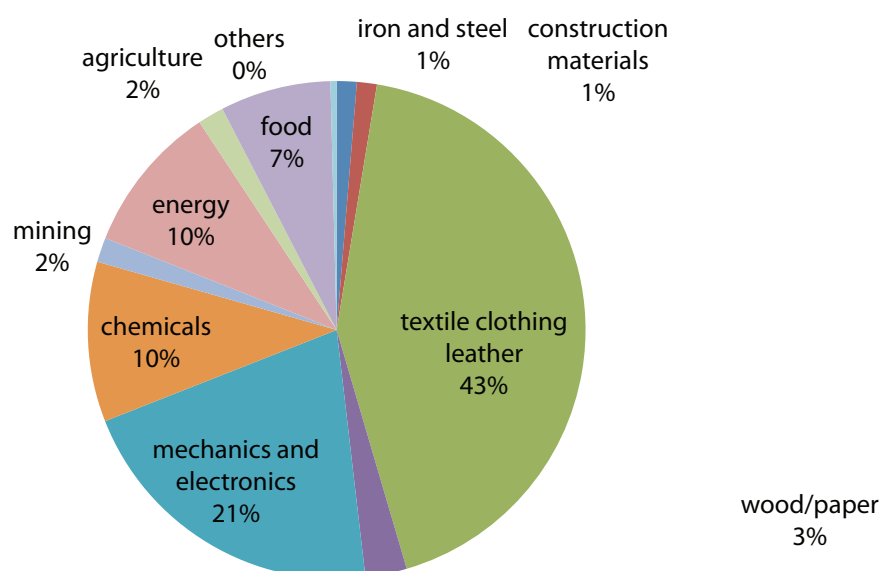
In terms of export markets, Tunisia is the country in the region with the highest dependence on the EU in its agricultural and manufactured products exports. The two key trading partners for Tunisia in these products are France which accounted for 42.7% of all Tunisian exports of these products to the EU in 2010 and Italy with a share of 25.6% and Germany (13.7%). The two key export items from Tunisia to the EU are SIC 23 (apparel and other finished products made from fabrics and similar materials) with a share of 32.2% and SIC 36 (electronic and other electrical equipment and components except compute equipment) with a share of 22.4%. In terms of apparel products, France and Italy dominates Tunisian exports to the EU with a share of 34.4% and 32.7% respectively. In electronic and electrical equipment, France is the key market accounting for 64.2% of Tunisian exports to the EU with smaller exports to Italy and Germany. While Tunisia had been an exporter of apparel to a number of European countries for a relatively long period of time, the growth in electronics and electrical equipment is more recent.

Table 7: Tunisian Key Agricultural and Manufacturing Exports to the EU, 2010⁵

Product	\$ billion	Share
Apparel and other finished products made from fabrics and similar materials	3.11	32.2%
Electronic and other electrical equipment and components except compute equipment	2.24	22.4%
Primary metal industries	1.06	10.7%

Source: UN Comtrade, 2014

Figure 14: Tunisian average exports structure 1997-2010.



Source: ITCEQ

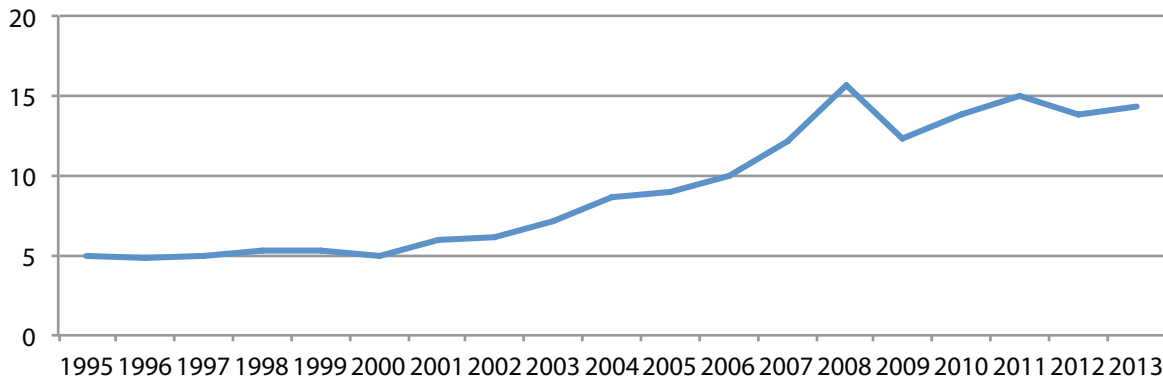
In these two product categories, however, there is a high degree of imports from the EU as well. In textile and apparel, Tunisia imported US\$ 1.43 billion of textile products (SIC 22) from the EU in 2010 with Italy and France the two key exporters to Tunisia with a share of 38.8% and 30% respectively. Imports from the EU accounted for more than 75% of total Tunisian imports of textiles with the rest of the share captured by Turkey, China, and other Asian suppliers. In electronics and electrical equipment, Tunisia imported US\$ 1.56 billion from the EU in 2010 with France the leading supplier with a share of 36% followed by Germany (24.5%) and Italy (17.3%). This represented 62% of all Tunisian imports of these

⁵ These shares are not from total exports but from exports of agricultural and manufactured products (SIC 0, SIC 2, and SIC 3).

products with China being the main non-EU source. This indicates a high degree of assembly and processing networks taking place between some EU countries especially France and Italy on the one hand and Tunisia on the other hand in textile and apparel and in electronics and electrical equipment, in addition to automotive parts. A large share of production in these sectors is done by European firms that invested in Tunisia to export to the EU market.

Over the last two decades, Tunisia achieved rapid growth in its exports of manufactured and agricultural products with these exports increasing from around US\$ 5 billion in 2000 to US\$ 15 billion in 2011.

Figure 15: Tunisia Exports of SIC 0, SIC 2 and SIC 3, US\$ billion



Source: UN Comtrade, 2014

i) clothing and textile industry

Developed since the 1970's, this industry is contributing a large share of Tunisian exports. It is based on a subcontracting logical scheme, where inputs are sent from the lead firm, transformed in Tunisia, and sent back to the lead firm. While this strategy was effective in the 19880's and 19990's, the development model is running out of steam as the need to upgrade the Tunisian industry is hindered by the limited control of the position of the country in GVCs.

ii) electrical and electronics

This sector has seen major evolution over the last fifteen years, linked to the development of automotive and aeronautics components activities. The sector exports have increased by an average of 18% per year from 2000 to 2012, becoming a key contributor to Tunisian exports.

The basic business model is similar to that of the textile sector, leading to similar changes facing the industry. In addition, the electrical/electronic sector is challenged by a concentration of the product portfolio on cables and wires assembling industry. Most of the production of the electrical and electronics products is integrated to three value chains:

- Automotive (230 companies working in the automotive components sector).
- Aeronautics (65 subcontracting companies for components and airplane maintenance).
- Home appliances.

Both sectors are integrated in GVCs with the same weaknesses and threats of which we can cite:

- Aggressive cost competition from south Asia on the same segment of business, particularly after the multi-fiber agreement dismantlement.
- Low demand for of skilled workers, the need being focused on unskilled workers to perform basic functions limiting technology transfer and creating frustration for skilled workers.
- Low impact on local economy with limited links to local upstream activities.

- Concentration in export zones around the coastal area near logistic zones, creating disparities in local development.
- Concentration of exports to Europe and especially a small number of countries in Europe (France and Italy).
- Low value added in the business model and high foreign content in exports.
- Natural fiber oriented technology and limited investments on synthetic fibers technologies and products.
- Concentration on small numbers of products.

Some of the opportunities and strengths of the sector are:

- Proximity to markets (Europe but Arab countries and sub-Saharan Africa as well) in comparison to Asian producers although China's search for industrial platforms in Africa might create new competition.
- A critical mass of enterprises having reached a good position in the experience curve.
- A skilled workforce is still outside the productive system and is capable of helping to upgrade the industry.

iii) A third sector of integration into the GVC is ICT which experienced a rise in service activities, (call centers, outsourcing of accounting and payroll management), and software development.

b New updated strategies:

The industrial network in Tunisia accounts for around 5 669 enterprises with a staff of 10 employees or more each. Enterprises are represented as follows: agro-food 18.5%, construction materials 8%, chemical industry 9.7%, electrical, engineering and electronics industries (IME) 17.6%, textile and clothing 32%, other sectors 14.2 ; This important potential allows Tunisia to build new strategies to address the challenges, even though socio-economic difficulties of recent years have slowed Tunisia's integration in the world economy.

The Tunisian government has released in September 2014, a document called « Tunisie, une dynamique, un avenir » which synthesizes the key strategies to be used to boost the economy and Tunisian exports. It is an updated and contextualization of a document published in 2008, "national industrial strategy looking toward 2016". This strategy is based on the following developments (extract for industrial activities only):

a) Industrial policy based on:

- i. Industrial and logistical platforms and improved logistical framework and infrastructure.
- ii. Investment friendly environment, focus on FDI led investments and promotion of PPP.
- iii. Adapted governance, with focus on private sector and other stakeholders' involvement.

b) Strategic sectors

1. Upgrading in textile and apparel value chain

- By the development of textile transformation for automotive industry, technical textiles for construction.
- By identification of new niches for clothing industry (small series, lasted differentiation).
- By integrating new processes and technologies using synthetic fibers.

2. Build a regional industrial platform in automotive industry

- By extending the number of components and parts regarding to the total components in a car. The current capacities in Tunisia offer a possibility to integrate 65% in volume for a car.
- By attracting and supporting higher value products like navigation and driving systems, embarked electronics, new materials and lower energy consumption products
- By supporting “full-solutions” products alternatively to assembly.
- By attracting a major car maker to build cars in Tunisia.

3. Develop aeronautics components and services industry

This strategic orientation is derived from the Tunisian experience and potential on the one hand and the global aeronautics industry boom on the other hand. This boom is leading to an explosive growth of demand on components and parts and maintenance training services and so on.

The strategy is based on:

- Dedication of an industrial platform (MGHIRA AEROPOLE)
- Development of an aeronautic cluster (Tunisia Aeronautic Valley)
- Development of components industry
- Development of services industry (maintenance and repair)

4. Develop electric and electronic industry

Aside of automotive and aeronautics industries, a strategy is set to develop electric and electronics (mainly electronics) industry through:

- Up streaming in microelectronics, and automatics
- Developing semiconductors industry

5. Develop energy supply

Oil and Gas (including non-conventional) industries are key to address power supply needs for Tunisia. The development of the integration to global value chains in energy is considered through the following:

- Attract FDI in oil & gas production including offshore and unconventional production
- Developing partnerships for electricity production plants
- Connecting to North African and European electricity networks

6. Develop renewable energies, and renewable energy linked products and services

Tunisia has a strong potential to provide solar and wind energy so that the opportunity to develop an exporting industry is integrated at a strategic level. The objective set is to have 30% of electrical production from renewable in 2030. Integration to GVCs will depend on the ability to develop an industrial capacity to produce locally solar and wind components and devices and to export a significant part.

7. Develop ITC services to industry

- the development of techno-parks (example: Sfax).
- Relocation of R&D with high content of distant business using internet technologies.
- Develop outsourcing of software development and services.
- Develop distant e-services like e-medicine.
- Develop business process outsourcing (BPO) which already employs 20000 jobs in Tunisia.

8. Develop agro-food industry

Agricultural products are an important Tunisian export sector. It is estimated that 1000 enterprises are active in the industry with 190 of these firms exporting. Tunisia presents strong opportunities to develop this sector regarding to the following strategic orientation:

- Shift production mix to Develop higher value agro-products, using no more arable land like flowers, primers, bio products, medicinal plants and aromatics.
- Improve conditioned and final customized products part of the total currently exported as bulk like olives, olive oil, dairy milk or cheese.
- Improve fish and processed fish exports.
- Develop availability of land through new integrated agro-industrial areas.
- Develop new markets, including among Europe 27 countries.

9. Develop pharmaceutical industry

Although it accounts for a small part of exports, Tunisian pharmaceutical industry presents a high potential of integration in regional value chains with 50 units of pharmaceutical production employing 3800 jobs, and around 10% of total production exported. While the integration to the GVC is still through the importation of molecules and intermediate products, there are opportunities of development and upgrading in the value chain through adapted strategies of which we can cite:

- Improvement of business and investment environment in the sector
- Develop attractive niches to capture FDIs in the sector.

3.3.2 *Algeria Libya, Mauritania and Sudan, and in Global Value Chains*

While Morocco, Tunisia, and Egypt have been integrated to varying degrees in a range of global value chains, the rest of the region has experienced far less integration in global value chains with very small amounts of agricultural and manufactured exports. In 2010, Libya total exports to the world were US\$ 36.6 billion of which almost 98% were mineral products. In the same year, Algeria exported US\$ 57 billion to the world of which 97.4% were mineral products. In 2012, Sudan total exports were only US\$ 3.38 billion with primary metal exports especially to the United Arab Emirates (UAE) accounting for around 65% of these exports. Mauritania total exports in 2010 stood at a mere US\$ 0.7 billion. This indicates that those countries are at a significantly lower stage in regard to integration in global value chains reflecting a number of issues. First, the issue of logistics and infrastructure is one of the key hurdles limiting the integration of these countries in GVCs. The highly integrated areas in Morocco, Tunisia, and Egypt are mostly coastal areas with close proximity to Europe and access to transportation networks and also with relatively advanced infrastructure. The non-coastal parts of these countries tend to be less connected to GVCs reflecting difficulties in transportation. This issue is exacerbated in some of the other countries in the region such as Sudan where the infrastructure connecting these countries with trading partners is significantly less developed. In addition, the rich natural resources in Libya and Algeria play an important role in creating "Dutch disease" characteristics through high reliance on natural resources and less focus on industrial and trade development. The case of Sudan is interesting as more focus on trade and industrial development is being shown following the separation of the South which deprived the country of most of its oil resources. Finally, the policy framework in these countries is not always supportive of integration in GVCs as protective trade policies or taxes on exports still exist in some of these countries. These issues will be discussed in more details in what follows.

1. ALGERIA integration to GVC

a) A limited integration

The main productive activities in Algeria are oil and gas, agri-food, extractive industries and mining. In 2011, the main productive sectors that contributed to GDP were oil and gas (36.0%), services (19.7%) and agriculture (8.1%). Industry, meanwhile, had contracted to 4.3% of GDP (down from 9.1% in 1998). Exports of oil and gas are around 97% of total exports, the remaining 3% are raw materials, mining products, chemicals, leather, agro-food products, and derivatives from petroleum processing. Despite the large number of private firms in Algeria, including small and very small enterprisers, most of the Algerian GDP is produced by few large state-owned enterprises such as SONATRACH. The economic weakness of Algerian economy and the limitation to its deeper integration to the GVC could be explained by:

- i. The very small size of the enterprises in the private sector (98% VSE)
- ii. The small number of enterprises with more than 10 employees in the industrial private sector: they are less than 2000 (compared to 5669 in Tunisia).
- iii. The inefficiency of the state owned sector which accounts for most large companies.
- iv. Despite policies to attract FDI, there are many issues constraining and limiting the success of foreign investments in the country.
- v. The management structures and the strategies of local firms are oriented toward the domestic market with little focus on exports.
- vi. Bureaucratic management of the economy which it makes very difficult to adopt Tunisian and Moroccan policies of integration to GVC. For instance, import of intermediate goods to re-export after assembly is complicated in the complex Algerian regulatory framework, and often results in non-competitive product.
- vii. Limited logistics and industrial infrastructure (saturation of ports and airports, lack of industrial zones, small size of logistic hubs).

B) Integration strategies

The current economic model of Algeria poses serious challenges to the country in regard to lower energy prices and also exhaustion of resources. Acknowledging this, the Algerian government has adopted an industrial strategy since 2007. This strategy was updated in July 2013 and approved in the last national Economic and Social development Conference held on 4, 5, 6 November 2014. This strategy aims to improve Algeria's integration in GVCs through:

1. Adaptation of oil & gas regulations to attract more FDI in upstream research for new reserves including non-conventional and offshore.
2. Upgrading SONATRACH's position in oil & gas upstream activities through new international venture in North Africa and elsewhere.
3. Developing downstream oil & gas industry, in chemical and hydrocarbon derived products.
4. Restructuring the SOE sector to build large groups of regional/global firms and to build joint ventures with global lead firms (ARCELOR MITTAL, QATAR STEEL, LAFARGE, RENAULT, DAIMLER, MASSEY-FERGUSON). Some projects will be developed with a focus on exports such as the steel industry with ARECELOR MITTAL and QATAR STEELS, or cement with LAFARGE.
5. Developing industrial infrastructure through a 42 integrated industrial platforms or parks offering a total surface of 14000 hectares to be available by 2018.
6. Adopting new legislation to foster FDI and SMEs development.

7. Developing energy supply and electricity exports through solar and renewable program.

Regarding to specific sectors, Algeria lacks an internationally competitive sector at the moment outside the energy industry. This means that building such sectors will take a relatively long period. However, there are few sectors that could provide a potential for this:

- Petrochemical and gas downstream industries
- Home appliances industries (white and grey electronics)
- Mechanical industries.
- Pharmaceutical.
- Construction materials like cement and similar products.

2. Libyan integration into GVCs

Libya's economy is primarily structured around the energy sector, which generates about 50% of GDP and 96% of government revenues. Concentration on the export market for hydrocarbons has led to dependence on imported consumer and industrial goods, limiting domestic entrepreneurship. Notably, most of these activities have been concentrated on the upstream part of the industry whereby crude oil is exported with no transformation or value added. The substantial revenues from the energy sector have not been used sufficiently to develop national infrastructures, or to promote other sectors.

The country's other major industrial products, apart from hydrocarbons, are petrochemicals, aluminum, iron and steel, processed food, textiles, handicrafts, and cement – however, these have not been developed fully. There have been attempts to promote Libya's positioning in the global value chains (GVCs), for example through the promotion of industrial projects creating downstream petrochemical operations, satisfying internal demand for processed petroleum products, and taking advantage of cheap energy to build export oriented manufacturing capacity. However, these were not completed due to the country's lack of infrastructure and adequate regulatory environment.

Libya has potential to leverage its other comparative advantages to diversify its economy away from the hydrocarbon sector and link it to GVCs. Two opportunities:

- Given its extensive Mediterranean coastlines and its close proximity to Europe, Libya is well positioned to develop a sophisticated ports and shipping industry which would benefit trade between Africa and Europe, and beyond.
- In Libya, 88% of the land is desert, offering huge potential for solar-energy generation. The latter would reduce the country's reliance on oil, allowing for increased non-oil exports. Libya could potentially export part of the clean energy output to the European markets that are under pressure to meet their clean energy targets.

3.3.2.3 Mauritania in global value chains

Mauritania is integrated in the global economy to varying degrees through its mining and oil sector, its fisheries sector and its Nouadhibou free zone. Iron, oil, copper, gold and fish are exported unprocessed to Europe and China, where they are used as inputs into the value chains of their own production systems.

The mining activities managed by the SNIM on behalf of the state play a leading role, dominating exports and imports. The SNIM is the main employer in Mauritania's productive sector, with a staff of more than 5000, and is the second largest iron-ore producer in Africa. Fishing, meanwhile, has enormous potential, but domestic production is not sufficiently processed in Mauritania. A Fisheries Partnership Agreement (FPA 2012-14) was signed by Mauritania and the EU in October 2013. This is a crucial step, as the fisheries sector alone accounts for 40% of revenue in foreign currencies, 25% of government revenue, 12% of GDP and 40000 jobs. The free zone in Nouadhibou will also allow Mauritania to host industries seeking relocation and to integrate the country into various GVCs. Another potential

industry which could be developed in Mauritania is renewable energy from solar and wind and ocean. This potential could be valued within a regional framework of cooperation in order to address energy transportation issues. Nonetheless, several obstacles could slow down Mauritania's participation in GVCs. One is the country's deficient electricity supply. Thus, the ongoing construction of the 120 MW combined-cycle power station in Nouakchott will be an important step. Issues around trade policies and regulatory frameworks are also important.

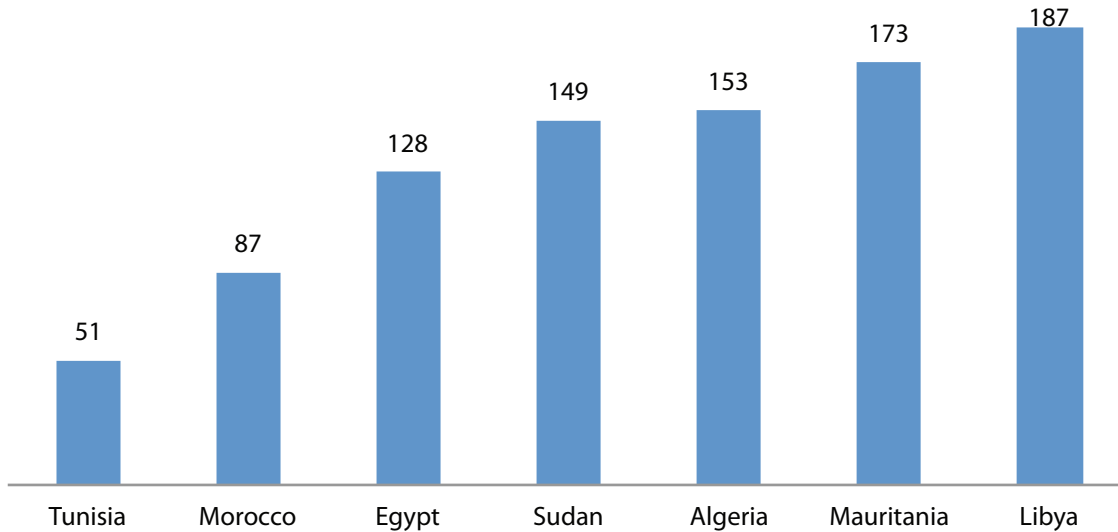
3.3.2.4 North African countries in global value chains: a regional mapping of positions

GVC	Morocco	Tunisia	Egypt	Algeria	Libya	Mauritania
Oil&Gas	Potential development in oil & gas Including offshore and shale oil & gas.			Important global exporters of crude Oil&Gas		potential
Derivatives from oil & gas (fuels, chemicals, plastics)	Low integration					
Solar energy	Huge potential+ solar plan to export electricity to Europe					
Phosphates	Global exporter phosphate			Significant reserves of phosphates		
Phosphates derivatives	Global exporter of phosphate derivatives	projects		Limited export industry But huge projects		
Iron ore	Limited reserves upstream industries			Important reserves of iron ore (non- exploited)		Important reserves of iron ore
Iron and steel industry	Iron and steel industry					
automotive	Component industry based on cable and wires	Component industry based on cable and wire	Component industry			
	Construction (assembling) industry		Construction (assembling) industry	Construction (assembling) industry in starting		
aeronautics	Components and services		Components services and engineering			
Textile and apparel	Important industry based on cutting/sewing		Integration in the whole value chain			
Agro-food	Agro-food exporters				Net importer,	Fish and fish products exports
Electronics home and industrial appliances	Assembling industry					

d. Foreign Direct Investments in North Africa

Foreign direct investments are one of the key channels through which developing countries have been integrated in global value chains over the last few decades. A number of countries in North Africa were amongst the first developing countries to open their economies to foreign direct investments and to make FDI one of their key economic development strategies. Other countries, however, have been more cautious in their attitude to FDI with more restrictions imposed on foreign firms. The policy framework of investing in the region, thus, varies significantly. Similarly, the business environment in the region and the ease of investing is very different from one country to another. Few countries in the region record very low on the World Bank's Ease of Doing Business Index.

Figure 16: Ease of Doing Business, world ranking out of 189 countries

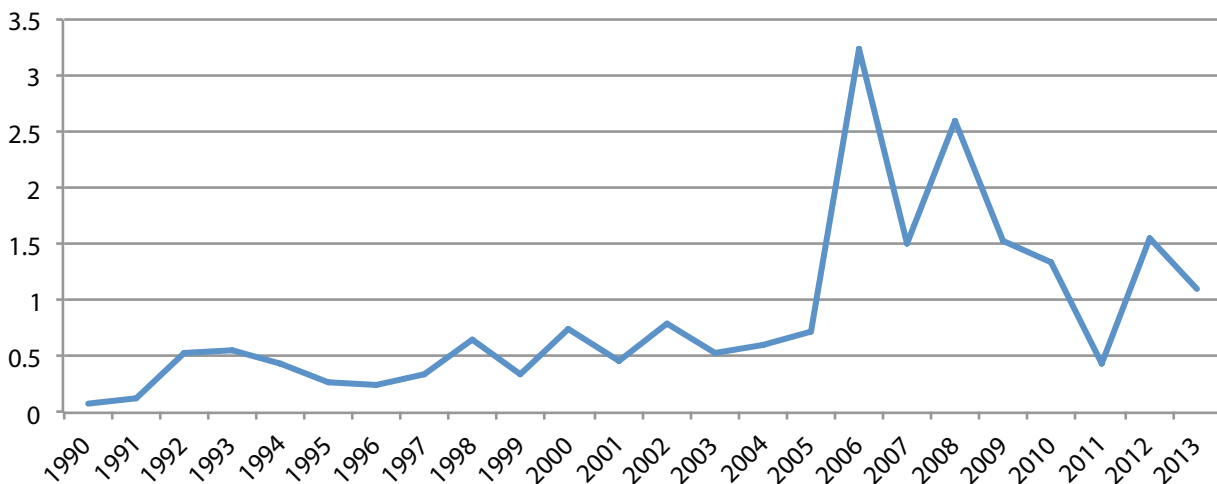


Source: The World Bank, 2014

Foreign Direct Investments in Tunisia

Tunisia is one of the countries in the region that has focused on attracting foreign direct investments and offered a range of incentive to foreign firms. Net inflows of FDI to Tunisia increased from around US\$ 300-700 million a year in the 1990s and the first half of the 2000s into US\$ 1 to 3 billion a year in the second half of the 2000s before declining in 2011.

Figure 17: Net Inflows of FDI to Tunisia, current US\$ billion



Source: the World Bank, 2014

In terms of origin of FDI, the EU is the main source of foreign investments to Tunisia. In 2008, for instance, the share of EU countries in FDI inflows to Tunisia stood at 75% with investments from France, the UK, and Italy leading in terms of EU investments. Arabic investments to Tunisia have also increased in the second half of the 2000s with a large inflow of FDI from the United Arab Emirates in 2006.

Table 8: FDI Inflows to Tunisia by origin, US\$ million⁶

Source of FDI	2005	2006	2007	2008	2009	2010
Italy	88	99	141	291	432	227
UK	113	203	644	877	391	307
France	75	115	125	456	195	178
EU	480	779	1160	2042	1263	1004

Source: UNCTAD, 2014

The Tunisian government has focused on attracting foreign firms in the manufacturing sector with sectors such as apparel, electronics, tourism, business services outsourcing, and automotive parts, receiving special government attention. The incentives offered by the government including the establishment of special economic zones, the location of Tunisia, the relatively advanced infrastructure, and the trained labour force have all encouraged a number of European firms to set up production in Tunisia and to use the country as one of the production locations in their GVCs. Companies from France, Italy, Germany, and Spain are active in the country in a number of sectors. Some of these investments are located in the special economic zones in Bizerte and in the north of the country and Zarzis in the South but many companies are located outside these zones in various parts of the country.

Table 9: Examples of Foreign Firms in Tunisia

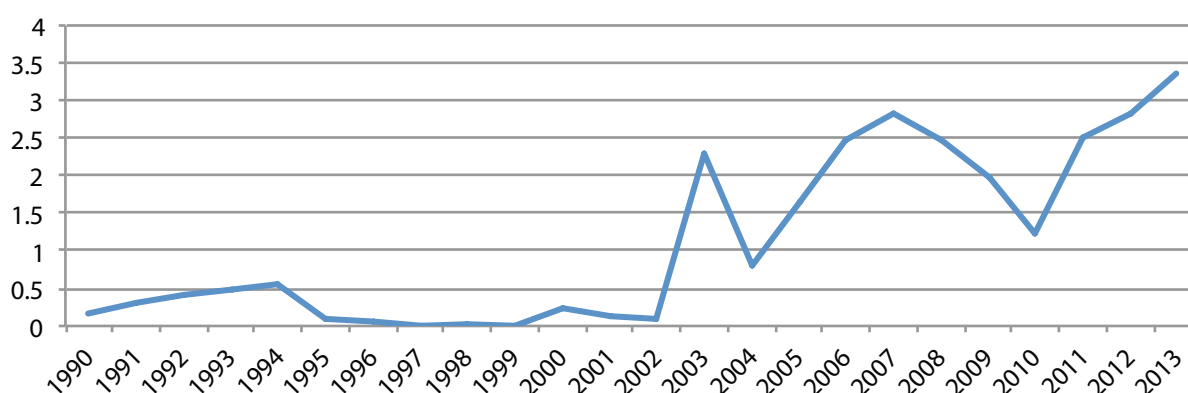
Company	Industry	Country of Origin	Buyers
Latecoere	Aircraft parts and components	France	Airbus, Dassault Aviation, Boeing
Draxlmaier	Automotive parts and components	Germany	Audi, BMW, Bugatti, Mercedes-Benz, Volkswagen
Valeo	Automotive parts and components	France	BMW, GM, Toyota, Volkswagen
Teleperformance	Outsourced call centres	France	-
Marzotto Group	Clothing	Italy	Own brands
Robert Bosch GmbH	Automotive parts and components and other industries	Germany	Large number of automobile and other companies

Source: Compiled by the author, 2014

Foreign Direct Investments in Morocco

Similar to Tunisia, the Moroccan government has focused over the last few decades on attracting FDI and encouraging foreign firms to invest in the country. Net FDI inflows increased from few hundred million dollars a year in the 1990s to US\$ 1.5-3 billion a year in the 2000s.

Figure 18: Net Inflows of FDI to Morocco, current US\$ billion



Source: the World Bank, 2014

6 The breakdown of FDI by origin is based on UNCTAD data while the total inflow is based on data by the World Bank. There are some differences, sometimes significant, between the two datasets.

Similar to Tunisia, the developed economies particularly the EU accounts for the largest share of FDI to Morocco. France in particular accounts for a large share of FDI to Morocco. Morocco has also experienced an increase in FDI from the Arab Gulf countries and from Switzerland and the United States in the last few years of the last decade.

Table 10: FDI Inflows to Morocco by origin, US\$ million

Source of FDI	2005	2006	2007	2008	2009	2010
Spain	163	818	746	338	191	225
UK	51	106	314	157	123	122
France	2238	983	1742	1361	1608	2435
EU	2764	2527	3556	2539	2392	3384

Source: UNCTAD, 2014

The key sectors that witnessed an increase in FDI over the last two decades were manufacturing, tourism, telecommunications, and real estate with France and Spain the two key investors in the country. One of the important locations for these firms is the industrial free trade zones (FTZs) and Logistic Zones in Tangier in the north of the country.

Table 11: Examples of Foreign Firms in Morocco

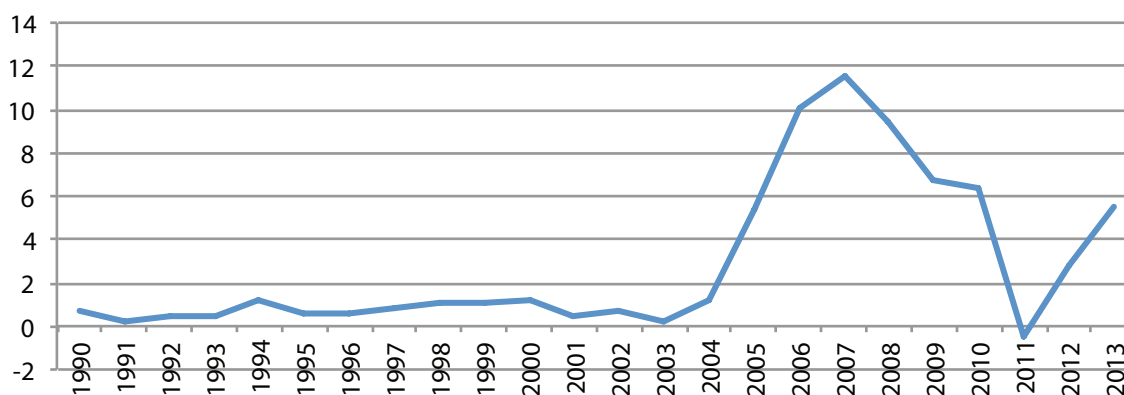
Company	Industry	Country of Origin	Buyers
Delphi	Automotive parts and components	US/UK (HQ)	Large number of automobile and other companies
Bombardier	Aircraft production	Canada	Own brands
Proinsur	Automotive parts and components	Spain	Valeo, EDM Electronics, Derbi
Atento	Business outsourcing	Spain	
Renault	Automobile assembly	France	Own brands

Source: Compiled by the author, 2014

Foreign Direct Investments in Egypt

FDI in Egypt has also increased rapidly particularly in the first half of the 2000s before declining in the second half. Since the early 1990s, the economic policy in Egypt has focused on attracting FDI and in setting up special economic zones for foreign firms. The country has also signed a large number of Bilateral Investment Agreements (BIAs) with a number of European and regional partners in addition to the US. Most foreign firms are located around Cairo and in the coastal northern parts of the country such as Alexandria and Port Said.

Figure 19: Net Inflows of FDI to Egypt, current US\$ billion



Source: the World Bank, 2014

In terms of origins of FDI to Egypt, European countries account for a smaller share than that seen in Morocco and Tunisia with significantly higher investments to Egypt from the United States and from Arabic state particularly the Gulf Cooperation Council (GCC) states.

Table 12: FDI Inflows to Egypt by origin, US\$ million

Source of FDI	2005	2006	2007	2008	2009	2010
United States	3620	3743	6704	4715	2258	1961
UK	766	2243	2987	2464	3781	5457
France	599	319	338	1131	244	253
EU	2191	4444	3946	5451	5970	7482
West Asia	360	3267	2001	2310	1716	1175

Source: UNCTAD, 2014

Foreign investments in Egypt are active in a large number of sectors including energy and minerals, agriculture, tourism, real estate, services, textile and apparel, electronics, and other manufacturing sectors. Egypt has also attracted a number of Indian and Chinese companies with few Chinese companies already producing in the China-Egypt Suez Economic and Trade Cooperation Zone, located near the Suez Canal. A key attraction point for the zone is its location on the key shipping route between China and Europe which can encourage Chinese firms to locate assembly, logistics and other activities in the zone. The zone is adjacent to Ain Sokhna Port. Another important agreement that led to growth in FDI to Egypt was the Qualifying Industrial Zones (QIZ) agreement which provided duty and quota free access to the US market (with certain rules). A number of Asian and Turkish companies have moved to the areas covered by this agreement particularly in the apparel sector. Some examples of foreign firms in Egypt are listed below.

Table 13: Examples of Foreign Firms in Egypt

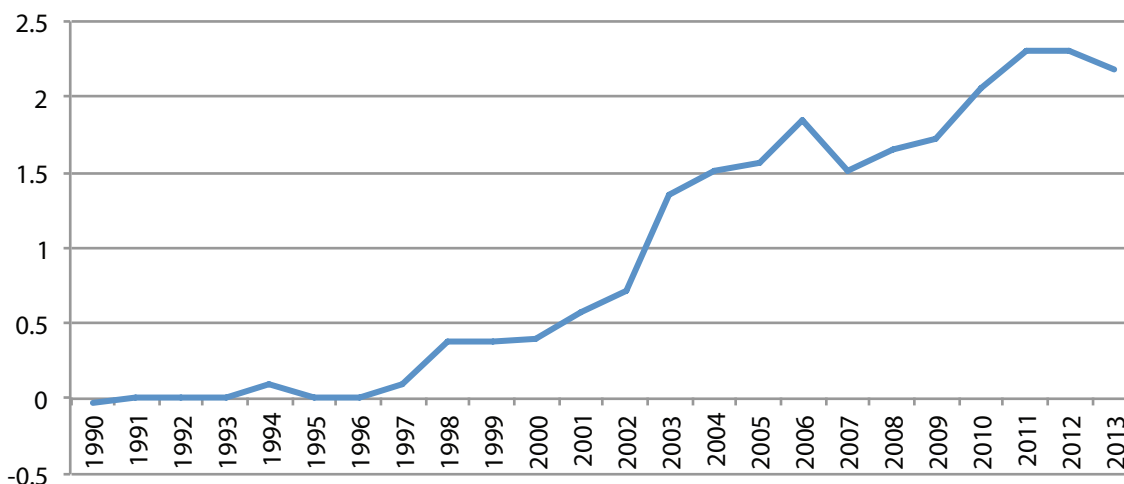
Company	Industry	Country of Origin	Buyers
Velocity	Apparel	India	Levi's/other US and EU brands
Electrolux	Home appliances	Sweden	Own brands
General Motors	Automobile (assembly)	US	Own brand
Jushi	Fibre glass	China	Multiple buyers

Source: Compiled by the author, 2014

Foreign Direct Investments in Sudan

Despite the different economic and policy framework, Sudan has also experienced an increase in FDI since the 1990s with total inflows increasing from few hundred million dollars in the later 1990s to 1.5-2 billion dollars a year in the late 2000s.

Figure 20: Net Inflows of FDI to Sudan, current US\$ billion



Source: the World Bank, 2014

The factors behind this increase were, however, very different from those found in Egypt, Morocco and Tunisia. The difference was in the main sectors that attracted these investments and also in the sources of these investments. In terms of sources, Arabic (Saudi Arabia, Egypt, Syria, Jordan, and Lebanon) and Asian countries were the main investors in Sudan with data from the Bank of Sudan showing that the two regions account for more than 90% of total FDI in Sudan with oil and mining accounting for almost 75% of total investments. UNCTAD reports limited data on FDI in Sudan but it also shows that China holds the largest stock of FDI in the country. In terms of sectors, services (communication and banking) and the energy sector attracted the majority of these investments with strong presence of Asian sources in the oil and energy sector and Arab investors in the services sector. European and American investments in the country are almost non-existent with a number of factors such as the US economic sanctions on Sudan playing a role in this. Foreign investments in manufacturing are also very small. Some examples of foreign firms in Sudan are listed below.

Table 14: Examples of Foreign Firms in Sudan

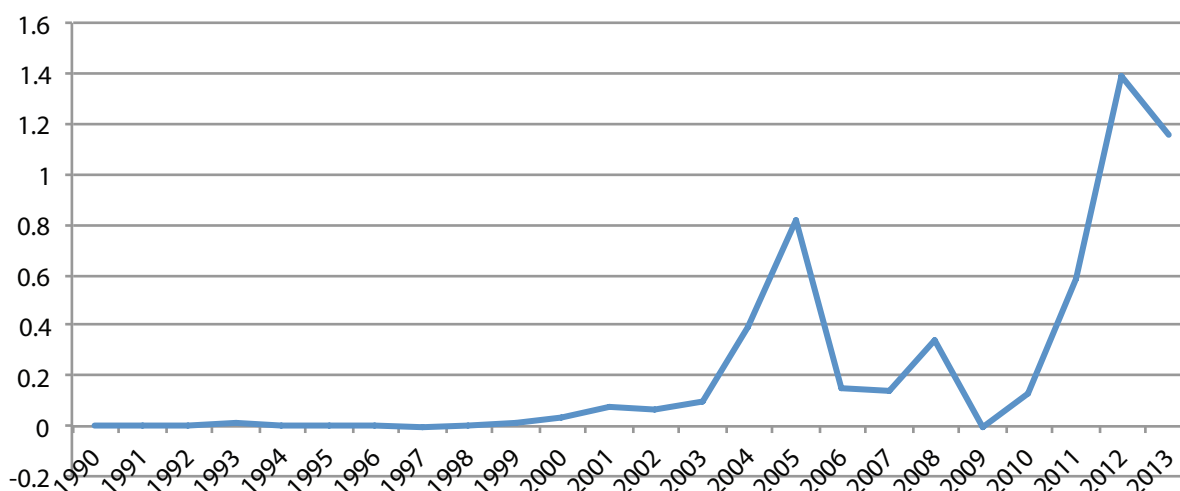
Company	Industry	Country of Origin	Buyers
CNPC	Oil	China	-
Petronas	Oil	Malaysia	-
ONGC	Oil	India	-
Byblos bank Africa	Banking	Lebanon	-

Source: Compiled by the author, 2014

Foreign Direct Investments in Mauritania

Mauritania experienced an increase in FDI inflows in the 2000s although the overall amounts remain smaller than most other countries in the region. Over the last few years, the government has been focusing on attracting FDI in fishing, mining, and hydrocarbon sectors.

Figure 21: Net Inflows of FDI to Mauritania, current US\$ billion



Source: the World Bank, 2014

Limited data is available on the sources of FDI to Mauritania. In the last few years, however, a number of large projects have been licensed in Mauritania. In mining, a number of European, Canadian, and Australian firms have invested in iron ore, gold, diamonds, copper, gypsum, and uranium. Few oil companies have also invested in exploration and production in the country. A number of projects in fishing have also been launched including a \$120 project by a South African company. Banking and telecommunications have also received some investments. FDI in manufacturing remains very small.

Table 15: Examples of Foreign Firms in Mauritania

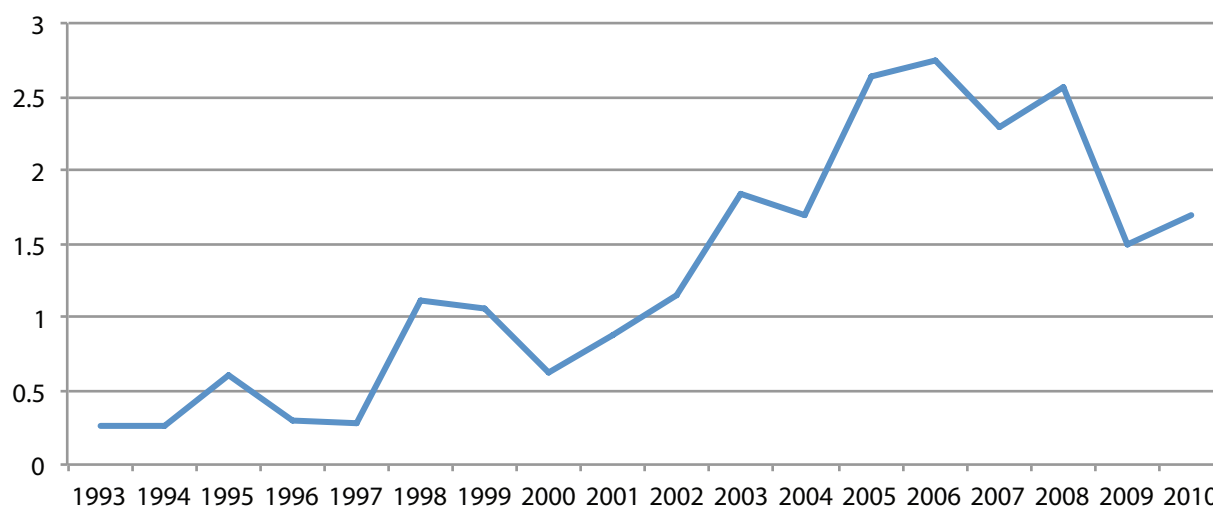
Company	Industry	Country of Origin	Buyers
Xstrata	iron ore	Switzerland	-
Salene Fishing	Fish processing	South Africa	-
Kinross	Gold mining	Canada	-
Forte Energy	Uranium mining	Australia	-

Source: Compiled by the author, 2014

Foreign Direct Investments in Algeria

Algeria maintains a cautious approach to foreign direct investments. This was illustrated in 2009 in legislations which imposed a 49% ceiling on foreign investor stake in new FDI projects. Despite this, FDI in Algeria have increased significantly since the mid -1990s with annual flows increasing from few hundred million dollars in the first half of 1990s to US\$ 1.5-2 billion in the second half of the 2000s.

Figure 22: Net Inflows of FDI to Algeria, current US\$ billion



Source: the World Bank, 2014

Investments in Algeria are generally concentrated in the energy sector, services, real estate, and infrastructure, with limited investments in industry and agriculture. Arabic and European countries are the source of most investments into the country although investments from the US have also increased in recent years.

Table 16: FDI Inflows to Algeria by origin, US\$ million

Source of FDI	2005	2006	2007	2008	2009	2010
Spain	117	210	164	325	198	91
United States	301	314	293	323	476	618
France	121	293	233	303	308	196
EU	464	850	915	1517	1171	1077
West Asia	177	218	264	318	809	301

Source: UNCTAD, 2014

Algeria has also attracted some market-seeking FDI in the last few years including a Renault factory and a factory planned by the Chinese state owned automobile manufacturer FAW. Both aim at assembling vehicles for the domestic market.

Table 17: Examples of Foreign Firms in Algeria

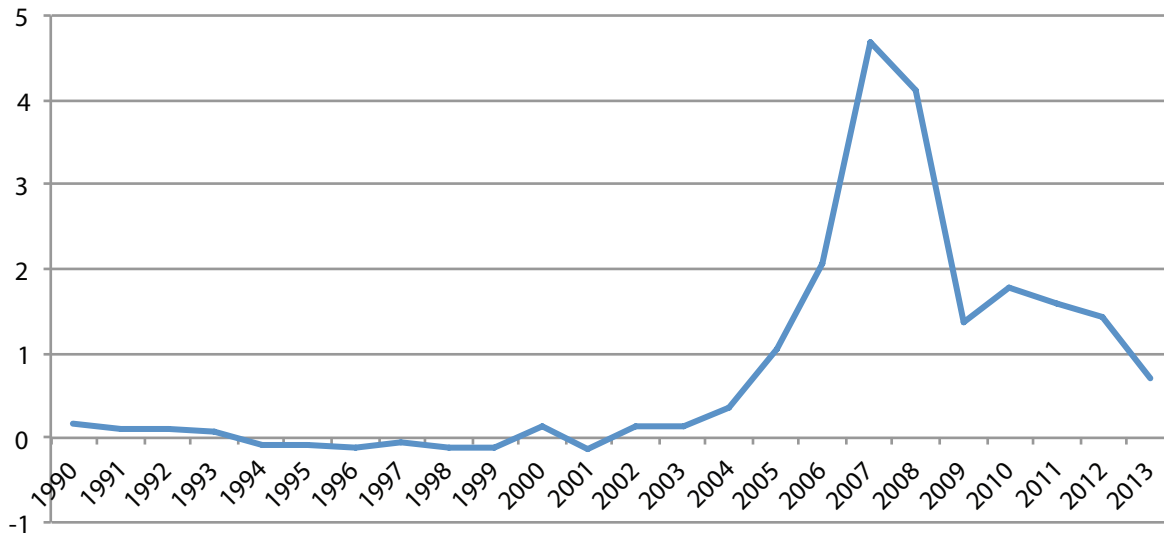
Company	Industry	Country of Origin	Buyers
Renault	Automobile (assembly)	France	Own brands
ARCELOR MITTAL	Iron and steel	India	
NOVO NORDISK	Pharmaceutical	Norway	
Samha/Samsung	Home appliances	Korea	Own brands
Respol	Natural Gas	Spain	-
LAFARGE	Cement	France	
FAW	Automobile (assembly)	China	Own brands

Source: Compiled by the author, 2014

Foreign Direct Investments in Libya

Libya has not been very open to foreign direct investments in the last few decades. As such, the country received almost no foreign direct investments until the second half of the 2000s following the lifting of the economic sanctions on the country.

Figure 23: Net Inflows of FDI to Libya, current US\$ billion



Source: the World Bank, 2014

The foreign investments in the country are largely concentrated in the energy sector. Companies such as Eni, Total, BP are among the firms that have invested in the oil industry in Libya in different ways following the lifting of the sanctions. The political situation in the country in the last few years has limited FDI inflows.

e. Logistics and Transportation

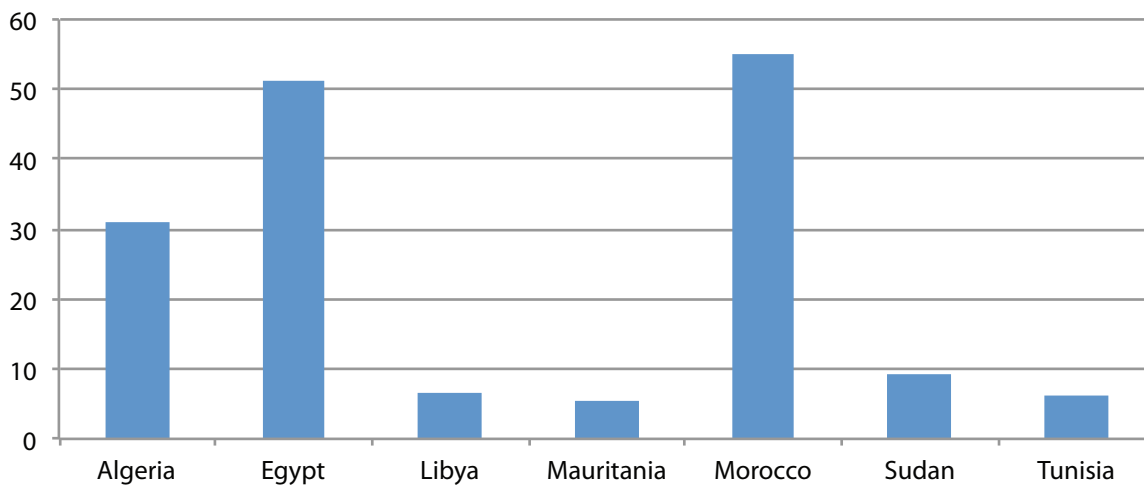
Research in the last few years has documented the growing importance of logistics and transportation in shaping the organization and geography of global value chains and determining the integration of especially developing countries in GVCs. In many industries, proximity to markets and ability to respond quickly to market shifts represent important factors that allow certain countries to maintain a position in GVCs often if other locations offered more favourable location in regard to costs, skills, or business environment. One of the important advantages for North Africa in comparison to many other developing regions is its close proximity to one of the largest consumer markets in the world which is the European market. This proximity has enabled some of these countries, as shown in the earlier discussion, to integrate in European GVCs and to attract European firms to invest in these countries. Two issues are important, however, to highlight. First, the relatively good integration with European market from a logistical perspective does not include all countries in the region neither all regions in every country. While Tunisia, for instance, has an advanced transportation infrastructure and easy access to the EU market, Sudan and Mauritania face serious transportation infrastructure issues. Similarly, Cairo region and the Northern parts of Egypt enjoy a relatively advanced infrastructure and link with ports, the southern parts of Egypt have a substantially less advanced infrastructure and connection to final markets. Second, whilst the focus on the EU market might have been feasible from the perspective of a few countries in the region, integration in European GVCs cannot offer a developmental path to the entire region especially in a period in which the centres of global economic gravity are shifting eastward. This means that policy makers should focus on improving logistical connections with the EU but should also work on improving linkages with other regions. From this perspective, the location of North Africa and its connections with other parts of the world could offer an advantage with the eastern parts of the region (Egypt and Sudan) enjoying better connections with the rest of the Middle East, the

Far East, and southern Africa, the western parts (Morocco and Mauritania) having easier connection with the Americas and southern Africa, the northern parts having better connection with Europe, and the southern parts potential having better land connection with central Africa (with issues around infrastructure and conflicts limiting this at the moment). A map of key ports in the region and their shipping time to key global destinations are shown below.

Port of Loading	Port of Discharge	Time
Port-Sudan (Sudan)	Barcelona (Spain)	7 days
Alexandria (Egypt)	Barcelona (Spain)	4 days 11 hours
Bizerte (Tunisia)	Barcelona (Spain)	1 day 10 hours
Nouakchott (Mauritania)	Barcelona (Spain)	5 days 14 hours
Port-Sudan (Sudan)	Dubai (UAE)	6 days 12 hours
Alexandria (Egypt)	Dubai (UAE)	9 days 3 hours
Bizerte (Tunisia)	Dubai (UAE)	12 days 5 hours
Nouakchott (Mauritania)	Dubai (UAE)	18 days 10 hours
Port-Sudan (Sudan)	Marseille (France)	6 days 20 hours
Alexandria (Egypt)	Marseille (France)	4 days 7 hours
Bizerte (Tunisia)	Marseille (France)	1 day 9 hours
Nouakchott (Mauritania)	Marseille (France)	6 days 2 hours
Port-Sudan (Sudan)	Izmir (Turkey)	4 days 3 hours
Alexandria (Egypt)	Izmir (Turkey)	2 days 2 hours
Bizerte (Tunisia)	Izmir (Turkey)	5 days 10 hours
Nouakchott (Mauritania)	Izmir (Turkey)	8 days 22 hours
Port-Sudan (Sudan)	New York (USA)	17 days 12 hours
Alexandria (Egypt)	New York (USA)	14 days 22 hours
Bizerte (Tunisia)	New York (USA)	11 days 20 hours
Nouakchott (Mauritania)	New York (USA)	10 days 13 hours
Port-Sudan (Sudan)	Cape Town (South Africa)	13 days 21 hours
Alexandria (Egypt)	Cape Town (South Africa)	16 days 11 hours
Bizerte (Tunisia)	Cape Town (South Africa)	17 days 14 hours
Nouakchott (Mauritania)	Cape Town (South Africa)	11 days 9 hours
Port-Sudan (Sudan)	Shanghai (China)	19 days 4 hours
Alexandria (Egypt)	Shanghai (China)	21 days 19 hours
Bizerte (Tunisia)	Shanghai (China)	24 days 21 hours
Nouakchott (Mauritania)	Shanghai (China)	31 days 2 hours

Distance, however, is one of the factors affecting logistics and time-to-market. Other important issues include shipping and port capacities, costs to export and import, border crossings, and customs. In terms of shipping connectivity, Morocco and Egypt are the most connected countries in the region according to UNCTAD Liner Shipping Connectivity Index which measures connectivity based on number of ships, their container-carrying capacity, maximum vessel size, number of services, and number of companies that deploy container ships in a country's ports. The measure is used as a proxy for the ability of a country to access international trade.

Figure 24: Liner Shipping Connectivity Index (Maximum Value=100), 2011

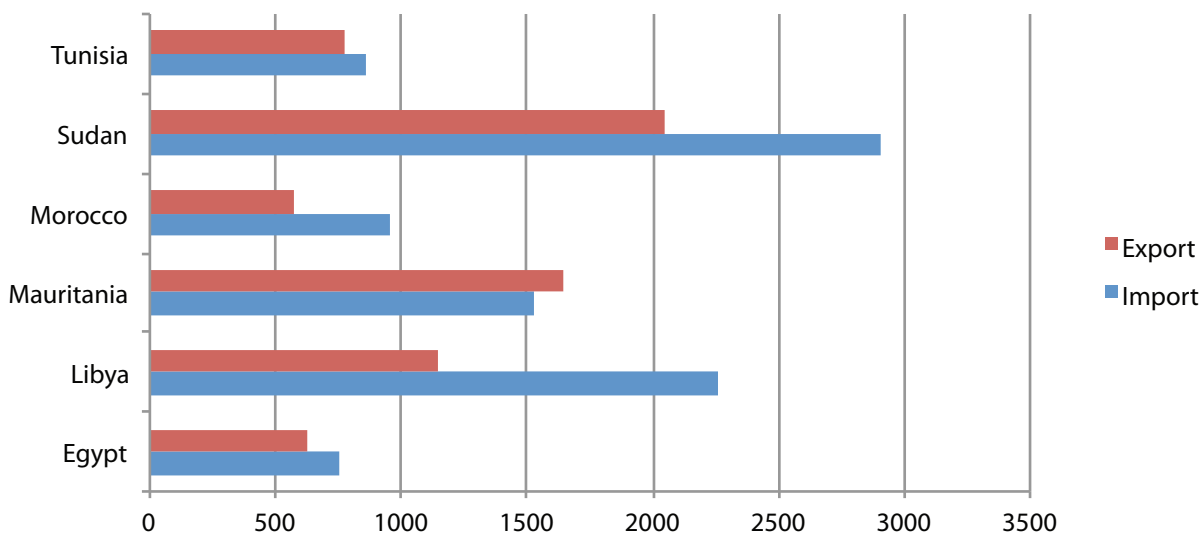


Source: UNCTAD, 2014

In terms of customs, limited data is available on the number of days to clear customs in the region. The World Economic Forum conducts a survey on the burden of customs procedures in which 7 is considered to be extremely efficient and 1 extremely insufficient. In 2011, Tunisia received the highest score in the region (5), followed by Egypt, Morocco, and Mauritania (4), and Algeria (3). No score is available for Sudan while Libya received a score of 3 in 2012.

In terms of costs to export and import, Sudan, Libya, and Mauritania have the highest cost per container in the region while Tunisia, Morocco, and Egypt have a significantly lower cost.

Figure 25: Costs to Export and Import (US\$ per container), 2012



Source: The World Bank, 2014

One of the measures that provide an overall assessment of logistics performance is the logistics performance index published by the World Bank. The index assesses efficiency of customs, quality of trade and transport infrastructure, ease of arranging shipments, competence and quality of logistics services, the ability to track consignments, and the frequency of on-time delivery. In 2014, Egypt was the highest ranked country in the region (62 out of 160 countries), followed by Algeria (96), Tunisia (110),

Libya (118), Mauritania (148), and Sudan (153). Morocco was not ranked in this year but it was ranked 50 in 2012 (data in the table from 2012 for Morocco).⁷

f. The Integration of North Africa in Trade Agreements

The difference in the focus of the governments in the region on the degree of opening and integrating their economies in the global economy has resulted in substantial policy differences in regard to issues around investment climate and trade policy. In what follows, a brief overview of the countries in the region will be provided.

Tunisia

As discussed earlier, Tunisia is one of the countries in the region that has focused on integration in the global economy as a way of promoting economic and industrial development. As a result, the country is a member to a relatively large number of trade and investment agreements. On the multilateral front, Tunisia joined GATT in 1990 and became a member in the World Trade Organization in 1995. Tunisia was also the first Mediterranean country to sign an Association Agreement with the EU in 1995. The agreement includes a free trade agreement (FTA) between the two partners with tariff dismantling between the two being completed by 2008. The next step in Tunisia relations with the EU is to move from removing tariffs into deeper regulatory harmonization. In 2011, the EU Foreign Affairs Council authorized the European Commission to begin negotiations to establish deep and comprehensive free trade areas (DCFTAs) that cover regulatory issues such as investment protection and public procurement with Tunisia and three other Mediterranean partners that are members in the Agadir Trade Agreement, Egypt, Morocco, and Jordan. Tunisia is also connected to Turkey by a free trade agreement. Since 1997, Tunisia has been a member in the Greater Arab Free Trade Area (GAFTA) which liberalized trade with a large number of partners in the Arab region. In 1989, Tunisia signed an agreement with other Northern African countries (Algeria, Morocco, Libya and Mauritania) to establish the Arab Maghreb Union (AMU) with the aim of promoting economic integration in the region. Very little progress has, however, been achieved due to political issues. In 2002, Tunisia has also signed Trade and Investment Framework Agreement (TIFA) with the United States. The idea of developing this into a free trade agreement has been raised by a number of officials from the two countries in the last two years. Tunisia and the United States have also signed a Bilateral Investment Treaty (BIT). Tunisia is not a member in any of the main African trade agreements such as the Common Market for Eastern and Southern Africa (COMESA), the East African Community (EAC), the Southern African Development Community (SADC), or the African Free Trade Zone (AFTZ). Tunisia is, however, a member in the Arab Maghreb Union (AMU).

Egypt

Similar to Tunisia, Egypt is integrated in the global economy through a large number of multilateral, regional, and bilateral trade and investment agreements. Egypt was a member in the GATT since 1970 and joined the WTO upon its establishment in 1995. In 2011, Egypt signed an Association Agreement with the EU that includes a free trade agreement. Egypt is also a member in GAFTA and Agadir Agreement, and has a free trade agreement with Turkey. Egypt enjoys better access to the US market through the Qualifying Industrial Zones (QIZ) agreement that provide duty and quota free access to the US market with certain conditions. Egypt is also better integrated than Tunisia in African trade agreement with the country a member in COMESA and the African Free Trade Zone. Egypt also signed a preferential Free Trade Agreement with the Mercosur countries in 2010. Egypt is also a member in the Community of Sahel-Saharan States (CEN-SAD).

⁷ It should be noted that many of these indicators are perception-based and they are conducted through surveys to people involved in these activities in each country and internationally. This methodology is problematic for many reasons but these indicators remain useful as a general overview.

Morocco

Morocco is also an active country in North Africa in regard to trade agreements and the country is member to a large number of such agreements. Morocco has joined the GATT since 1987 and is a member in the WTO since its establishment in 1995. Morocco has also signed an association agreement that includes a free trade agreement with the EU and the agreement has been in force since 2000 and the country is also a member in GAFTA, Agadir Agreement, and has a free trade agreement with Turkey. Morocco and the EU have started in 2013 the negotiations to establish a deep and comprehensive free trade area (DCFTA). The negotiations will cover areas such as investment protection, public procurement, services, intellectual property rights, industrial standards, food safety requirements, customs procedures, technical regulations, and animal and plant health measures, and other "deep integration" issues and address border and beyond-border issues. Morocco is also the only North African country with a free trade agreement with the United States that was signed in 2004. Morocco is also focusing on better trade and economic linkages with the West Africa region and discussions are underway for a trade and investment agreement between Morocco and the West African Economic and Monetary Union (WAEMU) which includes Benin, Burkina Faso, Cote d'Ivoire, Guinea-Bissau, Mali, Niger, Senegal, and Togo. Morocco is also a member in the Community of Sahel-Saharan States (CEN-SAD) and in the Arab Maghreb Union (AMU).

Algeria

Algeria is yet to become a member in the WTO with accession negotiations still underway since Algeria submitted its first application in 1987. Recent reports suggest that substantial progress has been achieved in the negotiations in the last two years (Algeria is currently an observer in the WTO). Algeria has also signed an Association Agreement with the EU in 2002 but the country is not a member in the "Agadir group" with which deeper trade integration is being discussed and which enjoys better conditions in regard to regional cumulation in value added to meet the rules of origin (RoOs) of the EU market. Algeria is also a member in GAFTA. Algeria has also signed a Trade and Investment Framework Agreement (TIFA) with the United States which should provide a framework for developing trade relations in the future. Algeria is not a member in the African Free Trade Zone or any of the African regional trade initiatives with the exception of the Arab Maghreb Union (AMU).

Sudan

Sudan has a very different position to the previous countries in terms of its trade agreements. Sudan is not a member in the WTO and little progress is being made in accession negotiations (the country is an observer in the WTO). Importantly, Sudan is not perceived by the EU to be in the North Africa region but in Eastern and Southern Africa (ESA) region. This means that the country is not part of the Euro-Mediterranean Partnership and is not offered an association and a free trade agreement by the EU. Sudan is also under trade sanctions from the United States and is not eligible to export to the US through the African Growth and Opportunity Act (AGOA). Sudan is, however, a member in GAFTA, COMESA, and the African Free Trade Zone.

Libya

Libya is also not yet a member in the WTO and its first accession application was submitted in 2004. Libya is also one of two Mediterranean countries (the other one being Syria) that have not reached an association and free trade agreement with the EU. Negotiations for such an agreement began in 2008 but were suspended in 2011. In regard to the US, Libya does not currently enjoy a preferential access to the US. In 2013, the two countries signed a Trade and Investment Framework Agreement (TIFA) that should provide the framework for future trade relations. Libya is a member in GAFTA, COMESA, and the African Free Trade Zone.

Mauritania

Mauritania joined the GATT in 1963 and became a member in the WTO in 1995. Although Mauritania is not considered by the EU to be in West and not North Africa region, the country participates in the Euro-Mediterranean Partnership. Mauritania, however, does not have a free trade agreement with the EU. A fisheries partnership agreement was signed between Mauritania and the EU in 2012. Mauritania does not have a trade agreement with the US but is eligible to export to the US duty free through the AGOA initiative. Mauritania is not a member in the main African regional trade initiatives such as WAE-MU, COMESA, or the African Free Trade Zone. Mauritania is not yet a member in GAFTA. Mauritania is a member in the Arab Maghreb Union (AMU).

g. Conclusions

This section aimed at providing an overview of the position of North Africa in the global economy and the degree of the integration of different countries in the region in global value chains. The discussion shows that there serious variations between different countries in the region in regard to degree of global integration, key global partners, type of integration, infrastructure and logistics, and trade policy.

First, three countries in the region stand out in terms of integration in global value chains in manufactured and agricultural products. These are Tunisia, Morocco, and Egypt. Those three countries were amongst the developing countries that adopted relatively early free trade policies, encouraged foreign investments, and set-up special economic and trade zones. This, in addition to geographical proximity, better political relations with the EU and the US, and generally better transportation and logistics infrastructure, have led to a high degree of integration of these countries in GVCs centred around the EU in the case of Morocco and Tunisia and the EU in addition to the US in the case of Egypt. This created economic and social benefits to these countries but, at the same time, especially in the case of Tunisia and Morocco created a very high level of dependency on the EU market or, indeed, on a small number of countries in this market. While a degree of dependency on the EU market in these countries is expected (due to proximity and to the size of the European market), these countries need to focus on more diversification in their exports. This will provide these countries with more protection against political, economic, and trade shifts in their relations with the EU. Furthermore, it will enable them to capitalize on some of the benefits they obtained through exporting to the EU (process upgrading, quality and consistency of production, logistics knowledge, etc) by expanding to new markets and add new skills that might be difficult to obtain when exporting to the EU market (branding for instance). More regional integration and stronger integration with other developing regions particularly Sub-Saharan Africa will be highly important to achieve this.

Second, the rest of the countries in the region are at a very different stage in regard to their integration in global value chains. Sudan, Libya, Algeria, and Mauritania are all very weakly linked to industrial and agricultural GVCs either due to dependency on oil and minerals, political issues, government policy, or issues around infrastructure and transportation. From a regional perspective, this could be a challenge to reach a broad strategy in the region but it is also an opportunity to expand outsourcing networks in the region if the right policy and logistics framework was put in place. This issue will be discussed further later in this report.

Third, the geography of the region is at the same challenging but also creates economic opportunities. The region has an important location close to many key and emerging markets and also on some of the key shipping routes in world trade. The eastern part of the region is strategically located on one of the key shipping routes linking China and Asia to Europe and Africa and has access to important markets in the Middle East as well especially the rich Gulf States Council (GCC) countries. The north of the continent has an important advantage and short time to market to the vast and rich European market while the region as a whole is part of Africa and relatively close to many markets in Sub-Saharan Africa.

Even the American market (south and north) are quite accessible from the western part of the region. This accessibility, however, is hindered by regional transportation and logistics issues.

Finally, the integration of different countries in the region in multilateral, regional, and bilateral trade agreements is quite diverse. Some countries have adopted a more proactive approach to such agreements while internal and external political issues have hindered such policy in other countries. This led to varying profiles of integration in the region with integration with the EU being the most important dimension in this. This creates a range of issue related to tariffs, rules of origin, and other barriers to trade. Nonetheless, the move toward deeper integration between the Agadir countries in the region (Morocco, Tunisia, and Egypt) and the EU will arguably have far more important implications in terms of making regional integration in North Africa more challenging. This is due to the type of issues that these agreements cover and the way they focus on regulatory harmonization. The move by some countries in the region to sign such agreements would create even larger regulatory gaps in the region and make regional integration more challenging.

4. Regional Integration and Regional Value Chains in North Africa

While the previous section has provided an overview of the North Africa region in trade, investments, and logistics, we should now move to focus on exploring the regional aspects of these issues to assess the potential for regional value chains in the region and the key obstacles to the creation of regional value chains in North Africa.

4.1 Regional Trade in North Africa

Regional trade in North Africa accounts for a small share of the overall trade of the countries in the region:

Table 18: Intra regional exports in 2013; US Dollars thousands

exports to	Algeria	Egypt	Libya	Mauritania	Morocco	Tunisia	Total North Africa	World	Regional share
Algeria		644 199	22 443	29 200	1 051 846	1 649 047	3 396 735	65 998 138	5%
Egypt	504 864		1 277 117	13 369	406 136	225 881	2 427 367	28 779 409	8%
Libya								41 901 265	0
Mauritania								2 889 168	0
morocco	211 270	168 619	88 081	142 478		87 853	698 301	22 178 222	3%
Tunisia	486 441	67 200	868 975	31 388	192 193		1 646 197	17 060 465	10%
total							8 168 600	178 806 667	5%

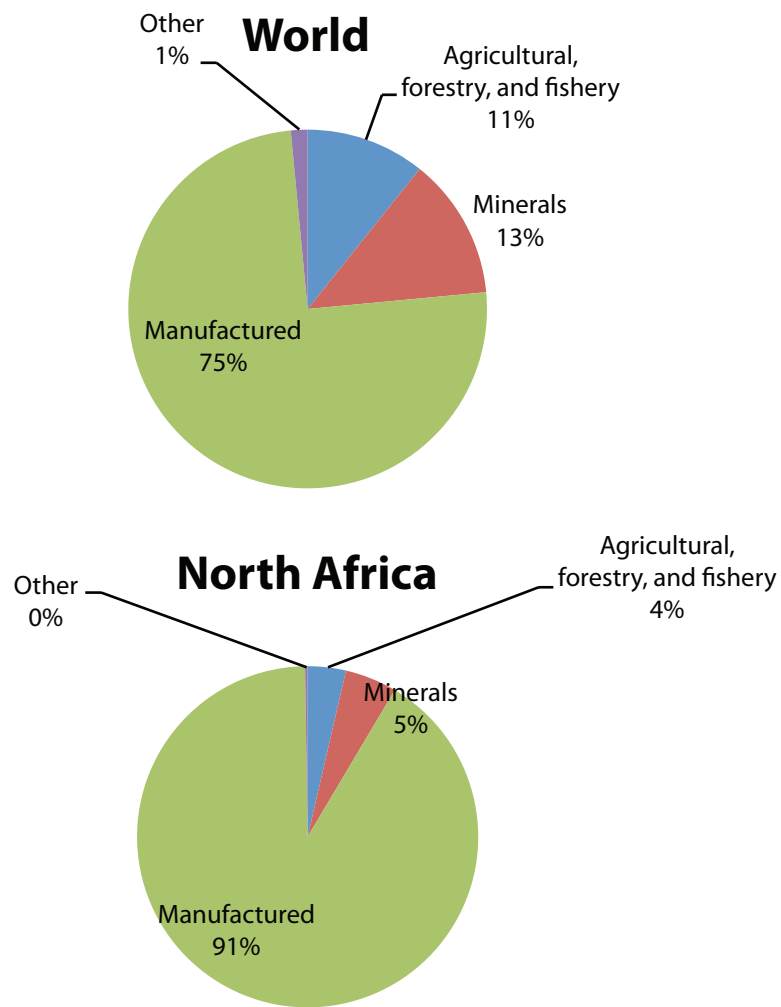
Source: trade map

In what follows, the share of this trade and the top products exported and imported in the region is discussed for each country.

Morocco

As discussed earlier, North Africa accounts for a small percentage of total Morocco trade. In 2012, Moroccan exports to the six countries in the region stood at US\$ 754 million. The share of the region in total Moroccan exports was 3.5%. This was around 20% of total Moroccan exports to Spain and 16% of total Moroccan exports to France and in term of imports was around 30% of Moroccan imports from Spain and 33% of Moroccan imports from France. In terms of structure, manufactured exports account for a larger share of Moroccan exports to the region in comparison to Moroccan exports to the rest of the world.

Figure 26: Moroccan Exports to North Africa and to the World



Source: UN Comtrade, 2014

Algeria was the main regional market for Morocco accounting for a 30% share of Moroccan exports to North Africa in 2012 with primary metal products being the main exported product from Morocco to Algeria. Egypt had a share of 18% in 2012 with Moroccan exports of vehicle components to Egypt standing at US\$ 88 million. Mauritania had a share of 17%, Tunisia (16%), and Libya (10%). Table 19 shows the top Moroccan exports to the rest of North Africa at a two-digit disaggregation level.

Table 19: Key Exports from Morocco to North African Partners, 2012

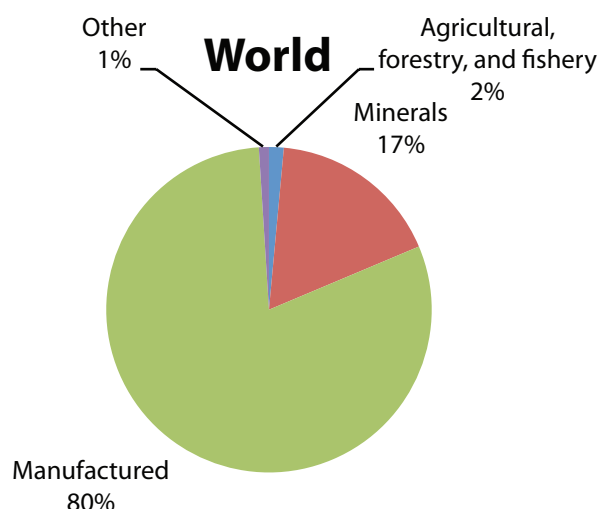
	Tunisia	Egypt	Algeria	Mauritania	Sudan	Libya
Product	Transportation equipment (SIC 37, \$30 mil) (largest: railway equipment)	Transportation equipment (37, \$88 mil) (largest: motor vehicles, and parts)	Primary metal products (SIC 33, \$78 mil) (largest: Blast furnace, steel works, rolling)	Food and kindred products (SIC 20, \$ 44 mil) (largest: dairy products)	Chemicals and allied products (SIC 28, \$ 30 mil) (largest: agricultural chemicals)	Primary metal products (SIC 33, \$ 39 mil) (largest: Rolled, drawn and extruded nonferrous metals)
	Food and kindred products (SIC 20, \$ 24 mil)	Paper and allied products (SIC 26, 17 mil)	Chemicals and allied products (SIC 28, 49 mil)	Chemicals and allied products (SIC 28, 11 mil)	Crude petroleum and natural gas (SIC 13, 13 mil)	Food and kindred products (SIC 20, \$ 21mil)
	Primary metal products (SIC 33, 12 mil)	Food and kindred products (SIC 20, 15 mil)	Petroleum refining and related products (SIC 29, 40 mil)	Agricultural products (SIC 1, 9mil)	Machinery except electrical SIC 35 ,3 mil)	Chemicals and allied products (SIC 28, 6 mil)

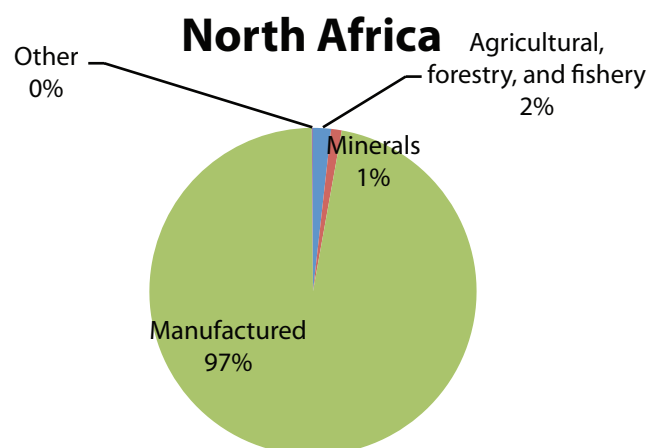
Source: UN Comtrade, 2014

Tunisia

In 2012, Tunisian exports to North African partner stood at US\$ 1.6 billion accounting for 9% of total Tunisian exports to the world. Total exports to the region equal 35% of Tunisian exports to France and 50% of total Tunisian exports to Italy. One of the important factors in this relatively higher share of regional exports is large food exports to Libya. In 2012, Tunisian exports of food and kindred products (SIC 20) to Libya stood at US\$ 340 million. Libya, as such, accounted for 50% of Tunisian exports to North Africa region, followed by Algeria (30%), Morocco (13%), and Egypt (5%).

Figure 27: Tunisian Exports to North Africa and to the World





Source: UN Comtrade, 2014

Table 20 shows the main products exported from Tunisia to each of the other North African partners.

Table 20: Key Exports from Tunisia to North Africa, 2012

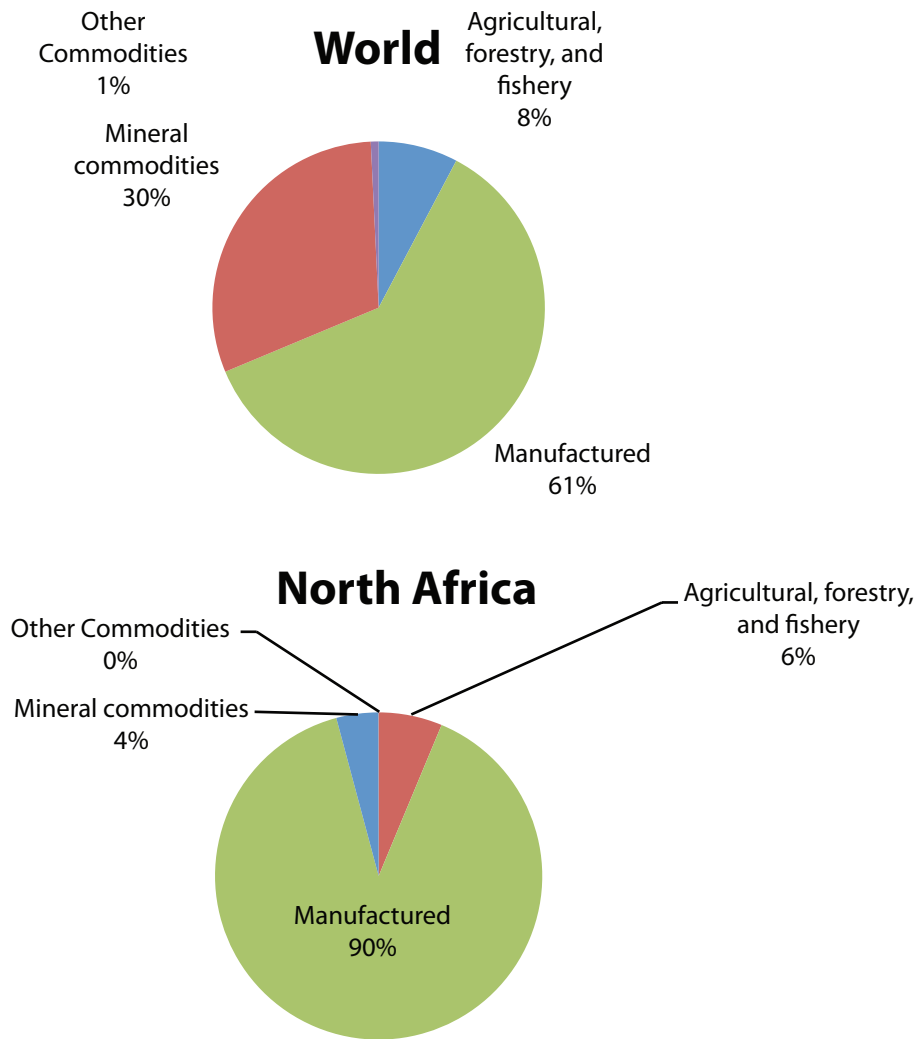
	Morocco	Egypt	Algeria	Mauritania	Sudan	Libya
Product	Food and kindred products (SIC 20, 68mil) (largest: fruit, vegetables, soups...)	Chemicals and allied products (SIC 28, \$ 56 mil) (largest: Industrial inorganic chemicals)	Machinery except electrical SIC 35 ,83 mil) (largest: Construction, mining and oil-field machinery and equipment, and parts)	Food and kindred products (SIC 20, 6 mil) (largest: fruit, vegetables, soups...)	Machinery except electrical SIC 35 ,0.12 mil)	Food and kindred products (SIC 20, 340 mil) (largest: grain mill products)
	Primary metal products (SIC 33, 31 mil)	Primary metal products (SIC 33, 6 mil)	Primary metal products (SIC 33, 72 mil)	Chemicals and allied products (SIC 28, 4 mi)	Chemicals and allied products (SIC 28, 0.11 mil)	Chemicals and allied products (SIC 28, \$ 99 mil)
	Chemicals and allied products (SIC 28, 20 mil)	Food and kindred products (SIC 20, 5 mil)	Chemicals and allied products (SIC 28, 69 mil)	Paper and allied products (SIC 26, 3 mil)		Paper and allied products (SIC 26, 72 mil)

Source: UN Comtrade, 2014

Egypt

Egypt exported US\$ 2.9 billion to the rest of the countries in North Africa region in 2012. The region accounted for 10% of total Egyptian exports with Libya accounting for almost half of these exports followed by Sudan (15%), Algeria and Morocco (13% each), and Tunisia (9%). In terms of the structure of the exports, the share of manufactured commodities in Egyptian exports to North Africa is significantly higher than their share of total Egyptian exports.

Figure 28: Egypt Exports to North Africa and to the World



Source: UN Comtrade, 2014

Some of the important products Egypt exports to the rest of the region are soaps, detergents, and cleaning products, chemicals, food products and primary metal products. Table 21 shows some of the important products exported to each partner.

Table 21: Key Exports from Egypt to North Africa, 2012

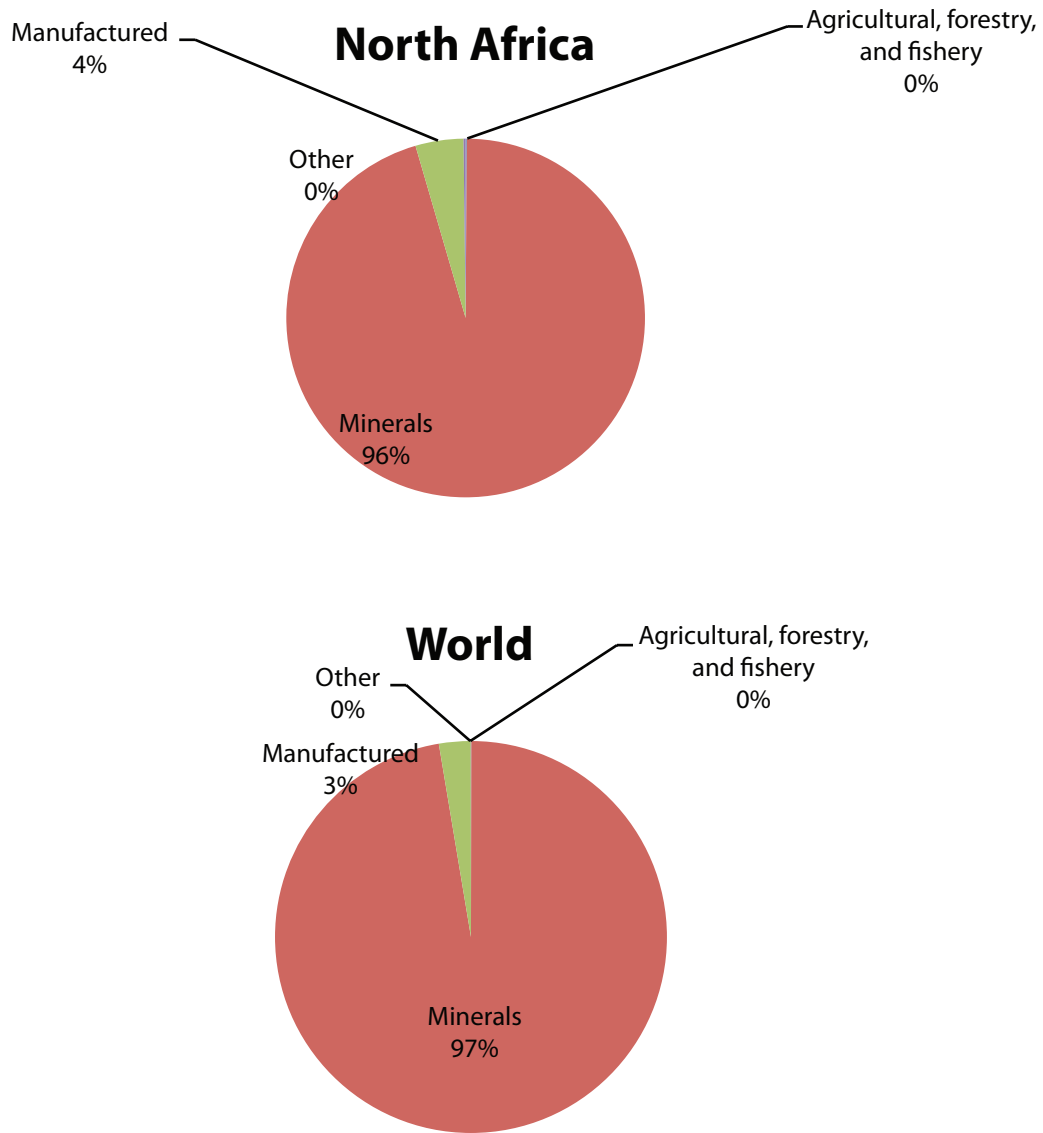
	Morocco	Tunisia	Algeria	Mauritania	Sudan	Libya
Product	<p>Chemicals and allied products (SIC 28, 85 mil) (largest: Soaps, detergents, and cleaning products and Industrial inorganic chemicals)</p> <p>Food and kindred products (SIC 20, 79 mil)</p> <p>Stone, clay, glass, and concrete products (SIC 32, 35 mil)</p>	<p>Crude petroleum and natural gas (SIC 13, 104 mil)</p> <p>Chemicals and allied products (SIC 28, 44 mil) (largest: Soaps, detergents, and cleaning products)</p> <p>Food and kindred products (SIC 20, 19 mil)</p>	<p>Primary metal products (SIC 33, 99 mil) (largest: Rolled, drawn and extruded nonferrous metals)</p> <p>Chemicals and allied products (SIC 28, 90 mil)</p> <p>Electrical machinery, equipment (SIC 36, 41 mil)</p>	<p>Food and kindred products (SIC 20, 9 mil)</p>	<p>Chemicals and allied products (SIC 28, 98 mil) (largest: Drugs and Soaps, detergents, and cleaning products)</p> <p>Primary metal products (SIC 33, 89 mil)</p> <p>Food and kindred products (SIC 20, 63 mil)</p>	<p>Stone, clay, glass, and concrete products (SIC 32, 437 mil) (largest: structural clay products and cement)</p> <p>Food and kindred products (SIC 20, 278 mil) (largest: dairy products and fruits and vegetables)</p> <p>Chemicals and allied products (SIC 28, 132 mil)</p>

Source: UN Comtrade, 2014

Algeria

Algeria exports to the rest of North Africa in 2012 stood at US\$ 2.85 billion which represented 4% of total Algerian exports to the world. Algerian exports to the world and to North Africa are, however, completely dominated by the exports of mineral commodities. Mineral commodities account for 97% of all Algerian exports and 96% of Algerian exports to the rest of North Africa.

Figure 29: Algeria Exports to North Africa and to the World



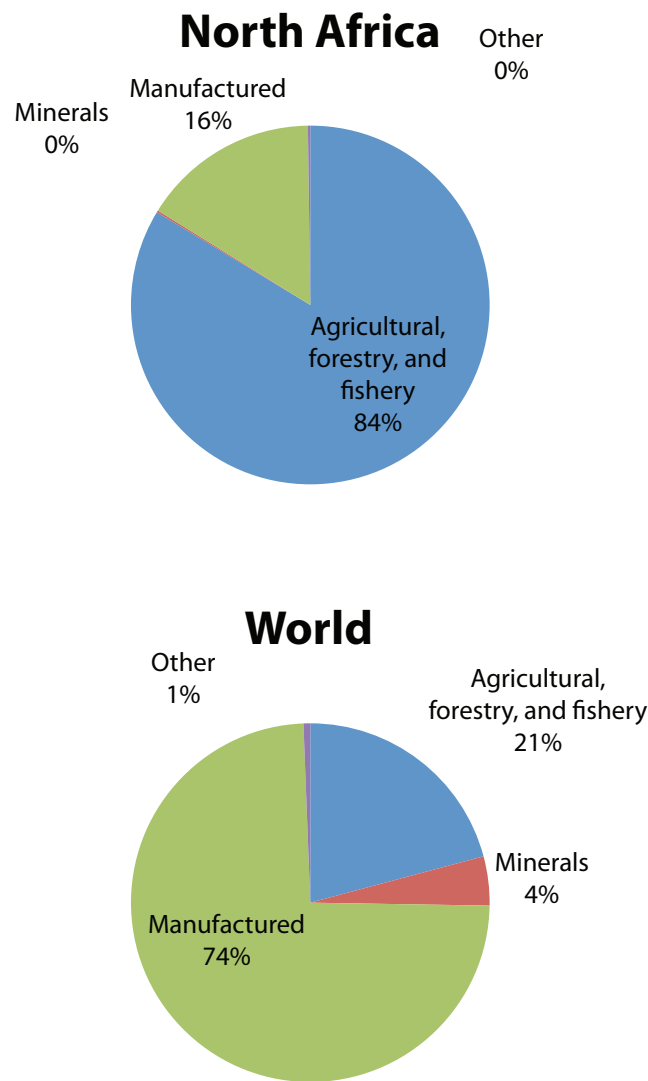
Source: UN Comtrade, 2014

In terms of non-minerals, Algeria exported 1.9 billion of manufactured and agricultural products in 2012. Of these, US\$ 128 million went to the rest of North Africa. This included exports of chemicals especially to Morocco (\$36 million), primary metal products to Morocco, Tunisia, and Egypt (around US\$ 10 million each), and some food exports especially to Sudan (US\$ 14 million).

Sudan

Sudan exports to the rest of North Africa stood at US\$ 61 million only in 2012. This represented less than 2% of the total Sudanese exports of US\$ 3.38 billion for the year. Sudanese exports to North Africa were mostly agricultural products in addition to small amounts of manufactured products. Sudan exports to the world have in fact a higher percentage of manufactured products mainly reflecting that almost half of total Sudanese exports are primary metal products to the United Arab Emirates. In 2012, Sudan exported US\$ 1.59 billion of these products to the UAE. Sudan exports to North Africa are also dominated by agricultural exports to Egypt that stood at US\$ 34 million in 2012. The amounts of exports to the rest of North Africa are very small.

Figure 30: Sudan Exports to North Africa and to the World

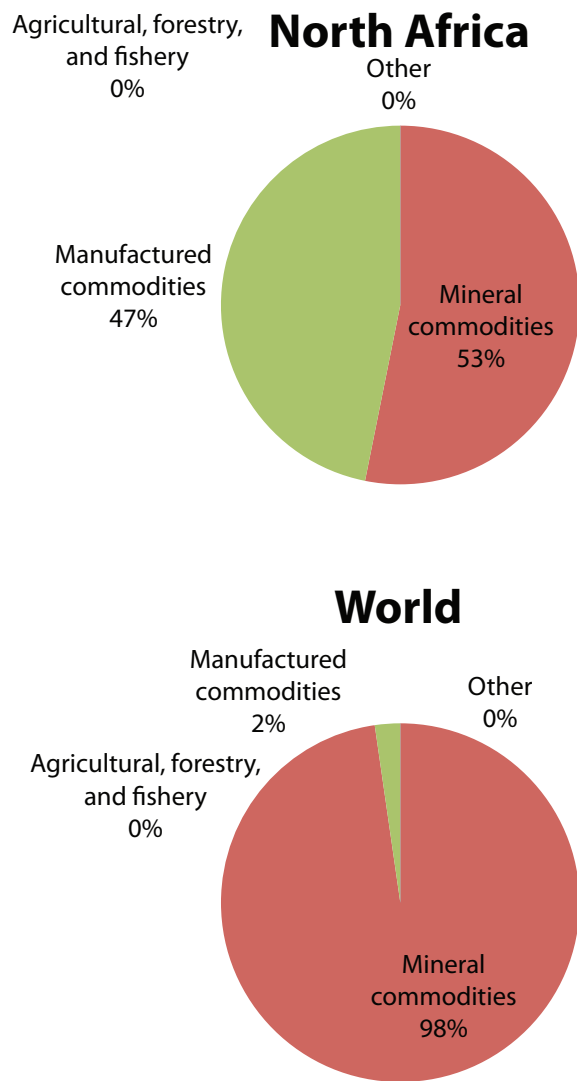


Source: UN Comtrade, 2014

Libya

Libya total exports to North Africa in 2010 (data for 2012 is not available) stood at US\$ 479 million which represented only 1.3% of total Libyan exports to the world. While Libya exports to the world were 98% mineral commodities, 47% of Libyan exports to North Africa were manufactured goods. Primary metal exports to Egypt were the main product in this with total exports of US\$ 83 million. Libya exported small amounts of chemicals and food products to Egypt, Tunisia, and Morocco as well.

Figure 31: Libya Exports to North Africa and to the World

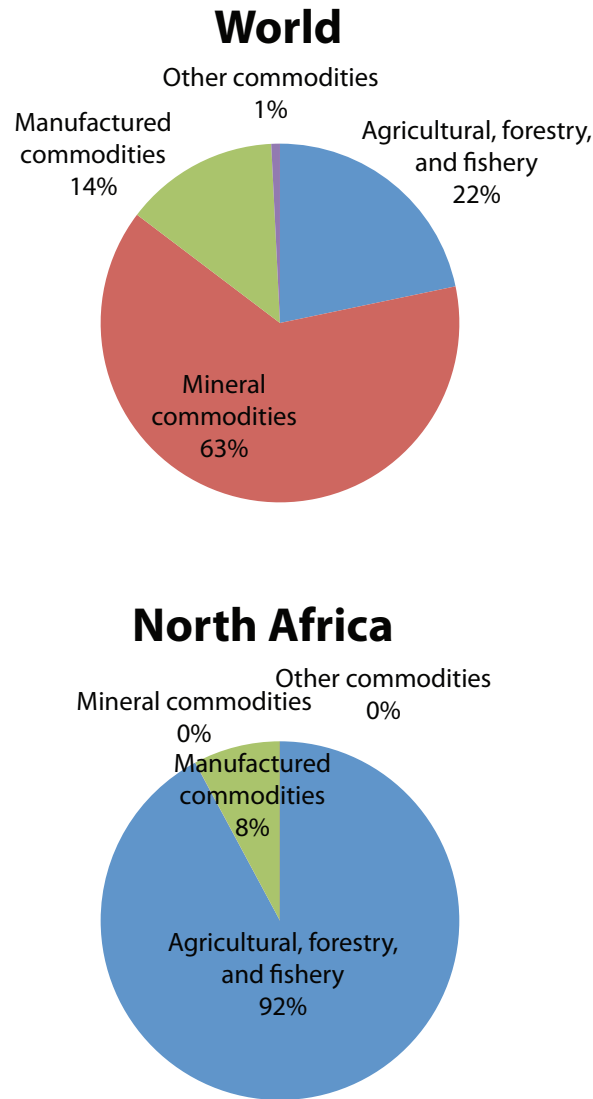


Source: UN Comtrade, 2014

Mauritania

Mauritania exports to the rest of North Africa are negligible. Total exports from Mauritania to the rest of North Africa in 2012 were around US\$ 32 million and are mostly very small amount of food (mostly fish) products. Although the numbers are too small to conduct any meaningful analysis, comparing these exports to the overall profile of Mauritania exports show that the exports to North Africa are mostly agricultural and fishery products while the largest share of Mauritania exports to the rest of the world are mineral products.

Figure 32: Mauritania Exports to North Africa and to the World



Source: UN Comtrade, 2014

4.2 Regional Investments in North Africa

Another factor to look at to assess the degree of regional integration in North Africa and the presence of production sharing networks in the region is foreign direct investments. As discussed earlier, the region as a whole have a very different performance when it comes to attracting foreign direct investments and some countries in the region have been far more successful in attracting FDI particularly export-oriented FDI. Other countries have attracted very little FDI outside the extractive sector or some banking and other services. Nonetheless, while FDI from other parts of the world is important to link the region with global value chains, regional FDI plays an important role in promoting regional value chains and deepening the integration between the different countries in the region. The case of Asia, for instance, is very clear in the way it shows that regional firms and regional foreign direct investments played a crucial role in linking the economies of the region and in creating the regional production sharing system that underpinned the rapid growth in Asia and the rapid transformation in many of its economies.

The case in North Africa is, however, very different with very small amount of regional FDI. In the second half of the 2000s, regional FDI into Tunisia accounted for around 1% to 4% of total FDI into the country with very small amounts of annual FDI (US\$ 10 to 20 million) from Egypt, Morocco, and Libya. For Morocco, the largest inflow of regional FDI was US\$ 60 million in 2008 accounting for less than 2% of total FDI to Morocco for that year. Egypt recorded slightly larger amounts of region FDI in the second half of the 2000s but that was almost exclusively caused by investments from Libya. Very small regional investments are present in Sudan although there is a growing interest in fostering Egyptian-Sudanese cooperation in this regard and there are plans to build one or two Egyptian industrial zones in the country with interest from some Egyptian private firms particularly in the agro-food industry. Mauritania also has very little regional FDI with small amounts coming from Morocco. Algeria has received relatively higher amounts of regional FDI in the last few years with Egypt a main source of this FDI in the second half of the 2000s. Similarly, the amounts of regional FDI in Libya has been very small.

Regional flows of foreign direct investments are, however, only one side of the story. Another important process that underlined the creation of regional value chains in East Asia has been the way foreign firms have set-up production units in different countries in the region and have integrated the operations of these different units. This is again very limited in North Africa. As discussed earlier, many suppliers in GVCs have located in Tunisia, Egypt, or Morocco but few of those have established presence in more than one of these countries. In addition to the absence of regional FDI, This contributed to the model discussed earlier in which every country in the region is connected to global value chains in a "vertical" way with no "horizontal" linkages across the region.

A number of issues contribute to the absence of regional FDI or to the creation of integrated regional production networks by foreign firms. In regard to regional FDI, there has been little effort and focus by countries in the region on promoting FDI between these countries with most of the focus directed at attracting foreign investments from the advanced or emerging economies. One of the elements in this has been a degree of mixing politics with investments at a regional level and the tendency to punish investors for any political tensions between the countries in the region. Another important factor is the limited effort to create specialization economies in different parts of the region. Few countries in the region have created presence in some GVCs particularly in apparel, electronics, automobile, and other assembly or light manufacturing activities. There are, however, very little differences in the factors attracting GVC actors to locate in the region with a mixture of geographical proximity, low labour costs, and a degree of trained labour force being the key elements. There is also very little joint policy effort in promoting the region as a joint production and export platform. Changing this will require firm-level efforts from the governments of the region with the key objective of upgrading the operations of the firms based in the areas that have experienced a high level of integration in Tunisia, Morocco, and Egypt, and creating other areas where the lower value-added activities that are created through this upgrading could be moved. This is in a way similar to what China is doing in the coastal areas. A mixture of policies should provide incentives to existing firms in the "GVC-integrated areas" in the region and to new firms to move gradually to higher value added activities while creating "second tier" regions to where these lower value added activities can be relocated. Incentives to achieve industrial upgrading in the more industrial areas in the north of Egypt for instance can be combined with efforts to create new regions to where the lower value added activities can be relocated for instance in the south of Egypt or in Sudan. Nonetheless, as the experience in China shows, this requires not only promoting upgrading in the "GVC-integrated" regions but also developing advanced infrastructure in the new areas to where the low value-added activities can be relocated. Strong transportation and communication links between those new areas and the rest of the GVC in addition to policy incentives to encourage firms to relocate part of their activities will be needed.

4.3 Regional Infrastructure and Transportation Networks

Transportation and logistics are a key issue that could help to boost the creation of regional value chains in North Africa. There are a number of geographical, political, and economic barriers to this. First, distance between different economic hubs in the regions is sometimes very long. In many cases, the distance between the large cities in the region and the Southern European cities are shorter than the distance between these cities and other North African hubs. Second, political and security issues still hinder regional trade. The current situation in Libya is an example. The distance between Cairo and Tunisia is 2800 kilometers which is more than the land distance between Cairo and other cities in West Asia and more than the land distance between Cairo and Istanbul for instance. On top of that, the situation of Libya creates a major problem for movement of goods by land. The situation on the Algerian-Moroccan border is another factor. In other parts of the region, basic infrastructure is still under-developed. Land links between Egypt and Sudan for instance have been very underdeveloped historically with new paved motorways that could enable large scale trade only being developed very recently. This makes the transport of goods in the region relatively costly. This is a major issue from a regional value chain perspective as the ability to move parts and components cheaply and rapidly underpin the system of production sharing that GVCs constitute. This contributes to the situation in which countries in the region are connected individually with European value chains with limited regional integration as sea trade with Europe especially from the coastal parts of North Africa is significantly faster and cheaper. The multiple projects within the Trans-African Highway Network including the Cairo-Dakar Coastal Highway will help address these issues but there are still remaining bottlenecks either due to infrastructure or to political and security factors. Completing the link to Khartoum and Port Sudan will also be highly useful to provide a better link with Sub-Saharan Africa. Overall, transportation and logistics are absolutely fundamentals when it comes to promoting regional integration. While a long-term plan to develop better linkages throughout the region is important, it can also be useful to consider a short-term solution to this by creating specific cheap and fast transportation corridors between specific hubs in the region. This can even be geared toward the requirements of specific sectors as part of pilot projects.

4.4 Regional Trade Policy and Regulatory Harmonization

While important improvements have been achieved in reducing traditional barriers to trade in the region, more work is needed to address a range of issues that affect trade facilitation in the region. First, as discussed earlier, countries in North Africa are integrated in quite diverse list of trade agreements with other partners including the European Union, Arab states, Sub-Saharan Africa, and the United States. From a traditional tariff-based thinking of trade, this is not a major problem with the exception of the issue of rules of origin (RoOs) which can be dealt with through negotiating cumulation arrangements in these agreements (as is the case with EU). The more important issue, however, is the ongoing shift of global trade policy beyond traditional tariff barriers into the more broad agenda of regulatory harmonization. The move by the better integrated countries in the region (Agadir countries) toward negotiating deep and comprehensive free trade areas (DCFTA) with the European Union could represent a major obstacle to regional integration if other countries are not following the same path. This threatens to create two separate economic zones in the region with radically different regulatory frameworks that will hinder trade within the region particularly trade in the context of regional and global value chains. One of the solutions to this is for countries that are part of such negotiations to cooperate with countries that are not, with the intention of maintaining a level of regional harmonization. This could also take place through regional negotiations on such issues alongside those being conducted with the EU and possibly following the same agenda. Such a process would allow countries that are not part of the Agadir group or that don't have an association agreement with the EU to

maintain a regulatory framework in line with the rest of the region (and its key trading partners) which will make joining such economic zones easier in the future.

Another important issue is for countries in the region to expand their trade integration beyond the EU. Some countries in the region are, for instance, not taking part in the trade integration processes taking place in Africa. This partially reflects the small share of trade with Africa in their overall trade structure. Nonetheless, this could represent a missed opportunity for these countries as the growth in some African markets offer important opportunities. This is especially the case for countries that have reached a degree of upgrading in their exports to the European markets but are finding it difficult to move beyond a certain point. Countries that have developed some manufacturing capacities with a degree of process and functional upgrading could experiment with deeper functional and chain upgrading in the African market. This could include the move into branding which is far more difficult when serving the European market.

4.5 Conclusions

The discussion in this section shows that regional integration in North Africa is very low in terms of trade and investments. The share of regional trade in the overall trade of each country in the region is very low and the very small amount of regional trade is concentrated in few traditional goods. Regional investments are also very low and investments by foreign firms in more than one North African country, although more difficult to capture through data, appear limited. Important political, transportation, and logistics bottlenecks remain in place and affect trade in the region leading to a trade profile in which each country is linked into the value chains of their key trading partners in a vertical way with almost no horizontal linkages in the region. A key threat to the ability to foster such integration in the future is if the gap that exists in the region between GVC-integrated and non-GVC integrated countries in the region continue to expand limiting any possibility of production sharing in the future.

The move from shallow integration toward deep integration that is taking place in the world trading system and the integration of some countries in the region into new deep economic zones, thus, represents a major issue that could expand this regional gap even further. This will not only have economic and trade outcomes but wider developmental implications as the technological, human capital, logistics, and social development gap in the region will expand even further. The political and security situation in some countries in the region will also contribute to this.

5. Conclusions and Policy Recommendations

This report has highlighted some of the key issues related to the position of North Africa in global value chains and the potential to create regional value chains that could drive economic and social development in the region. The report showed the diverse performance in the countries of the region in regard to economic structure and integration in the global economy with Tunisia, Morocco, and Egypt achieving a degree of industrialization and integration in global value chains particularly European-centred GVCs in the case of Tunisian and Morocco and both European and US-centred GVCs in the case of Egypt. Algeria, Libya, Sudan, and Mauritania have a very different economic structures that the above three countries and are also integrated in the world economy through very different linkages. Regional integration in North Africa is very low as seen through trade and investment flows and there are very little networks of production sharing linking the countries of the region. Some of the conclusions and policy recommendations are discussed below:

- **Moving Toward Deep Integration in the Region**

This report has highlighted the extent of the “GVC gap” in the region between the three countries that are integrated in global value chains and the rest of the region. This is underpinned by a number of fac-

tors including different government policies, economic structures, different transportation infrastructure, and different political and economic relations with the developed countries. This is portrayed in a different profile in terms of trade relations and trade agreements particularly with the European Union and, in the case of Morocco and to a less extent Egypt, the United States. This gap is both a challenge and an opportunity. It is a challenge as it makes it more difficult to establish joint production networks in the region from a policy and trade perspective particularly in regard to issues such as rules of origin. It is, however, an opportunity as the different economic situation in these countries could create an opportunity for regional outsourcing networks whether to access some resources (agriculture for instance) or to access low cost pools of labour. The world economy today is, however, moving from shallow to deep integration. Some countries in the region (Agadir Group) are already negotiating deep integration trade agreements with the EU. If this materialises while other countries remain the way they are today, the "GVC gap" might become unbridgeable and the efforts to create regional networks of production will become futile. To prevent this, negotiating for harmonization with the EU should be accompanied by deeper level of regional integration and this should be given the same attention deep integration with the EU will be given. The progress on the negotiations with the EU should be communicated within the region and the countries that are not part of these negotiations should assess and adapt to the impact of such process on its own economies. This should be part of a broader coordination of trade policy in the region that will enable the creation of regional value chains by firms from the region and firms from outside and will create trade opportunities with different parts of the world. More focus should be given to integration with Sub-Saharan Africa and other developing and emerging markets.

- **Joint Production Sharing Platforms**

The move toward deeper integration in the region should help enable the creation of joint production sharing platforms in the region. This should follow the Asian model by identifying specific advantages for different locations in different value chains and coordinating these advantages to attract GVC actors. Promoting regional FDI is one way of doing this. Industrial zones such as the Egyptian zones being studied in Sudan could be a useful way of achieving this. At the same time, however, attracting firms from outside the region to establish multiple units of production in the region and link these units could be a faster way of achieving this. This requires detailed sectoral analysis of the factors that attracted a German global automobile components supplier to Morocco, for instance, and what complementarities could be achieved by establishing in Tunisia or Mauritania as well. The selection of two or three pilot sectors to conduct such deep analysis on will be very useful. The global value chains in electronics, textile and apparel, and the automotive industry could be studied and the position of North Africa in these GVCs analysed to understand better how such a strategy could be adopted and what specific incentives could be provided for firms to move into more than one country in the region and to link their operations in these countries.

- **Promoting Regional Upgrading and Relocation**

One of the mechanisms through which this could take place is to develop a joint upgrading and relocation strategy that target the areas that are integrated in GVCs. While Tunisia, Morocco, and Egypt, have achieved a degree of integration in GVCs, they still largely perform low value-added activities in these chains. There is a clear need to promote different types of upgrading in their industries. This will naturally raise production costs in the industrial areas and create a need for new spaces that could perform the lower value-added activities. Developing a joint upgrading/relocation strategy could be a way of achieving this within the region by relocating the low value-added activities to areas that are not currently integrated in GVCs whether in the same country or in different countries in the region. Mauritania and Sudan could be potential locations for such activities in addition to the southern less developed areas in other countries. China is implementing a similar upgrading/relocation strategy in its industrial areas. The Chinese experience and the policies implemented as part of this could be studied for ideas and lessons that can be implemented.

- **GVC Corridors and Exploiting the Important Location of the Region**

All this will require an efficient transportation and logistics networks. Progress has undoubtedly been made in this area over the last two decades but sea trade with Europe remains far cheaper and easier than land trade in the region. In the absence of a railway network, road transportation is the main form of transportation. While the overall development of this is important, it might be useful to consider the feasibility of identifying “GVC corridors” that could be linked with the sectoral selection to facilitate the movement of goods in the region. This should be thought off as both physical corridors by upgrading the logistics infrastructure in a specific link but also a policy corridor through addressing issues affecting transportation such as border crossings and standards and tests. In coordination with national policy-makers, priority sectors can be given priority in regard to border procedures. The objective will be to enable these sectors to move regionally with as little trade and non-trade barriers as possible. A second important issue is to develop ways to exploit the important location of the region not only that it is situated between the European market, the Arab Middle Eastern market, and Sub-Saharan Africa and the opportunities this brings but also in the importance of the location especially of the Red Sea and the Suez Canal in Asian trade with Europe, the Middle East, and also with the United States. The region has two important access points to this route in Egypt and also in Port Sudan. Egypt is already attempting to harness this and the Chinese zone in Suez is one of the ways in which this could be achieved. As the Asian, especially the Chinese economy, moves forward and as shipping and energy costs rise, the feasibility of relocating some low value added and assembly activities closer to the markets will increase. The red sea and Suez area could not only enable Sudan and Egypt to exploit this but could also allow the rest of North Africa to link with these production networks if a stronger regional infrastructure and policy framework is put in place.

- **Pilot Industries for Regional Value Chains**

Up to this point, this report has aimed at providing an overview of the topic without providing detailed sectoral analysis that could help decide what sectors have a higher potential for regional value chains (sectoral analysis is presented in section two). Nonetheless, it can be seen from the discussion that some countries in the region have achieved a degree of manufacturing capacities in some sectors and these capabilities can be used to promote wider regional participation. Textile and apparel, automotive industry, agro-industries, and electrical equipment are sectors that deserve more detailed sectoral analysis to develop specific opportunities and strategies for regional value chains. Textiles and apparels have represented the traditional model of GVCs and the relocation of manufacturing activities into developing countries. Egypt, Morocco, and Tunisia have all developed a presence in the textile and apparel GVC. The Moroccan and Tunisian industry is highly focused on the European market while Egypt has a more diversified export profile. These countries have preferential access to the EU and the US market (for Morocco and Egypt) with rules of origin not a major barrier to regional integration (with the exception of the US-Morocco FTA). The creation of regionally-integrated production networks could be a way of moving the sector forward and upgrading the type of activities performed in the region. The EU market in particular is attractive in this. Exports from the region to the US tend to consist of large volume standardized products with low value. The proximity to the EU market and the more fragmented structure of this market in comparison to the US should allow the region to expand into niche segments of the market and into “fast fashion” segments with higher value added. Exports to the Middle East market and to Sub-Saharan Africa could also be increased substantially. The success of a country like Turkey in the sector shows that removing trade and policy barriers in the industry could lead to very rapid growth in the sector. The automotive industry is another sector that deserves further attention. The potential for developing of this industry in the region is not limited to exports but also to domestic demand. The production that is established in the region can be divided into market-seeking FDI which is often assembly operation with some local inputs and also some production-seeking FDI that aim at using the region as an export platform. In regard to market seeking, some of the countries in the region have experienced very rapid growth in sales of cars and, as discussed ear-

lier, few Asian and European car manufacturers have opened up assembly operations in the region to help tap this growing market. Some of these companies use local inputs and few of them could lead to their component suppliers opening production in the location as well as one characteristic of the automotive industry is the tendency to move in clusters. The case of Renault in Morocco shows that around 40% of the company's material comes from local suppliers in value terms and around 80% in volume term.⁸ In regard to production-seeking FDI, few parts and components firms have established production in the region to serve its customers in the European market with geographical proximity and low production costs an important element in the locational decision. The growth in the Middle Eastern and African markets as well should make attracting GVCs that target the domestic and regional markets an important priority. The key question is what added-value could be created through regional integration and how to encourage regional and global actors to use more than one location in the region and to integrate these locations together and how can this help in the overall upgrading of the industry. The electrical equipment sector faces similar challenges in regard to upgrading and diversification in terms of markets. Further sector-level studies should identify not only key challenges for regional integration but how could such integration help strengthen the position of the region in global value chains. The agro-food industry is another sector with important potential and with high importance of proximity to markets and climate differences. It also offers an important opportunity for the countries with the less advanced manufacturing sector in the region such as Sudan.

- **Segmented Strategy for Regional Value Chains**

While a regional strategy especially in regard to strategies and the policy-framework is useful, a more segmented regional strategy might offer the best way forward considering the different political, economic, and regulatory landscape in the region. A sub-regional approach will help to identify specific locations in the region with integration potential in regard to economic activities, transportation, and final markets. Policy efforts should focus on integrating these regions and promoting them as joint production locations. Egypt-Sudan, for instance, might offer good potential for regional value chains in agro-industries. A more detailed sectoral study should identify where and how this can be achieved.

- **Institutional Capacities and Research**

More systemic research on regional value chains will be very important in following up to this work and in feeding policy input to national and regional policy makers. This will require developing institutional capacities at a regional level to allow knowledge in the area of global value chains and the position of North Africa in these chains to be obtained and accumulated. Global value chains are in constant shifts geographically and organizationally which creates a need for constant research and policy inputs on the topic. A series of sectoral studies about regional value chains in North Africa in the context of global value chains will provide important insights to policy makers. A careful analysis of the Asian model can also be very useful. It is important for such studies to be produced by internal capacities at a regional level. A useful approach will be to create a regional value chain unit with a clear mandate to conduct research on global value chains and the position of North Africa in these chains and also to represent the coordinating unit for the strategies and projects identified in this report.

8 <http://www.automotivesupplychain.org/features/231/79/North-Africa-hoping-for-peace-and-automotive-growth/>

This part of the study looks into some value chains which offer a potential of integration among North African countries. The focus will be on the following two sectors:

- Automotive
- aeronautics

In addition, we will look at some integration factors for these value chains:

- oil and gas industry
- iron and steel
- Renewable energies.

For each item we will look into the country level with a specific focus on Morocco and Tunisia, and to a less extent on Algeria.

A. Automotive industry

A.1. General

The automotive global value chain is characterized by:

- A slowdown in traditional markets like EU and USA due to the international economic crisis, limited growth and purchase power. Growth opportunities are, however, still high in Asia, and Africa, and Latin America.
- High-end producers are repositioning their exports targets and industrial platforms towards Asia particularly China (Daimler Benz, Volkswagen).
- Production centers are moving to emerging countries, with a remarkable rise of Chinese production, which became the worldwide leader in cars production in 2009, and Indian production as well. After the earlier rise of South Korean, automotive GVCs are being restructured around new production centers in Asian emerging countries.
- Production is shifting to low cost vehicles, more suitable to the needs of emerging countries, and to the shift in consumer preferences in the advanced economies as well.

Figure 33: Global cars production by production areas

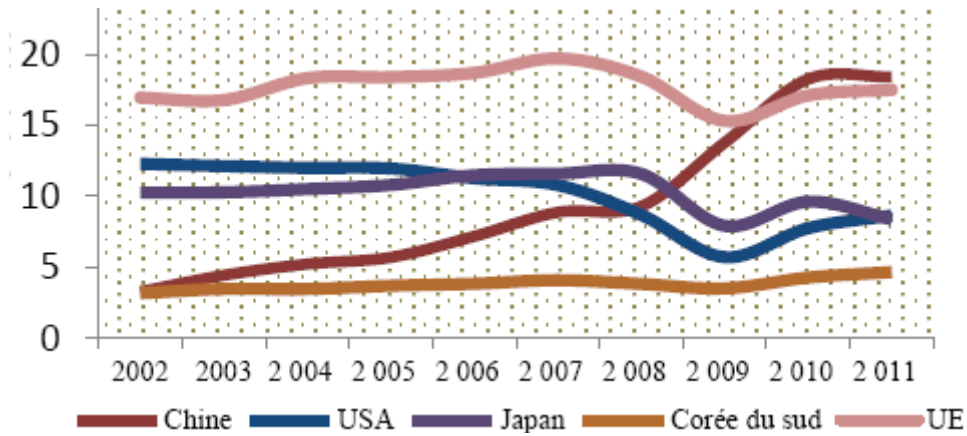
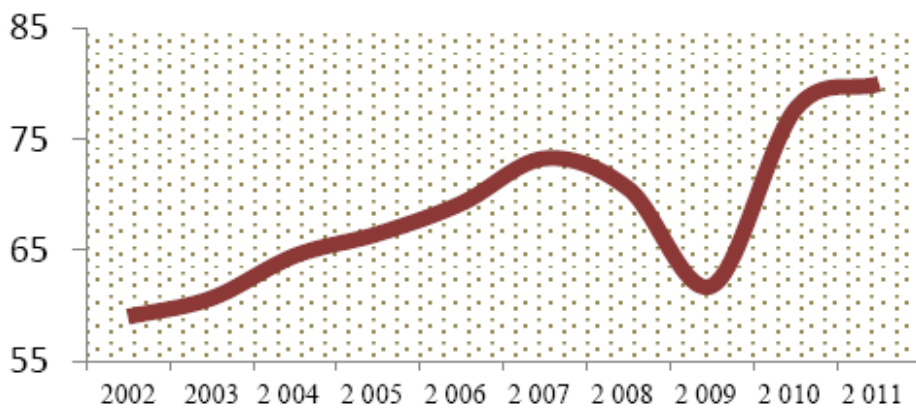


Figure 34: global cars production



A.2. Morocco

The integration of Morocco into global value chains through automotive industry is a long term strategy identified through the industrial plan of 2006 and then confirmed in the EMERGENCE COMPACT (Pacte national d'Emergence Industrielle PNEI) and is identified as one of the global businesses of Morocco (Métiers Mondiaux du Maroc MMM).

a. Competitiveness factors in the integration of Morocco the automotive global value Chain

The fast growth of the integration in the automotive value chain in Morocco is due to a conjunction of key factors that can be listed as follows:

- Proximity to Europe
- Association agreement with the EU
- Logistics and industrial platforms
- Free trade zones (FTZ) like TANGER AUTOMOTIVE CITY and KENITRA FREE ZONE
- Cost competitiveness in particular labor competitiveness compared to Eastern Europe.
- A labor force with a relatively good level of training and basic skills.
- Favorable FDI framework.

FDI in automotive sector in Morocco reached a level of MDH 5 billion cumulated between 2010 and 2012, including a 3.2 MDH billion in 2012 linked to the TANGER-MED RENAULT plant investment. Automotive FDI are estimated to be around 40% of overall investments in the manufacturing sector in Morocco.

b. The Integration of Morocco automotive industry in GVCs

This industry is integrated through two channels that started separately but are increasingly being integrated:

- i. Automotive components.
- ii. Automotive assembly.

Historically, these two segments were not linked together as the component industry was feeding into the spare parts market while assembly operations relied on imported inputs through a CKD (complete knock down) model. Since 2012, local automotive value chain (LCV) is improving with growing integration of local components in the RENAULT plant construction process.

i. Automotive components

Automotive components are based on the following activities:

- Cable and wires
- Seats manufactures
- Fuel tanks
- Steel works and steel frame
- Brakes and brakes systems
- Electric transmission
- Signal and optics
- Airbags
- A/C electronics
- Engine parts

The exports of components are estimated to be around 90% of total production with a high share of cable and wires and seating systems. These exports are dominated by foreign firms with a high degree of concentration (8 among 200 firms are exporting 79% of total value). While a large number of Moroccan SMEs are active in the industry, their share in exports is relatively low. Similarly, their contribution to assembly operations in Morocco is low. By 2012, only two Moroccan SMEs were qualified as suppliers for RENAULT plant (TUAUTO for gas exhaustion and SOCAFIX for metal frames). The upgrading of the components industry will allow its integration in a better way in assembly operations.

Technology:

According to experts in the industry, the two segments of the industry still depend on low labor costs while performing low-tech to medium-tech activities. The key technologies are still dominated by foreign firms subcontracting operations to Morocco.

Actors and VC governance

Industry actors are grouped in a professional association called AMICA which is the strategic partner for the government and has around 100 members of which 30 are considered to be the main firms in the sector. Overall, around 200 companies employing 75000 people were active in the sector in 2012 (source AMICA). A number of large foreign firms (DELPHI DENSO, INERGY, LEONI, TAKATA and others) are active in the sector with the markets of France and Spain dominating exports.

Part 2: Overview of a selection of value chains

Challenges and ways forwards

Components and automotive accessories face three main challenges:

- Export Activities are concentrated on cables and seats which may mean a lack of competitiveness in other products. Diversification is a key challenge. Linking to assembly activities may offer the opportunity to attract more investors and improve productivity.
- Integration to GVCs is based on low cost and assembling medium technology resulting in a weak competitive position of the industry.
- The integration of parts and components activities in assembly operations is low. This situation may be a threat in terms of attracting key suppliers to Morocco.
- Upgrading in the value chain, access to higher technologies, and building skills in the labor force.

ii. Assembly industry

The assembly industry started in Morocco from 1963 but it was limited to CKD series for the local market with a company called SOMACA assembling cars and light trucks. SOMACA was privatized to RENAULT with production shifting to assembling a low cost brand DACIA (which is originally a Romanian brand). Older activities of assembling cars from SOMACA is still existing with a production level of 50000- 60000 cars and light trucks per year.

The RENAULT project is based on the production on 170000 cars per years to be extended to 400000 cars/year, capabilities are currently being under extension to 340 000 cars/year. Performance in 2012 was 89000 exported cars, and the Tangiers plant reached its 200 000 unit car produced in April 2014. The project is mainly based on exports considering the limited size of the Moroccan market (narrowly 130 000 units per year for all brands) and the business model adopted by RENAULT. The project is based on CKD series with a progressive integration of local suppliers. In July 2014, RENAULT MOROCCO GM has estimated the integration level of local suppliers to 40% in volume and unveiled a plan to reach 55% by 2016. The RENAULT project could be the pilot whose success can lead to new investments in the same area.

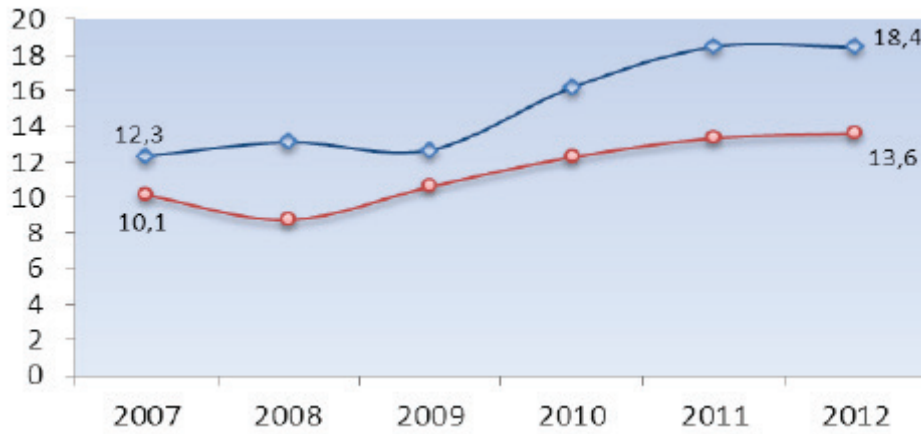
iii. Automotive industry in numbers

Table 22: Moroccan Exports of automotive Products (MAD millions)

Segment	2007	2008	2009	2010	2011	2012
Cables and wires	10 080	10 737	9 015	14 661	17 603	14 806
Cars	511	530	1 044	1 229	2 705	7 295
seats	1 077	1 252	915	1 189	1 652	1 303
Others	1 070	1 139	150	1 318	1 448	1 760
total	12 738	13 658	12 025	18 397	23 361	25 164

Source: office des changes

Figure 35: Share of automotive exports in overall morocco exports (%)

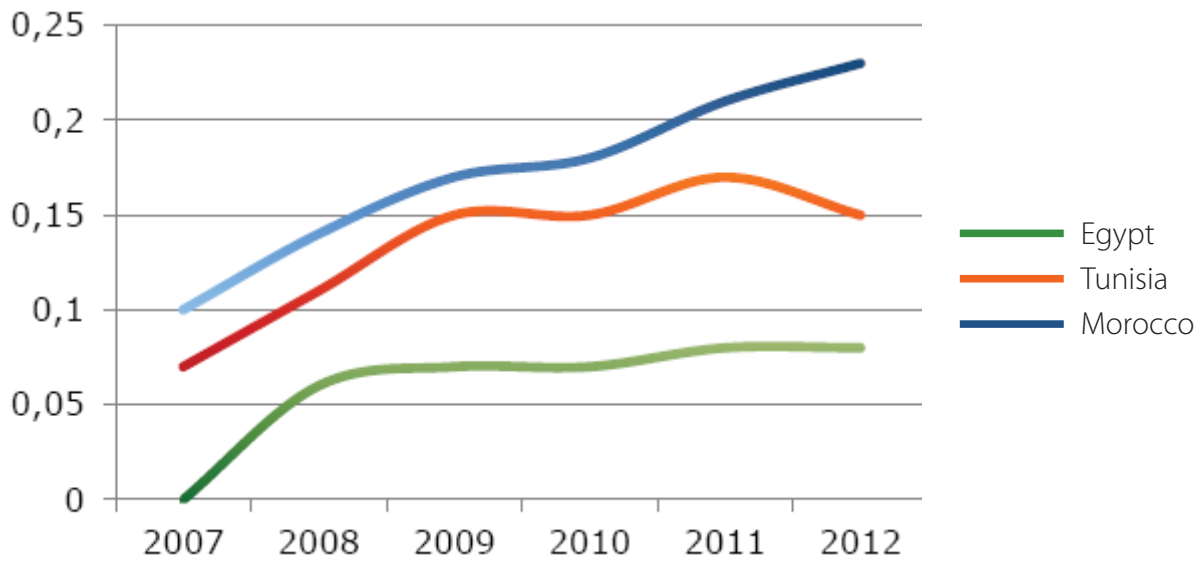


- Blue line: Share in exports excluding OCP (phosphate exports)
- Red line: Share of total exports

Source: Office des Changes

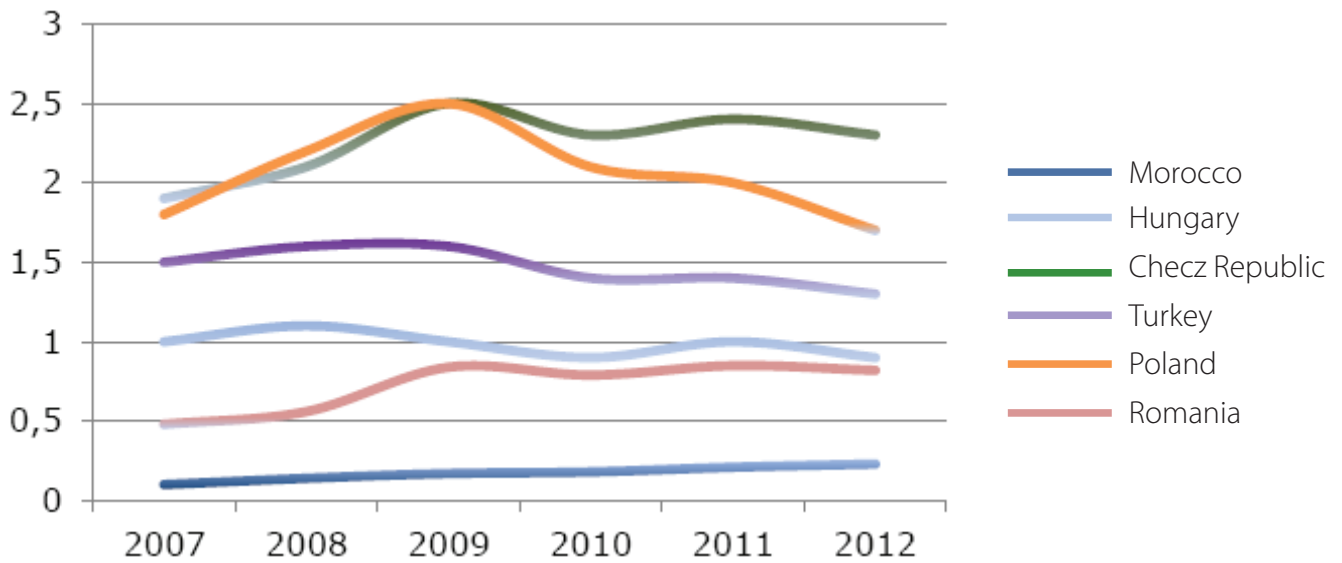
iv. Morocco Automotive industry penetration levels in GVC

Figure 36: Global Market share (construction+ parts and components) (%) compared to North African Countries



Source: office des changes from trade map

Figure 37: Global market share compared to direct competitors



Source: office des changes from trade map

c. Conclusion: opportunities and challenges

Morocco automotive industry presents many opportunities to integrate more in GVC regarding to the positive experience with RENAULT. New global firms are interested in developing assembling units, and this trend is leading to capture new entrants in components and parts which will confirm Morocco's position as the leader of the automotive industry in North Africa. But the industry is in need to upgrade in the Value Chain, and to develop more added value products, with higher technological intensity investments. This is depending upon GVC leaders' strategies and the possibility to have higher skills available on the labor market, to develop laboratories, R&D and product/process innovation. While Morocco stands as the automotive industry leader in North Africa with the best GVC integration, the industry is clearly in need of diversification. This includes product diversification by reducing focus on cables and seats, partner diversification by attracting more global lead firms, and market diversification by limiting dependency on Spain and France.

A.2. Tunisia

Tunisia is focusing on auto parts and components industry in its industrial strategy. The country presents a lot of similarities with Morocco, with the difference that no major assembly firms has invested yet in Tunisia. Assembling cars and trucks industry is very limited to local market with 5000 trucks, buses and light trucks and has no significant market share (exception for heavy weight trucks). The components and parts industry has around 230 firms in 2012 (API source). 134 among them are foreign owned (totally or partially) with France being the main source of foreign investments with 44 enterprises among the 110. Employment in 2012 was around 60000 employees in the automotive sector. Tunisia's Integration in GVCs is controlled by orders from global brands through French, Italian or local subsidiaries: Valeo (France), Johnson Control, Lear Corporation, Pirelli, Mets Leoni (Allemagne), Yura Corp, Kromberg & Schubert, Draxel Maier, Robert Bosch, Yazaki Era, Imtec (groupe Carghil), Zodiak, Faurecia. Activities are concentrated in the assembling of wires and cables which accounted for around 70% of workforce in 2009. Other activities are in electric components, energy accumulators, plastic parts, electronic devices, light devices, and mechanical/engine parts, steel parts. Activities are still based on low added value range with low cost labor and low-medium assembling technologies. The integration in GVCs is based on subcontracting operation from Europe centers and 90% of the overall production is oriented to exports. Based on 2012 data (INS national statistics institute/ strategy document "note sectorielle"), the automotive activities have generated exports of \$ US 2.7 billion, with

cables and wires accounting for 44% of total and electronic devices for 28%. Main export markets are France, Germany and Italy, with a share of more than 90% for Europe. Small quantities are exported to Algeria and Morocco.

Challenges and opportunities:

Tunisia automotive industry has the opportunity to develop a stronger position in GVCs by developing more capacities, attracting FDI, improving competitiveness, and building stronger skills in the labor force. Key challenges are the ability to attract global lead firms in the industry and to upgrade the sector technologically. Cooperation with Morocco offers important opportunities.

A.3 algeria

Algeria is still at an earlier stage in the automotive industry. Few projects are being implemented or developed in the country to catch up in the industry with the main project by RENAULT Algérie, and a second important one DAIMLER. RENAULT Algérie is a 75000 units /year plant based in Oran, based on CKD, and aiming to produce the CLIO car. The project is a joint venture between state owned enterprise SNVI and RENAULT. DAIMLER is a 6000 units/year based also on CKD aiming to produce 4x4 utility cars, mainly for the Algerian army. It is a joint venture between SOE SNVI, DAIMLER and an Emirati investment fund. Both projects focus on the domestic market, with small quantities for exports in the DAIMLER case. Algeria, thus, is not inserted in GVCs in a supplier position but in a consumer (end of chain) one. Although there are 200 identified potential suppliers for automotive industry, none of them is yet qualified to provide parts or components neither to RENAULT nor DAIMLER. Local suppliers are facing many challenges as we can list (based on sector experts):

- Very small size for private firms with under-developed business practices.
- Small share in the internal market.
- Lack of certification in comparison to Tunisia and morocco.
- No integration to GVCs: no exports and no partnerships with international major players.
- With the exception of some Turkish and Tunisian investments, little FDI in the sector.

This creates an opportunity for Moroccan and Tunisian firms to tap into the Algerian industry whether through sales to the local market or through exploiting the advantages of Algeria in the GVC. As Algerian regulations require foreign firms to enter joint ventures with local firms, there is an opportunity for local firms to enter joint projects with Tunisian and Moroccan producers.

Algeria is considered to be the second cars and trucks market in Africa with an average 350000 new cars imported each year with a peak to 500 000 in 2012. As such, a new regulation is in preparation to set an obligation for importers to have an industrial activity added to their sales/after sales activities. If this new regulation is passed and applied, it may mandatorily attract more FDI to the sector.

A.4. Opportunities for building an RVC in automotive sector.

Looking at Algeria, Morocco and Tunisia, some similarities and differences can be identified:

a) Similarities between Tunisia and morocco

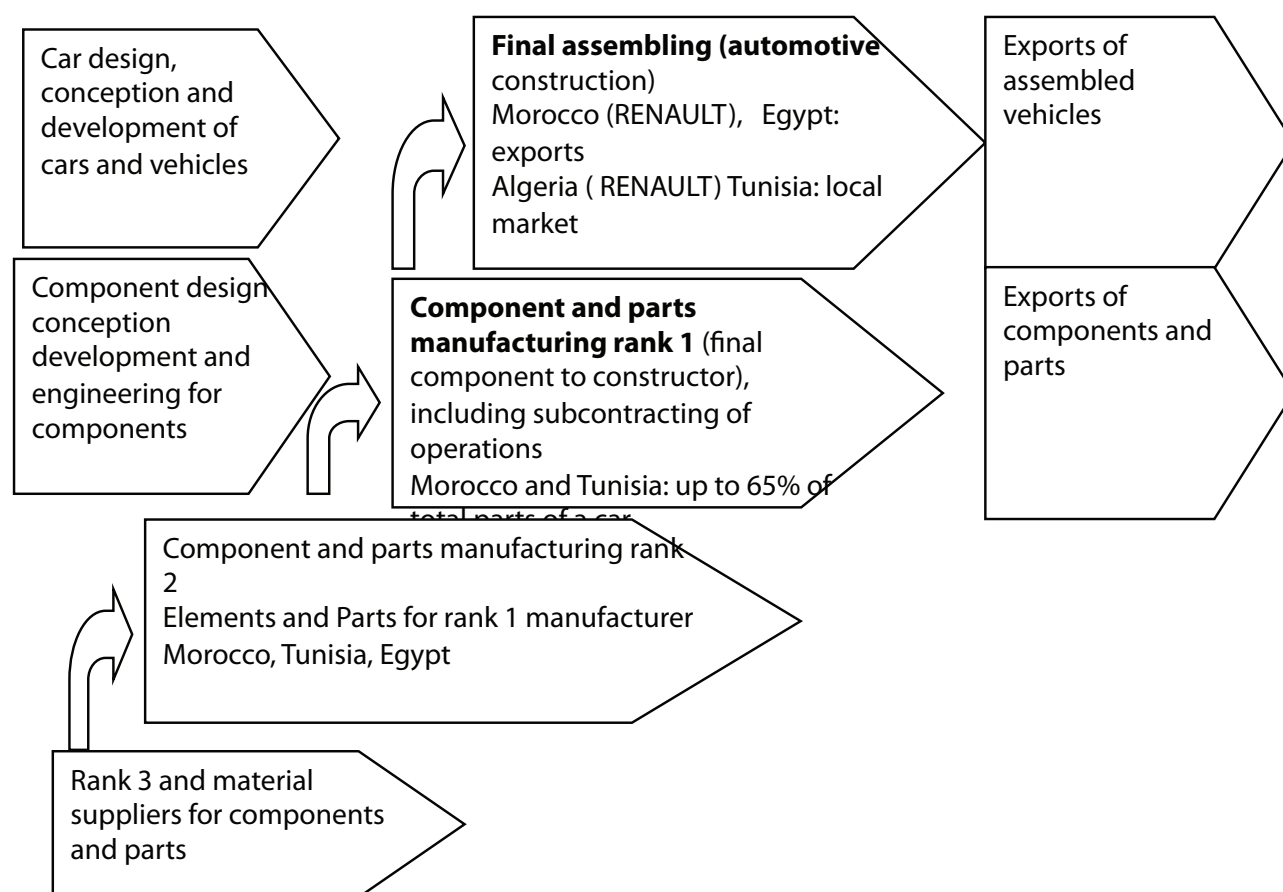
Integration in automotive GVC strategy is quite similar for Tunisia and Morocco:

- Based on low labor cost.
- Low to medium technologies.

- Assembling activities are predominant with similar products portfolio.
- Local value chain driven by FDI and large international players.
- Production mainly oriented to exports, especially to Europe.
- Development of integrated industrial platforms with large advantages for FDI.
- Good logistic infrastructure (compared to Algeria, Libya, and other African countries).

These similarities are leading to a feeling of competition between Tunisia and Morocco in the industry despite that the two countries share a similar weak position in the GVC and are under strong control by global firms. In both countries, there is a need to upgrade their position in the GVC the by more technological content of exports. Algeria is, however, different as the country's integration in GVCs so far has been as a market rather than a production location.

Figure 38: Synthetic representation of the automotive industry value chain integration



Source: adapted from JICA study on private sector development in Morocco.

Components and parts manufacturing regional value chain mapping:

Segment of VC	Algeria	Egypt	Morocco	Tunisia	
Engine and parts					
Engine body	*	No production			
Fuel tank		x	x	x	
Gas exhaustion	x	x	x	x	
pistons	No production				
Segments and other elements	x	x	x	x	

Segment of VC	Algeria	Egypt	Morocco	Tunisia	
Engine cables		x	x	x	Assembling only, low value added
Frame					
Steel works		x	x		Value added limited no steel industry for car metal sheets
Steel surface coating	No production				
Plastics/composites for frame		x	x	x	
Brakes systems	No production				
Brakes furniture		x	x	x	
exterior					
Glasses	x	x	x	x	
optics		x	x	x	
Tires		x			
interior					
seats		x	x		Fabrics imported
fabrics		x			
plastics		x	x	x	
suspension systems	No production				
electronics		x	x	x	Assembling, low value added
Safety devices		x	x	x	Assembling low value added
Electric devices and wiring	X **	x	x	x	Assembling, low value added

* Algeria has a motors industry producing engines for heavy duty trucks, tractors and industrial vehicles, but production is very low and still restarting from a long time stop.

** accumulators only in Algeria and Tunisia.

From the schematic representation of the value chain for automotive industry, it appears that there are two ways of integration of a regional value chain:

First is extensive integration, meaning to have more integrated regional value chain with a greater number of products/components manufactured in the region which needs detailed investigation on "who does what", and this could be done through professional and clusters associations.

Second is intensive integration, meaning that for the same product, we may need to look at how to go upstream and to deliver higher value products, linking to other technological resources in the region as tier2/tier 3 suppliers, Quality control laboratories and R&D. In the case of North Africa, there are opportunities to upgrade inside the component manufacturing sub value chain by integrating from subcontractor status to a full manufacturer, through a clustering process of different actors.

In both cases two development directions are needed:

- First is to develop contacts and awareness rising on potentialities in the region particularly among professionals, to leverage regional integration opportunities and shift from a competitor's position to a partner's position.
- Second is to develop attractiveness for FDI in the region on higher positions in GVC. Leading companies will then be the most interested to develop regional clusters to save costs and to enhance reactivity to market needs.

Opportunities to build regional value chains:

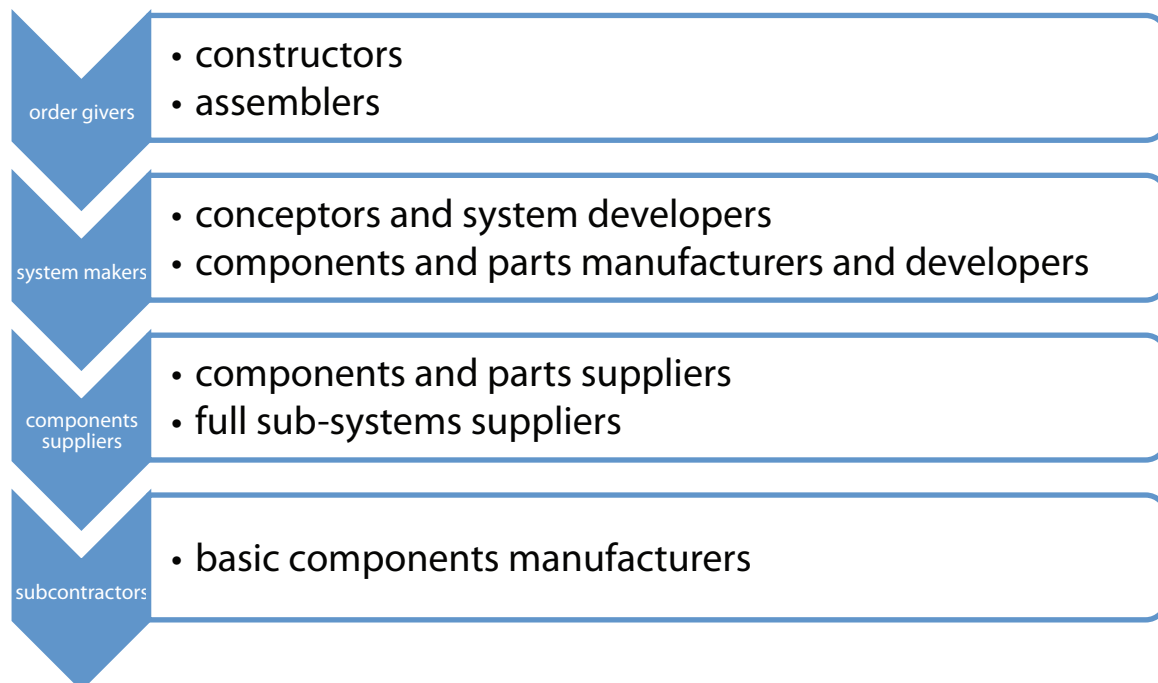
There is a potential for a RVC in automotive industry regarding to strategic interest for this sector from governments and main players and to the regional market growth as well. This could be achieved through:

- Developing policies to upgrade collectively in the GVC: the key leverage here is knowledge and there are opportunities to collaborate in training and knowledge transfer.
- Building effective value chains through using more regional input in regional industries (like car assembling and tier1/tier2 suppliers relationships) which needs further actions as:
 - Detailed sector study on automotive industry to identify “niche” opportunities for partnerships, as for example accumulators, glass parts, plastics.
 - Political willingness and negotiation power with main international players.

B. Aeronautics and aerospace

B.1 General

Aeronautics and aerospace is a highly expanding sector and structured around a value chain controlled by a small number of airplanes manufacturers, a limited number of system makers and engine makers, but a great number of component and parts manufacturers. The aeronautics market is rapidly developing and airplane manufacturers are facing a growing demand from emerging markets. Similar to other sectors, the impact of globalization has been on growing outsourcing to emerging countries with a new industrial landscape through greater internationalization of the industry. This change results in the emergence of low cost poles of activities in the GVC, located mainly in emerging and developing countries. These changes are also leading to new players such as BOMBARDIER (Canada) and EMBRAER (Brazil) playing a larger role in the industry by focusing on niche markets.



Source: DEPF, MAROC

B.2. Morocco and Tunisia in the aeronautics value chain

Both countries are in the position of basic component manufacturing with limited activities in higher position in the value chain. The opportunities are based on:

- Proximity to European components makers.
- Importance of proximity for repair and maintenance platforms.
- Need for low cost industrial platforms for assembling parts (case of BOMBARDIER project in Morocco).

In Morocco, the integration in the value chain was led by the French company SAFRAN, who was the locomotive for foreign investments. The sector is dominated by FDI with around 100 companies 72% of which are French working for AIRBUS components and parts suppliers as well as repair and maintenance activities. The industry is concentrated in NOUACEUR and CASABLANCA clusters.

In Tunisia, there is a similar technological profile with a similar vision, although activities are less developed than Morocco, but there are forecasts for a huge development through MGHIRA AEROPOLE.

Table 23: comparative numbers for aeronautics industries between Morocco and Tunisia

	Employment 2012	Exports 2011 (US \$ Millions)	Number of companies working in the sector
Morocco	7500	300	100
Tunisia	7500	100	100

The table below shows Morocco and Tunisia position in the global value chain for aeronautics, which is the similar to Egypt. Grey and underlined positions are those in which an activity is being developed in the country or where the technology is available to do it. The upgrading potential defines which activities in the value chain could be integrated or are planned for, with a mention of prerequisites. What can be seen is that quick jumps are possible for North African countries to get better positions in aeronautics value chain. This entails:

- To develop knowledge and skills capabilities in design, modeling , and prototyping through academic programs and training institutes
- To continue with attractive industrial and dedicated platforms policy in order to capture potential investments in higher value parts of the chain like Mecatronics and assembling of structural elements of airplanes and revision operations.

Regarding to the limited number of lead firms in the airplane assembly segment and the concentration of technology mastering, intensive upgrade in the value chain in partnership with leaders, i.e. upgrading in the technological value chain, is more realistic than trying to have extensive position (i.e. to get more market share with the current productions). This is why Morocco and Tunisia are in an absolute need of skills and technological profile shift.

Value chain level	Activities and jobs	Upgrading potential	Upgrading prerequisites
Design and conception	<ol style="list-style-type: none"> Conception and engineering <ul style="list-style-type: none"> Design and architecture 3D modeling 2D modeling and plan edition Prototyping Software development Certification processing Data analysis and technical documentation production and data bases 	Upgrading to R&D and conception activities by attracting designers and architects	Local skills to be developed through academic and training
Parts manufacturing	<ol style="list-style-type: none"> Metals works <ul style="list-style-type: none"> Aluminum and titanium/nickel casting and molding Metal transformation by mechanical or chemical process Surface coatings Mecatronics Cable and wires and electrical components <ul style="list-style-type: none"> Wires Electrical parts Assembling Connectors manufacturing Auxiliary equipments and parts assembling <ul style="list-style-type: none"> Steel , titanium and aluminum parts Testing equipments and tools manufacturing Cabin equipment and furniture (seats, toilets, doors, etc) Hydraulic systems Composite materials manufacturing <ul style="list-style-type: none"> Material preparation Molding Forming and finishing Structure assembling (n-1 level) <ul style="list-style-type: none"> Composite parts assembling Metal parts assembling Engine and technical equipments assembling 	<p>Integration of Mecatronics</p> <p>FDI attraction</p> <p>FDI attraction</p>	Local skills
Airplane assembling	<ol style="list-style-type: none"> Final airplane assembling 		
Marketing and leasing	<ol style="list-style-type: none"> Marketing and leasing 		
Maintenance and revision	<ol style="list-style-type: none"> Engine maintenance Repair of engine and components Revision <ul style="list-style-type: none"> Upgrading services Dismantlement operations 	FDI attraction	Attractive industrial and logistic platforms

Source: This table is adapted from JICA study on private sector development in Morocco,

C. Oil and gas industry in regional value chain

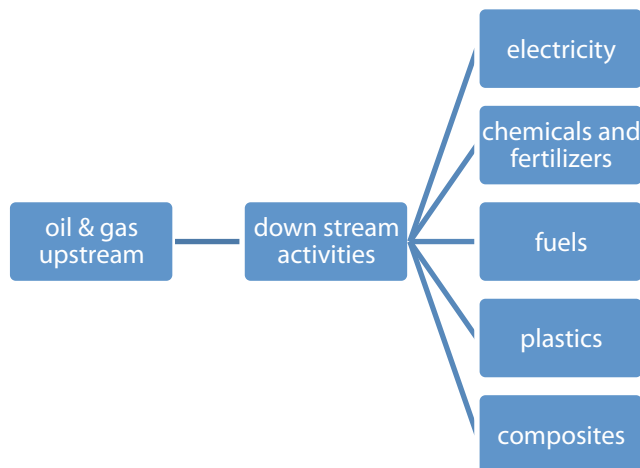
The development of oil and gas based regional value chains could be a key factor of competitiveness of the North African region. Algeria Egypt, Libya are key players in the global oil and gas markets with important reserves and production capacities, while Mauritania has reserves but limited production. Tunisia and Morocco are net importers with limited reserves of conventional oil and gas. All North African countries are expected to have important unconventional reserves (shale oil and gas), what is still to be confirmed by field investigations. The main exports are of crude oil and gas with Europe as the leading market.

The region presents an important opportunity to develop competitive upstream regional value chains based on the transformation of oil and gas, and to link natural resources to existing value chains, as listed below:

- Production of electricity for exports to Europe and Mashrek countries (Asia) in relation with the integrated Euro-Mediterranean energy market project (MED EMIP).
- Production of plastics and composites (including plastic and composite parts for automotive and aeronautic industries).
- Production of synthetic fibers and fabrics for textile industry.
- Production of chemicals and fertilizers from gas and phosphates.

However, these opportunities need some political integration initiatives like:

- An integrated electricity market with change in regulations.
- Investments in regional electrical and gas networks.



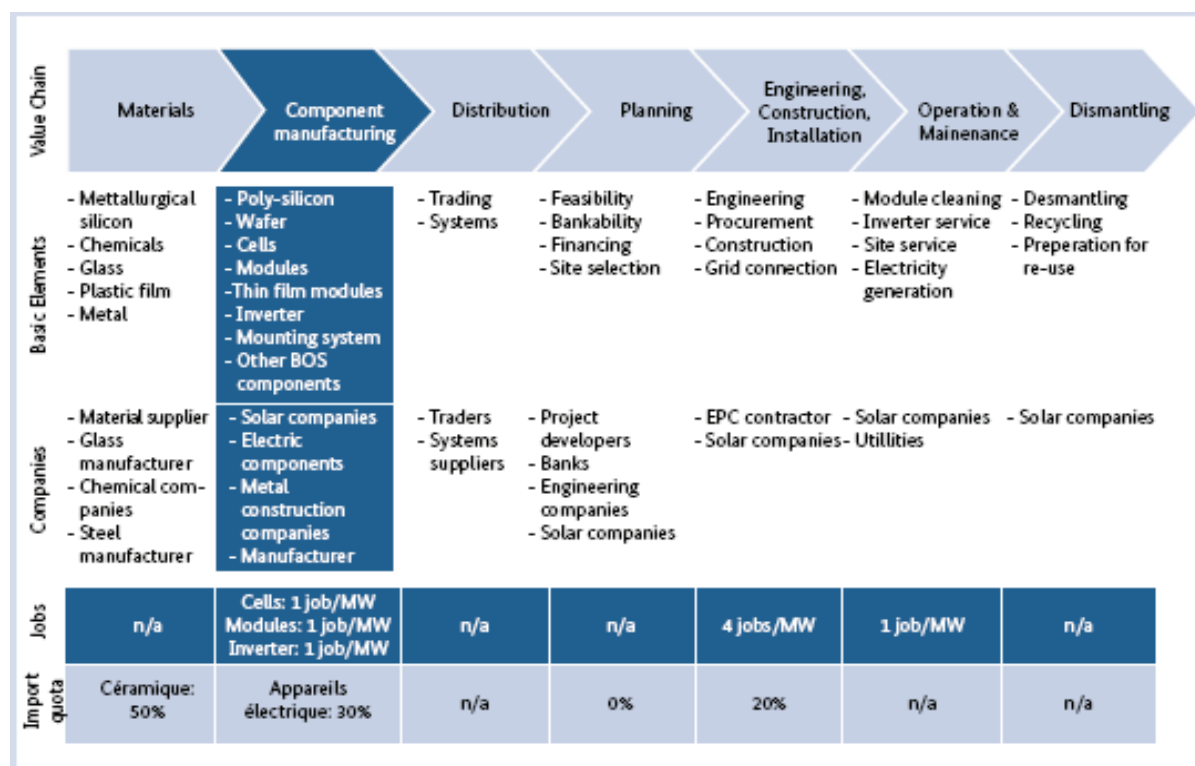
Oil and gas industrial value chain (excluding crude distribution)

D. Renewable energy

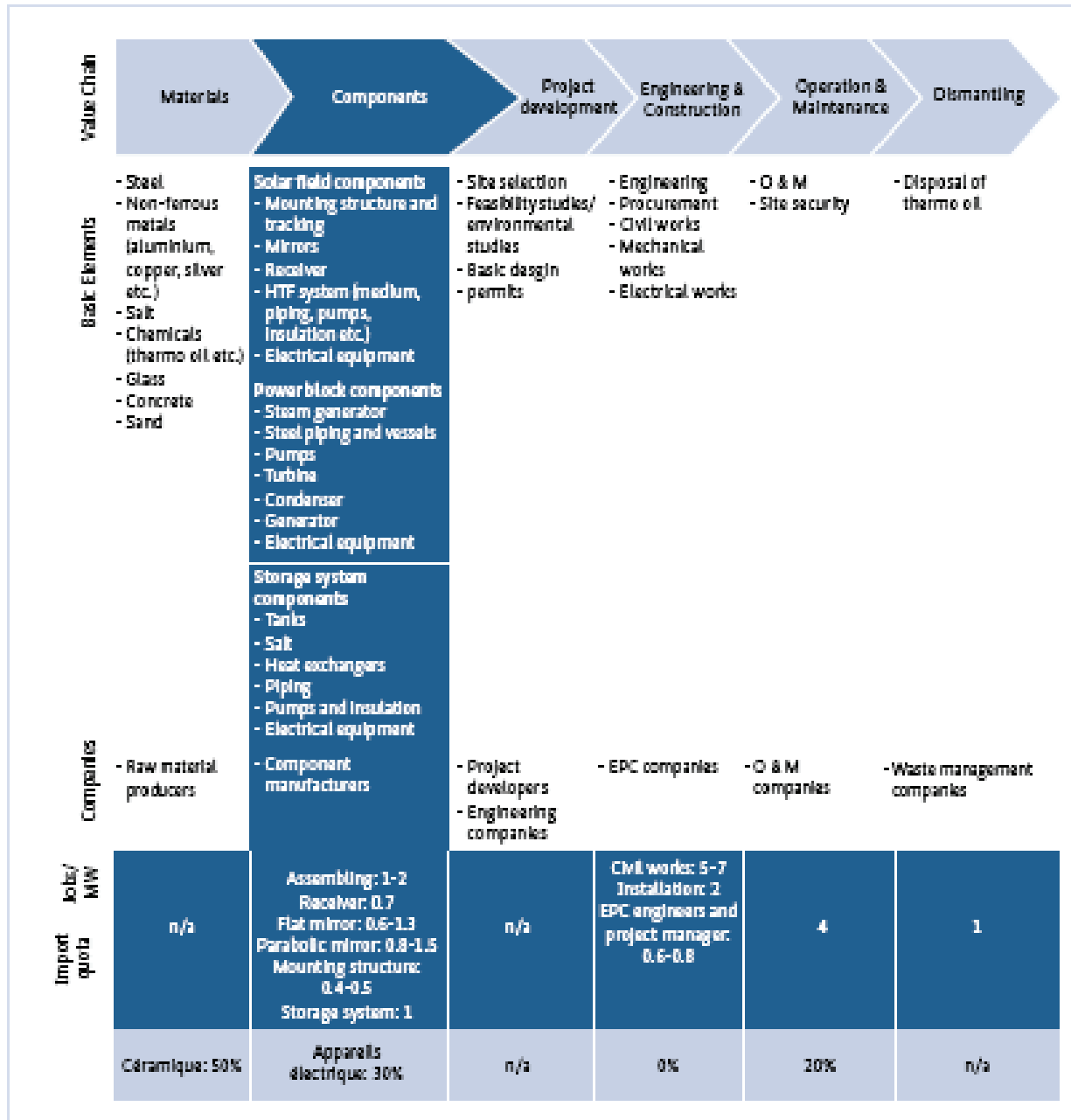
North African countries have an important potential to develop renewable energies and are included in a global strategy of clean energy supply plan for Europe which is supposed to use at least 20% of clean energy by 2030. Projects for North Africa in the Mediterranean Solar Plan, set by the Union for Mediterranean, are for cumulated capacity of exports to Europe of 22000 MW, by 2030. This represents a huge opportunity for the region, but no country is capable alone to develop the business. Potential regional value chains could be developed based on the following schemes of three selected products/technologies, while more detailed studies and field investigations are needed to identify the effective potential of regional integration, and activities where significant part of the value could be captured by the region.

(Value chains schemes are from “analyse des chaines de valeur des technologies relatives a l’énergie solaire en tunisie » GIZ-ANME ; 2013.)

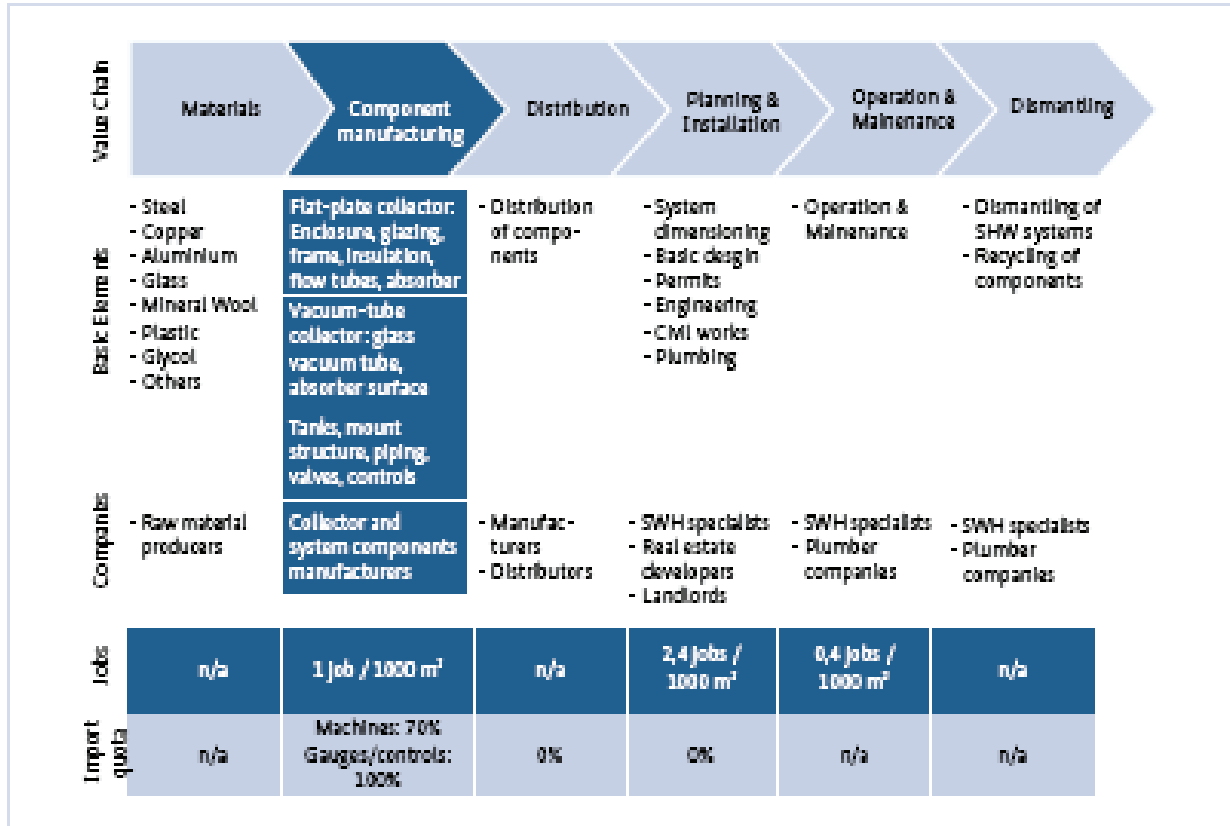
a) Photovoltaic industry basic value chain figure 39



b) Concentration solar plant (CSP) basic value chain (figure 40)



c) Solar water heater basic value chain (figure 41)



E. Iron and steel value chain

Iron and steel sector is one the bases of any industrial development, and interregional trade and joint development in steel and steel products could provide the basis for regional value chain integration.

More detailed analysis is needed to identify integration possibilities within the value chain

a. Country positions in the value chain

Level 1: iron ore reserves and mining:

Mauritania and Algeria have large reserves of iron ore with morocco and Egypt at a lower level but only Mauritania is integrated to the global value chains at this level.

Level 2: iron casting and steel electrical furnace processing

Algeria has two million tons capacity for iron casting and is planning for a 2.5 million plant with Qatar steel investment while Morocco has around 2.5 million capacities.

Level 3: steel mills and transformation

Main capacities in the region are concentrated on long products for construction, while there are no flat steel sheets produced for automotive industry. Exporters at this level are Egypt, morocco and Tunisia, while Algerian capacity is focused on the internal market.

b. Ways forward to develop an iron and steel regional value chain

Key integration process remains to have more transformation from Mauritanian iron ore combined to available gas from Algeria, Libya and Egypt, in order to develop a strong iron and steel industry in the region. Added to long products, for construction, this industry could provide automotive industry (among others) with flat steels as well for Algeria Tunisia and Egypt. ARCELOR MITTAL, being the leader

in the global value chain, is already implanted in Algeria and Morocco, what opens a window for an integrated approach to the building of a regional value chain in Iron and Steel.

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